

GEORGE WESTINGHOUSE STEAM GENERATOR STATION  
 GEORGE WESTINGHOUSE POWER COMPANY  
 CHEMICAL LABORATORY

AVERAGE  
**BOILER WATER ANALYSIS**  
 FOR THE MONTH OF MARCH 1954

DATE \_\_\_\_\_ 1954

NO.	TOTAL SOLIDS			AS WATER		SP. GR.	TEMP.	COND.	pH	K	CHEMICALS ADDED LB					CLAS. INDEX	REMARKS
	FACTOR	WATER	TOTAL	WATER	RATIO						SOODIA	SODA	SOODIA	SOODIA	SOODIA		
1																	
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	
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26																	
27																	
28																	
29																	
30																	
31																	
<b>AVG</b>																	

UNITED STATES  
 GENERATION ENGINEER  
 CENTRAL ENGINEER  
 MAINTENANCE ENGINEER  
 GENERATION UNIT  
 R.E.  
 TURBINE OIL SERVICE  
 LUBRICATION BUREAU

RIVERSIDE STEAM ELECTRIC STATION  
 TURBINE OIL SERVICE DATA  
 MARCH 1947

DATE 3/1/47

TG No	OPERATING HR	MAKE-UP		CENTRIFUGE OPERATION			LABORATORY REPORT			REMARKS	
		GAL	DESCRIPTION	HR	DRY SOLIDS G/G	SOLIDS G/G PER 1000 HR	WATER LB	VISCOSITY 100° F/ASTM	ACIDITY MGS/GR/GH		DENSITY 60° F
18	712	85	DRY 797	70	70		972		0.082	28	
16	709	89	"	24			180		0.081	28	
15	717	84	"	17			4		1.18	27	
14	560		"	28			2		1.09	27	
13	681	5	DRY 797	5					0.081	28	
12			"						0.59	44	
11			"								
10	691	28	Slc Trsol	72	28		75		0.16	5	
9	705	18	"	28	11		28		0.064	5	
8	691		"	28	6		41		1.65	24	
7	682	23	Slc Trsol	10			-		0.63	24	
6			"								
5	670	18	Slc Trsol	61	8		1		0.08	24	
4	720		"	28	26		2122		0.082	5	
2	822	10	DRY 747						1.45	7	
1	837	18	DRY 747 Fla						1.51	6	

HISTORY OF OIL BATCHES

TG No	LAST FULL CHARGE			TOTALS TO DATE					MAKE-UP DATA			OPERATING HRS SINCE LAST OVERHAUL
	DATE	GAL	DESCRIPTION	OPERATING HRS	SOLIDS G/G	SOLIDS G/G PER 1000 HR	WATER LB	WATER LB/1000 HR	TOTAL BALLONS	GAL PER 1000 HR	TRCH PER GAL	
16	Nov 44	698	Slc Trsol LA									
16	Nov 46	840	DRY LA 797	1 207	152	152	536	488	42	30	29	1 207
15	Aug 38	942	DRY LA	59 505	2025	35	7849	188	2145	40	28	10 661
14	Jan 37	927	Shell BRB	626 00	2690	59	15016	208	2489	39	25	15 838
13	Feb 47	100	DRY LA 797	550								240
12	Mar 39	111	DRY LA	57059	88	1	8		565	11	105	15 170
11			"									
10	June 26	1230	Trsol LA	43979	602	11	1082	16	2091	32	22	5 758
9	Nov 46	590	Slc Trsol LA	7014	91	13	215	20	202	30	20	7 214
8	Sept 36	575	Trsol LA	64440	3050	48	5159	60	2137	35	20	1 674
7	July 37	290	"	29203	1072	38	120	4	2409	48	21	4 538
6			"									
5	July 46	290	Slc Trsol LA	5744	35	9	15	2	99	15	22	5 744
4	June 46	250	"	4327	172	27	2017	1129	75	12	24	5 242
2	Unknown	200	Old DRYT	600					127	125	7	270
1	Aug 36	225	Old Shell	4878					225	22	21	4 276

*Alwin*

SHANGHAI POWER COMPANY

March 31, 1947

SHANGHAI POWER COMPANY  
AND  
WESTERN DISTRICT POWER COMPANY OF SHANGHAI  
GENERAL INC., U.S.A.

DESCRIPTION OPERATING DEPARTMENT

MONTHLY LETTER FOR MARCH 1947

The following outlines the activities in connection with operation, maintenance and construction work in this Department.

I OPERATION

(A) SERVICE FAILURES AND TROUBLE CALLS

(1) Major Service Failures

(a) Load Reduction due to insufficient generating capacity at Riverside

Date	Mar 4	Mar 5	Mar 6	Mar 7	Mar 8	
Area affected	S.P.J. French	S.P.C. W.D.P.C. French Chapei	S.P.C. W.D.P.C. French	S.P.C. W.D.P.C. French	S.P.C.	
Supply from substation	Riverside Yangchow	Riverside Yangchow Tangsin Robinson	Tangsin Robinson	Tangsin Commaght	Riverside	
Feeder	5 feeders	8 feeders	2 feeders	5 feeders	A 1/2	
Customer	3 customers	8 customers & L.V. networks	2 customers	5 customers & L.V. networks	Deh Kung 1	
Duration of supply interruption	36 min to 3 hrs 36 min	16 min to 2 hrs 56 min	1 hr 16 min to 1 hr 28 min	2 hrs 16 min to 2 hrs 31 min	11 min	
Estimated kVA-hrs lost	Company's area	A.M. 11,070	A.M. 24,300	A.M. 8,600	11,840	680
	Chapei		A.M. 3,660			
	French	A.M. 680	A.M. 1,580	A.M. 720	1,300	
	Total	11,750	28,000	9,320	13,140	680
Remarks	A.M. - refers to morning peak load period (8 am to 12 noon) P.M. - " " " afternoon " " " (12 noon to 7 pm) Ev. - " " " evening " " " (after 7 pm)					

SHANGHAI POWER COMPANY

March 31, 1947

SHANGHAI POWER COMPANY  
 LTD  
 WESTERN DISTRICT POWER COMPANY OF SHANGHAI  
 FEDERAL INC., U.S.A.

DISTRIBUTION OPERATING DEPARTMENT

MONTHLY LETTER FOR MARCH 1947

The following outlines the activities in connection with operation, maintenance and construction work in this Department.

I OPERATION

(A) SERVICE FAILURES AND TROUBLE CALLS

(1) Major Service Failures

(a) Load Reduction due to insufficient generating capacity at Riverside

Date	Mar 4	Mar 5	Mar 6	Mar 7	Mar 8	
Area affected	S.P.C. French	S.P.C. W.D.P.C. French Chapel	S.P.C. W.D.P.C. French	S.P.C. W.D.P.C. French	S.P.C.	
Supply from substation	Riverside Yangchow	Riverside Yangchow Tonquin Robison	Tonquin Robison	Tonquin Connaught	Riverside	
Feeder	3 feeders	8 feeders	2 feeders	3 feeders	A 1/2	
Customer	3 customers	8 customers & L.V. networks	2 customers	3 customers & L.V. networks	Dah Kong 1	
Duration of supply interruption	36 min to 3 hrs 30 min	15 min to 2 hrs 55 min	1 hr 10 min to 1 hr 22 min	2 hrs 16 min to 2 hrs 31 min	11 min	
Estimated kVA-hrs lost	Company's area	A.M. 11,070	A.M. 26,300	A.M. 8,606	11,340	680
	Chapel		A.M. 3,060			
	French	A.M. 680	A.M. 1,580	A.M. 720	1,800	
	Total	11,750	29,880	9,326	13,140	680
Remarks	A.M. - refers to morning peak load period (8 am to 12 noon) P.M. - " " " afternoon " " " (12 noon to 7 pm) Ev. - " " " evening " " " (after 7 pm)					

SIANGHAI POWER COMPANY

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(a) Load Reduction due to insufficient generating capacity at Riverside (cont.)

Date	Mar 0	Mar 10	Mar 11	Mar 14	Mar 15	
Area affected	S.P.C.	S.P.C. W.D.P.C. Chapel French	S.P.C. French	W.D.P.C.	S.P.C.	
Supply from substation	Riverside Tonquin	5 Substation	Riverside Yangchow Tonquin	Bobieca	Tonquin	
Feeder	5 feeders	11 feeders	5 feeders	Japan China	3 feeders	
Customer	3 customers	15 customers & L.V. net- works	7 customers	Japan China	3 customers & L.V. net- works	
Duration of supply interruption	2 hrs 47 min to 3 hrs 14 min	23 min to 3 hrs 45 min	14 min to 3 hrs 22 min	22 min	2 hrs	
Estimated kVA-hrs lost	Company's area	15,060	A.M. 48,300 P.M. 3,005	A.M. 23,880 P.M. 770	P.M. 3,000	A.M. 9,330
	Chapel		A.M. 1,560			
	French		A.M. 1,490 P.M. 292	A.M. 1,328		
	Total	15,060	54,647	25,978	3,000	9,330
Remarks	A.M. - refers to morning peak load period (8 am to 12 noon) P.M. - " " " afternoon " " " (12 noon to 7 pm) Ev. - " " " evening " " " (after 7 pm)					



SHANGHAI POWER COMPANY

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(a) Load Reduction due to insufficient generating capacity at Riverside (cont.)

Date	Mar 22	Mar 23	Mar 24	Mar 25	Mar 26	
Area affected	S.P.C. T.D.F.C.	S.P.C. W.D.P.C.	S.P.C.	S.P.C. W.D.P.C. French	S.P.C. W.D.P.C. Shapel French	
Supply from substation	5 Substations	5 Substations	Riverside Yangchow Tonquin	Yangchow Robison Tonquin	5 Substations	
Feeder	17 feeders	5 feeders	5 feeders	5 feeders	19 feeders	
Customer	19 customers & L.V. net- works	12 customers & L.V. net- works	6 customers & L.V.net- works	7 customers & L.V.net- works	22 customers & L.V. net- works	
Duration of supply interruption	12 min to 58 min	12 min to 58 min	15 min to 45 min	37 min to 2 hrs 23 min	10 min to 2 hrs 51 min	
Estimated kWh-hrs lost	Company's area	P.M. 7,950 Ev. 16,365	A.M. 6,000 Ev. 5,000	P.M. 2,615 Ev. 1,671	A.M. 12,745 Ev. 4,705	A.M. 15,650 P.M. 9,660 Ev. 5,614
	Shapel					A.M. 5,890
	French				610	A.M. 1,140
	Total	4,815	11,000	4,286	18,060	25,550
Remarks	A.M. - Refers to morning peak load period (8 am to 12 noon) P.M. - " " " " " " " " (12 noon to 7 pm) Ev. - " " " " " " " " (after 7 pm)					

SHAUGHAL POWER COMPANY

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(a) Load Reduction due to insufficient generating capacity at Riverside (cont.)

Date	Mar 87	Mar 88	
Area affected	S.P.C. W.D.P.C. Chapel French	S.P.C. W.D.P.C. French	
Supply from substation	Tomquin Robison Cannought	Tomquin Robison Cannought Yangchow	
Feeder	11 feeders	18 feeders	
Customer	18 customers & L.V. networks	18 customers & L.V. networks	
Duration of supply interruption	18 min to 4 hrs 9 min	15 min to 3 hrs 31 min	
Estimated kVA-hrs lost	Company's area	A.M. 50,060 P.M. 30,795 Ev. 6,148	A.M. 32,490 Ev. 7,584
	Chapel	A.M. 11,960 P.M. 16,640	
	French	A.M. 1,850	A.M. 1,060
	Total	114,808	40,924
Remarks	A.M. - refers to morning peak load period (8 am to 12 noon) P.M. - " " " afternoon " " " (12 noon to 7 pm) Ev. - " " " evening " " " (after 7 pm)		

SHANGHAI POWER COMPANY

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## (b) Other Causes

Date	Mar 7	Mar 7	Mar 10	Mar 16	Mar 18
Area affected	S.P.C.	S.P.C.	W.D.P.C.	S.P.C.	S.P.C.
Supply from Substation	Riverside	Riverside	Kung Yih Robison	Tonquin	Tonquin
Feeder	Chapei Bulk supply	Chapei Bulk supply	Chapei Kwang Foh	C.6	C.8
Customer	Chapei Bulk supply	Chapei Bulk supply	Chapei Kwang Foh	10 customers & L.V. networks	14 customers & L.V. networks
Cause of failure	Fault on Chapei System	Fault on Chapei System	Shorted O/H switched on due to mis-information from Chapei Control	Fouled by bird	H.V. mains fouled by kite
Fault cleared by	Chapei B.S. O.C.B.	Chapei B.S. O.C.B.	Chapei Kwang Foh O.C.B.	C.6 O.C.B.	C.8 O.C.B.
Damage to equipment	none	none	none	none	none
Duration of supply interruption	15 min	13 hrs 38 min	3 hrs 4 min	1 hr 10 min to 5 hrs 55 min	19 min to 25 min
Load affected kVA	Company's area			1,450	1,600
	Chapei	9,000	10,000	3,400	
	French				
Remarks					

SHANGHAI POWER COMPANY

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(b) Other Causes (Cont.)

Date	Mar 18	Mar 19	Mar 19	Mar 20	Mar 21	
Area affected	W.D.P.C.	W.D.P.C.	W.D.P.C.	S.P.C.	W.D.P.C.	
Supply from substation	Kung Yih	Dreann	Yang Tai Hall	Temquin	Robison	
Feeder	Chapei Kwang Foh	M4	Yang Tai Hall Master Fuse	Chapei Chuanshan	M4	
Customer	Chapei Kwang Foh	10 customers & L.V. networks	3 customers & L.V. networks	Chapei Chuanshan	Chapei Kwang Foh	
Cause of failure	Fault on Chapei System	6.6 KV O/H mains fouled by iron wires in a bird's nest.	H.V. D.O. fuse link Pulled Apart	Fault on Chapei system	Fault on Chapei System	
Fault cleared by	Chapei Kwang Foh O.C.B.	M4 O.C.B.	Master D.O. Fuse	Chapei Chuanshan O.C.B.	M4 O.C.B.	
Damage to equipment	none	none	none	none	none	
Duration of supply interruption	1 hr 40 min	1 hour	27 min	20 min	35 min	
Load affected kVA	Company's area					
	Chapei	2,900	1,600	600	2,300	2,500
	French					
Remarks						

INDUSTRIAL ELECTRIC COMPANY

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(b) Other Causes (Cont.)

Date	Mar 21	Mar 22	Mar 23	Mar 27	
Area affected	W.D.P.O.	S.P.O.	W.D.P.O.	W.D.P.O.	
Supply from substation	Tien Yuan Electro-Chemical	Riverside	Kung Yih	Edinburgh	
Feeder	FB	Chapel B.S.	Chapel Kwang Foh	MS	
Customer	47 customers & L.V. networks	Chapel B.S.	Chapel Kwang Foh	31 customers & L.V. networks	
Cause of failure	6.6KV O/H line fouled by foreign matter	Fault on Chapel System	Fault on Chapel System	H.V. conductor broken due to heavy over-load	
Fault cleared by	FB O.C.B.	Chapel B.S. O.C.B.	Chapel Kwang Foh O.C.B.	MS O.C.B. Opened by hand	
Damage to equipment	none	none	none	none	
Duration of supply interruption	1 hr 4 min to 3 hrs 34 min	1 hr 45 min	2 hrs 45 min	16 min to 1 hr 33 min	
Load affected KVA	Company's area	1,300		2,400	
	Chapel		11,000	5,000	
	French				
Remarks					

SHANGHAI POWER COMPANY

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(2) Classified Service Failures (including Item 1)(a) Caused by Defective Equipment

Equipment		Number of Failures	
		This Month	Last Month
Overhead Lines:	H.V.	-	-
	L.V.	6	1
Underground Lines:	Cables	-	1
	Joints	1	-
	Potheada	1	-
Transformers and voltage regulators		-	-
Switchgear		-	1
Power fuses		2	2
Protective equipment		-	-
Traction equipment		-	-
Metering equipment		-	-
Current and potential transformers		-	-
Street lighting:	Series	-	-
	Multiple	11	3
Other Company's equipment		-	-
Total (a)		21	8

(b) Other Causes

Cause of Failure		Number of Failures	
		This Month	Last Month
Foreign agencies:	Overhead Lines	12	7
	Street lighting	1	-
	Underground Lines	-	-
Tram trolleys:	Overhead Lines	-	-
	Street lighting	5	1
Theft of equipment		-	-
Typhoons and storms		-	-
Lightning		-	-
Flood		-	-
Fire		-	-
Vermin & Birds		1	-
Overload		2	3
Customers' equipment failures:			
	Company's area	-	2
	Ex franchise area	8	1
Company's staff:	Misoperation	-	-
	Fouled by workmen	-	-
Generating station trouble		17	26
Undetermined		2	-
Total (b)		43	42
Total (a & b)		69	50

SHANGHAI POWER COMPANY

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(3) Trouble Calls attended to by System Trouble Section

<u>Company's Installation</u>	<u>Number of Calls</u>					
	<u>This Month</u>			<u>Last Month</u>		
	<u>SFC</u>	<u>WDPC</u>	<u>TOTAL</u>	<u>SFC</u>	<u>WDPC</u>	<u>TOTAL</u>
25-KV O/H and underground lines	2	-	2	-	-	-
6,000-volt overhead and underground lines	7	10	17	6	7	15
380-volt overhead and underground lines	19	11	30	8	7	15
Street lighting lines and equipment	40	6	46	19	1	20
Traffic signals	144	13	157	136	7	143
House service connections and wires	67	18	85	36	10	57
Substation equipment	-	-	-	-	-	-
D.C. Traction equipment and lifts	-	-	-	2	-	2
Fire calls	48	7	55	46	9	55
False alarms	2	-	2	2	-	2
Miscellaneous	5	3	8	2	1	3
<u>Customers' premises</u>						
Lighting	641	151	1032	763	148	911
Power	85	46	131	87	37	124
Heating	56	29	85	73	20	93
<b>Total Trouble Calls attended to</b>	<b>1336</b>	<b>334</b>	<b>1670</b>	<b>1182</b>	<b>256</b>	<b>1438</b>
<b>Average per day</b>	<b>43.1</b>	<b>10.8</b>	<b>53.9</b>	<b>42.2</b>	<b>9.1</b>	<b>51.3</b>

(D) TRANSFORMERS AND REGULATORS

(1) Connected and/or Disconnected from Service

S.P.C.

<u>Location</u>	<u>Capacity in KVA</u>		<u>Remarks</u>
	<u>Connected</u>	<u>Disconnected</u>	
Winchester	625	325	Load increase.
Kwo Brewery	200	125	Load increase.
Shanghai C.M. No.1		240	Removal of Transformer.
Vigor Wheat Co.		225	" " "
Baskell Bango P.T.	225		P.T. Reinstalled.
Pingliang-Tinghai P.T.	125	625	Load increase.
Shanghai Harbour Office P.T.		625	P.T. dismantled.
Fearon Substation, No. 1 circuit		15	Street Lighting Regulator failed in service.

LIANGHAI POWER COMPANY

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W.D.P.C.

Location	Capacity in KVA		Remarks
	Connected	Disconnected	
Kung Yin Mill China D. & W. P.T.	62½	325 65½	Load decrease. Replaced by consumer's own transformer.
Columbia-Hookbill P.T. Jossfield-Cannought P.T. Jossfield-Zien Ka Hong P.T.	62½ 225 225		Temporary installation. New installation.

U N I T S  
S.P.U. W.D.P.C.

- (2) Taps changed for Network Voltage Regulation
- (3) Switched on or off Load for Operational Purposes
- (4) Under Observation due to Overload or Overheating

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S.P.C.

Location	Capacity	Type	Max. Load		Max. oil temp.	Ambi-ent temp.	Temp. Rise	Remarks
			k	Duration				
Av. Edward VII- Chungking P.T.	225	Outdoor	110	½ hr.	23	6½	10½	Transf. capacity needs to be enlarged
Chungku-Shanhaiwan P.T.	225	"	152	1 hr.	24½	8	16½	-do-
Sin Shen C.M.	625	Indoor	101	½ hr.	32½	17	35½	
Tsepo Tr. No. 2	940	"	118	2 hrs.	31	8	45	Spare transf. will be switched in.
Tr. No. 3	940	"	119	1½ hrs.	49	8	41	
Ind. voltage regulator	260	"	124	1 hr.	30	8	23	V.R. will be changed to 520KVA
Shanhaiwan (Ind. voltage regulator)	260	"	160	½ hr.	32	4½	27½	-do-
Hingpo Tr. No. 3	625	"	125	½ hr.	47½	12½	35	Spare transf. switched in on 3/19/47.
Tr. No. 4	625	"	120	½ hr.	49	12	37	
Wuting P.T.	225	Outdoor	132	½ hr.	27½	6	31½	
Clock Tower	325	"	114	½ hr.	52	9½	45½	Transf. capacity needs to be enlarged
Tesquin-Changping P.T.	225	Outdoor	116	½ hr.	32½	4½	23	
Bubbling Well	200	Indoor	128	½ hr.	30	8	26	-do-
" (Ind. voltage regulator)	200	"	145	1 hr.	30	9½	26½	
Maulweia (Ind. voltage regulator)	200	"	119	½ hr.	37	13	24	



SHANGHAI POWER COMPANY

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S.P.C.

Location	Capacity	Type	Max. Load		Max. oil top temp.	Ambient temp.	Temp. Rise	Remarks
			%	Duration				
Range	940	Indoor	110	1 hr.	54	15	39	
Yung Woo Ind. O.T. (Tonquin)	125	Outdoor	105	1 hr.	45	24	21	
Patons & Baldwins W.M.	AKG	Indoor	119	2 hrs.	47½	13½	34	
Burkill-Tatung P.T.	W.T.	Outdoor	101	1½ hrs.	50	11½	38½	Letter sent to Eng. Dept. 2/24/47
Wachow P.T.	225	"	125	1 hr.	29	13	16	
Kung Sung W.M.	200	Indoor	132	1 hr.	51	13	38	Transf. capacity needs to be enlarged.
Yangtsepoo-Dalny P.T.	125	Outdoor	123.7	1 hr.	34½	13	21½	Transf. have been equipped with temperature indicating plates which will give color indication when top oil temperatures reach 70°.
Tsung Tsong W.M.	325	Indoor	77	1 hr.				
Foo Shing Tobacco	225	Outdoor	134½	1 hr.				
Custom House	225	Indoor	132½	1 hr.				
N.Chekiang-Tiencong P.T.	225	Outdoor	118½	1 hr.				
N.Chekiang-Haining P.T.	225	"	100	1 hr.				
Seymour-B'well P.T.	225	"	132	1 hr.				
N.Kiangse-Woochang P.T.	225	"	114	1 hr.				
Sinza-Medhurst P.T.	225	"	108	1 hr.				
Stone Bridge	325	Indoor	120	1 hr.				
Maipai-Seymour P.T.	325	Outdoor	101½	1 hr.				
Oswdon-Markham P.T.	325	"	101½	1 hr.				
Wing On No.3	200	Indoor	98½	1 hr.				
San Hsing Ind. P.T.	125	Outdoor	84	1 hr.				
Clock Tower	325	"	125½	1 hr.				
S'hai Chung Hwa Book	325	Indoor	101½	1 hr.				
Gordon-Watins P.T.	225	Outdoor	94	1 hr.				
Tseepoo-Kansuh P.T.	225	"	76	1 hr.	64½	20½	44	
Hailer-Tungchow P.T.	62½	"	126½	1 hr.	18½	9½	9	
Darroch	500	Indoor	105	1 hr.	47	13	34	
Kwangse (Tr.No.1)	1000	"	105	1 hr.	45	16	29	
(Tr.No.3)	1000	"	129	1 hr.	50	16	34	
Sung Sing 6(Tr.No.2)	940	"	111.9	1 hr.	48	14	34	
(Tr.No.3&4)	940	"	106.4	1 hr.	48	14	34	

SHANGHAI POWER COMPANY

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Units	Equipment	Voltage	Nature of test	Reason for test
1	500 KVA transformer Type GT 2738/14-7/8 No.470201. Made by China Construction and Engineering Co. maker's property.	$\frac{13,200}{380}$	Voltage ratio, over-voltage and insulation resistance.	Customer's request.
1	150 KVA transformer Type OIGC No.35050. Made by Wing On Co. property of China D. & W. Co.	$\frac{6,600}{380}$	Continuity, insulation resistance, overvoltage, ratio, polarity.	Customer's request.
1	O.C.B. Reyrolle Type A.4 I.22 Metalclad No.11A826 300 amp.	23,000	Overvoltage	Test after overhaul, before installation.
1	500 KVA transformer Type GT 2738/14-7/8 No.47021. Made by China Construction and Engineering Co. maker's property.	$\frac{13,200}{380}$	Overvoltage, insulation resistance.	Customer's request.
10	Overcurrent indicators S.F.C. Type used on earth wires of lightning arresters.	-	Minimum operating current.	Routine test.
3	Samples of I.G.E. 219 compound. (Fluid mineral oil)	-	Dielectric strength	Special test to compare dielectric strength with Henley 7014 compound.
2	Oxide film lightning arresters Discs. made by I.G.E.	-	Spill-over voltage	Special test.
-	Clock Tower Traction Rectifier equipment	-	1. 6.6 kV A.C. protection. 2. 550 V D.C. and 110 V A.C. accessories.	Before recommissioning.

## II MAINTENANCE

Routine inspection, maintenance and testing of plant on the transmission and distribution systems have proceeded according to programme.

SHANGHAI POWER COMPANY

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(A) PROTECTION, BATTERIES AND TELEPHONES

(1) Protection Tests

Type of Protection	Number of Panels where tests carried out	
	S.P.C.	W.D.P.C.
Overload and/or Earth Leakage	38	1
Feeder or Transformer Balance	8	2
<b>Total</b>	<b>46</b>	<b>3</b>

(2) Relays

Type of Relay	Number of Relay Elements			
	S. P. C.		W. D. P. C.	
	Tripping circuit tests	Changed	Tripping circuit tests	Changed
Inverse Time	6	21	-	1
Instantaneous	79	-	-	-
<b>Total</b>	<b>85</b>	<b>21</b>	<b>-</b>	<b>1</b>

(3) Batteries

Work done	Lead-Acid & Edison Types		Ni-Fe Type	
	110-V in Primary Substations	Telephone Exchange	30-V in Secondary Substations	
	S.P.C.		BPC	WBPC
Inspected, cleaned and topped up	21	8	60	18
Equalizing charges conducted	4	-	-	-
Charged and discharged	1	1	2	-
Electrolyte changed	-	1	1	-

(4) Auto-telephone Equipment and Lines

Instruments installed .....	4
" disconnected .....	2
" changed .....	3
" moved .....	7
" overhauled .....	1
" faults repaired .....	20
Line faults located and repaired .....	-
Switches overhauled .....	5
Exchange equipment faults repaired .....	4
Miscellaneous equipment overhauled .....	-

SHANGHAI POWER COMPANY

(D) TRANSFORMERS AND REGULATORS

- (1) Overhauled (Core lifted, windings and connections examined, I.R. tested, oil changed).

S.P.C.

Location	Capacity in kVA	Workshop	Reason for overhaul
Fearon S/S (Transf. is used as a standard for phasing)	20	Fearon S/S.	One H.V. load broken
Fearon Stores	62½	Fearon S/S.	Oil Leaking
Hart-Wuting P.T.	125	Fearon S/S.	Over 10 years in service without overhaul.
Bank of China	125	Riverside	Defects to be rectified.

W.S.P.C.

Location	Capacity in kVA	Workshop	Reason for overhaul
Hangao-Shunshan West P.T.	50	Riverside	Transf. failed in service
Yu Yuen "C" P.T.	225	Riverside	" " " "

U N I T S  
S.P.C.      W.S.P.C.

- (2) Inspected on site ..... 10      -  
 (3) Oil-Dielectric Strength tested ..... 57      15  
 (4) Oil-Acidity tested ..... -      -

(G) OIL CIRCUIT BREAKERS

- (1) Overhauled and Tripping Mechanism Tested

Reason for test	Number of O.C.B.s. tested			
	S.P.C.		W.S.P.C.	
	Company's property	Customer's property	Company's property	Customer's property
Routine and special maintenance	75	45	-	-
Oil circuit breakers tripped	4	-	2	-
New installation or operation resumed	1	2	-	-
Total	80	45	2	0

SHANGHAI POWER COMPANY

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	U N I T S	
	S.P.C.	W.S.P.C.
(2) <u>Oil-Dielectric strength tested</u> .....	57	-
(3) <u>Oil changed</u> .....	22	2

(D) PRIMARY SUBSTATIONS

Regular and Special Maintenance

Substation	Company	Equipment	Work done	% completed
Fearon Primary sub- stations	SPC	Power trans- formers	Repainting of ten 4,000 KVA I.G.E. transformers	100
			Inspect transformer breathers and dry out sorbent.	60
Tonquin Primary sub- stations	SPC	Switchgear	Overhaul and overload test all H.V. Oil circuit breakers.	100
			Overhaul and overload test all D.C. circuit breakers.	20
Fearon and Tonquin	SPC	Instrument transformers	Clean down all current transformers and test oil.	25
			Clean down all potential trans- formers and test oil.	100
Tonquin	SPC	Rotary Plant	Inspection of starting gear rheostats and C.O.B. for synchronous condensers Nos. 1 & 2	100
Fearon	SPC		Repairs of 3,600 kVA Synchronous motor of M.G. 5	40
Yangchow	SPC		Clean down D.C. Traction board and test insulation resistance.	100
Tonquin	SPC	Various sub- station equipment.	Overhaul of all lightning arresters.	100
Primary Substations	SPC & WDPC	Various sub- station equipment.	Overhaul of substation air com- pressors	100
			Overhaul of all C.O.B. carriages	100
			Overhaul of all lifting gear	50
			Overhaul of all bogies.	100
			Overhaul of all vacuum cleaners	100
			Inspection of all portable earth wires and clamps.	60
			Inspection of all fire extinguishers	30
Inspection of tool boxes and checking of tools.	50			

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Substation	Company	Equipment	Work done	% completed
Primary sub-stations	SPC & WDPC	Batteries	Routine maintenance	To program
Safety devices inspection and check on artificial respiration practice carried out according to programme.				

(B) SECONDARY SUBSTATIONS

Location	Company	Work done	% completed
Shanghai Waterworks	SPC		90
Fuzing	"		90
Tungchow	"		100
Kwening	"		70
Dent	"	<u>Biannual Regular maintenance</u>	100
Central China Aquatic Products (Tuen Yuen)	"	Overhaul of switchgear, testing of automatic protective equipment, inspection of transformers and regulators, inspection of all electrical equipment and cleaning.	100
Thorburn	"		100
Market Street	"		100
Shanghai Warehouse & Trust Co.	"		100
Yu Fong S	"		100
Yee Tsong Tobacco (Whanhing)	"		100
Han Foon Textile	"		100
W. W. K. S	"		100
Sing Yee No. 1	"		100
Winchester	"		100
Tung Yih	"		100
Kwang so	"		75
Clock Tower	"		90
Sung Sing S	"		100
Sing Nah	"		100
Hamilton House	"		100
Sing Yee P. & D.	"		100
China Electro Chemical	"		100
Kung Dah S	WDPC		100
Van Pac Silk Factory	"		100
Alord Spinning & Weaving Co.	"		100
General District		Inspection and repair of substation buildings for ratproofing.	95
Western District			100
All districts		Overhaul of substation lightning arresters. Overhaul of portable oil pumps. Inspection of all fire extinguishers. Inspection of all pole transformer link boxes against bird nest. Inspection of all tool boxes and check of tools. Inspection of pole transformers carried out according to programme. Inspection of safety device and check on artificial respiration practice carried out according to programme.	80 100 80 30 80 - -

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(F) OVERHEAD LINES AND STREET LIGHTING

(1) Inspection and Overhaul of Overhead Lines (All Districts)

System voltage	Locations where maintenance of overhead lines has been carried out to programme.
6.6 kV	Funing Radial feeder between Lay & Y'poo B&M.
"	A1 & A2 O/N. line, Maichow Rd. between Hangchow to south of Yangtszepoo Road

(2) Repairs and Replacements of Overhead Line Equipment (All Districts)

Equipment	Inspected	Repaired	Renewed
Stays	12	-	1
Brackets	42	-	-
Line switches	-	-	-
Lightning arresters	-	-	-
Insulators	114	-	2
Fuses	6	-	-
Series transformers	-	-	-
Lamp fittings	-	-	-
Lamp brackets	-	-	-
Connections	-	-	-

(3) Poles and pole Bases - Routine and Special Maintenance

	SFC	WDPC
Poles inspected .....	40	-
Wood poles painted .....	4	-
Iron poles painted .....	47	-
Concrete poles repaired .....	-	-
Decayed wood poles renewed: Main .....	5	1
Suspension .....	-	1
Stay .....	41	-
Concrete bases inspected .....	10	-
Concrete bases repaired .....	-	-
Concrete bases renewed .....	6	1
Cast iron sleeves renewed .....	1	1
Cast iron sleeves replaced by concrete bases .....	-	-
Obsolete concrete sleeves replaced by concrete bases .....	-	-

(4) Street Lamps burnt and renewed

	SFC	WDPC
Municipal street lighting .....	1,178	173
Private street lighting .....	1,518	209
Total .....	2,696	482

SHANGHAI POWER COMPANY

(B) Traffic Signal Switches

Location	Installed	Removed	Replaced	Overhauled
Eastern District	-	-	-	48
Central District	-	-	-	-
Western District	-	-	-	6

(G) OIL TREATMENT PLANT

Location	Transformer Oil				Switch Oil			
	Issued	Returned	Filtered	Stock	Issued	Returned	Filtered	Stock
U.S. gallons								
Fearna Oil Depot	604	518	1,480	845	678	665	1,825	798
On Site- SPC	-	-	-	-	-	-	-	-
WDPC	-	-	-	-	-	-	-	-
<b>Total</b>	<b>604</b>	<b>518</b>	<b>1,480</b>	<b>845</b>	<b>678</b>	<b>665</b>	<b>1,825</b>	<b>798</b>

Samples of oil tested for breakdown . . . . . 178

(H) UNDERGROUND CABLES

(1) <u>Inspection and Maintenance</u>	% completed	
	S.P.C.	W.D.P.C.
Idle cable risers . . . . .	100	100
Road condition along cables in Eastern District . . . . .	100	-
Central District duct line and manholes . . . . .	100	-
	UNITS	
	S.P.C.	W.D.P.C.
Cable potheads and joints: 23 kV . . . . .	-	-
(including standardization) 6.6 kV . . . . .	24	-
380 V . . . . .	-	-
Feeder pillars . . . . .	6	-
Underground cables slung and protected: . . . . .		
	Lans 200 Peking Road	-



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(2) 23 KV Underground Cable Failure located and repaired ..... 1

S.P.C.

Feeder name	Location of failure	Faulty areas	Cause of failure	Repairs
KK. 201 Toyoda Motors	Pole pot-head inside consumer's compound	R.W.B.	Foreign matter dropped on the pothead	Pothead rammed in position.
AB.10	Joint No.16	B	Obsolete design	Replaced by 12 feet of new cable and two new joints.

W.D.P.C. Nil.

(3) 6.6 KV Underground Cable Failure located and repaired ..... 1

S.P.C. Nil.

W.D.P.C.

Feeder name	Location of failure	Faulty areas	Cause of failure	Repairs
Chuang Lee Steel	Pole pot-head	B	Initially defective insulator	Replaced by 51 feet of new cable and 2 new potheads.

(4) 230 V Underground Cable Failure located and repaired ..... 1

S.P.C.

Feeder name	Location of failure	Faulty areas	Cause of failure	Repairs
L.V. No.5 Winchester	Joint No.1	B	Ground subsidence	Joint rammed in position

W.D.P.C. Nil.

(5) Filet and Telephone Underground Cable Failure Located and Repaired ..... Nil

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(6) Underground Cable Preventive repairs ..... Nil

(I) BUILDING MAINTENANCE

	<u>Location</u>	<u>Work Done</u>	<u>\$ completed</u>
A.P.C.	1. D.C.E. Office building roof	Supervision of the construction of living quarters carried out by contractors.	100
	2. Fearon Underground Workshop	Erection of foreman's office and carpenter's shop.	100
	3. Fearon Road	Repair the roof for Stores, Meter Department and C.E.D. Workshop.	100
	4. Ghusan Substation	Repairs to roof.	100
	5. Connaught Substation	Extension of office building.	100
	6. Maulmein Subst.	Repairs to roof.	100
	7. Chungking Subst.	Repairs to roof.	100
W.P.P.C.	1. 17, Leornas Road	Cleaning drain pipes.	70

III. CONSTRUCTION

(A) SERVICE

	<u>APC</u>	<u>WIPCO</u>
(1) <u>House Services</u>		
Connections .....	239	116
Disconnections .....	62	29
Net increase .....	227	87
(2) <u>Municipal Street Lighting</u>		
Connections .....	106	-
Disconnections .....	-	-
Net increase .....	106	-
(3) <u>Private Lighting</u>		
Connections .....	57	10
Disconnections .....	65	1
Net increase .....	8	9

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(B) OVERHEAD LINES

(1) <u>Erection</u>	<u>Area</u>	<u>Location</u>	<u>Route length yards</u>	<u>Number of poles</u>
6.6 kV 3-wire	SPC	Mayside (Q15) Pingliang, Yangchow & Fenchow Roads.	1,048	4
"	WDPC	Alound S. & W. Brennan Road.	27	-
300/220V 4-wire	SPC	Markham Road.	172	-
(2) <u>Salvage</u>				
6.6 kV 3-wire	SPC	Hart S. of Wuting Road	39	-
"	WDPC	Chun Hein Saw Mill Brennan Road	50	-
(3) <u>Poles</u>			<u>SPC</u>	<u>WDPC</u>
Erected .....			8	7
Removed .....			3	2
Moved at the request and expense of the Municipality .....			-	-

(C) UNDERGROUND LINES

(1) Installation

Cable	-	SPC	1. Installation of 11 yds. .025 sq.in., 3-core, 6.6 kV cable for supply to Pingliang-Tinghai P.T.
			2. Installation of 166 yds. .4 sq.in., 4-core, 660 V cable for supply to Fuel Oil Bulk Station, Texas Co., Tongyueh Road.
		WDPC	1. Installation of 12 yds. .025 sq.in., 3-core, 6.6 kV cable for supply to H.116 Jessfield P.T.
Joints and potheads	-	SPC	1. Installation of one 6.6 kV pole pothead and one 6.6 kV transformer pothead for supply to Pingliang-Tinghai P.T.
			2. Installation of 3 660 V joints and 2 660 V potheads for supply to Fuel Oil Bulk Station, Texas Co., Tongyueh Road.

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3. Reinstallation of one 6.6 kV transformer pothead for supply to Haskell-Range P.T.

W.B.P.C. 1. Installation of one 6.6 kV pole pothead and one 6.6 kV transformer pothead for supply to K.Lis Jessfield P.T.

(2) Salvage ..... Nil

(3) Deviation

S.F.C. 1. 0.15 cable to Wishing H. of Mangron F.P. deviated into new overhead line 0.15.

W.B.P.C. Nil.

(D) REBINATION

<u>Substation</u>	<u>Work Done</u>	<u>% completed</u>
S.F.C. 1. Range	Reinstallation of switch gear and panel for Haskell-Range P.T.	100
2. Sing Yue C.M. No.2	Installation of one 240 kVA temporary transformer.	100
3. Tang Yuch Road	Installation of L.V. supply to Riverside Fuel Oil Bulk Station, Texas Co.	100
4. Dah Kung D. & W.	Installation of 6.6 kV metering outside.	100
5. New Brewery	Replacement of a 125 kVA transformer with a 200 kVA unit.	100
6. Winchester	Replacement of one 325 kVA transformer with a 625 kVA unit.	100
7. Wishing	Replacement of one 100 kVA transformer with a 325 kVA unit.	100
8. Jan Tai Lumber	Replacement of one 625 kVA transformer with a 125 kVA unit.	0
9. Viger Wheat	Removal of one 225 kVA transformer.	0
10. Shanghai C.M. No.1	Removal of one 240 kVA transformer.	100
11. Macao-Ferry Road Area.	Re-arrangement of distribution transformers.	40

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	<u>Substation</u>	<u>Work Done</u>	<u>% completed</u>
W.D.P.O.	1. Chung Huang Tsang	Installation of L.V. fuse links of supply to Hai King P.M.	80
	2. Red Star Rubber Factory	Installation of one 225 kVA transformer.	90
	3. Kung Yih Mill	Replacement of one 325 kVA transformer with a 625 kVA unit.	100

(E) BULK SUPPLY METERING

<u>Work done</u>	<u>S.P.O.</u>	<u>W.D.P.O.</u>	<u>Total</u>
Metering equipment installed	-	-	-
" " removed	1	-	1
" " changed	1	2	3

(F) VARIOUS WORK

	<u>Name of Work</u>	<u>Location</u>	<u>% completed</u>
S.P.O.	1. Electrolysis survey	Central District Duct Line	100
	2. Repair C.W.P. 24 cable fault	Riverside Station	100
	3. Redrugging of cables from rotten to good reels	Fearon yard	100
	4. Installation of cable for supply to SO.14-16 F.D.F. Motor	Riverside Station	100
	5. Removal of racks	Fearon Stores	100
W.D.P.O.	Nil.		

IV WORK DONE FOR CONSUMERS

<u>Location</u>	<u>Nature of Work</u>	<u>% completed</u>
1. Clock Tower Substation.	Reconstruction and extension of 440 kW rectifier equipment. (Property of Traxway Co.)	95
2. Dah Kwag D. & W., Chesulpe Road.	Installation of one 325 kVA transformer on hire.	100

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<u>Location</u>	<u>Nature of Work</u>	<u>% completed</u>
S. Sang Sing No. 7, Yungtasegao Road.	Installation of one 940 kVA transformer cu hire	100

V STAFF

(A) CHANGES

Engineering and Office Staff

S.P.O.

L.F. Fan	Maintenance Supt.	Transferred to Secretary and Treasurer's Dept.
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W.D.P.O.

Nil.

Monthly Rate Staff

S.P.O.

Jen Wen Hung	Draughtsman	Re-instated.
Yang Tu Ken	KSF-12	Transferred to Trouble Section and from Daily Staff to Monthly Staff.

Chou Shih Kuo	Student Apprentice	Transferred to Engineering Department.
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W.D.P.O.

Nil.

Daily Rate Staff

S.P.O.

OSF. 12	Fitter	Engaged
OSF. 26	"	"
OSF. 27	"	"
OSL. 1	Labourer	"
OSL. 2	"	"
OSL. 3	"	"
OSM. 12	Mason	"
OSM. 22	"	"
KSF. 12	Fitter	Transferred to Trouble Section.
CUF. 20	Joiner	Invalided
COL. 1	Lideman	"
REL. 22	"	Discharged
REL. 14	Labourer	"
ROX. 20	"	"

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W.D.P.C.

WOL. 40

Lineman

Discharged

(B) ACCIDENTS

Date	Employee injured	Location of accident	Description of accident	Fatal or permanent injury	Disabled for the period of
Mar. 4	Sung Sen Tsui OMF. 5	Corner of China and Gordon Rds.	Hit by motor car while riding on the bicycle	No	10 days
Mar. 5	Wang Chi Chang OUO. 2	Texas Co.'s Fuel Oil Bulk Station in Riverside compound.	Steam pipes belonging to Texas Co. Suddenly burst.	Permanent	about 2 months.
	Chang Yuan Tao CUX. 5		Rupture of mesentery perforation of intestine 5 feet long intestine has to be removed. scald of abdomen wall.		
	Tsai Wen Tsai OUX. 14		Abrasion, scald of face, contusion chest.	No	14 days.
	Lin Wen Ju		Slight contusion on back and right arm	No	2 days.
	Chang Tsang Hsiang OUX. 13		Scald face and intra-hemorrhage of eye ball, left	No	about 2 months.

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VI. MISCELLANEOUS

(A) Theft of Materials Mil.  
(Combined for S.P.C. & W.D.F.O. Areas).

*S. L. Dong*

S. L. Dong  
Acting Distribution Operating Engineer.



SHANGHAI POWER COMPANY

Appendix  
TRANSPORT DIVISION

MONTHLY LETTER - MARCH 1947

The following outlines the activities of the Transport Division during the month.

(A) MOTOR VEHICLES

Vehicles	Passenger cars	Pick-ups	Station wagons	Vans	Trucks	Special vehicles*	Trailers
In Operation	48	10	2	5	14	3	4
In Storage	-	-	-	-	-	-	4

\* Oil tanker and 20-ton lorries

(1) Operating Data on Motor Vehicles

Type	No. in service	GASOLINE								Average		
		Issue (gallons)		Usage (gallons)		Mileage run		M.P.G.		Mar.	Feb.	
		Mar.	Feb.	Mar.	Feb.	Mar.	Feb.	Mar.	Feb.			
Passenger cars	48*	40	4590	4592	4453	4601	51802	52719	11.6	11.5		
Station wagons	2	2	212	220	208	224	2359	2543	11.2	11.3		
Pick-ups	10	10	774	855	785	844	9868	10668	12.6	12.9		
Trucks (1 1/2-ton)	2	2	189	194	189	194	1852	1985	9.8	10.2		
Trucks (3 1/2-ton)	9	9	1064	1159	1064	1176	7406	8288	6.9	7.1		
Lorries (6-ton)	2	2	200	252	218	252	957	1107	4.4	4.4		
Lorries (20-ton)	2	2	60	61	49	72	64	130	1.3	1.8		
Oil tanker truck	1	1	-	-	-	9	-	49	-	5.4		
Motor vans	2	2	144	127	138	133	1145	1102	8.3	8.3		
Trouble Section van	1	1	154	218	154	218	1035	1173	6.7	5.4		
Cooker vans	2	2	389	387	389	387	3343	3694	8.6	9.5		
Bus	1	1	534	632	534	632	3010	3497	5.6	5.5		
Trailers	8	8	-	-	-	-	-	-	-	-		
Total	90	82	8270	8697	8181	8742	82841	87155	10.1	10.0		

\* Four new passenger cars in operation from March 6, 1947  
Four new passenger cars in operation from March 11, 1947

SHANGHAI POWER COMPANY

Appendix

TRANSPORT DIVISION

MONTHLY LETTER - MARCH 1947

The following outlines the activities of the Transport Division during the month.

(A) MOTOR VEHICLES

Vehicles	Passenger cars	Pick-ups	Station wagons	Vans	Trucks	Special vehicles*	Trailers
In Operation	48	10	2	5	14	3	4
In Storage	-	-	-	-	-	-	4

\* Oil tanker and 20-ton lorries

(1) Operating Data on Motor Vehicles

Type	No. in service		GASOLINE							
			Issue (gallons)		Usage (gallons)		Mileage run		Average M.P.G.	
			Mar.	Feb.	Mar.	Feb.	Mar.	Feb.	Mar.	Feb.
Passenger cars	48*	40	4550	4592	4453	4601	51802	52719	11.6	11.5
Station wagons	2	2	212	220	208	224	2359	2543	11.2	11.3
Pick-ups	10	10	774	855	785	844	9868	10858	12.6	12.9
Trucks (1 1/2-ton)	2	2	189	194	189	194	1852	1985	9.8	10.2
Trucks (3 1/2-ton)	9	9	1064	1159	1064	1176	7406	8288	6.9	7.1
Lorries (6-ton)	2	2	200	252	218	252	957	1107	4.4	4.4
Lorries (20-ton)	2	2	60	61	49	77	64	150	1.3	1.8
Oil tanker truck	1	1	-	-	-	9	-	49	-	5.4
Meter van	2	2	144	127	159	153	1145	1102	8.3	8.3
Trouble Section van	1	1	154	218	154	218	1055	1173	6.7	5.4
Cooker vans	2	2	389	387	389	387	3343	3694	8.6	9.5
Bus	1	1	534	632	534	632	3010	3497	5.6	5.5
Trailers	8	8	-	-	-	-	-	-	-	-
Total	90	82	8270	8697	8101	8742	82841	87155	10.1	10.8

\* Four new passenger cars in operation from March 6, 1947  
 Four new passenger cars in operation from March 11, 1947

SHANGHAI POWER COMPANY

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(2) Maintenance Work on Motor Vehicles

Type	General overhaul completed		Emergency overhaul completed		Minor adjustments and repairs		Repairs after			
							Accident		Breakdown	
	Mar.	Feb.	Mar.	Feb.	Mar.	Feb.	Mar.	Feb.	Mar.	Feb.
Passenger cars	2	1	51	49	55	52	4	2	11	5
Station wagons	-	-	5	3	1	2	-	1	3	1
Pick-ups	-	-	14	17	10	8	-	-	2	1
Trucks (1½-ton)	-	-	7	5	4	4	-	-	5	2
Trucks (3½-ton)	-	-	9	7	8	10	-	-	4	3
Lorries (5-ton)	-	-	2	1	1	1	-	-	1	-
Lorries (20-ton)	-	-	-	-	-	-	-	-	-	-
Oil tanker	-	-	-	-	-	-	-	-	-	-
Motor vans	-	-	6	3	1	2	-	-	2	-
Trouble Section van	-	-	-	-	-	-	-	-	-	-
Hooker van	-	-	-	-	-	-	-	-	-	-
Bus	-	-	3	2	1	1	-	-	2	-
Trailers	-	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>2</b>	<b>1</b>	<b>97</b>	<b>87</b>	<b>61</b>	<b>60</b>	<b>4</b>	<b>3</b>	<b>23</b>	<b>12</b>

(3) Vehicles Cleaned

Type of vehicle	Cleaning of	
	Body with polish	Chassis with kerosene
Closed cars	16	5
Open cars	6	4
Vans	-	1
Trucks	5	4
Lorries	-	-
Oil tanker truck	1	-
Trailers	-	1
Handcarts	-	-
<b>Total</b>	<b>26</b>	<b>13</b>

(D) GASOLINE CONSUMPTION

Type of Vehicle	Gallons per month		Average gals. per week		Percentage of total gasoline used this month
	Mar.	Feb.	Mar.	Feb.	
Passenger cars	4,550	4,592	1,172	1,148	55.0%
Trucks	3,720	4,105	930	1,026	45.0%
<b>Total</b>	<b>8,270</b>	<b>8,697</b>	<b>2,102</b>	<b>2,174</b>	<b>100.0%</b>

SIANGHAI POWER COMPANY

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(2) Maintenance Work on Motor Vehicles

Type	General overhaul completed		Emergency overhaul completed		Minor adjustments and repairs		Repairs after			
							Accident		Breakdown	
	Mar.	Feb.	Mar.	Feb.	Mar.	Feb.	Mar.	Feb.	Mar.	Feb.
Passenger cars	2	1	51	49	35	32	4	2	11	5
Station wagons	-	-	5	5	1	2	-	1	3	1
Pick-ups	-	-	14	17	10	8	-	-	2	1
Trucks (1 1/2-ton)	-	-	7	5	4	4	-	-	3	2
Trucks (3 1/2-ton)	-	-	9	7	8	10	-	-	4	3
Lorries (8-ton)	-	-	2	1	1	1	-	-	1	-
Lorries (20-ton)	-	-	-	-	-	-	-	-	-	-
Oil tanker	-	-	-	-	-	-	-	-	-	-
Meter vans	-	-	6	3	1	2	-	-	2	-
Trouble Section van	-	-	-	-	-	-	-	-	-	-
Cooker van	-	-	-	-	-	-	-	-	-	-
Bus	-	-	3	2	1	1	-	-	2	-
Trailers	-	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>2</b>	<b>1</b>	<b>97</b>	<b>87</b>	<b>61</b>	<b>60</b>	<b>4</b>	<b>3</b>	<b>28</b>	<b>12</b>

(3) Vehicles Cleaned

Type of vehicle	Cleaning of	
	Body with polish	Chassis with kerosene
Closed cars	16	3
Open cars	6	4
Vans	-	1
Trucks	3	4
Lorries	-	-
Oil tanker truck	1	-
Trailers	-	1
Handcarts	-	-
<b>Total</b>	<b>26</b>	<b>13</b>

(B) GASOLINE CONSUMPTION

Type of Vehicle	Gallons per month		Average gals. per week		Percentage of total gasoline used this month
	Mar.	Feb.	Mar.	Feb.	
Passenger cars	4,550	4,392	1,172	1,148	55.0%
Trucks	3,720	4,105	930	1,026	45.0%
<b>Total</b>	<b>8,270</b>	<b>8,697</b>	<b>2,102</b>	<b>2,174</b>	<b>100.0%</b>

SHANGHAI TOWNS COMPANY

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(C) GASOLINE ISSUES AND STOCKS

Description	Issues (U.S. gallons)		Fearon stock (U.S. gallons) at the end of this month: Total - 1,086 gals.
	Mar.	Feb.	
Cars	4,550	4,592	
Trucks	3,720	4,105	
Other purposes	201	505	
<b>Total</b>	<b>8,471</b>	<b>9,202</b>	

(D) MOTOR CAR ENGINE LUBRICATING OIL

Description	Issues (U.S. gallons)		Fearon stock (U.S. gallons) at the end of this month: Total - 323 gals.
	Mar.	Feb.	
Cars	129	149	
Trucks	180	167	
Other purposes	5	7	
<b>Total</b>	<b>312</b>	<b>323</b>	

(E) MAJOR HAULAGE JOBS

Units	Equipment		Description	Moved		Size of truck	Man-days
	Capacity KVA	Weight Lbs.		From	To		
1	200	5,900	Transformer	Kashing S/S	Fearon Rd. Stores	20	20
1	325	8,160	"	Kashing S/S	Kashing S/S	20	24
1	62½	1,800	"	141 Warren Road	Riverside Workshop	3½	10
1	225	5,970	"	Fearon Rd. S/S	Haskell-Runge P.T.	3½	20
1	62½	1,800	"	China D. & W. P.T.	R'side Workshop	3½	10
1	225	4,750	"	Fearon Rd. S/S	Fearon Rd. Stores	20	15
1	125	3,230	"	Fearon Rd. S/S	Fearon Rd. Stores	20	15
1	625	8,900	"	Fearon Rd. S/S	Winchester S/O	20	30
1	225	5,417	"	Fearon Rd. Stores	H. 116 Jessfield Road P.T.	3½	20
1	120 HP	3,300	Motor	Fearon Rd. Stores	China Steel Mfg. Ltd.	20	16
1	125	5,530	Transformer*	Fearon Rd. Yard	Jessfield-Tifeng Trailer P.T.		-
1	225	5,417	"	Vigor Wheat Co. House	Fearon Rd. Stores	3½	20
2	625	233,900	"	R'side Turbine	R'side Workshop	6	30
1	325	6,075	"	Winchester S/S	R'side Workshop	20	24
1	125	5,530	"	R'side Workshop	Fearon Rd. Stores	20	10
1	62½	1,965	"	R'side Workshop	Kung Yih C/M	3½	10
1	940	16,900	"	Ferry Rd. S/O	Gung Sing No. 7	20	40
1	940	16,900	"	Shanghai C/M No. 1	R'side Workshop	20	40
1	325	5,620	"	Kung Yih C/M	Fearon Rd. Stores	20	24
1	200	5,900	"	Fearon Rd. Stores	Soo Brewery	20	24
1	125	5,530	"	Fearon Rd. Stores	Pingliang-Ting-hai P.T.	3½	16

\* Transportable emergency transformer.

SHANGHAI POWER COMPANY

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(F) BICYCLES

(1) Taxi Bicycle and Tricycle Service

Department	Type	No. in service	Issued for Temp. use	Issued as Taxi	Remarks
Transport Division	Bicycles	48	18	12	-
	Tricycles	7	7	-	-
Meter Department	Bicycles	24	-	-	-
	Tricycles	-	-	-	-

(2) Bicycle and Tricycle Maintenance

Type	No. in service	General overhaul		Minor adjustments and repairs		Routine inspection		Repairs after accident	
		Mar.	Feb.	Mar.	Feb.	Mar.	Feb.	Mar.	Feb.
		Company's bicycles	254	5	6	98	94	14	13
Employees' bicycles	46	-	-	11	13	4	3	-	-
Tricycles	10	-	-	4	6	-	-	-	-
Pedicabs	5	-	-	6	10	-	-	-	-
Trailers	2	-	-	1	-	-	-	-	-
<b>Total</b>	<b>315</b>	<b>5</b>	<b>6</b>	<b>120</b>	<b>123</b>	<b>18</b>	<b>16</b>	<b>-</b>	<b>1</b>

(G) HANDCARTS

Type	No. in service	No. in storage	No. in construction	Number in repair	
				Maintenance	After Accident
Large 2-ton	2	1	-	-	-
Standard 1-ton	15	7	-	-	-
House Service	2	2	-	-	-
Balancing	3	3	-	-	-
<b>Total</b>	<b>22</b>	<b>11</b>	<b>-</b>	<b>-</b>	<b>-</b>

SHANGHAI POWER COMPANY

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(H) GARAGE WORKSHOP

Shop	WORK DONE	
	Transport Division	Other divisions
Vulcanizing	Repaired for - Motor cars: 18 tires; 179 tubes Bicycles: 26 tires; 18 tubes	Filling rubber compound into the 3 glands on top of fuse boxes for Yangchow Substation. Repairing rubber boots for Primary Substation. Repairing rubber hose for Construction Underground.
Tailor	Repairs to 26 seat cover 30 upholstery 30 uniforms	Manufacture of 5 seat covers 1 upholstery
Paint	Repainted: 30 bicycles Touched up: 97 motor car jobs; 115 bicycle jobs	Repairing two pcs of tarpaulin for Construction Underground. Repairing canvas for camp beds Trouble Section. Repairing leather arm chairs for Head Office. Polishing wooden cabinet for D.O.D. Test Room. Polishing leather arm chairs for Head Office.
Welding	Repaired by welding 35 motor vehicle bodies 34 engine parts 13 chassis parts	Welding tent frames for Construction Underground. Welding oil tank for O.C.B. for Primary Substation. Welding negative links for traction board for Primary Substation. Welding door for feeder pillar Lay S. or Kwangchow. Welding gas pipe for traffic signal for Central District. Welding terminal covers for Meter Department.
Battery	Replated: 6 batteries Repaired: 26 " Charged: 157 "	Repairing current battery for Meter Department.
Blacksmith	Forged: 39 new parts Repaired: 143 damaged parts	Repairing tent frames for Construction Underground. Painting picks for Construction Underground.

SHANGHAI POWER COMPANY

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Shop	WORK DONE	
	Transport Division	Other Divisions
White Smith	Repaired - 33 vehicle radiators 25 bumpers 9 bodies 29 doors 34 windows 61 various small parts	
Electrical	Repaired or overhauled - 14 starters 6 dynamos 57 horns	
Carpenter	Repairs to 21 vehicle bodies	Repairs to 11 chairs 4 revolving chairs 7 desks 13 extension ladders Repairing typewriter desk for Head Office. Repairing wooden cabinet for D.O.D. Test Room. Repairing leather arm chairs for Head Office.
Machine	Repairs to 67 engine parts 95 other parts.  Manufacture of 59 engine parts 301 other parts	Making fitting for typewriter desk for Head Office. Replacing negative links for traction board for Primary Substation. Making brass cock for oil filter press for Oil Depot. Making connectors for Riverside C.W.F.Sd. Repairing spray gun for Primary Substation. Repairing cutting pliers for Central District. Making vice screw for Construction Underground Workshop.
Lubrication Centre	Motor vehicles: Oil changed: 56 General inspection: 62 General lubrication: 62	



SHANGHAI POWER COMPANY

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## (I) ACCIDENTS

## (1) Motor Vehicles

Date	Vehicle		Location of accident	Description of accident	Damage to SPC vehicle			S.P.C. driver to blame?	Persons injured	
	Type	No.			Major	Minor	None		Staff	Others
Mar 1	Pass.Car	10658	Yangtsepo	Collided with car	-	x	-	No	No	No
Mar 10	Pass.Car	17348	The Bund	Collided with handcart	-	x	-	No	No	No
Mar 11	Pass.Car	17580	Av. Petain	Hit by a pedicab	-	x	-	No	No	No
Mar 15	Pass.Car	13306	E. Seward Road	Collided with car	-	-	x	No	No	No
Mar 17	Pass.Car	17580	Nanking Road	Smashed by a tramcar	-	x	-	No	No	No
Mar 20	Pass.Car	10647	Bubbling Well Road	Collided with car	-	x	-	No	No	No
Mar 21	3 1/2-ton van	50068	Garden Bridge	Collided with tramcar	-	-	x	Yes	No	No
Mar 24	1 1/2-ton van	50151	Fearon Rd.	Hit hydrant	-	x	-	Yes	No	No
Mar 25	Pass.Car	14618	Qin Kee Rd.	Collided with truck	-	x	-	Yes	No	No
Mar 28	Pass.Car	50502	Bubbling Well Road	Damaged by a bicycle	-	x	-	No	No	No

## (2) Bicycles and Tricycles

None.

SHANGHAI POWER COMPANY

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(3) Details of Accidents involving general public

Date	Location of accident	Damage to Outside vehicle			Injury to outsiders			Remarks
		Major	Minor	None	Major	Minor	None	
Mar 1	Yangtszepoo	-	-	X	-	-	X	
Mar 10	The Bund	-	X	-	-	-	X	
Mar 11	Avenue Petaim	-	-	X	-	-	X	
Mar 15	N. Seward Road	-	X	-	-	-	X	
Mar 17	Nanking Road	-	-	X	-	-	X	
Mar 20	Bubbling Well Road	-	-	X	-	-	X	
Mar 21	Garden Bridge	-	X	-	-	-	X	
Mar 22	Gin Kee Road	-	X	-	-	-	X	
Mar 26	Bubbling Well Road	-	-	X	-	-	X	

(4) Staff  
None.

(J) STAFF

(1) Supervisory Staff

No change.

(2) Clerical Staff

No change.

(3) Monthly Rate Staff

Drivers TDC. 1, 21, 34, 46 and 87 engaged.  
Driver TDC. 70 engaged.  
Cleaner TOQ. 9 promoted to Driver Car TDC. 64.  
Cleaner TOQ. 12 promoted to Driver Car TDC. 58.  
Driver TDC. 2 promoted to Driver Truck TDT. 28.  
Driver TDC. 83 promoted to Driver Truck TDT. 25.  
Driver TDC. 65 discharged.

(4) Daily Rate Labour

Cleaner TOQ. 14 re-engaged.

*S. L. Dong*  
S. L. Dong  
Acting Distribution Operating Engineer

SHANGHAI POWER COMPANY

Shanghai, April 7th, 1947

The General Manager :

METER & TESTING DEPARTMENT  
LARCENY OF ELECTRICITY  
MONTHLY REPORT FOR MARCH, 1947.

Accounts Office Queries :

Three cases of damaged meters were found. The cost of repairs, etc., amounting to CN.\$210,900 has been paid by the consumers.

Meter Readers' Reports :

Eleven cases of damaged meters were found when following up these reports. The cost of repairs, etc. amounting to CN.\$213,600 has been paid by the consumers.

Route Meter Investigation :

Five cases of damaged meters were found. The cost of repairs, etc., amounting to CN.\$223,400 has been paid by the consumers.

Power Meter Investigation :

Three cases of larceny were detected, and revenue amounting to CN.\$2,416,000 has been recovered.

One case of damaged meter was found. The cost of repairs, etc. amounting to CN.\$69,300 has been paid by the consumers.

Miscellaneous :

Eight cases of damaged meters were reported by Installation Section's staff. The cost of repairs, etc., amounting to CN.\$765,200 has been paid by the consumers.

Damaged or Missing Main Fuse Box Lead Seals :

Forty-six cases of above infringement of Company's Regulations have been handled by the Installation Section. Fees paid by consumers total CN.\$161,000.

SUMMARY :

Three cases of larceny have been detected and settled during the month together with twenty-eight cases of damaged meters and/or associated equipment.

Revenue amounting to CN.\$4,760,100 has been recovered, of which :-

- a. CN.\$2,416,000 represent recovered revenue.
- b. CN.\$2,183,100 represent an estimated cost of repairs to damaged meters and associated equipment.

SHANGHAI POWER COMPANY

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- c. CN. \$ 161,000 represent fees paid for damaged or missing main fuse box lead seals.

-----

NOTE :- Four cases of unmetered supply taken by various units of the Chinese Armed Forces have been reported by the Installation and Investigation Sections' staff and Meter Readers during the month. These have been passed to the Installation Section for action in concert with Consumers' Engineers' Department.

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*E. Jacobs*  
-----  
E. Jacobs,  
Meter & Testing Engineer

AVQ/zko

MARCH, 1947.

S.P.C. + W.D.P.C.

NATURE OF INVESTIGATION	PREMISES INSPECTED	METERS INSPECTED	IRREGULARITIES FOUND	LARCENY CASES			TOTAL CASES
				Jumpers	Tempered Meters	Demaged &/or Missing Plant	
Accounts Office Queries	759	786	355	-	-	3	3
Meter Readers' Reports	25	27	13	-	-	11	11
Route Meter Investigation	2,338	4,984	1,305	-	-	5	5
Power Meter Investigation	391	748	123	3	-	1	4
Casual Visits - Day	255	457	47	-	-	-	-
Casual Visits - Evening	-	-	-	-	-	-	-
Miscellaneous	9	10	8	-	-	2	8
<b>T o t a l</b>	<b>3,777</b>	<b>7,012</b>	<b>1,831</b>	<b>3</b>	<b>-</b>	<b>28</b>	<b>31</b>

W.D.P.C. (Included in above figures) :

Accounts Office Queries	150	158	83	-	-	-	-
Meter Readers' Reports	7	8	5	-	-	3	1
Route Meter Investigation	1,296	1,852	422	-	-	3	3
Power Meter Investigation	234	427	56	1	-	-	1
Casual Visits - Day	49	89	8	-	-	-	-
Miscellaneous	1	1	1	-	-	1	1
<b>T o t a l</b>	<b>1,737</b>	<b>2,595</b>	<b>675</b>	<b>1</b>	<b>-</b>	<b>7</b>	<b>8</b>

	S.P.C. + W.D.P.C.				W.D.P.C. (only)			
	Premises	Meters	Irregularities	Cases	Premises	Meters	Irregularities	Cases
Month ending March 31, 1947	3,777	7,012	1,831	31	1,737	2,595	675	8
12 Months ending March 31, 1947	45,935	82,648	21,559	590	11,995	16,648	6,129	120

SHENHAI POWER COMPANY

MARCH 1947

ANALYSIS OF CASES RECOVERED FOR ESTIMATED LOSS OF REVENUE FROM CONSUMERS INVOLVED IN LARCENY OF ELECTRICITY.

S.P.C. + W.D.P.C.

NATURE OF INVESTIGATIONS	Jumpers CN\$	Tempered Meters CN\$	Damaged Meters CN\$	Missing Meters CN\$	Part Payment CN\$	Broken Main Fuse Seals CN\$	TOTAL CN\$
Accounts Office Queries	-	-	210,900	-	-	-	210,900
Meter Readers' Reports	-	-	815,600	-	-	-	815,600
Route Meter Investigation	-	-	325,400	-	-	-	325,400
Power Meter Investigation	2,416,000	-	69,300	-	-	-	2,485,300
Casual Visits-Day & Evening	-	-	-	-	-	-	-
Miscellaneous	-	-	765,900	-	-	161,000	926,900
<b>Total</b>	<b>2,416,000</b>	<b>-</b>	<b>2,183,100</b>	<b>-</b>	<b>-</b>	<b>161,000</b>	<b>4,760,100</b>

W.D.P.C. (Included in above figures):

Accounts Office Queries	-	-	-	-	-	-	-
Meter Readers' Reports	-	-	225,700	-	-	-	225,700
Route Meter Investigation	-	-	162,900	-	-	-	162,900
Power Meter Investigation	122,000	-	-	-	-	-	122,000
Miscellaneous	-	-	150,800	-	-	67,500	218,300
<b>Total</b>	<b>122,000</b>	<b>-</b>	<b>378,600</b>	<b>-</b>	<b>-</b>	<b>67,500</b>	<b>788,900</b>

	S.P.C. + W.D.P.C.	W.D.P.C. (only)
Month ending March 31, 1947	CN\$ 4,760,100.--	CN\$ 788,900.--
12 Months ending March 31, 1947	CN\$ 247,078,320.--	CN\$ 218,448,740.--



ILLEGIB

SHANGHAI POWER COMPANY  
AND  
WESTERN DISTRICT POWER COMPANY  
  
MONTHLY REPORT  
  
FOR  
  
APRIL 1947

ILLEGIB

REF ID: A66434



SHANGHAI POWER COMPANY  
AND  
WESTERN DISTRICT POWER COMPANY  
MONTHLY REPORT  
FOR  
APRIL 1947

ILLEGIB



CHALGONAL POWER COMPANY

MONTHLY REPORT

FOR

APRIL 1947

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GLANCH:

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SHANGHAI POWER COMPANY

MONTHLY REPORT

FOR

APRIL 1947

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Units Generated, Delivered & Sold	B
Employees	C

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SHANGHAI POWER COMPANY

Monthly Report for  
April 1947.

S U M M A R Y

1. REVENUES & EXPENSES COMPARED WITH 1946 (CNC):

<u>Operating Revenues</u>	(C\$ Figures in Thousands)	Month of April	
		1947	1946
S.P.C.		C\$20,496,393	C\$2,040,086
W.D.P.C.		C\$ 4,926,214	C\$ 726,122
Combined ++		C\$21,447,669	C\$3,217,517
<u>Operating Expenses</u>			
S.P.C.		C\$15,770,012	C\$2,465,272
W.D.P.C.		C\$ 4,635,008	C\$ 667,908
Combined ++		C\$16,428,088	C\$3,594,340
<u>Net from Operation</u>			
S.P.C.		C\$ 4,726,381	C\$ 554,814
W.D.P.C.		C\$ 293,206	C\$ 168,354
Combined ++		C\$ 5,019,587	C\$ 723,168

++ Inter-Company Items Eliminated.

2. ELECTRIC DEMAND, OUTPUT, SALES & LOSSES:

<u>2A Maximum Hour in KWH</u>			
S.P.C. Riverside Max. Hr. Generation		152,376	116,646
W.D.P.C. Max. Hr. Demand		31,670	20,392
<u>2B Net Output or Purchase in MKWH (M=1000)</u>			
S.P.C. Net Output		79,762	53,423
W.D.P.C. Purchase from S.P.C.		17,393	10,759
<u>2C Units Sold &amp; Accounted for in MKWH</u>			
S.P.C. (Including sales to W.D.P.C.)		76,254	60,399
W.D.P.C.		16,278	9,880
<u>2D Transmission &amp; Distribution Losses in Percent of Net Output or Purchase</u>			
S.P.C. (W.D.P.C. considered as one customer)		4.4	5.7
W.D.P.C.		6.4	8.0

3. CUSTOMERS, SERVICE INSPECTIONS:

<u>3A Customers</u>			
S.P.C.		97,766	93,827
W.D.P.C.		20,274	19,251
Combined ++		118,739	113,077

++ Inter-Company Items Eliminated.

SHANGHAI POWER COMPANY

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3D. <u>Service Inspections</u>	(C\$ Figures in thousands)	Month of April	
		1947	1946
<u>Number</u>			
S.P.C.		7,229	3,083
W.D.P.C.		2,811	772
Total		10,040	3,855
<u>Irregularities</u>			
S.P.C.		1,198	1,057
W.D.P.C.		475	311
Total		1,673	1,368
<u>Cash recovered (CNC\$)</u>			
S.P.C.		3,485	2,984
W.D.P.C.		1,612	76
Total		5,097	3,060
<u>No. of Recoveries</u>			
S.P.C.		80	37
W.D.P.C.		8	6
Total		88	43

4. EMPLOYEES:

<u>Number</u>		1947	1946
S.P.C.		3,054	2,924
W.D.P.C.		125	129
Total	+(Including staff on leave)	3,179	3,053

5. RIVERSIDE OPERATIONS:

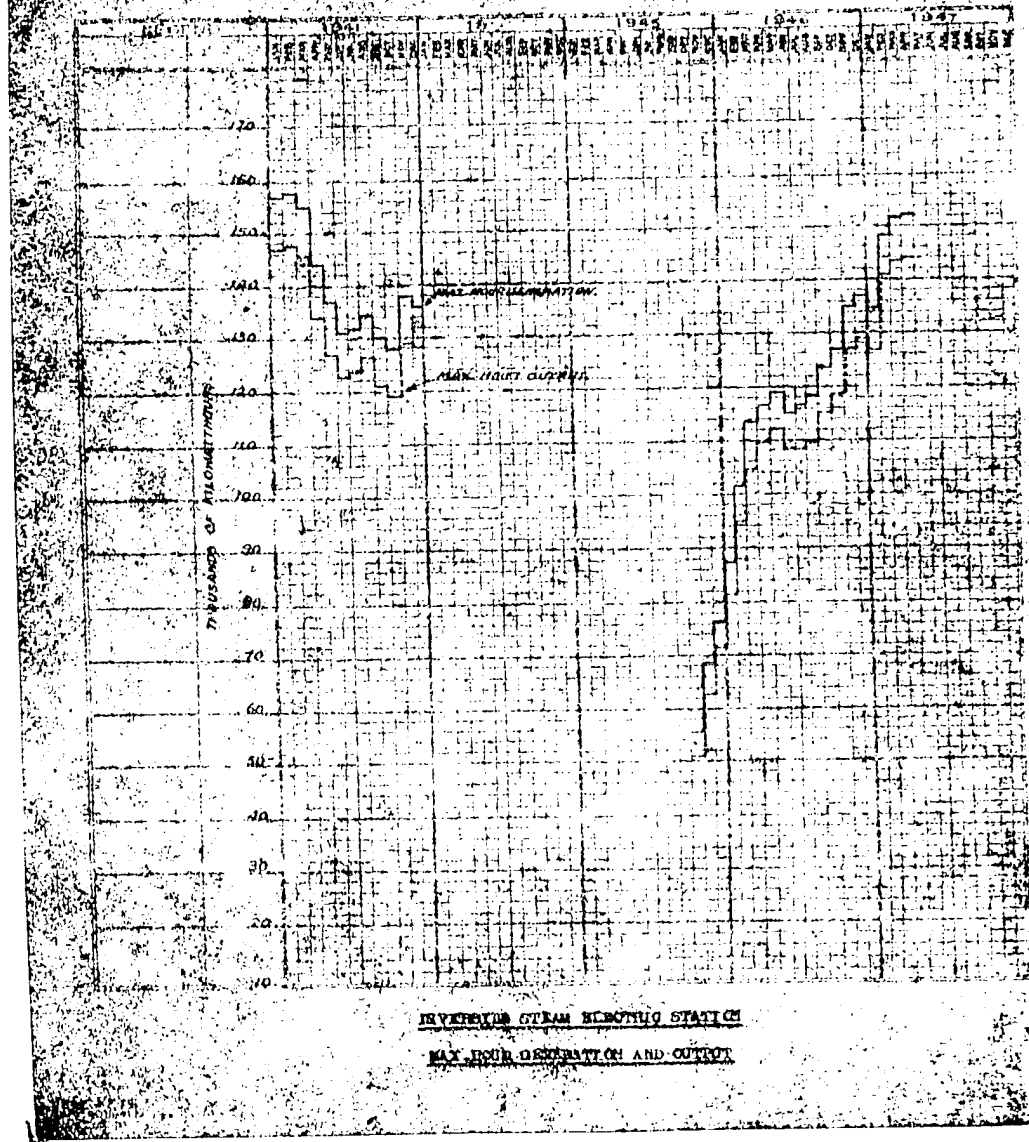
(1) <u>Generating Capacity</u>		1947	1946
Name plate rating	(KW)	173,500	158,500
Name plate rating	(KVA)	212,850	193,000
Working rating - Winter	(KVA)	216,020	198,370
Working rating - Summer	(KVA)	193,830	176,120

◊ Excludes TG-11 & TG-6

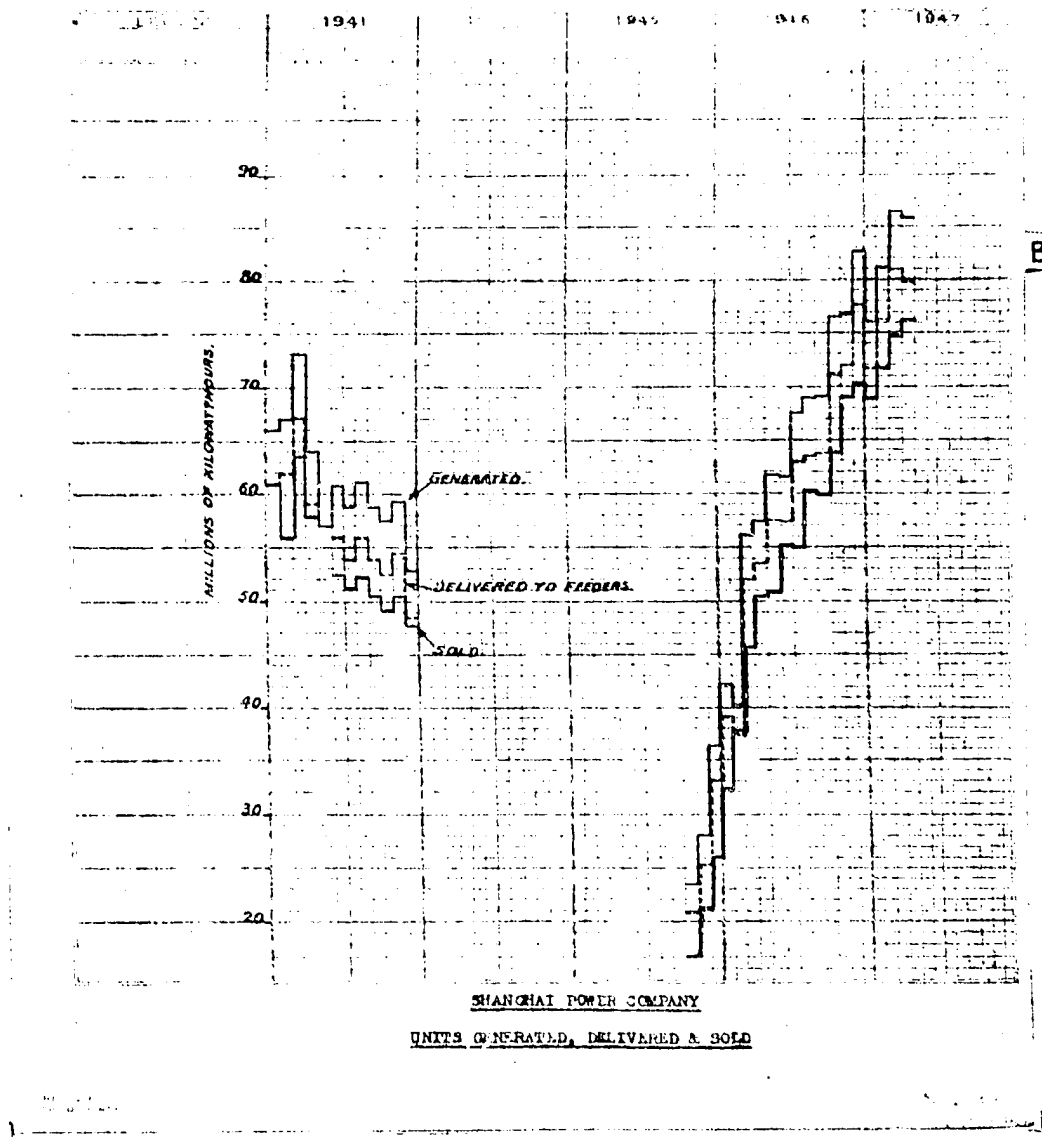
(2) Instantaneous Peak Generation (KW)	156,430	120,566
(3) Efficiency (BTU per kWh Output)	20,168	21,350
(4) Load Factor (Based on Output & Max. hr. Output)	70.16	67.34

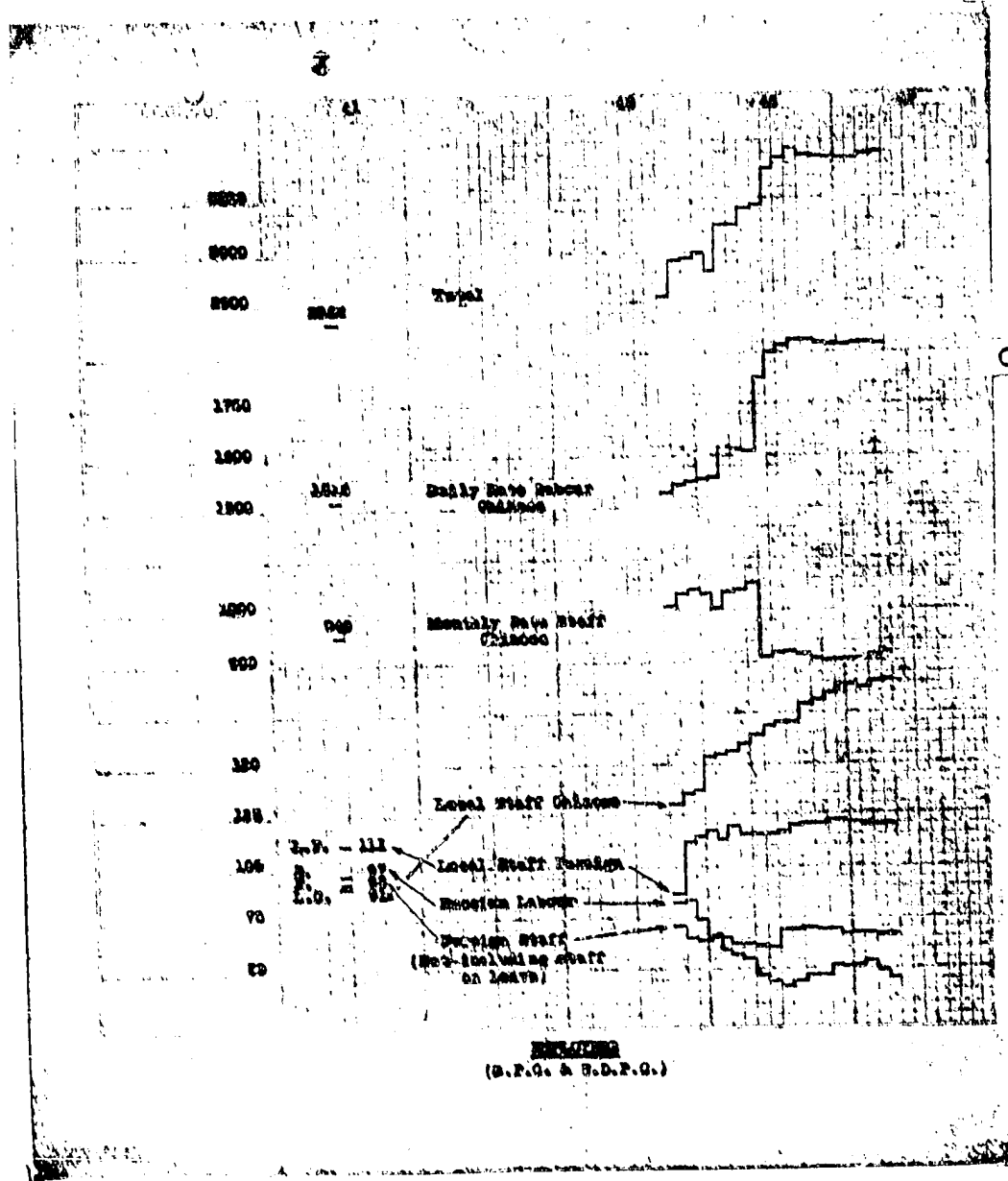
(5) Fuel in tons of 2240 lbs

	1947		1946	
	Coal	Oil	Coal	Oil
In stock at end of March	21,996	984	19,337	897
Received during month	19,814	29,009	27,626	15,132
Used during month (Including Sundries)	18,773	28,880	23,217	15,355
In stock at end of April	25,037	1,083	23,786	414



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SHANGHAI POWER COMPANY

APR 1947

SECRETARY & ACCOUNTANCY

APRIL 1947

SHANGHAI POWER COMPANY AND WESTERN DISTRICT POWER COMPANY

Financial and Operating Reports for the month of April 1947 were despatched to New York on May 27, 1947.

Cash on Hand and in Banks - Shanghai

Balance of cash on hand and in current bank accounts in Shanghai on April 30, 1947, was as follows:-

<u>Current Bank Accounts</u>	<u>S.P.C.</u> <u>CN\$</u>	<u>W.D.P.C.</u> <u>CN\$</u>
Secretary & Treasurer	-	193,105,992.00
Hongkong & Shanghai Banking Corp.	98,231,992.55	-
National City Bank of New York	20,899,950.00	-
The Bank of China	10,405,832.00	-
Chekiang Industrial Bank, Ltd.	11,279,979,728.55	1,545,916,857.16
Compradore Cash on Hand	<u>1,197,831,762.24</u>	<u>9,324,387.84</u>
	<u>12,607,349,265.34</u>	<u>1,748,377,237.30</u>

Remittances to and from New York

During April 1947 the following remittances were obtained by us at the official rate of exchange:-

Remittances to New York Office

<u>Date</u>	<u>Amount</u>	<u>Remarks</u>
April 1	US\$ 50,000.00	for part of T.G.11
7	19,115.57	for purchase of materials shipped via s.s. M.V. Temeraire
7	9,371.21	- do - s.s. Willis Vickery
7	2,316.13	- do - s.s. Hope Roak
7	1,824.81	- do - s.s. President Polk
7	41.23	- do - s.s. M.V. Temeraire
7	30.82	- do - s.s. M.V. Temeraire
29	450.53	for 11 bbls. Foundry graphite facing
29	107.40	for 5 cases Pipe joint compound
29	49.80	for 100 rolls Electric insulating tape
29	405.35	for 4 boxes Seals for electric meters
29	324.10	for 1 case ledger sheets
29	24.32	for 1 carton Chart papers

The following statement shows the supervision fee payable to you with U.S. equivalent at the rate ruling at the end of each month to April 30, 1947:-

	<u>C.N.Dollars</u>	<u>Exchange Rate</u>	<u>U.S.Dollars</u>
Period Sept. 17, 1945 to March 31, 1947	4,676,500,000	12,100	386,487.60
Month of April, 1947	<u>242,000,000</u>	<u>12,100</u>	<u>20,000.00</u>
	<u>4,918,500,000</u>	<u>12,100</u>	<u>406,487.60</u>

SHANGHAI POWER COMPANY

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APR 1947

Accounts Payable:

Unpaid fuel bills as at April 30, 1947, were as follows:-

Coal & local chargesUnpaid bills for April CN\$1,905,130.00Coal freightUnpaid bills for April US\$ 17,373.75Fuel oil

Current month bills	US\$372,759.61
Additional handling charges claimed by the Texas Co.	<u>168,000.00</u> *
	<u>US\$540,759.61</u>

\* We regret that, due to an error on our part, this item was shown in our previous report as US\$118,000.

Commencing with March 1947, payment on fuel bills in U.S. dollars has been made in local currency at the official rate of exchange.

Accounts Receivable & Collections

The total amount due from consumers, excluding Municipal, as at April 30, 1947, was CN\$27,757,495,000 and the amount due from the Municipal Government for both companies was CN\$799,330,000.

Customers' Deposits

The billing of additional service deposits equivalent to one and half months' consumption of ordinary consumers starting from December 1946 was finished on April 30, 1947, and the collection of such deposits should be completed around the end of May. Deposits collected during the month for both companies amounted to CN\$535,764,000 and refunds to CN\$19,783,000. The balance of deposits held against service charges for both companies amounted to CN\$7,129,600,000, of which the amount of CN\$4,402,400 (nominal value) was in the form of securities segregated as follows:-

	S.P.C.	W.D.P.C.
S.M.G. Debentures	2,620	-
Bank Guarantees	56,800	1,527,600
S.P.C. Tla. 6 Silver Preferred Stock	2,055,340	574,280
Shanghai Telephone Company	2,100	-
S.P.C. First Mortgage Debentures, 5 1/2% Dollar Series, due 1973	<u>131,300</u>	<u>42,000</u>
	<u>2,258,160</u>	<u>2,143,880</u>

Payroll

Commodity prices continued an upward course again from the middle of April. The allowance for employees based on the price of six essential commodities, as announced by the Municipal authorities for the month of April, was CN\$117,000 per capita. In view of the unrest among the workmen in Shanghai the Central Government has agreed to unfreeze the high cost of living index in calculating employees' pay

SHANGHAI POWER COMPANY

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REF. ID: A6  
SP FORM 12-571

from May 1947.

Our payroll for the month, with estimated High Cost of Living index frozen at 7,946 times basic pay (scaled down in accordance with the Municipal Government formula), and with the flat allowance of CN\$117,000 to each employee receiving basic pay of CN\$300 per month or less, totalled CN\$4,025,381,000 negated as follows:-

Foreign and Executive	CN\$ 853,146,000
Local	820,091,000
Chinese	2,149,576,000
Leave Pay	202,568,000
Total	CN\$4,025,381,000

Sale of Property to Chapei Electricity & Waterworks Co.

During the month the details concerning sale of our Northern Area Property to Chapei Electricity & Waterworks Co. were completed, (for particulars of which see Mr. Hopkins' letter of February 26 to Mr. John Kopelman) the sale being agreed upon prior to January 1, 1947, the agreement of sale was made effective as of that date. The agreed price is US\$98,854.00 to be paid with ten promissory notes of US\$9,885.40 each, which have been already received and will mature each year from January 1, 1948, to January 1, 1957. Such notes bear an interest of 7% per annum payable on June 30th and December 31st respectively. The title to the property will pass to Chapei Electricity & Waterworks Company only upon completion of the payments of both principal and interest of these promissory notes.

P.O.J.O. Capital Additions and Retirements

After discussions with Mr. Thompson of Haskins & Sells, the following entries concerning Fixed Plant additions and retirements during the period of Japanese occupation have been set up in our books for April 1947 as of September 16, 1945, and are reflected in the frozen "Balance Sheet" in the Financial & Operating Report for that month. We have placed the credit for fixed plant additions during P.O.J.O. to Retirement Reserve instead of surplus as such additions are regarded more in the light of salvage during that period.

The figures included in our April "frozen" Balance Sheets are as follows:-

<u>Fixed Plant Additions</u>	<u>US\$ 5-9/32 = CN\$100</u>
S.P.C. Ordinary Additions	CN\$3,156,254.30 = US\$166,689.68
E.R.202B (Riverside Power Plant extension)	CN\$4,154,198.91 = US\$219,393.63
W.D.P.C. Ordinary Additions	CN\$ 578,368.57 = US\$ 30,545.09
<u>Fixed Plant Retirements:</u>	
S.P.C.	CN\$1,510,966.86
W.D.P.C.	CN\$ 392,285.75

U.S. Dollar Treasury Notes Subscribed by W.D.P.C.

On March 28, 1947, the Chinese National Government promulgated the Regulations Governing The 36th Year (1947) Short-Term Treasury Notes of The Republic of China. According to the regulations, a total of US\$300,000,000 Treasury Notes will be issued and sold in national currency at the prevailing U.S. dollar exchange rate of the Central Bank of China. The interest rate of these Treasury Notes will

SHANGHAI POWER COMPANY

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REF. ID: A6  
SP 4000 (2-47)

be 20% per annum. Such notes will be secured on certain units of government-operated productive enterprises and other properties designated by the National Government. Such enterprises and properties will be sold and the proceeds of the sale will be turned over to a Sinking Fund supervised by an independent Sinking Fund Supervisory Commission composed of Government representatives and leaders of the Chamber of Commerce and the Bankers' Association.

The notes will be redeemed in three years and one sixth of the total amount will be repaid every six months from the date of issue. All principal and interest payments of these notes will be made in National currency at the U.S. dollar exchange rate of the Central Bank of China prevailing on the day of payment.

In supporting the Government's scheme, the Western District Power Company is subscribing to a total of CN\$5,010,000,000 worth of these notes, equivalent to US\$417,500.00 at exchange rate CN\$12,000 to US\$1, payable in five instalments at two weeks intervals. The first instalment of CN\$1,002,000,000 equivalent to US\$83,500.00 was paid on April 14, and the second instalment was paid on April 28. Starting from the third instalment payment, it was necessary to pay a total of CN\$1,017,000,000, out of which CN\$15,030,000 represented one month interest less 10% tax calculated at the official rate of exchange. The following statement shows the instalment payments made by Western District Power Company.

Date Paid	Principal Amount	Add Interest	Less Tax	Exchange Rate	Amount paid in C.N.\$
April 15	US\$ 83,500.00	-	-	12,000	1,002,000,000
28	83,500.00	-	-	"	1,002,000,000
May 12	83,500.00	US\$1,391.67	US\$139.17	"	1,017,030,000
26	83,500.00	1,391.67	139.17	"	1,017,030,000
Total	US\$334,000.00	US\$2,783.34	US\$278.34		CN\$4,038,060,000

*A. Kendal Ward*  
A. Kendal Ward,  
Secretary & Treasurer.

May 27, 1947.

SHANGHAI POWER COMPANY

May 22nd, 1947.

REF ID: A66100

CONSUMERS' MONTHLY REPORT FOR APRIL

SHANGHAI POWER COMPANY

APRIL STATISTICS

Analysis of K.W.H. Sales

	<u>This Year</u>	<u>Last Year</u>	<u>Increase</u>	<u>Increase %</u>
Residential Lighting)	9,313,973	4,808,824	4,505,149	93.7
Commercial Lighting )				
Residential Heating & Cooking)	1,821,810	1,036,645	785,165	75.7
Commercial Heating & Cooking )				
Bulk Supply Industrial	27,561,431	16,645,311	10,916,120	65.6
Bulk Supply Commercial	1,138,545	1,164,055	-25,510	-2.4
Small Power (Incl. D.C. Lifts)	4,356,665	2,366,932	1,989,733	84.1
<u>Public Utility:</u>				
Shanghai Trams	1,056,290	784,423	272,337	34.7
French Trams	1,913,050	1,095,800	817,400	74.6
Shanghai Waterworks	1,202,760	961,530	241,230	25.1
Chapel Company	9,012,650	9,305,999	-293,349	-3.2
Intercompany - W.D.P.C.	17,393,050	10,739,200	6,653,850	62.0
Private Street Lighting	76,043	54,202	21,841	40.3
Municipal Street Lighting	192,360	191,067	1,293	0.7
Municipal Others	317,614	351,497	-33,883	-9.6
<u>Total</u>	<u>75,353,861</u>	<u>49,505,105</u>	<u>25,848,756</u>	<u>52.2</u>
Total Units Sold (12 months ending April 1947)	764,251,080	294,091,482	470,159,598	159.9

Analysis of Large Industrial Sales in K.W.H.

	<u>This Month</u>	<u>Last Month</u>	<u>Last Year</u>	<u>Increase % over last year</u>
Chinese Cotton Mills	20,076,487	19,227,207	9,392,270	113.8
Other Cotton Mills	198,050	177,350	2,031,000	-90.7
Total Cotton Mills	20,264,517	19,404,557	11,423,270	77.4
Flour Mills	849,800	838,695	1,607,520	-47.1
Rubber Products	817,815	753,760	309,970	163.8
Paper Mills	1,056,679	940,283	776,677	36.1
Lumber Mills	28,755	25,990	17,050	68.7
Egg Produce	-	-	-	-
Oil Mills	146,200	94,800	51,300	185.0
Ice & Cold Storage Factories	563,915	354,680	542,801	3.9
Tobacco Factories	156,635	198,968	153,880	0.5
Silk Mills	52,480	52,560	36,309	44.5
Miscellaneous Textiles	1,991,033	1,862,996	1,016,166	95.9
Metal Working	726,655	909,475	281,912	157.8
Woolen Mills	284,150	254,490	72,902	289.8
Miscellaneous Other	823,097	477,004	353,554	76.3
<u>Total</u>	<u>27,561,431</u>	<u>26,168,438</u>	<u>16,645,311</u>	<u>65.6</u>

SHANGHAI POWER COMPANY

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REF. 12.7.5  
12.7.5 (12.7.5)

CONNECTIONS

No. of Customers		<u>This Month</u>	<u>Last Month</u>	<u>Last Year</u>	<u>Increase during Month</u>
		97,768	97,582	93,827	184
"	Refrigerators	8,458	8,453	8,194	5
"	Cookers (Hired)x	2,954	2,956	2,976	-2
"	Radiators ( " )x	2,027	2,058	2,921	-31
"	Water Heaters ( " )x	67	67	52	-
"	Misc. Appliances ( " )x	169	169	167	-
H.P. of Motors	( " )x	13,598	13,481	14,484	117

ø Includes Refrigerators installed in Western District Power Company Area.

x These figures include Appliances hired by Western District Power Co. of Shanghai.

CONNECTED LOAD

K.W. Lighting	101,653	101,406	97,628	247
" Heating: Comprising	(31,533)	(31,641)	(33,009)	(-108)
" Cookers	18,179	18,192	18,172	-13
" Radiators	10,028	10,131	11,827	-103
" Water Heaters	120	120	101	-
" Miscellaneous	3,206	3,198	2,909	8
" Motors	227,592	227,628	229,889	-36
" Industrial Heating	4,248	4,236	3,319	12
" W.D.P.C.	54,600	54,600	54,600	-
" Total	419,626	419,511	413,445	115

MONTHLY MOVEMENT IN CUSTOMERS

	<u>Total All Classes</u>
Total Customers Reconnected	87
Total Customers Disconnected	86
Gain	1
Total New Customers Connected	183
Total Increase During Month	184

SHANGHAI POWER COMPANY

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REF ID: A66777  
FORM 100-10-47GENERAL COMMENTS:

Two meetings of the Shanghai Power Supply Regulating Committee were held during the month. At the first of these meetings on April 10th the question of supplying additional load to the French Company was discussed. On the morning of the 10th the crank shaft of a diesel unit in the French Power Station had broken, which put a 3,300 K.W. generator out of service. Without this set the French Station would be unable to carry the load over the evening lighting peak and it was requested that we would give them assistance. Industrial load in the French Company area is only allowed to operate during the day, and the shortage of capacity would, consequently, necessitate "blacking-out" sections of the territory served. Up to the time of the break-down we were supplying a limited volume of load - 2,700 K.W. - to the French Company via "J" Substation. We ourselves are, of course, very short of capacity, especially over the evening peak, but in view of the emergency circumstances it was agreed that if we had sufficient spare capacity we would allow the French Company to draw an additional 3,000 K.W. It was further agreed that in the event of load having to be reduced for any reason whatsoever that this additional load of 3,000 K.W. would be the first to be affected.

The French Company are installing a new 3,300 K.W. generating set in July of this year and it is understood that when this unit is put into service the above arrangement will cease. The broken crank shaft cannot be repaired locally; however, spares are on order and delivery expected in the late summer.

In June of last year the Regulating Committee passed a resolution prohibiting the connection of supply to new industrial loads except for absolutely essential operation. We have since that time registered all applications for industrial supply pending the lifting of restriction and have now on record an imposing list of applicants. The majority of the loads are of small magnitude and the types of industries represented are very diversified. On April 14th it was agreed that the ban on new connections would be lifted temporarily in order to assist the large number of industrial concerns who were clamouring for supply. Most of these concerns had invested capital in plants which were lying idle and were, of a consequence, suffering considerable hardship. No official announcement was made but news of the lifting of restriction soon became known and the number of applicants for supply rapidly increased. Further comment on this matter is made in the Power Section Report.

COMMENTS: TOTAL KILOWATT-HOUR SALES

While a general stabilization of economic conditions in China was observed in March, adverse conditions have prevailed in April.

The Government issued a domestic loan totalling US\$400,000,000. While the Finance Ministry declined to reveal the actual amounts subscribed, "the results are considered satisfactory".

The authorities have issued CN\$10,000 banknotes for use in South China.

Commodity prices continued to increase.

SHANGHAI POWER COMPANY

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APRIL 1947

Comparison of Peak Load - K.W.

<u>April 1947</u>	<u>March 1947</u>	<u>Post-war Peak April 1947</u>	<u>Prewar Peak January 1940</u>
156,430	153,092	156,430	162,575

Meter-Reading Month (in days):

	<u>April 1947</u>	<u>March 1947</u>	<u>Difference</u>
Schedule Rate Consumers	29.99	28.77	+4.2%
Bulk Supply Consumers	30.30	29.70	+2.0%
Municipal Consumers	30.00	28.00	+7.1%

Total Kilowatt-Hour Sales for April were 75,353,861 K.W.H. as compared with March sales of 73,586,373 K.W.H. The increase of 2.4% is principally due to the longer meter-reading month.

Residential & Commercial Lighting, Bulk Supply Industrial, Small Power, French Trams and Private Street Lighting showed a gain; the others a decline.

Current month's sales have only been exceeded four times since 1930, as follows:

<u>Year</u>	<u>Month</u>	<u>Sales in K.W.H.</u>	<u>Increase over April 1947</u>
1936	December	76,325,957	1.3%
1940	April	76,102,020	1.0%
1937	March	75,766,867	0.5%
1937	January	75,730,867	0.5%

Combined Sales (S.P.C. & W.D.P.C.) to Other Electric Companies in April were 15.9% of the total against 16.2% in March 1947, 41.0% in 1945 and 1.1% in 1940.

Residential & Commercial Lighting Sales were 9,313,973 K.W.H. - an increase of 3.2%. A seasonal decline is normal for this month and an accentuation of it might be expected due to the introduction of "Daylight Saving Time" on the 15th, although this was counteracted by the longer reading month. The percentage of the total was 12.4% as compared with 9.7% in April 1946.

The ban on outdoor neon signs lifted from the beginning of this month had a psychological rather than a practical effect as the percentage of Neon and Flood Lighting Signs to the Residential & Commercial (including Commercial Bulk Supply) Lighting is less than 1%.

Residential & Commercial Heating Sales were 1,821,810 K.W.H. in April compared with 2,131,835 K.W.H. in March. A seasonal decrease of 14.5% is normal.

Industrial Bulk Supply Sales continued to climb and registered a new post-war high of 27,581,431 K.W.H. The increase of Sales to all but Tobacco and Metal industries contributed to a gain of 5.3%. The percentage of the total has increased to 36.6% from 35.6% last month and 33.6% in April 1946.



SHANGHAI POWER COMPANY

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APR 1947  
LP 400 (2-47)

Commercial Bulk Supply Sales showed a further seasonal decline of 5.1%, to 1,135,545 K.W.H.

Small Power Sales amounting to 4,356,865 K.W.H. were practically unchanged.

Sales to Shanghai Trams declined by 5.4%, to 1,056,760 K.W.H.

Sales to French Trams showed an abnormal increase of 124.8% due to the fact that one of their generators (3,300 K.W.) was out of service from the 10th of April due to breakage of crank shaft on the Diesel engine. Their allotment remained at 850,000 K.W.H. and all overusage is chargeable at standard rates.

Shanghai Waterworks took 1,202,760 K.W.H. - about the same as last month.

Chapel Company's consumption decreased from 9,410,552 K.W.H. in March to 9,012,250 K.W.H. in April, which corresponds to the length of the meter-reading periods. The sales combined with W.D.P.C. amounted to 9,865,850 K.W.H., or 9.3% less than in March. Their allotment remained at 8,800,000 K.W.H.

Intercompany Sales were 17,393,050 K.W.H. in April against 17,490,680 K.W.H. in March 1947. Both reading months were 30 days.

Private & Municipal Street Lighting showed only small changes.

Municipal Others Sales decreased by 19.2%, bringing the total down from 393,240 K.W.H. in March to 317,614 K.W.H. in April. This is chiefly due to the seasonal decrease of lighting and heating consumption.

#### COMMENTS: ANALYSIS OF LARGE INDUSTRIAL SALES (186\*)

\* Figures in brackets indicate number of consumers.

Cotton Mills (38) took 20,264,517 K.W.H. in April against 19,404,557 K.W.H. in March, an increase of 4.4% which is partly due to the 2% longer meter-reading month and partly to increased activity. This month's total is 56% of the prewar peak of 36,163,510 K.W.H. which occurred in March 1937. This industry took 73.5% of the total as compared with 68.6% in April 1946.

According to press reports, the U.S.A. have recently sold to China 230,000 piculs of raw cotton to a value of US\$40,000,000 for early delivery.

Flour Mills (3) usage was 849,600 K.W.H. in April as compared with 838,695 K.W.H. in March. While Foh Sing Flour Mills Nos. 2, 4 & 8 and Mill No. 7 decreased usage, the Fou Foong Flour Mill Co. showed a substantial increase, thus counterbalancing the loss. This month's percentage to the total is only 3.1% while it was 9.7% last April. The Vigor Wheat Limited - 29/33 Boone Road - which has not resumed operations after the Pacific War, was deleted from this group.

SHANGHAI POWER COMPANY

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Rubber Mills (10) usage increased from 753,760 K.W.H. to 817,815 K.W.H. - a gain of 8.5%. This is mainly due to the addition of 43,250 K.W.H. of the Universal Industrial Corporation - 300 Mei-chow Road - transferred to this group from Small Power. This industry took 3% of the total against 1.9% in April 1946.

Paper Mills (10) usage continued to increase and reached a new post-war high of 1,356,679 K.W.H., which is very close to the prewar level.

Lumber Mills (4) - In spite of the fact that the mill operated by the Central Trust of China at 2180 Yangtze Road was transferred to this group from Small Power classification, the usage is negligible and only a few percent of the prewar average.

Oil Mills (2) took 146,200 K.W.H. which exceeded by 54.2% last month's consumption.

Ice & Cold Storage Factories (16) - The volume of sales ran ahead of the previous month's and is expected to continue doing so for the next four months, which is seasonally normal. This month's sales are 563,815 K.W.H.; last month's sales were 354,660 K.W.H. - an increase of 59%. The increase over April 1946 is 3.9%.

Sales to Tobacco Factories (6) decreased again, from 241,462 units in February 1947 to 158,335 units in April 1947. The M.E.A. Chuka Tobacco Co. No. 3 Mill remains closed; all others showed a decrease in usage. This is probably due to a seasonal slackening of the business.

Silk Mills (2) - Sales in January 1947 reached 53,431 K.W.H. April sales were 52,480 K.W.H., which is about the same as last month's. Combined sales (S.P.C. & W.D.P.C.) were 284,560 K.W.H. against 302,515 K.W.H. in March 1947 - a decrease of 5.9%.

Japanese silk export competes easily with the Chinese on the foreign markets, thus forcing the latter to reduce their silk prices abroad.

The Shanghai Chamber of Commerce has asked the Executive Yuan to negotiate with S.C.A.P. for immediate shipments here of 10,000 boxes (one box = 200 lbs.) of rayon from Japan; otherwise serious difficulties in operation of local silk factories will arise. It is estimated that this industry is consuming at present 3,500 boxes of rayon silk per month. Rayon is used extensively in the weaving of silk materials as it not only adds to the strength of the fabric but also reduces the overall cost.

Miscellaneous Textiles (39) - Sales to this industry showed a slight increase, from 1,862,996 K.W.H. in March to 1,991,033 K.W.H. in April.

Metal Works (25) - Although two new consumers were added to this group, sales showed a 20.1% decrease and the total came down to 728,655 K.W.H. Sales to Asia Steel Co. and the Chinese Aluminium Rolling Mills were appreciably smaller. Shanghai Brass Manufacturing Co. - 1200 Hart Road - and Shing Chong Iron Works, were transferred to this industry from Small Power.

SHANGHAI POWER COMPANY

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Woolen Mills (7) consumption increased from 254,490 K.W.H. in March to 284,150 K.W.H. in April. This is mainly due to the transfer of the China Worsted Spinning & Weaving Mill with a consumption of 20,150 K.W.H. from Small Power.

Miscellaneous Other (24) - The gain of 146,093 K.W.H., or 30.6%, raised the total to 827,097 K.W.H. All industries, with the exception of Printing Works, reported a substantial increase in usage, especially Breweries and Aerated Water Factories.

POWER SECTION

As the Riverside Station load conditions had improved considerably during the month of March, the Bureau of Public Utilities decided that, as a first step towards the ultimate lifting of the restrictions on the use of electricity, consumers whose applications had been approved for night operation only would be permitted to operate also in daytime as from April 1st.

The number of consumers affected, in both S.P.C. and W.D.P.C. franchise areas, was as follows:-

S.P.C.	27 consumers with a total connected load of 3,187 H.P.
W.D.P.C.	8 " " " " " " " " " " " " 921 "
Total	35 consumers with a total connected load of 4,108 H.P.

Estimated load demand approximately 2,300 K.W.

On April 14th the Bureau of Public Utilities decided to lift the existing electricity restrictions. At that time we had on record 167 applications that had previously been rejected because of the restrictions in force. It was therefore decided to contact these consumers first and as it was not always possible to do so by telephone, it meant that personal calls had to be made in a great many cases.

By the end of this month we had received 476 applications totalling 18,088 H.P. in both S.P.C. and W.D.P.C. areas. Of the total load approximately 20% covered official recording of unauthorized additions made during the period when the restrictions were in force.

The following gives details of applications received for S.P.C. area:

Reconnections:	14 applications totalling	229 H.P.
New Load	: 343 " " " " " "	11,752 "
Total	: 357 applications totalling	11,981 H.P.

The above total includes the following load prospects referred to in previous reports:

Sung Sing No. 5 .....	1,000 H.P.
Wing On No. 5 .....	750 "
China Foh Sing Tobacco .....	180 "
and	
Tsing Hwa Glass Co. ....	200 H.P.
Woo Sing C/M .....	160 "

SHANGHAI POWER COMPANY

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referred to later in this Report.

Applications received cover practically all types of industry in this area, such as cotton spinning, weaving and dyeing, woollen, tobacco, metals, flour, rubber, hats, thermos flasks, foodstuffs, paper, glass, printing, silk, chemicals, cold storage, storage batteries, mineral waters, etc.

Owing to the existing overloaded conditions of many of the distribution transformers, part of the above load will not be connected until our locally ordered 325 K.V.A. transformers are put into service. It is expected that additional transformer capacity at present on hire and amounting to approximately 900 K.V.A. will be available by the beginning of July when consumers take delivery of their own transformers.

The Station load conditions continued to improve during the month of April, the output of T.G. 18 being gradually built up to 13,000 K.W. The Cotton Mills continued to operate on a 21 hours per day schedule with one idle day per week and operating every third Sunday.

On April 6th a fault which originated in Fearon Substation caused considerable system disturbance, resulting in extensive load reduction being necessary at Riverside. Periods of interruption to supply ranged from 28 minutes to 2 hours 28 minutes.

Owing to the breakdown of a 3,300 K.W. generator at the French Company's Station, it was agreed that the allotment to this Company should be increased by 3,000 K.W. until the faulty generator is repaired. The additional load is mainly for lighting and in the event of enforced load reduction being necessary at Riverside over the evening peak period, the French Company is required to reduce load immediately by 3,000 K.W. The revenue to be derived from this load will be based on the present standard rates.

Daylight Saving Time came into operation as from midnight on April 14th, causing the overlapping of the Cotton Mills restarting load and the lighting load. This was further aggravated for a few days by the fact that a large percentage of the local population did not immediately regulate their habits by the clock but kept to Standard Time. Enforced load reduction was therefore necessary during the evening peak period and to eliminate this the Cotton Mills were asked to advance by one hour their stopping and restarting times, as a temporary measure. Later, a compromise was reached with the Cotton Mills Association, it being agreed to advance the times by half-an-hour only. This was done to accommodate the mill workers and to ensure, as far as possible, a reasonable time for the change of shifts in the morning. The following tabulation shows the various schedules and the effect on the time of changing shifts:-

Number of Groups	DAILY STOPPING PERIOD			CHANGE OF SHIFTS		
	Old Schedule	Temporary Schedule	New Schedule	Old Schedule	Temporary Schedule	New Schedule
2	5-8 p.m.	6-9 p.m.	5.30-8.30 p.m.	6.30 a.m.	7.30 a.m.	7.00 a.m.
2	6-9 p.m.	7-10 p.m.	6.30-9.30 p.m.	7.30 a.m.	8.30 a.m.	8.00 a.m.
2	7-10 p.m.	8-11 p.m.	7.30-10.30 p.m.	8.30 a.m.	9.30 a.m.	9.00 a.m.

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1952  
1952

Two sets of load curves are attached showing:

- (1) Effect on load curve of alteration to Cotton Mills Daily Stopping Period.
- (2) Comparison of load curves: Standard Time and Day-light Saving Time.

The loss of Sales potentiality due to load reduction imposed on Cotton Mills amounted in April to approximately 2,490,000 K.W.H., and about 50,000 K.W.H. due to reduction applied to the Chapei and French Companies. Allowing for the gain of approximately 1,330,000 K.W.H. as a result of the Sunday working schedule, the total loss of Sales potentiality due to insufficient generating capacity amounted to approximately 1,160,000 K.W.H. during April, as compared with 1,000,000 K.W.H. last month. As explained in our March Report, we are still calculating voluntary load reduction as lost sales, although it is very doubtful whether such sales would actually materialize under the present conditions.

During the month of April the average Station demand reached 150,000 K.W. in the forenoon, 140,000 K.W. in the afternoon, with evening peak demands of 145,000-153,000 K.W. The weather generally was cool for the season of the year and on occasional days when it was dull and rather chilly, the forenoon and afternoon demands were increased by about 10,000 K.W. This was due to additional lighting and heating load. Towards the end of the month Riverside could cope with a sustained load of approximately 147,000 K.W., and short peaks of about 153,000 K.W., when there was no emergency outage of generating plant.

During the month the following new load prospects were recorded:

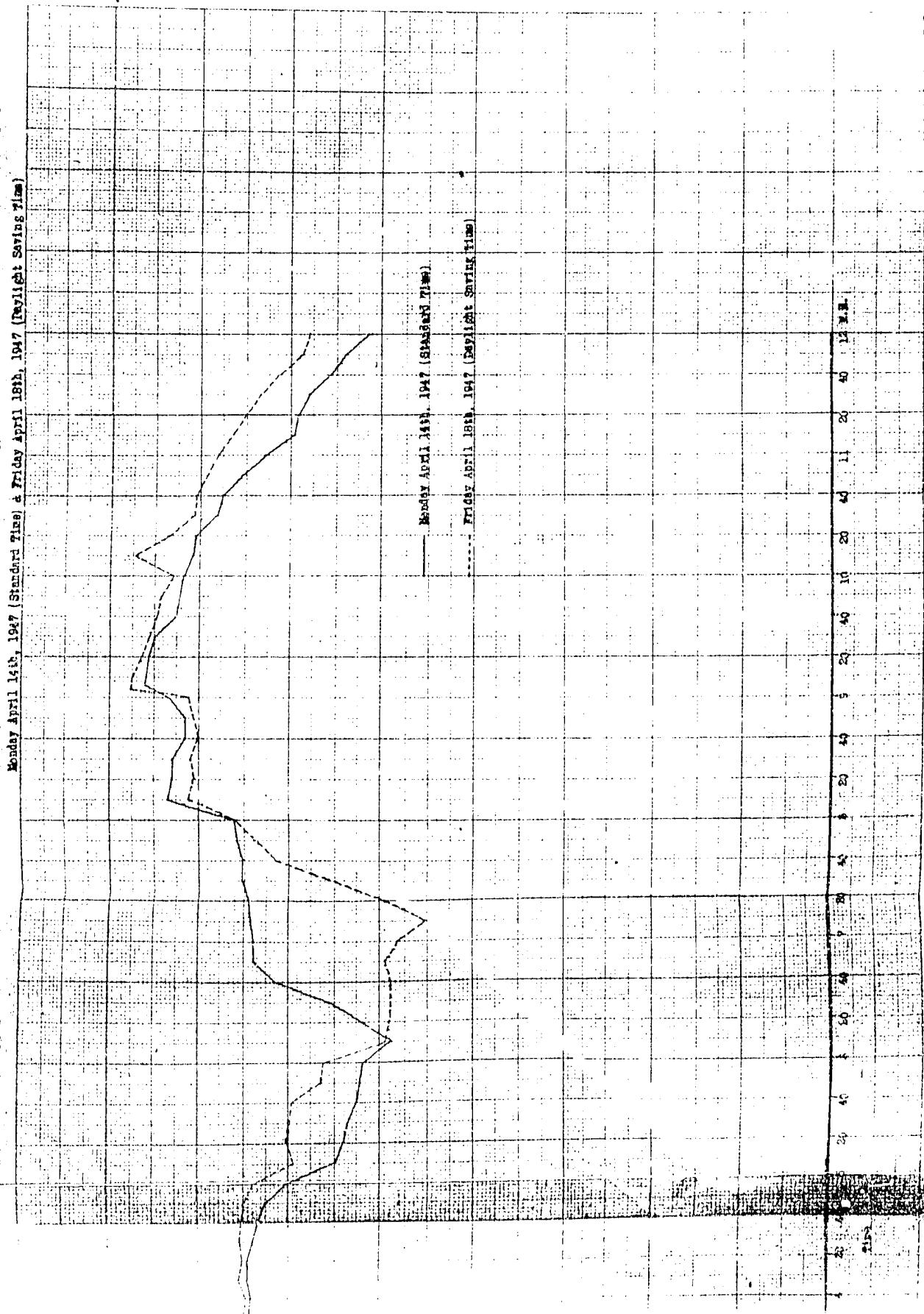
NEW LOAD:

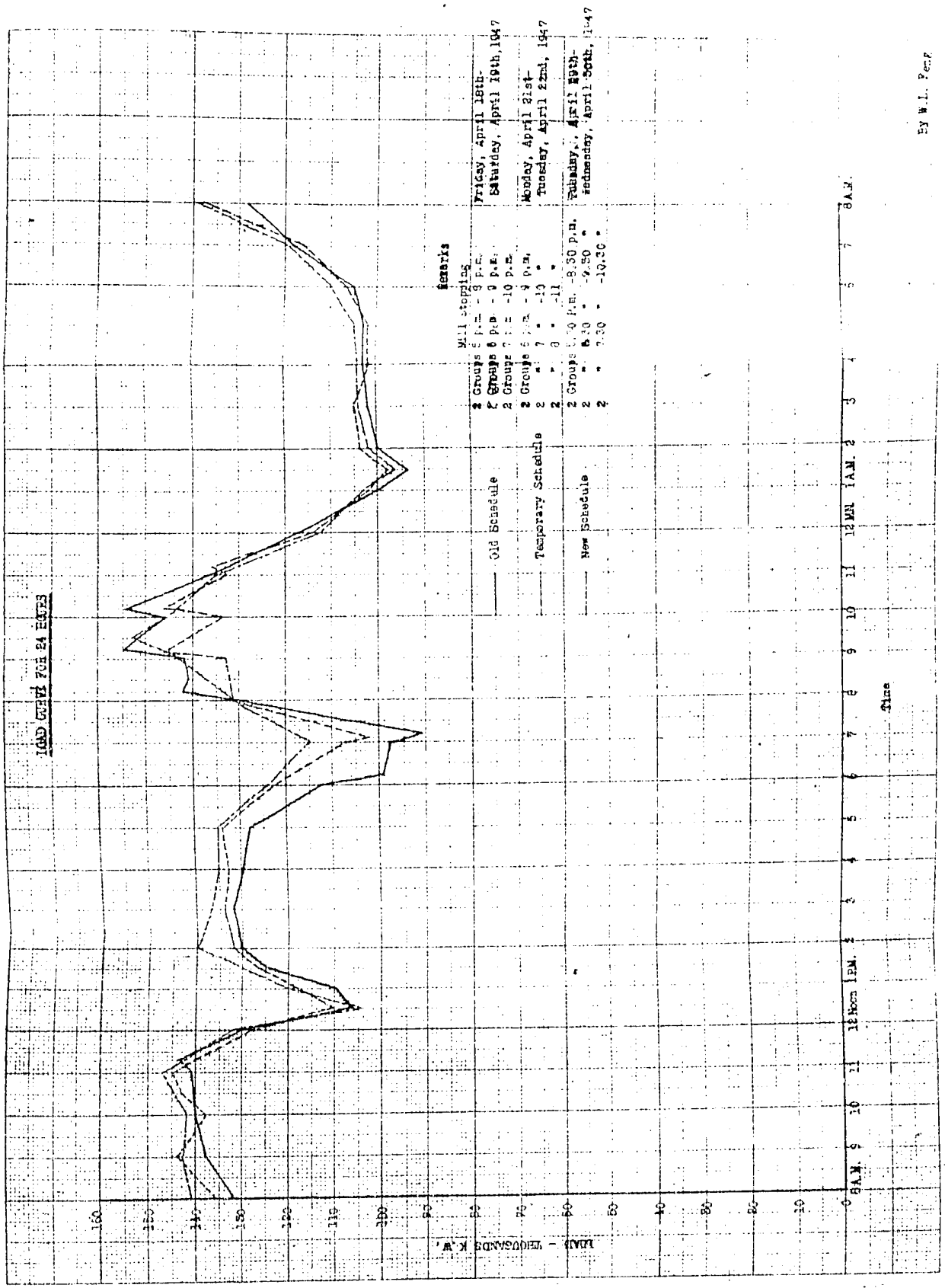
Name: Shanghai Iron & Steel Works.  
Address: Whangshing Road, Chapei.  
Connected Load: 2,100 H.P.  
Maximum Demand: 1,000 K.W.  
Estimated Annual Revenue: CN\$1,450,000,000.-

This is a rolling mill, located in the Chapei Company's franchise area, manufacturing steel bars for reinforced concrete. There are three 6.6 K.V. rolling mill motors aggregating 1,500 H.P. and an additional 300 H.P. in miscellaneous motors.

Owing to the importance of this industry in connection with China's rehabilitation programme and as the Chapei Company could not supply the load from their system, it was agreed that supply would be given by S.P.C.

Supply will be given at 6.6 K.V., connection to be made between Chapei Company's and S.P.C. overhead lines through H.V. drop-out fuses installed at a point close to the boundary between the two franchise areas. Our metering equipment will be installed in consumer's sub-station and a H.V. breaking bracket, in the overhead line outside the factory, will be opened, to prevent any unauthorized load being supplied from this feeder.





By W.L. Perry

SHANGHAI POWER COMPANY

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The maximum load demand is to be restricted to 500 K.W. during daytime and 1,000 K.W. for night operation.

Revenue will be based on our standard rates and bills will be sent to the Chapei Company, who will in turn bill the consumer.

Name: Kuo Ming Machine Works.  
Address: 85 Point Road.  
Connected Load: 200 H.P.  
Estimated Maximum Demand: 100 K.W.  
Estimated Annual Revenue: CN\$85,000,000.-

This is a new steel rolling mill and supply, at low voltage, will be given as soon as distribution loading conditions permit. Apart from the rolling mill motor there is approximately 30 H.P. for machine shop motors.

ADDITIONAL LOAD:

Name: Tsing Hwa Glass Factory.  
Address: 1420 Gordon Road.  
Additional Load: 200 H.P.  
Estimated Additional Maximum Demand: 115 K.W.  
Estimated Additional Annual Revenue: CN\$110,000,000.-

The additional load is mainly for an air compressor, air blower and oil pump. Supply will be changed from L.V. to H.V. when consumer gets his own transformer. As the consumer's business is mainly the manufacture of beer bottles and the summer is the peak demand period, arrangements are being made to erect a temporary L.V. overhead feeder to supply the additional load. Out-of-pocket expenses incurred by us in doing this job will be for consumer's account.

Name: Woo Sing Cotton Mill.  
Address: 823 Pingliang Road.  
Additional Load: 180 H.P.  
Estimated Additional Maximum Demand: 90 K.W.  
Estimated Additional Annual Revenue: CN\$110,000,000.-

The consumer plans to install an additional 3,200 spindles, bringing the total number of spindles up to 6,000. A 315 K.V.A. transformer and high voltage oil circuit breaker have already been ordered from a local manufacturer, and supply will be given at 6.6 K.V. when this equipment is available.

In the course of the month at Sung Sing Cotton Mill No. 7 - 468 Yangtsapoo Road - a 940 K.V.A. hire transformer was connected up to supply an additional load of 1,000 H.P. This load prospect was first referred to in our Report for June 1946 and later in February 1947, when we received an application for night operation only. The estimated increase in load demand is 600 K.W., which will yield an estimated additional revenue of CN\$1,150,000,000.-. It is



SHANGHAI POWER COMPANY

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planned to change the supply from 6.6 K.V. to 23 K.V. at this Mill when consumer's 23 K.V. equipment arrives, probably about the middle of 1948.

All revenues mentioned in this Report are based on the present net rates of CN\$285.- per K.W.H. for consumption up to 50,000 K.W.H. per month and CN\$325.- per K.W.H. for consumption in excess of this amount.

Power Installation Inspections:

The following inspections were made during April:

<u>No. of Inspections in April</u>	<u>Unauthorized Additions</u>
255	28

RESIDENTIAL SECTION

Domestic Cooking - The gross movement of cookers continued to be in small figures. The number of disconnections, however, was slightly more than transfers, resulting in a small decrease of the total figure for the month.

The stock of hotplates has increased this month. Cast-iron hotplates, enclosed type, were also available in larger numbers. These plates have been proved to be more durable as well as more reliable than the open type fire clay plates. It is expected, therefore, that in future complaints from consumers concerning hotplates will be greatly reduced.

Home Service - Activities of this section were merely routine with a few calls from consumers requesting advice on "economical cooking".

Showroom - The work of renewing records of our Hired Plant now in service for both S.P.C. and W.D.P.C. areas has been completed.

There were still many consumers visiting our showroom and enquiring about hire of cookers. They were all disappointed to learn that the hiring of cookers is still suspended.

Radiators & Water Heaters - The movement of Water Heaters was practically at a standstill.

As can be expected, Radiators recorded a fairly large decrease in the total figure for the month.

Refrigerator Sales - Local dealers report that refrigerator sales for the month of April are on a par with sales made the previous month.

SHANGHAI POWER COMPANY

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201 1255  
20 200 6311Hired Plant Maintenance & Installation Section

Workshop output was as follows:

Motors repaired & tested .....	9
Cookers overhauled & tested .....	19
Water Heaters overhauled & tested .....	5
Radiators repaired .....	20
Oil Circuit Breakers repaired .....	6
Starters repaired .....	6
Hot Plates fabricated .....	435
Service Calls attended .....	1,104

## Hired Motors:

New connections - 12 motors aggregating 397 H.P.  
Disconnections - 7 " " 185 "

Two major breakdowns occurred - one was a 200 H.P. motor with a broken shaft; the other was a 30 H.P. motor with a short circuit in the stator windings.

Miscellaneous jobs accounted for 176 man-days. Most of this was for the Head Office where the Consumers' Accounts Office and the Purchasing Office were completely repainted.

ADVERTISING SECTION

Newspapers - No notices or general advertising appeared in any of the newspapers this month.

A general check-up on all newspaper rates showed the following increases over the January 1947 charges:-

English language newspapers -	400% increase
Russian language newspapers -	300% "
Chinese language newspapers -	300% "

The price of local newspapers per copy (street sale) has also increased on an average of 100% over the January sale price. (N.B. Within the past four months the percentage of increase in rates is equivalent to the total percentage of rate increases during the whole of 1946).

The North China Daily News suspended its publication for four days (April 26-29) due to labour trouble in the printing department.

The "Commercial Journal", a Chinese daily, solicited our notices, but as we have always advertised in the four leading Chinese dailies it was decided not to add this newspaper to the present list. We informed them, however, that when the Company resumes general advertising we shall bear them in mind. The "Commercial Journal" (connected with the Chinese Chamber of Commerce) has a daily circulation of 30,000 copies and carries a small amount of advertising.

SHANGHAI POWER COMPANY

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Magazines - A new layout (text in Chinese) was drawn for the "Public Utilities Monthly", May issue.

The April issue of the China Trade Monthly\* published a long article headed "Shanghai Public Utilities - Problems and Solution" by Mr. T.C. Tsao (Commissioner, Public Utilities Bureau, Shanghai Municipal Government). Photographs showing the Riverside new plant extension, Shanghai Power Company Head Office building and one of the large turbo-generators at Riverside Plant, accompanied the above article. Photographs were supplied by us at the request of that periodical. (\*"China Trade Monthly", a journal devoted to the promotion of China's foreign trade, is published by the Foreign Trade Association of China. First publication - January 1947)

General - A map of Shanghai was painted showing the franchise areas of the six Electric Supply Companies.

STAFF NOTES

Mr. McKinney left on vacation at the beginning of this month. He is proceeding directly to England where he will spend the first part of his holiday.

Mr. Bolt, our Industrial Engineer, has also gone on long leave. His plans are to go to his home in Holland via U.S.A.

During Mr. McKinney's absence, his duties will be shared by Mr. K.Y. Whang and the undersigned. Mr. Bolt's work has been taken over by Mr. McLennan who was transferred to this department from the Distribution Department in January of this year.

  
A. E. Colterjohn  
Assistant Consumers' Engineer

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WESTERN DISTRICT POWER COMPANY OF SHANGHAI FEDERAL INC., U.S.A.

May 2nd, 1947.

REVENUE STATEMENT

WESTERN DISTRICT POWER COMPANY OF SHANGHAI,  
FEDERAL INC., U.S.A.APRIL STATISTICSAnalysis of K.W.H. Sales

	<u>This Year</u>	<u>Last Year</u>	<u>Increase</u>	<u>Increase</u>
				<u>%</u>
Residential Lighting)	1,611,258	785,758	825,500	105.1
Commercial Lighting )				
Residential Heating & Cooking)	638,192	360,569	277,623	77.0
Commercial Heating & Cooking )				
Bulk Supply Industrial	10,235,857	5,755,276	4,480,581	77.8
Bulk Supply Commercial	44,881	9,871	35,010	364.1
Small Power	2,630,730	1,649,944	980,786	59.4
<u>Public Utility:</u>				
Chapel Co.	853,200	1,092,600	-239,400	-21.9
Private Street Lighting	11,280	9,262	2,018	21.8
Municipal Street Lighting	23,097	23,497	-400	-1.7
Municipal Others	227,868	190,368	37,480	19.7
<u>Total</u>	<u>16,276,163</u>	<u>9,878,985</u>	<u>6,397,178</u>	<u>64.8</u>
Total Units Sold (12 months ending April 1947)	160,153,806	50,173,742	109,980,064	219.2
Total Units Purchased (12 months ending April 1947)	169,440,510	64,344,382	105,096,128	163.3
Distribution Losses (12 months average)	6.4%	5.0%	-1.6%	-20.0
Maximum Demand for Purchased Power - K.W.	31,670	20,392	11,278	55.3

Analysis of Large Industrial Sales in K.W.H.

	<u>This Month</u>	<u>Last Month</u>	<u>Last Year</u>	<u>Increase</u>
				<u>% over</u>
				<u>Last Yr.</u>
Chinese Cotton Mills	7,044,450	6,759,510	3,029,550	132.5
Other Cotton Mills	3,600	4,800	723,580	-99.5
Total Cotton Mills	7,048,050	6,764,310	3,753,130	87.8
Flour Mills	114,437	143,013	314,100	-63.6
Rubber Products	239,227	184,974	76,128	214.3
Paper Mills	243,834	183,310	109,210	123.3
Lumber Mills	-	-	-	-
Ice & Cold Storage Factories	27,300	14,400	900	2,933.3
Silk Mills	232,080	249,955	110,775	109.5
Miscellaneous Textiles	1,775,364	1,668,235	1,099,953	61.4
Metal Working	104,575	109,450	20,282	415.6
Woolen Mills	342,890	339,060	147,750	132.1
Miscellaneous Other	107,900	105,790	123,050	-12.3
<u>Total</u>	<u>10,235,857</u>	<u>9,762,497</u>	<u>5,755,276</u>	<u>77.8</u>

WESTERN DISTRICT POWER COMPANY OF SHANGHAI, GENERAL INC. U.S.A.

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SEE APP. 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100

CONNECTIONS

	<u>This Month</u>	<u>Last Month</u>	<u>Last Year</u>	<u>Increase during Month</u>
No. of Customers	20,974	20,885	18,251	89
" Refrigerators	2,272	2,269	2,193	3
" Cookers (Hired) x	778	778	760	-
" Radiators ( " ) x	301	302	422	-1
" Water Heaters ( " ) x	26	26	21	-
" Misc. Appliances ( " ) x	29	29	29	-
H.P. of Motors ( " ) x	4,355	4,358	3,514	-3

x Hired from S.P.C. and included in S.P.C. Statement.

CONNECTED LOAD

K.W. Lighting	14,951	14,899	14,096	52
" Heating: Comprising	(7,327)	(7,322)	(7,505)	(5)
" Cookers	5,600	5,597	5,430	3
" Radiators	1,363	1,366	1,748	-3
" Water Heaters	58	58	48	-
" Miscellaneous	306	301	279	5
" Motors	64,777	64,749	64,226	28
" Industrial Heating	1,055	1,049	887	6
" Total	88,110	88,019	86,714	91

MONTHLY MOVEMENT IN CUSTOMERS

	<u>Total All Classes</u>
Total Customers Reconnected	18
Total Customers Disconnected	<u>26</u>
Loss	8
Total New Customers Connected	<u>97</u>
Total Increase During Month	<u>89</u>

EASTERN DISTRICT POWER COMPANY OF SHARONA, GENERAL INC. U.S.A. - 3 -

APR. 1947  
APR. 1947

COMMENTS: TOTAL KILOWATT-HOUR SALES

Maximum Demand for Purchased Power - K.W.

<u>April 1947</u>	<u>March 1947</u>	<u>Post-War Peak February 1947</u>	<u>Prewar Peak February 1941</u>
31,670	31,622	33,032	30,168

Distribution Loss in percentages:

<u>M o n t h l y</u>		<u>A n n u a l</u>		
<u>April 1947</u>	<u>April 1946</u>	<u>1935</u>	<u>1940</u>	<u>1945</u>
6.4%	8.0%	2.6%	6.1%	24.8%

Meter-Reading Month in days:

	<u>April</u>	<u>March</u>	<u>Difference</u>
Schedule Rate Consumers	30.58	28.73	+6.4%
Bulk Supply Consumers	30.00	30.10	-0.3%
Municipal Consumers	30.00	28.00	+7.1%

Total Sales for April amounted to 16,276,163 K.W.H. as compared with 16,306,955 K.W.H. last month.

Residential & Commercial Lighting, Bulk Supply Industrial, Small Power, Private Street Lighting, and Municipal Others gained. Sales to Municipal Street Lighting were unchanged, while Residential & Commercial Heating, Cooking, Bulk Supply and Chapel Co. showed a decrease.

The yearly gain was 64.8%.

Residential & Commercial Lighting usage was 1,611,258 K.W.H., which is slightly over last month's usage. Considering the 6.4% longer meter reading month, the consumption showed a normal seasonal decline.

Residential & Commercial Heating & Cooking services usually showed a moderate decline at this time. Thus, the figures registered in April were 838,192 K.W.H. as compared with 668,853 K.W.H. the previous month.

Industrial Bulk Supply Sales were 10,235,857 K.W.H., showing a 4.8% increase in spite of the 0.3% shorter meter-reading month. Most industries show a gain. This class took 62.9% of the total as compared with 58.3% last April.

Commercial Bulk Supply Sales decreased seasonally from 57,211 K.W.H. in March to 44,881 K.W.H. in April.

Small Power consumers took 2,630,730 K.W.H. in April against 2,482,504 K.W.H. in March. This is an increase of 6% corresponding closely to the 6.4% increase of the meter-reading period.

WESTERN DISTRICT POWER COMPANY OF SINGAPORE GENERAL INC. U.S.A. - 4 -

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Chapel Company - A decrease of 42, brought the total down to 855,200 K.W.H. March Sales were 1,488,800 K.W.H.

Private & Public Street Lighting Sales remained practically at last month's level.

Municipal Others returns registered 227,868 K.W.H. The sales revealed only a 1% increase although the meter-reading month was 7.1% longer.

COMMENTS: ANALYSIS OF LARGE INDUSTRIAL SALES (79)

(The figures in brackets indicate the number of consumers)

Cotton Mills (11) - A total of 7,048,050 K.W.H. was sold to the cotton industry in April, representing a monthly gain of 4.2% and establishing a new post-war high.

Flour Mills (2) usage was 114,437 K.W.H. against 143,013 K.W.H. in March and 314,100 K.W.H. in April 1946. The Hoong Foong Flour Mill still remains closed.

Rubber Factories (5) returns established a new all-time high of 239,227 K.W.H. and exceeded last month's recordings by 29.3%. The Ta Wah Rubber Goods Mfg. Co. - 213 Penang Road - with a consumption of 14,020 K.W.H., was added to this group in April.

Paper Mills (5) consumed 243,834 K.W.H. this month against 183,310 K.W.H. last month. This represents a new all-time high, exceeding the March figures by 33%. The China Paper Mill - 1423/200 Yu Yuen Road - with a consumption of 45,300 K.W.H., was added to the group this month.

Ice & Cold Storage Factories (1) - The Yuh Loong Ice Co. recorded a seasonal increase.

Silk Factories (4) - Sales continued to decrease to 232,080 K.W.H. in April as compared to 249,955 K.W.H. in March 1947 and the post-war high of 263,145 K.W.H. in December 1946. The difficulties of this industry are described in the S.P.C. Report.

Miscellaneous Textiles (36), in line with the Cotton Mills, showed a moderate increase which brought the total up to 1,775,364 K.W.H. The Nantung Dyeing & Weaving Factory - 482 Jessfield Road - with a consumption of 22,180 K.W.H., was added to the group this month.

Metal Works (4) - Although a new consumer, the CNRRA Highway Transport - 1171 Connaught Road - with a consumption of 13,225 K.W.H. was added to this group, the current month's sales were slightly lower, totalling 104,575 K.W.H.

Woolen Mills (5) consumed 342,890 K.W.H. in April against 339,080 K.W.H. in March. A new consumer, the Cheng Foong Wool Spinning & Weaving Factory - 120 Robison Road - with a consumption of 23,100 K.W.H., is now included in this group.

Miscellaneous Others (6) returns were slightly up, from 105,790 K.W.H. in March to 107,900 K.W.H. in April. Sales to Stone Pulverizing Mills decreased whereas Chemical & Other Subgroups showed an increase.

MILITARY DISTRICT POWER COMPANY OF PHOENIX, ARIZONA, U.S.A.

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APR 20 1957

POWER SECTION

The following applications for connection of power service were accepted in April:-

Reconnections:	9 Applications totalling	93 H.P.
New Load	: 110 "	4,033 "
T o t a l	: 119 Applications totalling	4,126 H.P.

The exceptional increase in the number of applications accepted is accounted for by the fact that the restrictions on the use of electricity for industrial supply were lifted on April 14th.

Applications received covered practically all types of industry and ranged from loads of 1 H.P. to 328 H.P. The above total includes an application from Tien Yih Dyeing & Weaving Factory No. 2 - 211 Penang Road - for 328 H.P. This load prospect was referred to in our March Report.

During the month of April no new load prospects were recorded but supply at 6.6 K.V. was given to the Pao Shan Paper Mill - 202 Tunain Road - formerly known as the American Mercantile Co. Paper Mill. (This was referred to in our February Report). The consumer had installed his own 350 K.V.A. transformer and high voltage oil circuit breaker. The estimated maximum demand is 160 K.W., which will yield an annual revenue estimated at CN\$220,000,000.--

The revenue mentioned above is based on present net rates of CN\$285.- per K.W.H. for consumption not exceeding 50,000 K.W.H. per month and CN\$325.- per K.W.H. for consumption in excess of this amount.

Power Installation Inspections:

The following inspections were made during April:-

<u>No. of Inspections</u> <u>in April</u>	<u>Unauthorized</u> <u>Additions</u>
101	12

RESIDENTIAL SECTION

Domestic Cooking - There was very little movement of cookers in the Western area during April.

Home Service - Routine work proceeded normally.

Water Heaters & Radiators - Movement of Water Heaters was at a standstill.

A small number of Hired Radiators was returned during the month.

*A. E. Colterjohn*

A. E. Colterjohn

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SHANGHAI POWER COMPANY

SHANGHAI POWER COMPANY  
 RIVERSIDE STEAM ELECTRIC STATION  
 MONTHLY GENERATION REPORT  
 APRIL 1947

OUTPUT & PERFORMANCE DATA -

	A	B	C		D
	Total Station Net Output Kwh	Short Time Peak Demand Kw	St B Gross Generation Kwh	% of Total	Overall Heat Consumption Btu/net Kwh
April 1947	79,761,694	156,430	38,030,787	44.31	20,168
March 1947	80,940,604	153,092	44,060,391	50.59	20,150
April 1946	53,422,662	120,566	27,421,353	47.61	21,350
April 1941	59,114,208	145,583	32,902,061	51.30	19,245
% increase over					
March 1947	-	2.18	-	-	0.19
April 1946	49.30	29.75	38.69	-	-
April 1941	34.93	7.45	15.56	-	4.90
% decrease from					
March 1947	1.66	-	13.68	-	-
April 1946	-	-	-	-	5.44
April 1941	-	-	-	-	-

	Hourly Station Net Output Kwh	St B Hourly Gross Generation Kwh
April 1947 (719 hr) *	110,834	52,894
March 1947 (744 hr)	109,791	59,221
April 1946 (720 hr)	74,198	36,085
April 1941 (720 hr)	82,103	45,707
% increase over March 1947	1.97	-
% increase over April 1946	49.51	36.88
% increase over April 1941	35.12	15.72
% decrease from March 1947	-	10.68

\* Daylight saving time started on April 15, 1947, making hours operated for current month = 719 hr.

Remarks -

The slightly higher heat rate compared with March 1947 (despite 1/3 of St C due to (1) poorer vacuum with rising river water temp; (2) lower St B production account of outage of one BH 4 SG for general repairs; (3) poorer monthly load factor resulting from increased peak demand).

The better economy compared with April 1946 (despite lower percentage of St load carried by St B) due to (1) 1/3 of St C; (2) higher percentage of fuel oil burnt; (3) better equipment condition.

The higher heat rate compared with April 1941 (despite 1/3 of St C) due to much lower percentage of station load carried by St B units (or higher percentage of St load carried by less efficient units in order to answer increased load demand).

SHANGHAI POWER COMPANY

STEAM-GENERATORS

SG No	Date		Hours o/c	Type of Inspection & Work Done	Hr not Avail- able	Total Hr Oper- ated	Operating Hr Since Last Overhaul
	o/c	1/c					
31	--	--	--	Unit put 1/c on April 2, 1947.	--	695	695
30	3	3	0	PAF motor bearing renewed.			
	13	13	6	IDF examined (IDA) - Suction dampers adjusted, secondary air dampers adjusted.			
29	18	18	2	IDF examined (IMS).	8	708	4 077
	5	16	251	Routine cleaning and IDF impeller renewal (IMS) - IDF impeller and CI wearing plates renewed. Flue Gas ducting patched, Gas washer cleaned and blanked off. IDF motor bearings examined. IDF motor bearing renewed. IDF impeller wire brushed. Ph air duct tested, 6 plates renewed, Ph tubes cleaned. Sh tubes cleaned of scale deposits, drain cocks overhauled. Drum examined, wire brushed, painted, level of spillage of trough checked and levelled up. Hylift safety valve overhauled. LH No 6 safety valve overhauled. Copas valve reconditioned. All blowdown valves overhauled. 4 rows of equalizing tubes and tube in refrigeration zone washed out. EF bunker cleaned. Feeder gear overhauled, 3 fibre gears and clutch and 1 ball bearing renewed. Burner box dampers, coal pipes and FO pipes overhauled. Unit press tested, safety valves adjusted, water alarm checked. IDF starter overhauled.			
	19	20	14	Ec leak repair (IDA) - 3 corroded Ec tubes renewed.	265	447	9 540
28	5	5	0	PAF impeller, shaft and bearings renewed. PAF motor cleaned, examined. Casting seams welded and patched.			
	7	7	2	IDF impeller rebalanced (IDA).			
	12	12	1	PTB cleaned (IMS).			
	28	--	103	IDF impeller repairing and rebalancing progressing (IDA) - IDF motor	106	607	7 323
27	16	22	146	Routine cleaning and general repairs (IMS) - IDF motor bearings examined. IDF impeller wire brushed, bearing washed, ducting patched. Ph air ducting examined, 3 plates patched, tubes washed. Drum examined, wire brushed, painted, trough levelled. 6 Sh tubes renewed. One wall tube renewed. 3 rows return tubes washed. Brickwork repaired. Feeder gear overhauled, defective parts renewed. Ec examined. Unit press tested, safety valves checked, water alarm adjusted. PAF motor cleaned, IDF starter overhauled.	146	570	6 480

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BO No	Date		Hours o/o	Type of Inspection & Work Done	Hr not Avail- able	Total Hr Oper- ated	Operating Hr Since Last Overhaul
	o/o	1/c					
26	3	5	50	Tube leak repair (IDU) - 2 cross tubes cut, plugged. 1 Ec distributor tube renewed. 2 Sh caps rejointed. Mixing valve covers rejointed. Unit press tested. Grate repaired; 30 tuyeres, 12 ash pusher plates, coal agitator shaft and 12 sets of agitator changed.			
25	22	24	38	Wall repair (IDU) - Side walls partly rebuilt, rear wall patched, Ec soot cleaned.	50	458	5 467
24	--	--	0	Burnt low volt coil on Ph motor starter replaced.	38	664	7 139
23	3	3	3	Ph elements washed (IDA) - Ec roughly cleaned.	0	548	4 165
	13	13	5	IDF bearing cleaned (IDA) - New joint fitted on service water connection.			
	18	21	56	Furnace chamber repair (IDU) - LH side wall partly rebuilt. Copos valve overhauled, new feedwater and steam pipe fitted. 1 Sh drain valve overhauled. 1 soot blower master valve changed. 2 mixing valves eased. Ph elements washed. Ec roughly cleaned.	66	631	8 477
22	26	27	11	Furnace repair (IDA) - Brickwork patched. Grate repaired. 50 tuyeres, 5 ash pusher plates and 2 dumping bars changed. Ph elements washed.	11	536	3 219
21	2	2	3	Ph elements washed (IDA) - Ec roughly cleaned.			
	13	13	5	RH Sh drains overhauled (IDA).			
	25	27	38	Wall and arch repaired (IDU) - 2 main tubes renewed, 6 Sh caps rejointed. LH drum air valve overhauled. Ph washed. Unit press tested, Ec soot cleaned.	46	652	9 459
20	5	6	13	Ec leak repair (IDU) - One distributor tube renewed.			
	24	25	13	Grate repair (IDU) - 2 Sh and 3 Ec caps rejointed. LH Sh drain overhauled. 30 tuyeres, 10 ashpusher plates and 4 coal spreaders changed. Sh box cleaned, baffles sealed. Grit chutes cleaned. Unit press tested.	26	491	2 169
19	2/21	--	719	Conversion to FO burning progressing (IMB).	719	0	0
18	--	--	0	---	0	472	1 212
17	22	25	62	Soot cleaning (IDU) - Leaky valves and joints repaired. Grate inspected, defective parts changed.	0		
16	--	--	0	3 FOB impellers renewed. RH damper wire renewed.	0	700	12 972
15	25	28	62	RH grate overhauled (IDA) - 10 pipe rollers renewed. Drum examined for scale, found in fairly good condition. Sample water pipe in drum renewed. Sample valve overhauled. Water gauge glass renewed. Ec press tested.	62	649	1 460

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SG No	Date		Hours o/c	Type of Inspection & Work Done	Hr not Avail-able	Total Hr Oper-ated	Operating Hr Since Last Overhaul
	o/c	1/u					
14	--	--	0	Broken damper wire renewed.	0	706	13 685
13	3/12	--	719	Partial overhaul progressing (IMS).	719	0	0
12	15	17	40	Two leaky return tubes renewed (IDU) - 1 leaky Sh cap joint remade. LH drain cock overhauled. LH strickle door renewed. Sample water pipe in drum renewed (IDA).	40	455	1 053
11	5	6	15	Jammed LH grate overhauled (IDU) - Defective parts renewed. Drum examined for scale deposit, found fairly good. No air cock overhauled. Sample water feed and RH Sh drain valves overhauled. Water gauge glass renewed. Ash water nozzles cleaned.	15	676	1 329
10	17	23	115	Water gauge glass cocks overhauled (IDA). Two leaky Sh cap joints remade (IDA) - Burnt MS baffle plate on LH grate repaired.	115	409	655
9	13	13	6				
	26	27	12		18	487	4 140

Notes:- 1. Unscheduled Outages -

(a) Units taken out immediately (IDU)

SG No	26	25	23	21	20	17	12	10
Times o/c	1	1	1	1	2	1	1	1
Hours o/c	50	38	58	38	26	62	40	115

(b) Repairs done on a deferred date (IDA)

SG No	30	29	28	23	22	21	15	11	9
Times o/c	1	1	2	2	1	2	1	1	2
Hours o/c	6	14	105	8	11	8	62	15	18

2. Tube Renewals -

SG No	29	27	21	18
Boiler Tubes	-	-	2	2
Ec "	3	-	-	-
Sh "	-	6	-	-
Wall "	-	1	-	-

BOILER HOUSE AUXILIARIES -

1 - Feed Water Pumps (FWP) -

FWP 22	-	Governor and governor gear cleaned. Pump gland repacked.
FWP 21	-	General overhaul after 7916 hr operation progressing.
FWP 20	-	Balance disc examined, pump centered, pump glands repacked. Broken starter resistance repaired.
FWP 15, 13 & 12	-	Governor cleaned.
FWP 3	-	Starting OCB changed. O/L protection tested. Grounded motor cable removed, temporary cable installed. Burnt contacts on Main OCB renewed.

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1 - Feed Water Pumps (FWP) - (continued)

FWP 2 - Pump outboard gland repacked.

2 - Auxiliary Fans in BH 2 -IDF & FDF 14-16 - Installation of switches and cables completed.  
FDF 14-16 - Leaky steam trap overhauled. Fan engine bearing checked.RAW COAL HANDLING PLANT -

Tr 1 & 2 - Weighing machine tested. Controllers cleaned, examined. Trolley equipment checked, worn parts renewed.

Tr 3 - Sustaining ropes renewed. Sustaining countershaft thrust bearing and brasses renewed. Countershaft posts rebushed. Loose connection on solenoid brake repaired. Burnt foot switch contact renewed.

RT 2 - Traverse ropes renewed. Hoisting limit switch changed for overhaul. Weighing m/c overhauled, all ball bearing housing repaired.

BE 3 - Burnt BE motor changed.

BE 1 - Twisted wheel structure bracket repaired.

BE 4 - Motor cleaned, examined.

BC 1, 19, 43 - Motors cleaned, examined.

BC 2 - Tripper pulley and bearings renewed.

BC 14 - Belt renewed.

BC 22 - Original motor reinstalled.

BC 33 - Belt renewed.

BC 41 - Motor changed for overhaul.

BC 42 - Realigned head pulley fitted.

Riddling BC - 40 ft belt changed.

FUEL OIL HANDLING PLANT -

1 - New coupling fitted to steam drain pipes.

2 - FOP 12: Leaky steam gland rejointed, all glands repacked.

3 - Reconditioned Quimby FCP run on trial, inspection made, high spots on worms eased off.

4 - Oil and steam end glands on Duplex and Weir FOP repacked. Automatic trip gear on turbine Weir FOP cleaned, adjusted.

5 - FO Heaters cleaned.

PULVERIZED FUEL HANDLING PLANT -

All PM routine inspected, minor repairs made.

ASH HANDLING PLANT -1 - Electric Locomotives -LE 1, 2, 4 - Motors cleaned, examined.  
LE 3 - General overhaul progressing.2 - Trucks & Tracks - Routine repairs progressing.

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## TURBO-GENERATORS -

TG No	Date		Hours o/o	Type of Inspection & Work Done	Hr not Avail- able	Total Hr Oper- ated	Operating Hr Since Last Overhaul	
	o/o	1/o						
18		3	71	Unit put 1/o on April 3, 1947.		637	637	
16	18	13	13	Condenser tested for air leaks (IDA) - 6 tubes plugged, several leaks stopped. Atmospheric exhaust relief valve examined and cleaned.				
		19	20	13	Main steam strainer and emergency trip valve examined (IMS) - steam strainer to glands cleaned, O/S gear cleaned, tested and operated at 3270 rpm.	26	682	1 889
15	13	13	2	Brushgears cleaned and examined (IMS) - 2 slip ring brushes and one exciter brush renewed; CP 'B' outboard pump bearing cover joint remade, CP motor and OCB cleaned.				
	24	24	$\frac{1}{2}$	One slipping brush changed (IDA).	$2\frac{1}{2}$	712	12 008	
14	20	20	1	Slipping brushes changed and brushgears cleaned (IMS).				
	22	22	4	Condenser tested (IDA) - 5 tubes plugged, condensate cooler tube nest gland repacked and steam trap by-pass valve gland repacked. General overhaul progressing (IMS).	5	710	12 313	
13	--	--	720		719	0	0	
12	29	29	2	Steam chest thermometer pocket renewed (IDA) - All water and air valve glands repacked.	2	711	10 274	
10	--	--	0	CP motor and OCB cleaned.	0	693	9 960	
9	7	7	3	Condenser tested for water leaks (IDA) - 2 tubes plugged, one removed for examination.				
	23	23	2	Transformer oil cooler CW pipe found leaking (IDA) - Pipe repaired. Condenser tested for water leaks.	5	695	11 337	
8	24	24	$4\frac{1}{2}$	Condenser tested (IMS) - Tube packing tightened, 6 door studs renewed, CP steam drain pipe joint remade.	$4\frac{1}{2}$	684	9 062	
7	--	--	36	Condenser tested for water leaks (IDA) - Six times during the month, 12 tubes plugged, 40 tube glands repacked, AM trays repaired and cleaned.	36	557	9 510	
5	13	13	$2\frac{1}{2}$	Brush gears cleaned and examined (IMS) - One slipping brush renewed.				
	16	16	$11\frac{1}{2}$	Routine cleaning (IMS) - Leaky transformer (B #) cooling water coil renewed.				
	19	19	1	Transformer oil filter connected to B # transformer (IDA) - Transformer oil found containing water. Oil was filtered and filtering completed on 4/24/47.				
	20	20	5	Condenser tested (IMS) - Two tubes plugged.				
	27	28	$7\frac{1}{2}$	B # Transformer changed for overhaul (IDA).				
	30	30	3	Condenser tested (IDA) - One tube removed for examination.	$30\frac{1}{2}$	588	6 332	

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TG No	Date		Hours c/o	Type of Inspection & Work Done	Hr not Avail-able	Total Hr Oper-ated	Operating Hr Since Last Overhaul
	c/o	1/a					
4	6	6	3 $\frac{1}{2}$	Routine cleaning (IMS).	3 $\frac{1}{2}$	588	6 332
	12	13	1 $\frac{1}{2}$	Routine cleaning (IMS) - Partial cleaning.			
2	14	14	16 $\frac{1}{2}$	Routine cleaning completed (IMS) - Condenser tested for water leaks, 4 tubes plugged.	4 $\frac{1}{2}$	566	1 052
	17	18	5	Generator rotor balanced (IDA).			
	22	22	1	CP vent pipe valve renewed (IDA).			
	29	29	1 $\frac{1}{2}$	Relay oil pipe leaky joint remade (IDA).			
	30	30	6 $\frac{1}{2}$	Condenser tested (IDA) - One tube removed for examination.			
	1	4	4	LF gland steam valve eased up and repacked (IDA).			
	12	13	14	Routine cleaned (IMS) - AE balance pipe water valve repaired.			
1	20	20	2 $\frac{1}{2}$	CP vent pipe valve renewed (IDA).	28	424	4 899
	30	30	6 $\frac{1}{2}$	Condenser tested (IDA) - 5 tubes plugged, one removed for examination.			

Notes:- Unscheduled Outages -

(a) Units taken out immediately (IDU) - Nil

(b) Repairs done on a deferred date (IDA) -

TG No	16	15	14	12	9	7	5	2	1
Times c/c	1	1	1	1	2	6	3	4	2
Hours c/c	13	1	4	2	5	36	11 $\frac{1}{2}$	14	9

TURBINE HOUSE AUXILIARIES -

1 - Circulating Water Pumps (CWP) -

- CWP 28 - Pump opened up, wooden obstacles removed and gland repacked.
- CWP 27 - Pump gland repacked.
- CWP 22 - General Overhaul (after 6390 hr operation) progressing.
- CWP 21 - General overhaul completed:- Pump impeller good, balance checked, wearing rings skimmed, neck rings and lower gland sleeve renewed, shaft built up and machined, bearing skimmed; couplings and bolts all good; oil containers tested, oil renewed; long shaft tested and aligned, top bearing CI bush renewed, white metal bearing and thrust pad skimmed; motor windings cleaned and varnished, O/L CT ratio checked and relay tested; all valves examined and cleaned.
- CWP 13 - Motor cleaned, OCB overhauled and oil changed.

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2 - Service Water Pumps (SWP) -

SWP 4 - Main steam valve and steam drain valve glands repacked.  
SWP 3 - General overhaul required, account balance disc failure.

3 - Air Compressor: Cp 1 - routine cleaned.

4 - Sump Pumps: SP 1 & 2 - action strainers cleaned.

5 - Transformer Oil Coolers CW Pipe:  
Supply pipe from TG 10 CW pipe renewed.

6 - Water Screens: WS 5 general overhaul progressing.

7 - Condensate Transfer Pumps: CTP 11 & 12 Water sampling joints installed with water cooler.

FLOATING EQUIPMENT -

Tow Boat "Reactor" - Safety valves tested, lift at 126 psi, seat at 123 psi.

Tow Boat "Rectifier" - Boiler soot and scale cleaned, main engine and CWP connecting rod bearings adjusted, general service pump and all valves overhauled, coal bunkers chipped, painted and several plates renewed, bilges cleaned. Safety valves tested, lift at 116 psi, seat at 110 psi.

Lighters - Repairs made to AL 3 & 4, CL 6, 9, 12, 13, 14, 16, 18 & 22.

MISCELLANEOUS MECHANICAL EQUIPMENT -

1 - TH steam range (off TG 7): Steam trap, valve and pipe repaired.

2 - Feed Water Tank: FWT 2 - float and indicator wire renewed.

3 - TG 11 Condenser: Examination, testing and dismantling of pipe work progressing.

ELECTRICAL EQUIPMENT -

1 - 23 kv Equipment -

LA 2 - Burnt lightning arrester disconnected and dismantled.

2 - 6.6 kv Equipment -

Westinghouse Board: Prefabricated concrete bus bar housing installed in position and grouted in. Main and auxiliary B/B reinstalled and B/B connections remade to each OCB. All isolating links cleaned and adjusted. PT connections remade and leads re-insulated where necessary.



SHANGHAI POWER COMPANY3 - Miscellaneous -

- (a) HST 1 & 2 Spare Pump Oil Cooler: a section of defective CW piping renewed.
- (b) Office Lift: control cable renewed.
- (c) EH 5 Megaphone: Stand being made.
- (d) SG 19 Fuel Oil Valve Solenoid: Supply cable installed.
- (e) TP main B OCB on AS 3: overhauled.
- (f) FOP 1: motor and OCB reinstalled.
- (g) Main FOP OCB on AS 2: overhauled.

RIVERSIDE WORKSHOP -

- 1 - Overhauled 7 motors, 5 transformers; made 40 fuse holders, 18 brass finger bars, 1 link and fuse box, 24 copper fixed sparking contacts, 150 copper flag sockets, 6 copper morganite brushes; modified 24 fixed main contacts, 55 B/S brushes; repaired 1 link stick, 2 porcelain bushings, tinned 60 copper joint cleaves; galvanized 20 studs; painted 5 transformer tanks.
- 2 - Machined 240 MS and Vibrax steel bolts and studs, 72 MS and tool steel screw pins and keys, 24 MS and steel shafts, 35 MS pipes, 42 MS nipples, 56 MS flanges, 110 MS Ec tube caps and nuts, 1000 MS washers, 335 miscellaneous articles for various purposes; made 15 brass joints, 9 connecting links, 2 sets MS chains, 10 sets WM bearings, 1 set steam gland, 2 sets brass indicators, 1 MS float, 40 copper strainers, 9 MS trays, 36 CI coal sample tins, 2 CI oil tins; repaired 30 stroke adjusters, 26 copper FO pipes, 6 brass water strainers, 5 CI gate valves, 4 fire hydrants, 1 coal briquette machine and crushers; reinstalled 10 sets CI and WM bearings, 6 sets thrust bearings; balanced 2 IDF impellers.
- 3 - Made 30 MS covers, 3 MS stair cases, 2 MS fire doors, 4 MS IDF ducting, 1 set FM wearing plates, 14 ash buckets, 10 MS baffles; bent 21 lengths FO pipes, 18 lengths Sh tubes; forged 180 MS links, 30 MS chains, 40 steel springs, 3570 lb MS flanges, brackets, clutches, bolts, etc.
- 4 - Foundry produced 28,390 lb cast iron, 2,276 lb HD brass, 546 lb OB brass, 461 lb GP brass, 2,106 lb brass ingots.
- 5 - Electric welded 3 MS vent coal pipes, 30 MS plates, 2 ash truck frames, 2 gratings, 1 ash car, 14 ash buckets, 150 angle iron cross arms, 3 MS shafts, 2 MS valve spindles; gas welded 32 flat iron chain links, 3 CI gears, 4 ash buckets; gas brazed 2 sets transformer tails, 38 copper tube ends, 2 brass valve spindles; refaced with stoddite 1 set IDF blades.
- 6 - Building and Wharf Maintenance:-
  - (a) Raising of platform of 6.6 kv MS board and rebuilding of walls progressing.
  - (b) Repaired sliding doors in Stores, doors in St C basement and service building, valves and pipes in Foreign Mess and bathrooms.

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- (c) Made concrete gutters in TH and St C; repaired floors in BH 3 and foreign bathroom, yard paving blocks outside St C, white tiles on wall of foreign kitchen room; built 1 brick bin outside of Workshop.
- (d) Maintenance work to all plumbing and pipework in station progressing.

MISCELLANEOUS NOTES

The labour roll at Riverside totals 1344 including 24 Foreign and 84 Local Agreement, 60 Russians, 9 Subsidiary Staff (Foreign Watchmen), 28 Chinese Apprentice Engineers and 1145 Chinese Staff.

The general labour situation shows a slight deterioration over previous months. The workmen show evidence of becoming increasingly restive over the freezing of the HCL Index and general rise in prices.

Great difficulty is being experienced in a reasonable allocation of overtime. Supervisors are being hard pressed by their respective workmen to provide overtime work, irrespective of the necessity for same.

So far we have been able to control the situation, mainly owing to the large amount of overtime required to keep the plant operating. One or two divisions are however experiencing difficulty as the overtime demands are less than that of other sections.

The sickness racket continues to be acute, particularly in the Operation Division, the average % of absence due to sickness and/or other causes of the Regular Chinese Staff amounting to 5.91% for the monthly rate, and 6.79% for the daily rate; the sickness % being 4.23% and 5.1% respectively.

General -

The plant has continued to be operated at maximum output of available equipment ('C' Station excepted).

Our total station net output decreased slightly from Kwh 80,940,804 March, to Kwh 79,761,694 in April, this decrease (1.46%) being primarily due to outage of BG units in BH 4 for general overhaul, thus resulting in a decreased 'D' Station output amounting to 13.68% as compared with March.

It is interesting to note however that hourly station net output rose from Kwh 109,721 in March to Kwh 110,934 in April, an increase of 1.97%.

EG 31 and TG 18 were back in commission on April 2 after various repairs and inspections had been completed, the main repair job being that of the 6" valve (V-116) in the by-pass around the Bailey Feed Water Control Valve. We are pleased to record that the repair job was entirely successful.

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Both units have operated successfully for 637 hours, the average boiler evaporation being 279,000 lb/hr and TG loading 10,573 kw.

The maximum evaporation being approx 360,000 lb/hr and max load on TG 18 14,500 kw, pressure 1200 psi and temperature 900 F.

The cross-over heater was put into commission on April 19, but owing to several minor defects, leaky relief valve, and also flooding, was taken out of commission for examination, etc.

TG 18 governor has given quite an amount of trouble due to hunting, swing of 1000 kw being registered; it is proposed to investigate this problem next time the unit is o/c, otherwise this unit is performing very satisfactorily.

The ash question still constitutes a major problem, so far we have been restricted to approx 5-6 tons per hour coal consumption on this account. We are manufacturing locally a larger ash car for temporary use as we are desirous of increasing our coal consumption, which will in turn permit an increase in steam temperature above the max of 900 F at present obtainable.

Strenuous efforts are being made by our Purchasing Office to obtain release of the new ash trucks believed to be landed on wharf at Shanghai.

Quite an amount of work has been put in on the Bailey Control System and several snags which made themselves apparent during operation have been overcome, however regarding missing parts of equipment it is anticipated that it will take quite some time to get this equipment in first class operating condition.

SG 29 was o/c for 251 hr during the month, but by working a night shift it was found possible to carry out much needed repairs, including the renewal of IDF fan impeller and renewal of three 2c tubes.

SG 27 was afterwards taken o/c for a total of 146 hours for routine cleaning and general repairs. SG 28 o/c 146 hours for repairs mainly to IDF and FDF impellers.

As in previous months, practically all maintenance work other than that occasioned by forced outages, has been carried out at low load periods, week ends, etc; thereby necessitating considerable overtime.

Work on rehabilitation of Westinghouse <sup>boiler</sup> is well advanced and it is hoped to have this boiler in commission early next month.

#### SG Units -

The unscheduled outages show an increase over the previous month, namely 9 as against 6; the deferred outages however show a decrease, namely 13 as against 16 for previous month.

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The total hr SG were o/c for unscheduled and deferred outages registered a considerable increase over previous month, namely 674 hr as against 353 hr, and were made up as follows:-

Unscheduled Outages - 427 hr as against 35 hr  
Deferred Outages - 674 hr as against 320 hr

Tube renewals registered an increase, namely 14 as against 3 for previous month.

Major maintenance work for the month consisted of the following:-

SG 29 - o/c 265 hr for general overhaul - renewal ID fan impeller, examination of drum, tube cleaning and renewal of requisite tubes.  
SG 28 - o/c 106 hr - renewal PA fan impeller, balancing of ID fan, impeller after part renewal of blades.  
SG 27 - o/c 146 hr - routine cleaning and general repairs, renewal of requisite number of tubes and repairs to brickwork.  
SG 19 - o/c 1463 hr for general overhaul and conversion to oil burning. Difficulty experienced in obtaining requisite number of fire bricks and shortage of DE 2 Arch Bricks.  
SG 13 - o/c 1178 hr for general overhaul.  
SG 10 - o/c 115 hr for major repairs to Grates.

TG Units -

With exception of TG 13, all work on TG units was of a routine nature.

TG 13 - o/c 1103 hr to date for a general overhaul. Turbine completely dismantled and lower half of casing removed to facilitate making of new condenser joint, work progressing.

Unscheduled Outages of TG Units - Nil,  
Deferred Outages of TG Units - 21 - amounting to 65 hr total.

The total outage for TG units with the exception of TG 13 and TG 18 amounted to 207.5 hr for all causes.

Considerable progress has been made in respect to elimination of air leakages to condensers, extensive condenser tests have been carried out with very satisfactory results except in the case of TG 1 and 2 also TG 7; however work is still progressing on these units when loading conditions permit.

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The demolition of TG 11 pedestal was completed, arrangements now being made for moving condenser beyond mat area.

Electrical -

Major work during the month being reconstruction of the Westinghouse Board, which is now nearing completion.

A major fault occurred on the 23 Kv Distribution System, which finally resulted in the complete burn out of an oxide film lightning arrester located on Section 2 Main Bus Section at Riverside.

Apart from the destruction of arrester no damage was done, but it was some time before the operating engineers located the trouble and were able to take effective steps to isolate the faulty equipment, a considerable drop in load naturally was experienced.

The continuous discharge across the arrester horn gaps finally resulted in complete disintegration of the phase elements of the arrester finally resulting in a 3 phase short circuit; the neutral leg of the arrester remained practically undamaged.

TG 5 Main Transformer Bank Failure - The blue phase transformer water cooling coil failed thereby allowing a considerable quantity of water to enter the tank.

Fortunately this failure was discovered during a routine oil test, and the transformer taken off load, water extracted and the oil filtered. However it was eventually found necessary to change the transformer due to persistent low insulation value.

MH 5 Lift - Considerable difficulty is being experienced in maintaining this lift in reasonable operating order, however some improvement has been effected and intensive maintenance is still the order of the day.

Fuel Oil Supply -

The necessary arrangements have now been concluded with Caltex Ltd for the installation of the second 10,000 bbl tank, FOT 4. The material has now been passed through Customs and it is hoped to commence erection in the near future.

The installation of Transfer Oil Pump FOT 3 - FOT 2 has now been completed and the pump is now in commission.

We have had several anxious moments in regard to new delivery of Fuel Oil for various causes such as difficulty on the part of Caltex in obtaining Customs Import Permits, etc, however we have not as yet had to cut load on this account.

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Our fuel oil consumption has risen to a max of 1162 long tons per day, the average daily consumption being 952.6 long tons which taxes our pumping equipment to the utmost.

When HG 19 is commissioned for oil burning our pumping equipment will be further taxed, consequently we are anxiously looking forward to arrival of the new pumping equipment and heaters, etc. The reconditioned Quimby pump set up for test, which however was only partially successful. Pump again dismantled for inspection and necessary corrective work, after which same will again be tested.

Temporary CW Discharge Canal -

Considerable difficulty is being experienced in obtaining the required quantities of timber required for this project as designed by Mr Corrit, Consulting Engineer. Furthermore the prices at present asked for timber are almost prohibitive being approx 75 cents US per board foot at official exchange.

Workshops -

Continue to be overloaded with work, and overtime for approx 50% of the staff is worked from 6.00 - 9.00 pm every night and also during weekends.

Considerable work has again been contracted for outside, and a night shift is being worked on several jobs.

The workshop is very badly in need of some new machine tools, particularly universal milling and gear cutting machines, also gauges and tools, efforts are being made to obtain equipment locally but no concrete results have been obtained to date.

Buildings -

Owing to the difficulty in obtaining the requisite materials, little has been done this month in the way of rehabilitation of buildings. However the advent of the fine weather will be the appropriate time to undertake some building repairs.

It is proposed to proceed with the renovation and rebuilding of the Turbine House structures, windows, etc in the near future.

Painting of Steel Structures -

Enquiries have been placed for various classes of paint required for outdoor steel structures which are badly in need of painting, samples have been received and some are now being analyzed.

Tenders for the various painting jobs will be requested next month.

SHANGHAI POWER COMPANY

- 15 -

Fuel -

Coal receipts were 19 814 tons during April, made up of one kind of coal. 18 664 tons were burned and 109 tons issued by Stores, making a total of 18 773 tons. Total stocks on May 1st, 1947 (8.00 am) were 23 007 tons, consisting of 15 943 tons on mechanical storage, 3 689 tons on dead storage and 3 405 tons in bunkers. Coal deliveries during the period were 1 041 tons more than burned plus issued, and stocks were increased a like amount.

Oil receipts were 29 008.53 tons during April, and 28 880.00 tons were burned. Total stocks on May 1st, 1947 (8.00 am) were 1 032.90 tons.

Mud Dredging -

During the month 4 600.0 cu yd (30 lighters of 160 cu yd per lighter) of mud dredged from in front of our wharves and pump houses.

Coal & Briquettes

During the month 461 715 lb of coarse coke recovered from ashes of which 112 456 lb of coarse coke was issued to Mr Tsze Chi Han (Coke Recovery Contractor) and 38 332 lb of coarse coke was issued for Station use and 310 927 lb in Store on May 1st, 1947.

During the month 200 metric tons of Anthracite coal was received from the Fuel Control Commission and 100 metric tons issued for the manufacture of briquettes for sale to employees, total amount of briquettes issued was 307.8 tons.

*C. J. Pleaco*  
C J Pleaco

CJP/R  
Encls: BG Water Report  
TG Oil Report  
Characteristic Curves

Shanghai, May 20, 1947.

107-28-107  
 GENERATION ENGINEER  
 CHEMICAL ENGINEER  
 MAINTENANCE ENGINEER  
 GENERATION SUPT  
 E.E.  
 IN CHARGE  
 LUBRICATION BUREAU

RIVERSIDE STEAM ELECTRIC STATION  
 TURBINE OIL SERVICE DATA

DATE March 4, 1947

TG No	OPERATING TIME HR	MAKE-UP		CENTRIFUGE OPERATION			LABORATORY REPORT			REMARKS	
		GAL	DESCRIPTION	HR	DRY SOLIDS LB	SOLIDS IN PER 1000 HR	WATER LB	VISCOSITY 130° F (RAY ST)	ACIDITY PG ACH LB		DEMOBILITY MIN
18	457							90	0.055	2½	
16	282	28	DIE 797	516	103	171	60	90	0.075	5	
15		23	DIE 797	189			224	93	1.07	2½	
14				22	9	15	58	98	1.08	3½	
13											
12	311	5	DIE Fla	20				93	0.55	4	
11											
10	457							90	0.15	2½	
9	294			56	20	29	6	91	0.054	6	
8	254			59	7	10	16	90	1.83	4	Acidity increase 0.18 mg.
7	257	40	Rio Tyool Lt	12				94	0.55	3½	
6											
5	440			146	6	9	4	95	0.088	2½	
4	283	10	Rio Tyool Lt	552	32	46	6426	91	0.045	2½	
3	285	32	DIE Fla					102	0.06	6	
2	285	50	DIE Fla					104	1.42	6	

HISTORY OF OIL BATCHES

TG No	LAST FULL CHARGE		TOTALS TO DATE				MAKE-UP DATA			OPERATING HOURS SINCE LAST OVERHAUL		
	DATE	GAL	DESCRIPTION	OPERATING HR	SOLIDS LB	SOLIDS IN PER 1000 HR	WATER LB	WATER IN PER 1000 HR	TOTAL GALLONS		SG PER 1000 LB	TG HR PER GAL
18	Nov 45	576	Rio Tyool Lt	657								657
16	Nov 46	940	DIE Lt 797	1889	267	142	645	344	70	37	27	1639
15	Aug 38	946	DIE Lt	60235	2095	35	7075	126	2166	36	28	11272
14	Jan 37	227	Shell 20A	65560	3499	28	13048	805	2453	39	26	14563
13	Feb 47	106	DIE Lt 797	260								560
12	Mar 39	111	DIE Lt	57770	53	1	6		550	10	105	15881
11												
10	June 35	1220	Tyool Lt	64653	632	11	1022	12	207	52	31	8949
9	May 46	590	Rio Tyool Lt	7708	11	14	219	22	20	27	37	7708
8	Sept 35	580	Tyool Lt	65124	5057	47	2185	72	2177	33	30	5853
7	July 37	290	"	29760	1093	37	120	4	1449	49	21	5033
6												
5	July 46	280	Rio Tyool Lt	6532	50	9	17	3	99	16	64	6532
4	June 46	280	"	7066	206	29	15112	2114	86	12	62	7066
3	Unknown	300	Old DIEHT	1061					166	181	9	1061
2	Apr 36	296	Old Shell	4900					258	42	21	4900

*Andr. Arives*

NY 200 18 44



COPIES TO:  
 OPERATING ENGINEER  
 CHEMICAL ENGINEER  
 MAINTENANCE ENGINEER  
 OPERATING SUPT.  
 BSA  
 THE OFFICE  
 LUBRICATION BUREAU

RIVERSIDE STEAM ELECTRIC STATION  
 TURBINE OIL SERVICE DATA

April 1947

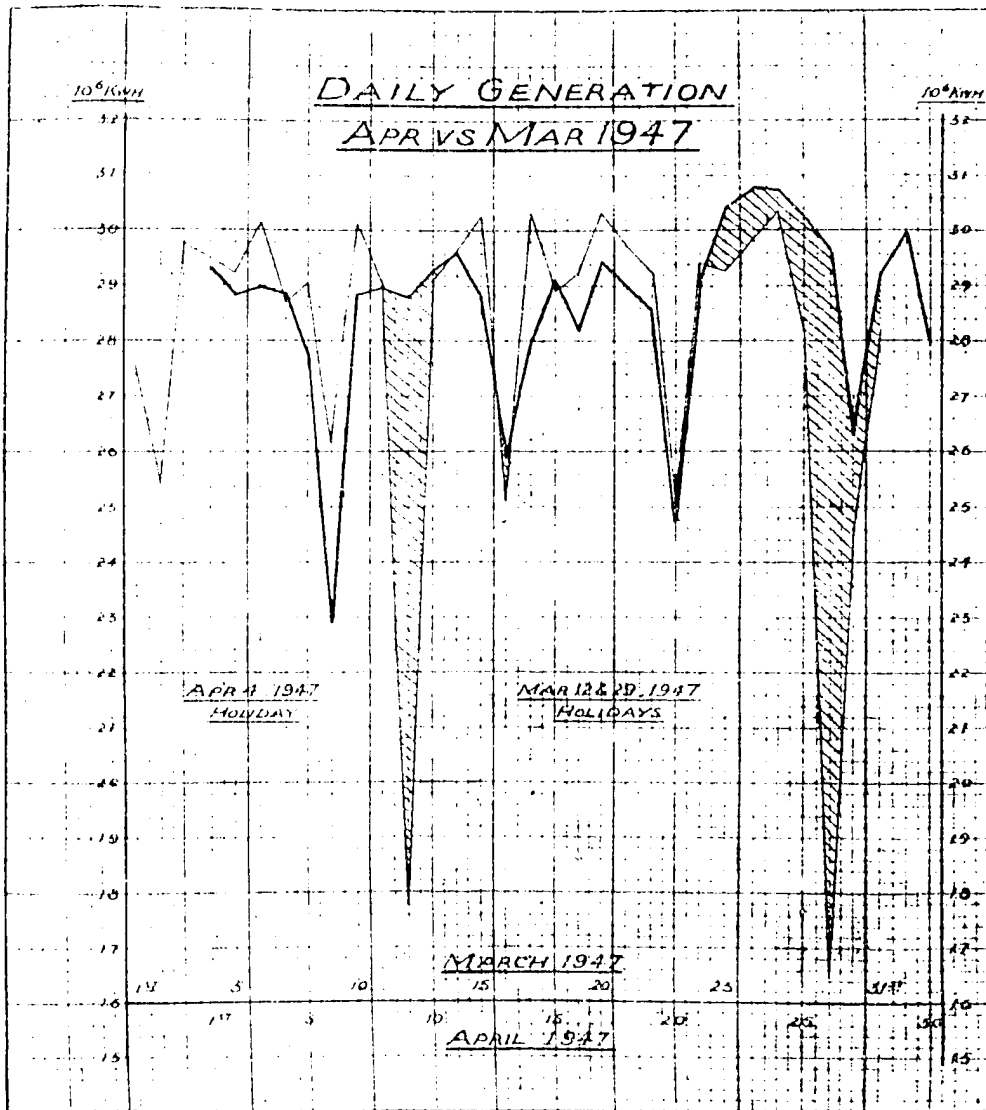
DATE March 4, 1947

TG No	OPERA TIME HR	MAKE-UP		CENTRIFUGE OPERATION				LABORATORY REPORT			REMARKS
		GAL	DESCRIPTION	HR	SAT SOLIDS GM	SOLIDS GM PER 1000 HR	WATER LB	VISCOSITY 250° F/SAY ST	ACIDITY MG NON KM	DEMULSITY MIN	
10	587	20	DYE 797	516	102	171	60	90	0.055	2 1/2	
10	588	20	DYE 797	199			224	90	0.075	0	
15	110	23	DYE 797	28	9	13	38	95	1.07	2 1/2	
14	110			28				95	1.02	3 1/2	
13											
12	121	5	DYE Fla	20				95	0.55	4	
11											
10	495							90	0.15	2 1/2	
9	494			35	20	29	6	91	0.064	5	
8	484			39	7	10	15	98	1.05	4	
7	557	40	Rio Tycol Lt	13				94	0.55	3 1/2	Acidity increase 0.12 mg.
6											
5	590			145	5	9	4	95	0.085	2 1/2	
4	140	10	Rio Tycol Lt	562	38	45	5495	91	0.065	2 1/2	
2	525	39	DYE Fla					102	0.55	5	
1	434	30	DYE Fla					104	1.42	6	

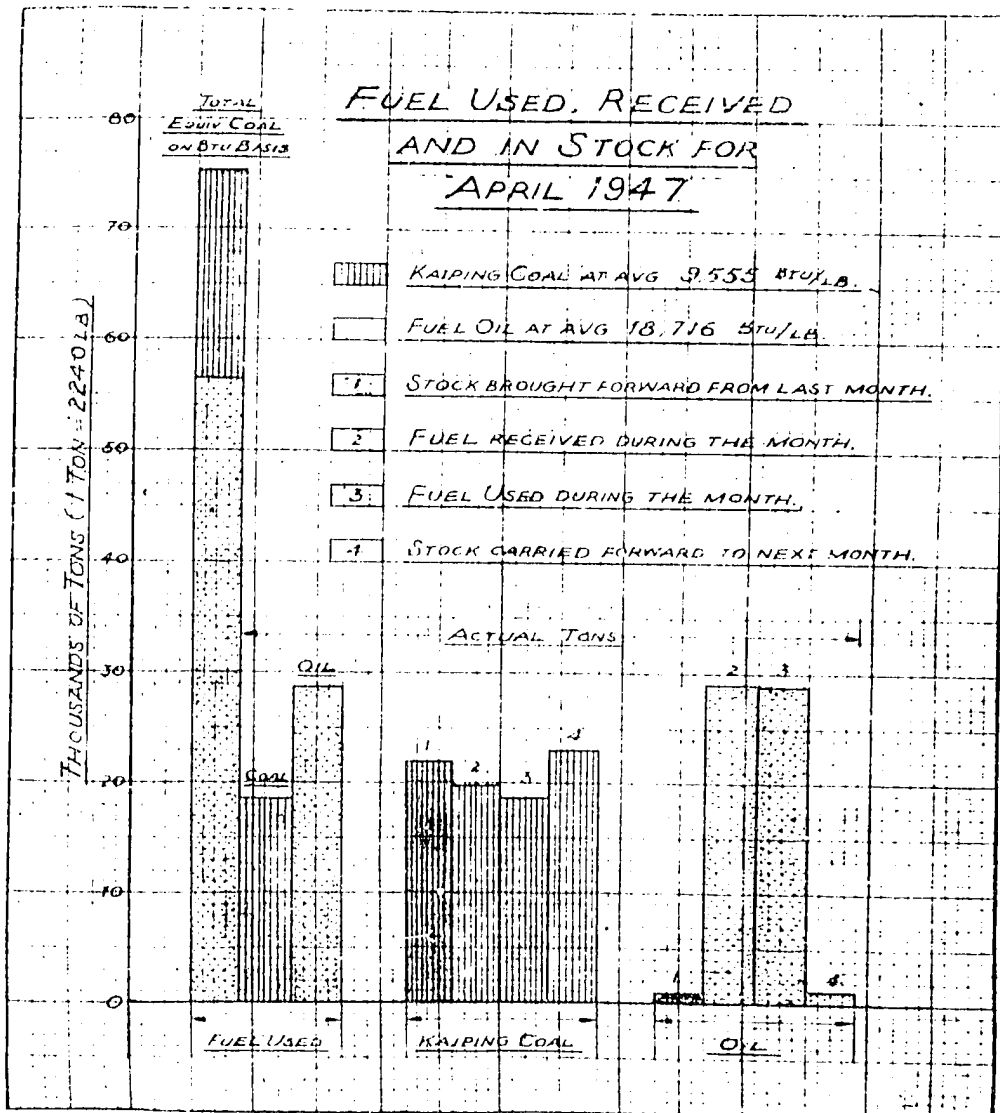
HISTORY OF OIL BATCHES

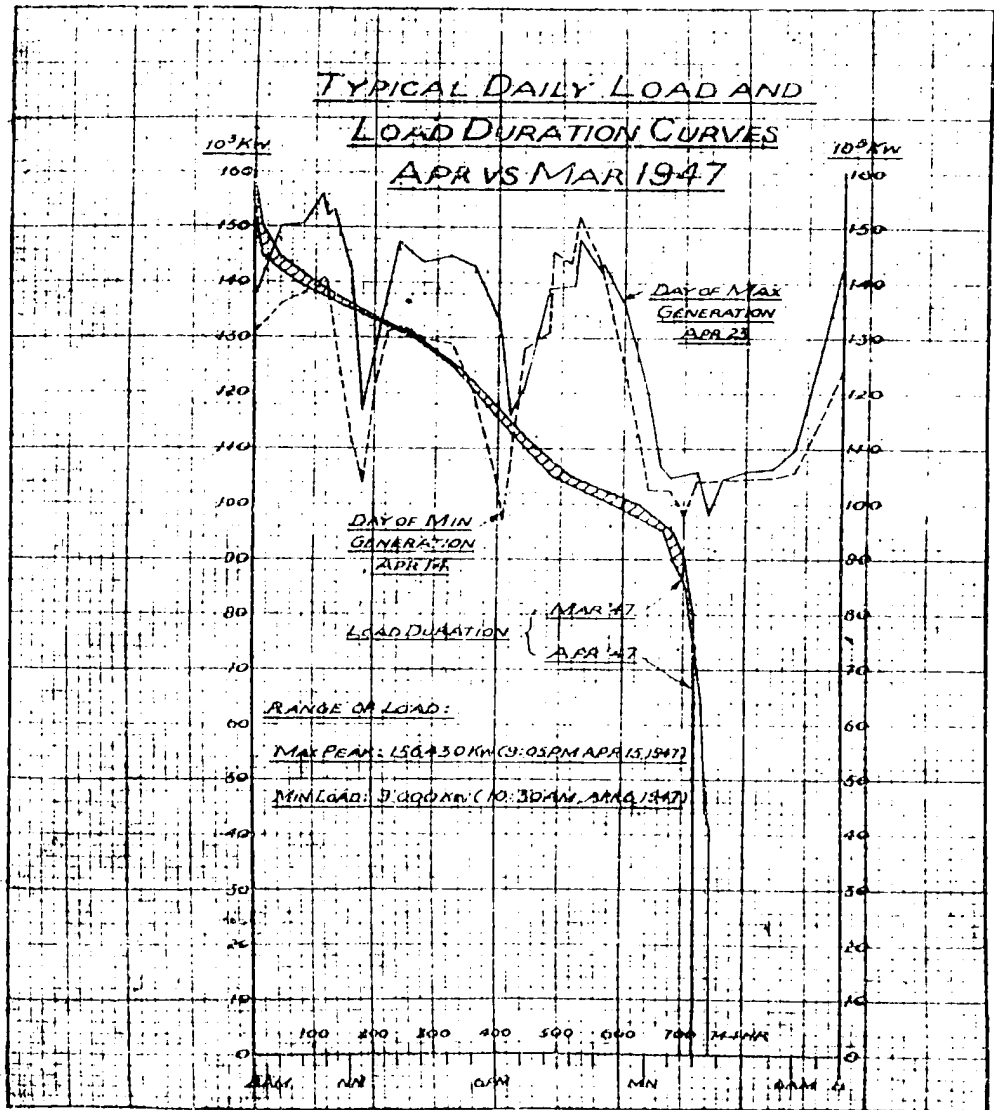
TG No	LAST FULL CHARGE			TOTALS TO DATE					MAKE-UP DATA			OPERATING HRS SINCE LAST OVERHAUL
	DATE	GAL	DESCRIPTION	OPERATING HRS	SOLIDS GM/1000 HR	WATER LB	WATER LB/1000 HR	TOTAL GALLONS	SAL PER 1000 HR	TA HR PER GAL		
10	Nov 44	575	Rio Tycol Lt	657								657
10	Nov 44	940	DYE Lt 797	1869	267	142	645	344	70	37	27	1869
15	Aug 55	941	DYE Lt	65295	2095	55	7075	125	2166	36	33	11572
14	Jan 57	927	Shell 39A	45560	3599	33	13048	205	2453	39	15	14563
13	Feb 47	105	DYE Lt 797	340								340
12	Mar 59	111	DYE Lt	57770	53	1	6		550	10	105	10881
11												
10	June 36	1200	Tycol Lt	64535	638	11	1032	16	207	32	31	6949
9	May 45	590	Rio Tycol Lt	7708	111	14	219	29	20	27	37	7708
8	Sep 36	500	Tycol Lt	65184	5067	47	5155	79	2177	35	50	65184
7	July 37	290	"	29750	1093	37	120	4	1449	49	21	29750
6												
5	July 46	250	Rio Tycol Lt	6532	50	9	17	3	99	14	64	6532
4	June 46	250	"	7066	205	29	10113	2114	65	12	62	7066
2	Unknown	500	Old DYE?	1081					184	188	9	1081
1	Aug 36	275	Old Shell	4800					239	22	71	4800

*John Oliver*



SHANGHAI POWER COMPANY		APRIL 1964		DATE		1964	
FOR THE MONTH OF APRIL 1964		AVERAGE		CHEMICALS ADDED LB		REMARKS	
NO	WATER	WATER	WATER	NO	WATER	WATER	WATER
NO	WATER	WATER	WATER	NO	WATER	WATER	WATER
17	59	104	503	2.9	243		
18	113	143	323	1.9	2033		
19	81	80	243	3.0	885		
20	79	113	291	2.4	2423		
21	94	124	540	4.6	242		
22	89	119	661	4.7	1180		
23	99	127	523	0.3	623		
24	8	11	19	2.0	20		
25	63	95	313	3.5	100		
26	60	85	285	3.5	77		
27	54	78	420	5.3	80		
28	44	63	124	3.3	85		
29	58	78	428	3.8	120		
30	53	74	244	5.6	100		
31	53	64	157	2.4	90		
32	36	45	66	1.5	20		
33	47	70	245	3.0	97		
34	64	85	315	3.9	145		
35	45	67	95	3.2	70		
36	70	94	320	3.6	147		
37	60	84	260	1.1	68		
38	11	17	10.6	10.6	659		
39	24	20	10.7	11.0	11		
40	6	6	10.9	10.9	33		
41	14	17	10.8	11.0	13		
42	5	5	10.5	11.5	20		
43	28	28	10.7	11.8	5		
44	29	25	10.5	10.5	5		
45	24	24	10.7	10.7	6		
46	16	16	10.4	10.4	15		
47	15	15	10.4	10.4	11		
48	20	20	10.4	10.4	25		
49	25	25	10.4	10.4	25		
50	29	29	10.4	10.4	23		
51	20	20	10.4	10.4	20		
52	25	25	10.4	10.4	25		
53	25	25	10.4	10.4	25		
54	25	25	10.4	10.4	25		
55	25	25	10.4	10.4	25		
56	25	25	10.4	10.4	25		
57	25	25	10.4	10.4	25		
58	25	25	10.4	10.4	25		
59	25	25	10.4	10.4	25		
60	25	25	10.4	10.4	25		
61	25	25	10.4	10.4	25		
62	25	25	10.4	10.4	25		
63	25	25	10.4	10.4	25		
64	25	25	10.4	10.4	25		
65	25	25	10.4	10.4	25		
66	25	25	10.4	10.4	25		
67	25	25	10.4	10.4	25		
68	25	25	10.4	10.4	25		
69	25	25	10.4	10.4	25		
70	25	25	10.4	10.4	25		
71	25	25	10.4	10.4	25		
72	25	25	10.4	10.4	25		
73	25	25	10.4	10.4	25		
74	25	25	10.4	10.4	25		
75	25	25	10.4	10.4	25		
76	25	25	10.4	10.4	25		
77	25	25	10.4	10.4	25		
78	25	25	10.4	10.4	25		
79	25	25	10.4	10.4	25		
80	25	25	10.4	10.4	25		
81	25	25	10.4	10.4	25		
82	25	25	10.4	10.4	25		
83	25	25	10.4	10.4	25		
84	25	25	10.4	10.4	25		
85	25	25	10.4	10.4	25		
86	25	25	10.4	10.4	25		
87	25	25	10.4	10.4	25		
88	25	25	10.4	10.4	25		
89	25	25	10.4	10.4	25		
90	25	25	10.4	10.4	25		
91	25	25	10.4	10.4	25		
92	25	25	10.4	10.4	25		
93	25	25	10.4	10.4	25		
94	25	25	10.4	10.4	25		
95	25	25	10.4	10.4	25		
96	25	25	10.4	10.4	25		
97	25	25	10.4	10.4	25		
98	25	25	10.4	10.4	25		
99	25	25	10.4	10.4	25		
100	25	25	10.4	10.4	25		





SHANGHAI POWER COMPANY

April 30, 1947

SHANGHAI POWER COMPANY  
AND  
WESTERN DISTRICT POWER COMPANY OF SHANGHAI  
FEDERAL INC., U.S.A.

DISTRIBUTION OPERATING DEPARTMENT

MONTHLY LETTER FOR APRIL 1947

The following outlines the activities in connection with operation, maintenance and construction work in this Department.

I OPERATION

(A) SERVICE FAILURES AND TROUBLE CALLS

(1) Major Service Failures

(a) Load Reduction due to insufficient generating capacity at Riverside

Date	Apr 1	Apr 8	Apr 15	Apr 16	Apr 18
Area affected	SPC	SPC Chapel	SPC French	SPC Chapel French	SPC Chapel French
Supply from substation	Yangchow	Riverside Tonquin	Riverside Yangchow	Riverside Yangchow Tonquin Robison	Robison Tonquin
Feeder	G5, 16	5 feeders	G5, 16, AK38, A1/2	10 feeders	D4, C20, 19/21
Customer	Wing On 1 Kotobuki Co. S'hai C/M 4	5 customers	5 customers	12 customers	Chapel Kwang Foh Hoong Chang N W K 2 Wing On 3
Duration of supply interruption	2 mins to 24 mins	10 mins to 1 hr 53 mins	10 mins to 50 mins	25 mins to 2 hrs 46 mins	12 mins to 28 mins
Estimated kVA-hrs lost	Company's area	AM 7,438	Ev 2,270	PM 3,180 Ev 17,090	Ev 940
	Chapel	AM 666		PM 6,600 Ev 1,210	Ev 1,000
	French		Ev 3,080	Ev 1,660	Ev 1,870
	Total	1,410	8,104	5,350	29,744
Remarks	AM - refers to morning peak load period (8 am to 12 noon) PM - " " afternoon " " " (12 noon to 7 pm) Ev - " " evening " " " (after 7 pm)				

SHANGHAI POWER COMPANY

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(a) Load Reduction due to insufficient generating capacity at Riverside (cont.)

Date	Apr 19	Apr 20	Apr 22	Apr 23	Apr 24	
Area affected	SPC WDPC Chapel French	SPC WDPC Chapel French	SPC Chapel	SPC WDPC Chapel French	SPC Chapel French	
Supply from substation	5 sub-stations	Robison Tonquin	Riverside Robison	Robison Tonquin	Tonquin	
Feeder	15 feeders	5 feeders	A10 D4	C24 Tonquin Chapel Chun Shan D4, DF73	Chapel Chun Shan C7, 8 & 9	
Customer	20 customers	Chapel Chun Shan N W K 1 & 2 N W K 5 N W K 6 & 7	Chapel Kwang Foh Kung Dah 1	Chapel Toyoda Sang Sing 1 Sing Yue 2	Chapel Chun Shan N W K 5 N W K 6 & 7	
Duration of supply interruption	13 mins to 3 hrs 2 mins	16 mins to 29 mins	8 mins to 23 mins	39 mins to 1 hr 15 mins	40 mins to 1 hr 13 mins	
Estimated kVA-hrs lost	Company's area	AM 1,600 Ev 20,710	KV 1,680	AM 320	AM 4,100	AM 2,350
	Chapel	AM 9,090 Ev 2,600	Kv 1,450	AM 240 PM 920	AM 6,070	AM 3,650
	French	AM 815 Ev 7,900	Kv 1,650		AM 200	AM 260
	Total	43,715	4,780	2,080	10,370	6,280
Remarks		AM - refers to morning PM - " " afternoon Ev - " " evening		peak load period " " " " " "	(8 am to 12 noon) (12 noon to 7 pm) (after 7 pm)	

SHANGHAI POWER COMPANY

- 3 -

(a) Load Reduction due to insufficient generating capacity at Riverside (cont.)

Date	Apr 26	Apr 27	Apr 28	Apr 30
Area affected	BPC Chapel	SPC Chapel French	BPC Chapel French	Chapel French
Supply from substation	Tonquin	Tonquin Connaught	Riverside Yangchow Tonquin	Tonquin
Feeder	Chapel Chun Shan C22, 23	E11 C12 & 13	6 feeders	Chapel Chun Shan
Customer	Chapel Chun Shan Tung Yih	Chapel Chang An Sing Yue 1 Sung Sing 2	5 customers	Chapel Chun Shan
Duration of supply interruption	18 mins to 2 hrs 13 mins	8 mins to 1 hr 25 mins	2 hrs 5 mins to 3 hrs 20 mins	48 mins
Estimated kVA-hrs lost	Company's area		AM 15,490	
	Chapel	AM 6,650	Ev 194	AM 9,750 AM 2,400
	French		Ev 800	AM 875 AM 240
	Total	7,300	5,744	26,125 2,640
Remarks	AM - refers to morning PM - " " afternoon Ev - " " evening		peak load period (8 am to 12 noon) " " " (12 noon to 7 pm) " " " (after 7 pm)	



SHANGHAI POWER COMPANY

- 4 -

(b) Other Causes

Date	Apr 3	Apr 6	Apr 9	Apr 15	Apr 19
Area affected	WDPC	SPC WDPC Chapel French	SPC	WDPC	SPC
Supply from substation	Tien Yuan	Riveraide 6.6 kV & 23 kV	Yangtse Egg & Cold Storage Woochang	Edinburgh	Kwenming
Feeder	Part of FB	All feeders except Robison feeders & A1/2 & B/13	Yangtse Egg & Cold Storage & part of Woochang LV 3	Yung Tai Nail spur line tee off M3	Ward Road line
Customer	24 custom- ers & LV networks	All customers except those supplied by Robison B/3 & A1/2 & A8/13	Yangtse Egg & Cold Storage & LV network	Yung Tai Nail Chwang Kee Steel Hwa Luon P/M 1	5 customers & LV net- works
Cause of failure	HV Road mains foul- ed by kite	AB7 short cir- cuted by workman and flashover at Riveraide Section 2 L A	Fire	Stay wire hit by truck	LV mains hit by ex- ploded Acetylene tank
Fault cleared by	HV drop- out fuse	Fearon feeder OCBs & others opened by operator	OCB opened by operator	Yung Tai Nail master D/O fuses	Kwenming Ward Road Line OCB
Damage to equipment	None		Some LV mains damaged	Stay wire broken	One LV conductor broken
Duration of supply interruption	1 hr 15 mins to 1 hr 25 mins	28 mins to 2 hrs 26 mins	4 hrs 17 mins to 7 hrs	51 mins	1 hr 4 mins to 1 hr 57 mins
Company's area affected Chapel kVA	500	86,650*	360	500	660
	French				
Remarks		*including French J & Chapel 6.6 kV supply			

SHANGHAI POWER COMPANY

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(b) Other Causes (cont.)

Date	Apr 20	Apr 20
Area affected	SPC	WLPC
Supply from substation	Yangchow	Tien Yuen
Feeder	G9	F8 (partial)
Customer	Chinese Aluminium Rolling Mill, Wayside Lay PT	24 customers & LV net- works
Cause of failure	Cable fault	Undeter- mined
Fault cleared by	Yangchow G9 OCB	Hungjao W. of Warren master D/O fuse
Damage to equipment	Cable faulty	None
Duration of supply inter- ruption	1 hr to 2 hrs 12 mins	46 mins
Company's area	150	300
Load affected kVA	Chapei	
	French	
Remarks		

SHANGHAI POWER COMPANY

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(b) Other Causes (cont.)

Date	APR 20	APR 20
Area affected	SPC	WDPC
Supply from substation	Yangchow	Tien Yuen
Feeder	G9	F8 (partial)
Customer	Chinese Aluminium Rolling Mill, Wayside Lay PT	24 customers & LV networks
Cause of failure	Cable fault	Undetermined
Fault cleared by	Yangchow G9 OCB	Hungjao W. of Warren master P/O fuse
Damage to equipment	Cable faulty	None
Duration of supply interruption	1 hr to 2 hrs 12 mins	46 mins
Company's area	150	300
Load affected kVA	Chapei	
	French	
Remarks		

SHANGHAI POWER COMPANY

- 6 -

(2) Classified Service Failures (including Item 1)(a) Caused by Defective Equipment

Equipment	Number of Failures	
	This Month	Last Month
Overhead Lines: HV	-	-
LV	-	6
Underground Lines: Cables	1	-
Joints	-	1
Pothenes	-	1
Transformers and voltage regulators	-	-
Switchgear	-	-
Power fuses	1	2
Protective equipment	-	-
Traction equipment	-	-
Metering equipment	-	-
Current and potential transformers	-	-
Street lighting: Series	-	-
Multiple	4	11
Other Company's equipment	-	-
Total (a)	6	21

(b) Other Causes

Cause of Failure	Number of Failures	
	This Month	Last Month
Foreign agencies: Overhead Lines	3	12
Street lighting	-	1
Underground Lines	1	-
Tram trolleys: Overhead Lines	-	-
Street lighting	1	5
Theft of equipment	-	-
Typhoons and storms	-	-
Lightning	-	-
Flood	-	-
Fire	1	-
Vermin and Birds	-	1
Overload	-	2
Customers' equipment failures:		
Company's area	-	-
Ex franchise area	-	8
Company's staff: Misoperation	-	-
Fouled by workmen	2	-
Generating station trouble	14	17
Undetermined	1	2
Total (b)	23	40
Total (a & b)	29	69

SHANGHAI POWER COMPANY

- 7 -

(3) Trouble Calls attended to by System Trouble Section

Company's installation	Number of Calls					
	This Month			Last Month		
	SPC	WDPC	Total	SPC	WDPC	Total
23 kV overhead and underground lines	-	1	1	2	-	2
6,600 volt overhead and underground lines	3	4	7	7	10	17
380 volt overhead and underground lines	3	2	5	19	11	30
Street lighting lines and equipment	13	1	14	40	6	46
Traffic signals	168	15	183	144	13	157
House service connections and wires	34	18	52	67	18	85
Substation equipment	2	-	2	-	-	-
DC Traction equipment and lifts	-	-	-	-	-	-
Fire calls	61	13	74	68	7	75
False alarms	1	3	4	2	-	2
Miscellaneous	4	2	6	5	3	8
<u>Customers' premises</u>						
Lighting	748	154	902	841	191	1032
Power	72	44	116	85	46	131
Heating	37	20	57	56	29	85
<b>Total Trouble Calls attended to</b>	<b>1146</b>	<b>277</b>	<b>1423</b>	<b>1336</b>	<b>334</b>	<b>1670</b>
<b>Average per day</b>	<b>38.2</b>	<b>9.2</b>	<b>47.4</b>	<b>43.1</b>	<b>10.8</b>	<b>53.9</b>

(B) TRANSFORMERS AND REGULATORS

(1) Connected and/or Disconnected from Service

SPC

Location	Capacity in kVA		Remarks
	Connected	Disconnected	
Sung Sing No.7	940		Load increase.
Chase Bank		335	Removal of standby transf.
Fingliang-Yangchow PT	325	225	Load increase.
Da An Rubber OT	225		New installation.
Sung Sing No.6		940	Removal of standby transf.
Kwemaing (Ind. Voltage Reg.)	260		Reinstallation.
Fearon Substation, FQ circuit	15		To replace faulty regulator.
Shantung-Wuhu PT		225	PT dismantled.

SHANGHAI POWER COMPANY

- 8 -

WDPC

Location	Capacity in kVA		Remarks
	Connected	Disconnected	
Granada Estate PT	50	35	Load increase.
Hangjao H.109 PT	50		New installation.
Hwa Gbong P/M OT	125		Load increase.
Jing Kung D & W OT	225	125	Load increase.
Dah Sing Tsong D & W OT	225		New installation.
Tien Foong OT	125		New installation.

U N I T S

	SFC	WDPC
(2) <u>Taps changed for Network Voltage Regulation</u>	3	2
(3) <u>Switched on or off Load for Operational Purposes</u>	5	-
(4) <u>Under Observation due to Overload or Overheating</u>		

SFC

Location	Capa- city kVA	Type	Max. Load		Max. oil top temp.	Ambi- ent temp.	Temp. Rise	Remarks
			%	Dura- tion				
Tu Yuen-Hart PT	125	Outdoor	121	1 hr.	25	10	15	
Sung Sing No.2	940	Indoor	109	1 hr.	55	20 1/2	34 1/2	
	940	"	109	1 hr.	57	19	38	
Clock Tower	325	Outdoor	146	1 hr.	63 1/2	11 1/2	52 1/2	Transf. will be changed to 940 kVA.
Yates-Taku PT	225	"	103	1 hr.	35 1/2	16	19 1/2	
Shanhaikwan (Ind. Vol. Regulator)	260	Indoor	146	1 hr.	20	17	3	VR will be changed to 525 kVA.
Yates PT	225	Outdoor	123	1 hr.	34 1/2	14 1/2	20	
Ferry-Connaught PT	325	"	118	1 hr.	49	12	37	
Tonquin-Changping PT	225	"	116	2 hr.	32 1/2	4 1/2	28	
Robison-Seymour PT	225	"	129	1 hr.	43	14	29	
Seymour-Changping PT	225	"	121	1 hr.	46 1/2	19	27 1/2	
Hardoon-Nanyang PT	125	"	116	1 hr.	41	10 1/2	21 1/2	
Range	940	Indoor	114	1 hr.	61	17	44	
Widows Monument PT	225	Outdoor	120	1 hr.	39	11	28	
Postoo-Gordon PT	225	"	106	1 hr.	45	26	19	
Ave. Edward VII-Chungking PT	225	"	108	1 hr.	42	19	23	
Taeboo	740	Indoor	117	1 1/2 hr.	59 1/2	18	41 1/2	Spare transf. will be switch on.
	940	"	116	1 1/2 hr.	59 1/2	18	41 1/2	
Bubbling Well (Ind. Vol. Regulator)	260	"	125	1 hr.	43	16	27	
	200	"	114	1 hr.	45 1/2	14 1/2	31	

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Location	Capacity kVA	Type	Max. Load		Max. oil top temp.	Ambi- ent temp.	Temp. Rise	Remarks
			%	Dura- tion				
Yangtze-Dalny PT	125	Outdoor	110 $\frac{1}{2}$	2 hr.	59 $\frac{1}{2}$	17	22 $\frac{1}{2}$	
Patons & Baldwins W/M	625	Indoor	110	hr.	54	27	27	
Wuchow PT	225	Outdoor	111	hr.	23	10	13	
Avenue-Medhurst PT	325	"	105	hr.	40	11 $\frac{1}{2}$	28 $\frac{1}{2}$	
Chin Foong Brass R/M	325	"	121	hr.	53	20	33	
Kiaochow	125	"	110	hr.	38	13	25	
Hailar-Tungchow PT	62 $\frac{1}{2}$	"	137	hr.	26 $\frac{1}{2}$	17 $\frac{1}{2}$	9	
E. Broadway-Chaoufoong PT	225	"	134 $\frac{1}{2}$	hr.	42	12	30	Tungchow LV feeder will be rein- stalled.
Da An Rubber Factory OT	225	"	100	hr.	34 $\frac{1}{2}$	13	21 $\frac{1}{2}$	
Standard Shirts OT	225	"	114	hr.	48	16	32	Consumers advised to reduce load.
Ward-Liaoyang PT	325	"	105	hr.	48	20	28	
Sung Sing No.6	940	Indoor	103	hr.	61	25	36	
	940	"	97	hr.	59 $\frac{1}{2}$	25	34	
	940	"	97	hr.	58	25	33	
Dalny-Wayside PT	225	Outdoor	114	hr.	(Ward-Dalny PT will be installed)			Transformers have been equipped with temperature indicating plates which will give colour indication when top oil temperature reads 70°C.
E. Seward-Chaoufoong PT	225	"	128 $\frac{1}{2}$	hr.	( - ditto - )			
Wing On 5	625	Indoor	109	hr.				
Tongshan-Dent FT	225	Outdoor	102	hr.	(Tungchow LV feeders will be reinstalled)			
Pingliang-Whashing PT	225	"	90	hr.				
Point-Kungping PT	225	"	140	hr.				
Shanghai C/M No.6	325	"	113	hr.				
Baikai-Liaoyang PT	325	"	113	hr.				
Wetmore-Ward PT	225	"	176*	Spot reading	80	14	66	
Hochien-Sungfow PT	50	"	79	hr.				
Pingliang-Ningwu PT	125	"	116	hr.				
Whashing-Point PT	325	"	92	hr.				
Chengtu-Taku PT	225	"	106	hr.	31	14 $\frac{1}{2}$	17 $\frac{1}{2}$	

\* Load relieved by Da An Rubber OT erected on  
April 10, 1947

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WDPC

Location	Capacity kVA	Type	Max. Load		Max. oil top temp.	Ambi- ent temp.	Temp. Rise	Remarks
			%	Dura- tion				
Wai Foong Rubber	225	Outdoor	106	2 hr.	49	24	25	
Del Wei Textile PT	325	"	158	$\frac{1}{2}$ hr.	62	12	50	
ABC & Co.	1000	Indoor	97	$\frac{1}{2}$ hr.	73	26	47	
Hai Loong P/M OT	225	Outdoor	100	$\frac{1}{2}$ hr.	51	16	35	
Chung Woo P/M	325	"	102	1 hr.	60	22	38	Load relieved by temporary transformer.
Yu Yuen "A" PT	225	"	123	$\frac{1}{2}$ hr.	38	12	26	
Jessfield-Tifeng PT	225	"	117	1 hr.	39	16	23	
E. Tao An Pang "B" PT	50	"	112	$3\frac{1}{2}$ hr.	39	19	20	
Kong Ka Jao PT	125	"	110	$\frac{1}{2}$ hr.	59	18	41	
Hwa Chong P/M OT	125	"	159	2 hr.	82	20	62	Install one more 125 kVA transformer to parallel with it.

## (C) MISCELLANEOUS TESTS

Units	Equipment	Voltage	Nature of test	Reason for test
-	Consumer's installation at Sung Sing No.7 C/M	$\frac{6,600}{380}$	Overvoltage, insula- tion resistance of HV cable and 940 kVA transformer (on hire), overload testing of HV and LV OCBs	New installation.
1	Electric Hand Dryer No.2132, made by General Utilities Manufacturing Co.	220	Temperature rise of air	Air not warm enough for correct operation.
1	Transformer 325 kVA 3 phases SEM	$\frac{6,300}{380}$	Continuity, insulation resistance, voltage ratio, phase relation.	After conversion from Y/Y to $\Delta$ /Y connection.
1	Floor bushing insulator made by IGE for IGE-HG OCB at Fenon Substation	23,000	Overvoltage	After flashover (due to accident).
3	Compound filled current transformers 100/5 amp. 15 VA for Sung Sing No.7 made by Wai Tung	6,600	Overvoltage	Before commissioning.



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Units	Equipment	Voltage	Nature of test	Reason for test
1	Remote control switch for DC breaker made and owned by SEC Co.	580	General cleaning, inspection and checking	Prior to installation in Feeder Pillar.
3	Lightning arrester discs. Lead-oxide type made by GE.	2,000	Form of spill-over curve at different spill-over voltages	Interest in connection with breakdown of Lightning Arrester at Riverside.
20	Pin type Porcelain Insulators made by Bullers for Toyoda 23 kV overhead line	23,000	Flashover and over-voltage	Prior to installation.
1	Synchronous Motor Stator Property of Hwa Chung Electric Mfg. Co. make Shibaura 800 HP	6,600	Insulation resistance of stator winding	Consumer's request, after rewinding of stator.
1	Transformer 940 kVA 3 phases GE	$\frac{6,600}{300}$	Overvoltage, insulation resistance, voltage ratio and phase relationship	Prior to insulation.
-	Small step down transformer		Sec. voltage wave form of an over-excited transformer	Interest.
1	Pothead, inverted outdoor type	23,000	Overvoltage and insulation resistance	After repairs.
-	Consumer's installation at Toyoda Motor Works	23,000 & 11,000	Pressure, continuity, insulation resistance	After long period of idleness.
1	MV type K3 metalclad switchgear at Asia Steel Works	23,000	Overload and earth leakage	Check test during shutdown.
1	Transformer 325 kVA NRC Property of Pao Shan	$\frac{6,600}{300}$	Continuity, insulation resistance, overvoltage, voltage ratio and phase rotation	Prior to commissioning.
2	Pin type Porcelain Insulators for Toyoda Motor 23 kV overhead line	23,000	Overvoltage and flashover	Suspected faulty.

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Units	Equipment	Voltage	Nature of test	Reason for test
1	Lightning Arrester disc. Maker: GE. Type: Lead oxide	-	Determination of current against voltage curve	Interest
1	Transformer 325 kVA 3 phases KEC Brennan Substation Dica Type	-	General investigation	Transformer tank suspected alive.
5	Disc Type Insulator for overhead line, maker: Ohio Brass	6,600	Overvoltage and flashover	Suspected faulty.
1	Transformer 125 kVA, 3 phases SEM Tion Foong OT.	<u>6,600</u> 380	Continuity, insulation resistance, open circuit, and short circuit tests	Investigation.
1	Current transformer ratio 500/5. Maker: MV	300	Insulation resistance and ratio test	Overheated during service.
4	Starting coil for Traction Mercury Arc Rectifier	550	Insulation resistance, continuity and resistance	Acceptance.
1	Induction voltage regulator motor. 3 phases. Maker: KEC	230	Insulation, continuity, open circuit run and brake	Investigation.
2	Underground cable 0.057 reels sq in, 3 core, belted PILC & STA. Maker: General Cable Corp.	6,600	Overvoltage, resistance, capacitance and insulation resistance	New stock.

II MAINTENANCE

Routine inspection, maintenance and testing of plant on the transmission and distribution systems have proceeded according to programme.

(A) PROTECTION, BATTERIES AND TELEPHONES(1) Protection Tests

Type of Protection	Number of Panels where tests carried out	
	KEC	WPPC
Overload and/or Earth Leakage Feeder or Transformer Balance	25	-
	4	-
Total	29	-

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(2) Relays

Type of Relay	Number of Relay Elements			
	SPC		WGPC	
	Tripping circuit tests	Changed	Tripping circuit tests	Changed
Inverse Time	-	1	-	-
Instantaneous	43	-	-	-
Total	43	1	-	-

(3) Batteries

Work done	Lead-Acid & Edison Types		Ni-Zn Type	
	110 V in Primary Substations	Telephone Exchange	30 V in Secondary Substations	
	SPC		SPC	WGPC
Inspected, cleaned and topped up	24	8	44	10
Equalizing charges conducted	6	1	-	-
Charged and discharged	-	-	1	-
Electrolyte changed	-	-	2	1

(4) Auto-telephone Equipment and Lines

Instruments installed	4
" disconnected	3
" changed	4
" moved	6
" overhauled	-
" faults repaired	-
Line faults located and repaired	23
Switches overhauled	1
Exchange equipment faults repaired	-
Miscellaneous equipment overhauled	2

(B) TRANSFORMERS AND REGULATORS

- (1) Overhauled (Core lifted, windings and connections examined, I.R. tested, oil changed)

Location	Capacity in kVA	Workshop	Reason for overhaul
Shanghai C/M No.1	940	Fearon 3/3	Over 10 years in service.

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WDPC

Location	Capacity in KVA	Workshop	Reason for overhaul
Tunshin East PT	125	Riverside	Over 10 years in service.
Great Western PT	125	Riverside	Over 10 years in service.
Edinburgh-Lucerne PT	125	Riverside	Over 10 years in service.

	U N I T S	
	<u>SFC</u>	<u>WDPC</u>
(2) <u>Inspected on site</u> .....	19	7
(3) <u>Oil-Dielectric tested</u> .....	24	14
(4) <u>Oil-Acidity tested</u> .....	-	-

(C) OIL CIRCUIT BREAKERS

(1) Overhauled and Tripping Mechanism Tested

Reason for test	Number of OCBs tested			
	<u>SFC</u>		<u>WDPC</u>	
	Company's property	Customer's property	Company's property	Customer's property
Routine and special maintenance	85	14	12	7
Oil circuit breakers tripped	3	-	-	-
New installation or operation resumed	-	7	-	10
<b>Total</b>	<b>98</b>	<b>21</b>	<b>12</b>	<b>17</b>

	U N I T S	
	<u>SFC</u>	<u>WDPC</u>
(2) <u>Oil-Dielectric strength tested</u> .....	39	1
(3) <u>Oil changed</u> .....	47	-

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(D) PRIMARY SUBSTATIONSRegular and Special Maintenance

Substation	Company	Equipment	Work done	% completed
Primary Sub-stations	SFC	Power transformers	Inspection of transformer breathers and dry out sorbail	80
Fearon	SFC	Switchgear	Overhaul and overload test of all HV OCBs.	70
Primary Sub-stations			Overhaul and overload test all DC circuit breakers	50
Fearon	SFC	Rotary Plant	Repairs of 3,600 kVA synchronous motor of MG 3	70
Tonquin			Overhaul two synchronous condensers	50
Fearon and Tonquin	SFC	Instrument transformers	Inspection and cleandown of all potential transformer and current transformers also test oil	70
Primary Sub-stations	SFC & WDFC	Various sub-station equipment	Overhaul of substation fans Inspection of earthing resistance Overhaul of lightning arresters Overhaul of all lifting gear Checking of all portable earth wires and clamps Inspection of all fire extinguishers Inspection of tool boxes and checking of tools	20 100 100 100 90 80 100
Primary Sub-stations	SFC & WDFC	Batteries	Routine maintenance	To programme
Safety devices inspection and check on artificial respiration practice carried out according to programme.				

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(E) SECONDARY SUBSTATIONS

Location	Com- pany	Work done	% completed
Shanghai Waterworks	SPC		100
Kwongming	"		100
Funning	"		100
Chusan	"		10
Mei Feng C/W Co.	"		100
Sung Sing 5	"		100
Thorburn	"		100
Yee Tsong Tobacco Co. (Whashing)	"	<u>Biannual Regular Maintenance</u>	100
Olun	"		100
Reiber & Co.	"	Overhaul of switchgear, testing of	100
Ewo Brewery	"	automatic protective equipment,	100
Ward Road Jail	"	inspection of transformers and	100
Toa Tobacco Co.	"	regulators, inspection of all	100
Eastern Sewage	"	electrical equipment and cleaning.	100
Katoh & Co.	"		100
Jen Teh Cotton Mill	"		100
Kwangso	"		95
Clock Tower	"		100
Shanso	"		50
Chekiang	"		60
Toyoda 1, 2 & 3	WBPC		100
Sung Sing 1	"		100
Central District		Inspection and repair of substation build- ings for ratproofing.	100
Eastern District		Overhaul of six power transformers at Fearon Substation.	33
Eastern District		Overhaul street lighting regulators.	100
All districts		Inspection of all tool boxes and check tools.	100
All districts		Inspection of PT link boxes against bird nests.	40
All districts		Overhaul of lightning arresters.	90
All districts		Check and inspection of all fire extinguishers	100
All districts		Inspection of pole transformers carried out according to programme.	
All districts		Inspection of safety devices and check on artificial respiration practice carried out according to programme.	

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(F) OVERHEAD LINES AND STREET LIGHTING

(1) Inspection and Overhaul of Overhead Lines ( All Districts)

System voltage	Locations where maintenance of overhead lines has been carried out to programme
6.6 kV	1A O/H line between Kung Yih Substation and Line Switch Brennan W. of Edinburgh.
"	1A O/H line between Line Switch Brennan E. of Jessefield Park Gate and Brennan E. of Edinburgh.
"	A7 O/H line between Foyang and Pingliang, Liping and Kwaiyang.
23 kV	KK201 O/H line Ningkuo and Hochien between Chaoyang and Hochien, Ningkuo and Kwaiyang.

(2) Repairs and Replacements of Overhead Line Equipment (All Districts)

Equipment	Inspected	Repaired	Renewed
Stays	69	-	-
Brackets	254	5	-
Line switcher	5	2	-
Lightning arresters	1	-	1
Insulators	639	-	22
Fuses	21	-	-
Series transformers	-	-	-
Lamp fittings	-	-	-
Lamp brackets	-	-	-
Connections	-	-	-

(3) Poles and Pole Bases - Routine and Special Maintenance

	SFC	WDPC
Poles inspected .....	142	55
Wood poles painted .....	-	-
Iron poles painted .....	-	-
Concrete poles repaired .....	-	-
Decayed wood poles renewed:		
Main .....	1	-
Suspension .....	-	1
Stay .....	2	3
Concrete bases inspected .....	141	51
Concrete bases repaired .....	-	-
Concrete bases renewed .....	6	3
Cast iron sleeves renewed .....	2	3
Cast iron sleeves replaced by concrete bases .....	-	-
Obsolete concrete sleeves replaced by concrete bases .....	-	-

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	<u>SFC</u>	<u>WDPC</u>
(4) <u>Street Lamps burnt and renewed</u>		
Municipal street lighting .....	1237	178
Private street lighting .....	1333	297
Total .....	2570	475

(5) Traffic Signal Switches

Location	Installed	Removed	Replaced	Overhauled
Eastern District	-	-	-	2
Central District	-	-	3	90
Western District	-	-	-	6

(G) OIL TREATMENT PLANT

Location	Transformer Oil				Switch Oil			
	Issued	Returned	Filtered	Stock	Issued	Returned	Filtered	Stock
	US gallons							
Fearon Oil Depot	1,135	1,430	2,270	1,115	1,184	1,031	1,641	636
On Site - SFC	-	-	-	-	-	-	-	-
WDPC	-	-	-	-	-	-	-	-
Total	1,135	1,430	2,270	1,115	1,184	1,031	1,641	636

Samples of Oil Tested for Breakdown ..... 143

(H) UNDERGROUND CABLES

(1) Inspection and Maintenance

	<u>% completed</u>	
	<u>SFC</u>	<u>WDPC</u>
Idle cable risers .....	100	100
Road condition along cables in Eastern District .....	100	-
Central District duct line and manholes .....	100	-
	<u>U N I T S</u>	
	<u>SFC</u>	<u>WDPC</u>
Cable potheads and joints: 23 kV .....	28	-
(including standardization) 6.6 kV .....	84	-
360 V .....	2	-
Feeder pillars .....	1	-
Underground cables along and protected: .....		
	N. Soochow Rd.,	-
	W. of Chapoo Rd.	-
	Doona Rd., corner -	-
	Miller Road.	-
	N. Szechwan Rd.,	-
	corner Jukong Rd.	-



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- (2) 23 kV Underground Cable Failure located and repaired ..... Nil
- (3) 6.6 kV Underground Cable Failure located and repaired ..... 1

SFC

Feeder Name	Location of failure	Faulty cores	Cause of failure	Repairs
Sung Sing No.5 to O/H line to Sung Sing No.6	Cable (Bridge crossing)	R	Ground sub-sidence	Length of 66 feet replaced by new cable and two new joints.

WDPC Nil.

- (4) 330 V Underground Cable Failure located and repaired ..... Nil
- (5) Pilot and Telephone Underground Cable Failure located and repaired .... Nil
- (6) Underground Cable Preventive repairs ..... Nil

(I) BUILDING MAINTENANCE

	Location	Work done	% completed
SFC	1. Fearon Underground Trench Gear Shed	Repairs to roof	40
	2. Ferry Substation	Repairs to roof	100
	3. Fearon Yard	Erecting Tin Hut for Substation Blacksmith Shop	50
	4. New Park Substation	Repairs to roof	100
	5. Fearon Stores	Alterations to lavatory accommodation	10
WDPC	1. Edinburgh Substation	Repairs to roof	100
	2. 17, Lucerne Road	Cleaning drain pipes	100

III CONSTRUCTION

	(A) <u>SERVICES</u>	SFC	WDPC
(1) <u>House Services</u>			
Connections	.....	379	149
Disconnections	.....	76	34
Net increase	.....	303	115

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	<u>SPC</u>	<u>WDPC</u>
(2) <u>Municipal Street Lighting</u>		
Connections .....	20	-
Disconnections .....	-	-
Not increased .....	20	-
(3) <u>Private Lighting</u>		
Connections .....	122	6
Disconnections .....	43	-
Not increased .....	79	6

(B) OVERHEAD LINE

<u>(1) Erection</u>	<u>Area</u>	<u>Location</u>	<u>Route length yards</u>	<u>Number of poles</u>
6.6 kV 3-wire	SPC	Wetmore N. of Ward	18	1
"	"	610 Hochien Road	31	1
"	WDPC	Jessfield Rd. S. of Kinnear Rd.	324	-
"	"	Behind 110 Jessfield Road	170	3
"	"	H.1712 Great Western Road	98	-
380/200 V 4-wire	SPC	Burkill E. of Carter Road	65	1
"	"	Wetmore N. of Ward	18	-
"	"	Deat, Broadway and E. Seward	210	-
"	"	610 Hochien Road	144	-
"	WDPC	Granada Estate PT	104	-
(2) <u>Salvage</u>				
6.6 kV 2-wire	SPC	Shanghai Harbour Office	130	-
(3) <u>Poles</u>			<u>SPC</u>	<u>WDPC</u>
Erected .....			6	24
Removed .....			11	7
Moved at the request and expense of the Municipality .....			-	-

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(C) UNDERGROUND CABLES(1) Installation

- Cable - SPC
1. Installation of 49 yds, .4 sq in, 4-core, 660 V cable for replacement of overhead supply to DOD office building, Fearon Road.
  2. Installation of 77 yds, .4 sq in, 4-core, 660 V cable for modification of LV supply from Denis Apartments Substation, Carter Rd.
  3. Installation of 15 yds, .025 sq in, 3-core, 6.6 kV for supply to Da An Rubber Factory OT, Wetmore Road.
- WDPC
1. Installation of 28 yds, .06 sq in, 3-core, 6.6 kV cable for supply to Tien Foong OT, Great Western Road.
  2. Installation of 15 yds, .025 sq in, 3-core, 6.6 kV cable for supply to Pao Shan P/M, Tunnin Road.
  3. Installation of 32 yds, .025 sq in, 3-core, 6.6 kV cable for supply to Dah Sing Tseng D. & W. OT, Jessfield Road.
  4. Installation of 11 yds, .025 sq in, 3-core, 6.6 kV cable for supply to Jessfield-Zion Ka Hong PT.
  5. Installation of 5 yds, .025 sq in, 3-core, 6.6 kV cable for supply to additional transformer at Hwa Chong P/M OT, Great Western Road.
- Joints and potheads - SPC
1. Installation of one 660 V outdoor type pothead in Garage No.2 and one 660 V indoor type pothead in Transport Workmen's Cloak Room for replacement of overhead supply to DOD office building, Fearon Road.
  2. Installation of two 660 V pole potheads and two 660 V joints for modification of LV supply from Denis Apartments Substation, Carter Road.
  3. Installation of one 6.6 kV pole pothead and one 6.6 kV transformer pothead for supply to Da An Rubber Factory OT, Wetmore Road.

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- WDPC
1. Installation of one 6.6 kV pole pothead and one 6.6 kV transformer pothead for supply to Tien Foong OT, Great Western Rd.
  2. Installation of one 6.6 kV pole pothead and one 6.6 kV indoor pothead in metering cubicle for supply to Pao Shan P/M, Tunxin Road.
  3. Installation of one 6.6 kV pole pothead and one 6.6 kV transformer pothead for supply to Dah Sing Tseng D. & W. OT, Jessfield Road.
  4. Installation of one 6.6 kV pole pothead and one 6.6 kV transformer pothead for supply to Jessfield-Zien Ka Hong PT.
  5. Installation of one 6.6 kV transformer pothead for supply to additional transformer at Hwa Chong P/M OT, Great Western Road.

(2) Salvage

Joints and  
potheads - SPC

1. At Foochow-Hoepoh PT, one 6.6 kV transformer pothead salvaged and cable pot-ended.
2. At Shantung-Wuhu PT, one 6.6 kV transformer pothead salvaged and cable pot-ended.

WDPC Nil.

(3) Deviation ..... Nil

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(D) SUBSTATION

	<u>Substation</u>	<u>Work done</u>	<u>% completed</u>
SFC	1. Macao-Ferry Road Area	Rearrangement of distribution transformers	75
	2. Chase Bank	Replacement of a 325 kVA transformer with a 225 kVA unit.	50
	3. Kwenming	Reinstallation of switch gear and panel for Ward-Dalry FT.	80
	4. Da Yeh Printing Co., Rangoon Road	Installation of metering cubicle for 6.6 kV supply	80
	5. Jan Tai Lumber	Replacement of a 625 kVA transformer with a 125 kVA unit.	5
	6. Vigor Wheat	Removal of a 125 kVA transformer	100
WDPC	1. Chun Kuang Fang	Installation of LV fuse links for supply to Hai King P/M.	100
	2. Red Star Rubber Factory	Installation of a 225 kVA transformer	100
	3. Pao Shan Paper Mill	Installation of a 225 kVA transformer and metering cubicle	100

(E) BULK SUPPLY METERING

<u>Work done</u>	<u>SFC</u>	<u>WDPC</u>	<u>Total</u>
Metering equipment installed	-	1	1
" " removed	-	-	-
" " changed	2	-	2

(F) VARIOUS WORK

	<u>Nature of work</u>	<u>Location</u>	<u>% completed</u>
SFC	1. Redrummyng of cables from rotten to good reels	Fearon Yard	100
	2. Remake two 6.6 kV indoor potheads on Westinghouse switchboard	Riverside Generating Station	100
	3. Shifting FL cable	Fantoon No.12	100

SHANGHAI POWER COMPANY

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	<u>Nature of work</u>	<u>Location</u>	<u>% completed</u>
SPC	4. Repair cable pothead terminals of LV No.7 feeder	Shanase Substation	100
	5. Repair and paint danger boards for trench work	Fearon trench gear shed	40
	6. Repair motor pumps	Fearon trench gear shed	40
WDPC	Nil.		

IV WORK DONE FOR CONSUMERS

	<u>Location</u>	<u>Nature of work</u>	<u>% completed</u>
1.	Clock Tower Substation	Reconstruction and extension of 440 kw rectifier equipment (Property of Tramway Company)	95
2.	Pao Shan P/M	Supply and installation of 10 yds, .025 sq in, 3-core, 6.6 kv cable between consumer's switchgear and transformer	100

V STAFF

(A) CHANGES

Engineering and Office Staff

SFC

Y.M. Chu                      Maintenance Superintendent                      Transferred from Engineering Department

WDPC

None

Monthly Rate Staff

SFC

Tau Vung Hwa                      Switch Tester                      Transferred to WDPC  
 Jean Zao Sung                      Construction Foreman                      Invalided

WDPC

Tau Vung Hwa                      Switch Tester                      Transferred from SFC

SHANGHAI POWER COMPANY

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Daily Rate Staff

SFC

KSF.15  
GOQ.2  
KOL.2

Fitter  
Improver  
Labourer

Died  
Resigned  
Transferred to WDPC

WDPC

EOL.11  
EOL.37 (EOL.2)

Labourer  
Lineman

Transferred to Meter Department  
Transferred from SFC

(B) ACCIDENT

Date	Employee injured	Location of accident	Description of accident	Fatal or permanent injured	Disabled for the period of
April 7	KSF.15	Fearon Sub-station	KSF.15 had finished sampling of oil from white and blue phase overload current transformer of TB 3 suddenly moved to the adjacent red phase current transformer cell of AB ? which was alive.	Fatal	-
April 29	EOL.25	Yangtzepoo Rd, E. of Sungpan Road	EOL.2 and EOL.21 changed a service bracket on the pole. While EOL.21 was removing a pin from the old bracket, he accidentally dropped it on the head of EOL.25, who was sorting materials below.	No	One week

VI MISCELLANEOUS

(A) Theft of Materials Nil.  
(Combined for SFC and WDPC Area).

*S. L. Dong*  
S. L. Dong  
Acting Distribution Operating Engineer

SHANGHAI POWER COMPANY

Appendix  
TRANSPORT DIVISION

MONTHLY LETTER - APRIL 1947

The following outlines the activities of the Transport Division during the month.

(A) MOTOR VEHICLES

Vehicles	Passenger cars	Pick-ups	Station wagons	Vans	Trucks	Special vehicles*	Trailers
In Operation	51	10	2	5	14	3	4
In Storage	-	-	-	-	-	-	4

\* Oil tanker and 20-ton lorries

(1) Operating Data on Motor Vehicles

Type	No. in service		GASOLINE							
			Issue (gallons)		Usage (gallons)		Mileage run		Average M.P.G.	
	Apr.	Mar.	Apr.	Mar.	Apr.	Mar.	Apr.	Mar.	Apr.	Mar.
Passenger cars	51*	48	5,722	4,350	5,606	4,453	66,575	51,802	11.9	11.6
Station wagons	2	2	214	212	214	208	2,668	2,359	12.4	11.2
Pick-ups	10	10	831	774	884	785	10,539	9,868	12.8	12.6
Trucks (1 1/2-ton)	2	2	208	189	202	189	2,056	1,852	10.2	9.8
Trucks (3 1/2-ton)	9	9	1,165	1,064	1,148	1,064	8,154	7,406	7.1	6.9
Lorries (6-ton)	2	2	204	200	204	210	932	957	4.5	4.4
Lorries (20-ton)	2	2	51	60	51	49	81	64	1.5	1.3
Oil tanker truck	1	1	7	-	-	-	-	-	-	-
Motor vans	2	2	142	144	142	139	1,255	1,145	8.6	8.3
Trouble Section van	1	1	125	154	125	154	1,141	1,035	9.1	8.7
Cooker vans	2	2	454	389	449	389	3,591	3,345	8.0	8.6
Bus	1	1	556	534	556	534	3,184	3,010	5.7	5.6
Trailers	8	8	-	-	-	-	-	-	-	-
Total	93	90	9,673	8,270	9,521	8,181	100,174	82,841	10.3	10.1

\* Three new passenger cars in operation from April 1, 1947



MANHATTAN POWER COMPANY

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(2) Maintenance Work on Motor Vehicles

Type	General Overhaul completed		Emergency Overhaul completed		Minor adjustments and repairs		Repairs after			
	Apr.	Mar.	Apr.	Mar.	Apr.	Mar.	Accident		Breakdown	
							Apr.	Mar.	Apr.	Mar.
Passenger cars	-	8	42	51	37	35	8	4	9	11
Station wagons	-	-	3	5	2	1	-	-	3	3
Pick-ups	-	-	16	14	7	10	-	-	1	2
Trucks (1 1/2-ton)	-	-	4	7	4	4	1	-	1	3
Trucks (3 1/2-ton)	1	-	8	9	9	8	-	-	3	4
Lorries (6-ton)	-	-	-	2	2	1	-	-	1	1
Lorries (20-ton)	-	-	-	-	-	-	-	-	-	-
Oil tanker	-	-	-	-	-	-	-	-	-	-
Motor vans	-	-	6	6	2	1	-	-	1	2
Trouble Section van	-	-	-	-	-	-	-	-	-	-
Cooker van	-	-	-	-	-	-	-	-	-	-
Bus	-	-	7	3	1	1	-	-	-	2
Trailers	-	-	1	-	-	-	-	-	-	-
<b>Total</b>	<b>1</b>	<b>2</b>	<b>87</b>	<b>97</b>	<b>64</b>	<b>61</b>	<b>9</b>	<b>4</b>	<b>19</b>	<b>28</b>

(D) GASOLINE CONSUMPTION

Type of Vehicle	Gallons per month		Average gals. per week		Percentage of total gasoline used this month
	Apr.	Mar.	Apr.	Mar.	
Trucks	3,951	3,720	987	930	40.8%
<b>Total</b>	<b>9,673</b>	<b>8,270</b>	<b>2,418</b>	<b>2,102</b>	<b>100.0%</b>

(C) GASOLINE ISSUES AND STOCKS

Description	Issues (US gallons)		Fearon stock (US gallons) at the end of this month: Total - 660 gallons
	Apr.	Mar.	
Cars	5,722	4,550	
Trucks	3,951	3,720	
Other purposes	233	201	
<b>Total</b>	<b>9,906</b>	<b>8,471</b>	

SHANGHAI POWER COMPANY

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(D) MOTOR CAR ENGINE LUBRICATING OIL

Description	Issues (US gallons)		Fearon Stock (US gallons) at the end of this month: Total - 875 gallons
	Apr.	Mar.	
Cars	148	129	
Trucks	164	180	
Other purposes	10	3	
Total	322	312	

(E) MAJOR HAULAGE JOBS

Units	Capacity kVA	Equipment Weight Lbs	Description	Moved		Size of truck	Man- days
				From	To		
1	325	5,620	Transformer	Fearon Road Stores	Pingliang-Yangchow FT	20	12
1	225	4,750	"	Pingliang-Yangchow FT	Riverside Workshop	20	12
1	200 HP	4,400	Motor	Fearon Rd Stores	232/6 Av. Rockhill	6	20
1	225	6,900	Transformer	Foochow-Hoopoh FT	Riverside Workshop	6	20
1	225	4,750	"	Fearon Rd Stores	969 Wetmore Road	20	20
1	325	5,620	"	Chase Bank	Fearon Rd Stores	20	20
1	125	3,530	"	Fearon Rd Stores	1712 St. Western Rd	20	22
1	4,200	37,500	"	R'side 23 kV	Riverside Workshop	20	20
1	125	3,310	"	Fearon Rd Stores	Hwa Chong Paper M.	5 1/2	14
1	940	16,800	"	Fearon Rd S/S	Ferry Road S/S	20	40
1	225	5,417	"	Fearon Rd Stores	Jing Kung D & W OT	5 1/2	20
1	225	5,417	"	Shantung-Wuhu FT	Fearon Rd S/S	5 1/2	20
1	225	5,417	"	Fearon Rd Stores	114/50 Jessfield Rd	5 1/2	20
1	4,200	37,500	"	Riverside Workshop	23 kV S W house	20	20
1	60 HP	2,200	Motor	Fearon Rd Stores	170 Tunsin Road	6	14
1	4,200	37,500	Transformer	R'side Switchhouse	Riverside Workshop	20	20
1	125	3,310	"	Fearon Rd Stores	Tien Foong OT	5 1/2	14
1	325	6,075	"	Shanghai Chung Hwa Book Company	Fearon Rd S/S	5 1/2	20
1	1,000	17,770	"	Ferry Road S/S	Shanghai Chung Hwa Book Company	20	20

SHAWNEEL POWER COMPANY

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(F) BICYCLES

(1) Taxi Bicycle and Tricycle Service

Department	Type	No. in service	Issued for temp. use	Issued as taxi	Remarks
Transport Division	Bicycles	48	18	12	-
	Tricycles	7	7	-	-
Meter Department	Bicycles	24	-	-	-
	Tricycles	-	-	-	-

(2) Bicycle and Tricycle Maintenance

Type	No. in service	General overhaul		Minor adjustments and repairs		Routine inspection		Repairs after accident	
		Apr.	Mar.	Apr.	Mar.	Apr.	Mar.	Apr.	Mar.
Company's bicycles	254	4	5	99	98	13	14	-	-
Employees' bicycles	46	-	-	13	11	2	4	-	-
Tricycles	10	-	-	3	4	-	-	-	-
Pedicabs	3	-	-	8	6	-	-	-	-
Trailers	2	-	-	-	1	-	-	-	-
<b>Total</b>	<b>315</b>	<b>4</b>	<b>5</b>	<b>123</b>	<b>120</b>	<b>15</b>	<b>18</b>	<b>-</b>	<b>-</b>

(G) HANDCARTS

Type	No. in service	No. in storage	No. in construction	Number in repair	
				Maintenance	After Accident
Large 2-ton	2	1	-	-	-
Standard 1-ton	15	7	-	-	-
House Service	2	2	-	-	-
Balancing	3	3	-	-	-
<b>Total</b>	<b>22</b>	<b>11</b>	<b>-</b>	<b>-</b>	<b>-</b>

SHANGHAI POWER COMPANY

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## (H) GARAGE WORKSHOP

Shop	WORK DONE	
	Transport Division	Other divisions
Vulcanizing	Repaired for - Motor cars: 17 tires; 188 tubes Bicycles: 21 tires; 16 tubes	Filling rubber compound into three glands of fuse box for Eastern District.
Tailor	Repairs to 30 seat covers 25 upholstery 21 uniforms	Manufacture of 5 seat covers Making canvas bags for Fearon Stores. Making seats for arm chairs for Head Office. Sewing towels for DOD.
Paint	Repainted: 2 motor cars; 17 bicycles Touched up: 90 motor car jobs; 120 bicycles jobs	Duco steel cabinets for Meter Dept. Duco telephone desks for Eastern District. Painting lighting boards for Fearon Stores. Duco brass resetting devices for DOD Test Room.
Welding	Repaired by welding 40 motor vehicle bodies 32 engine parts 19 chassis parts	Welding iron frames for DOD Test Room.
Battery	Replated: 6 batteries Repaired: 21 " Charged: 163 "	
Blacksmith	Forged: 54 new parts Repaired: 147 damaged parts	
Whitesmith	Repaired - 35 vehicle radiators 21 bumpers 20 bodies 23 doors 35 windows 45 various small parts	
Electrical	Repaired or overhauled - 16 starters 1 magneton 7 dynamos 62 horns	

SHANGHAI POWER COMPANY

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Shop	WORK DONE	
	Transport Division	Other Divisions
Carpenter	Repairs to 17 vehicle bodies	Repairs to 19 chairs 3 revolving chairs 4 desks 9 extension ladders Making steps for Fearon Stores. Making lighting boards for Fearon Stores. Making stands for DOD Test Room.
Machine	Repairs to 85 engine parts 173 other parts Manufacture of 82 engine parts 465 other parts	Making bushing for drilling machine pulley for Construction Workshop. Making steel blades for Reyrolle OCB for Shansu Substation. Making resetting device for Reyrolle Balance Relay for DOD.
Lubrication Centre	Motor vehicles: Oil changed: 56 General inspection: 63 General lubrication: 63	

(I) ACCIDENTS

(1) Motor Vehicles

Date	Vehicle		Location of accident	Description of accident	Damage to SFC vehicle			SFC driver to blame?	Persons injured	
	Type	No.			Major	Minor	None		Staff	Out-siders
Apr 3	1 1/2-ton truck	30044	Brenan Road	Collided with truck	-	x	-	No	No	No
Apr 5	Pass. Car	14618	Nanzing Road	Collided with truck	-	x	-	No	No	No
Apr 8	Pass. Car	17809	Ward Road	Damaged by a rickshaw	-	x	-	Yes	No	No
Apr 9	Pass. Car	50502	Yangtzepoo Road	Bumped by a tramcar	-	x	-	No	No	No
Apr 12	5 1/2-ton truck	38657	Great Western Road	Smashed by a handcart	-	x	-	No	No	Yes
Apr 13	Pass. Car	52441	Route Courbat	Collided with car	-	x	-	No	No	No
Apr 16	Pass. Car	10676	Esra Road	Collided with car	-	x	-	No	No	No
Apr 18	5 1/2-ton truck	20038	Park Road	Collided with truck	-	x	-	Yes	No	No
Apr 18	Pass. Car	17520	Bubbling Well Road	Smashed by a car	-	x	-	No	No	No
Apr 18	Bus	30058	Fearon Road	Hit an iron door	-	x	-	Yes	No	No

SHANGHAI POWER COMPANY

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Date	Vehicle		Location of accident	Description of accident	Damage to SPC vehicle			SPC driver to blame?	Persons injured	
	Type	No.			Major	Minor	None		Staff	Outsiders
Apr 22	Pass. Car	10676	Kzra Road	Smashed by a handcart	-	X	-	No	No	No
Apr 24	Pass. Car	10640	Nanking Road	Knocked down a cyclist	-	-	X	Yes	No	Yes
Apr 28	Pass. Car	10652	Yangtzepoo Road	Collided with tramcar	X	-	-	Yes	No	No
Apr 28	Pass. Car	13547	Bubbling Well Road	Collided with tramcar	X	-	-	Yes	No	No
Apr 28	Pass. Car	17800	The Bund	Collided with tramcar	-	X	-	No	No	No
Apr 29	3 1/2-ton truck	30032	Pingliang Road	Knocked down a cyclist	-	-	X	No	No	Yes

(2) Bicycles and Tricycles None.

(3) Details of Accidents involving general public

Date	Location of accident	Damage to outside vehicle			Injury to outsiders			Remarks
		Major	Minor	None	Major	Minor	None	
Apr 3	Brenan Road	-	X	-	-	-	X	
Apr 5	Nanking Road	-	X	-	-	-	X	
Apr 6	Ward Road	-	-	X	-	-	X	
Apr 9	Yangtzepoo Road	-	X	-	-	-	X	
Apr 12	Great Western Rd	-	-	X	-	X	-	
Apr 13	Route Courbet	-	X	-	-	-	X	
Apr 16	Kzra Road	-	-	X	-	-	X	
Apr 18	Park Road	-	-	X	-	-	X	
Apr 18	Bubbling Well Road	-	-	X	-	-	X	
Apr 22	Kzra Road	-	-	X	-	-	X	
Apr 24	Nanking Road	-	-	X	-	X	-	
Apr 28	Yangtzepoo Road	-	-	X	-	-	X	
Apr 28	Bubbling Well Road	-	X	-	-	-	X	
Apr 28	The Bund	-	-	X	-	-	X	
Apr 29	Pingliang Road	-	-	X	-	X	-	

SHANZHALIYEV COMPANY

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(4) Staff

None.

(5) STAFF

(1) Supervisory Staff

No change.

(2) Clerical Staff

No change.

(3) Monthly Rate Staff

Drivers TDC.2, 25, 74, 83 engaged.

(4) Daily Rate Labour

Labourer	TK.73	engaged.
Labourer	TK.4	promoted to Transport Blacksmith Improver TFQ.7
Labourer	TK.34	promoted to Transport Vulcanizer Improver TFQ.2
Vulcanizer Improver	TVQ.1	promoted to Transport Vulcanizer TV.2
Blacksmith Improver	TSQ.1	promoted to Transport Fitter Improver TFQ.6
Fitter	TF.26	died.
Cleaner	TOQ.15	engaged.

*S. L. Doug*  
S. L. Doug

Acting Distribution Operating Engineer.

SHANGHAI POWER COMPANY

Shanghai, May 8th, 1947

The General Manager :

MEASUREMENT & TESTING DEPARTMENT  
LARCENY OF ELECTRICITY  
MONTHLY REPORT FOR APRIL, 1947.

Accounts Office Queries :

One case of larceny was detected, and revenue amounting to CN\$1,402,000 has been recovered.

One case of damaged meter was found. The cost of repairs, etc. amounting to CN\$67,200 has been paid by the consumer.

Meter Readers' Reports :

Five cases of damaged meters were found when following up these reports. The cost of repairs, etc. amounting to CN\$459,800 has been paid by the consumers.

Route Meter Investigation :

Four cases of damaged meters were found. The cost of repairs, etc., amounting to CN\$216,800 has been paid by the consumers.

Power Meter Investigation :

Two cases of larceny were detected, and revenue amounting to CN\$1,838,000 has been recovered.

Two cases of damaged meters were found. The cost of repairs, etc., amounting to CN\$153,600 has been paid by the consumers.

Miscellaneous :

Thirteen cases of damaged meters were reported by Installation Section's staff. The cost of repairs, etc., amounting to CN\$972,730 has been paid by the consumers.

Damaged or Missing Main Fuse Box Lead Seals :

Thirty-six cases of above infringement of Company's Regulations have been handled by the Installation Section. Fees paid by the consumers total CN\$126,000.

SUMMARY :

Three cases of larceny have been detected and settled during the month together with twenty-five cases of damaged meters and/or associated equipment.

Revenue amounting to CN\$0,297,100 has been recovered, of which :



SHANGHAI POWER COMPANY

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- a. CN. \$3,301,000 represent recovered revenue.
- b. CN. \$1,870,100 represent an estimated cost of repairs to damaged meters and associated equipment.
- c. CN. \$ 126,000 represent fees paid for damaged or missing main fuse box lead seals.

Estimated Unmetered Consumption :

Thirty-two cases of unmetered consumption due to defective or damaged meters were estimated on Consumers' Accounts Inspect Orders during the month. The estimated consumption represents 12,860 K.W.hours, amounting to CN. \$4,179,500 of recovered revenue.

NOTE :- Five cases of unmetered supply taken by various units of the Chinese Armed Forces have been reported by the Installation and Investigation Sections' staff and Meter Readers during the month. These have been passed to the Installation Section for action in concert with Consumers' Engineer's Department.

*E. Jacobs*

E. Jacobs,  
Meter & Testing Engineer

AVG/zko

MANUAL POWER COMPANY

APRIL, 1947.

S.P.C. + W.D.P.C.

NATURE OF INVESTIGATION	PERMITS INSPECTED	METERS INSERTED	IRREGULAR- ITIES FOUND.	LARGEST CASES		Damaged &/or Missing Equip.	TOTAL CASES
				Jumpers	Tripped Meters		
Accounts Office Queries	729	766	217	1	-	1	2
Meter Readers' Reports	12	12	12	-	-	5	5
Route Meter Investigation	2,546	3,434	1,149	-	-	4	4
Power Meter Investigation	399	697	126	1	1	2	4
Casual Visits - Day	188	353	62	-	-	-	-
Casual Visits - Evening	5	8	3	-	-	-	-
Small Area Investigations	283	392	74	-	-	-	-
Miscellaneous	18	19	18	-	-	13	13
<b>Total</b>	<b>4,158</b>	<b>5,641</b>	<b>1,671</b>	<b>2</b>	<b>1</b>	<b>25</b>	<b>28</b>

W.D.P.C. (Included in above figures) :

Accounts Office Queries	149	160	55	-	-	-	-
Meter Readers' Reports	3	3	3	-	-	1	1
Route Meter Investigation	791	1,102	360	-	-	1	1
Power Meter Investigation	176	356	48	-	1	2	3
Casual Visits - Day	12	16	2	-	-	-	-
Casual Visits - Evening	1	1	1	-	-	-	-
Miscellaneous	4	5	4	-	-	5	5
<b>Total</b>	<b>1,136</b>	<b>1,673</b>	<b>473</b>	<b>-</b>	<b>1</b>	<b>7</b>	<b>8</b>

Month ending	S.P.C. + W.D.P.C.		W.D.P.C. (cont)	
	Premises Meters	Irregularities Cases	Premises Meters	Irregularities Cases
April 30, 1947	4,138	5,641	1,136	473
12 Months ending April 30, 1947	46,358	66,438	13,787	5,291

SHANGHAI POWER COMPANY

APRIL, 1947

ANALYSIS OF CASH RECEIVED FOR ESTIMATED LOSS OF REVENUE FROM CONSUMERS INVOLVED IN LAGENCY OF ELECTRICITY, AND FOR DAMAGED OR MISSING METERS AND BROKEN MAIN FUSE GRAYS

S.P.C. + W.D.P.C.

NATURE OF INVESTIGATIONS	Fuses CS\$	Tempered Meters CS\$	Damaged Meters CS\$	Missing Meters CS\$	Part Payment CS\$	Broken Main Fuse Grays CS\$	TOTAL CS\$
Accounts Office Queries	1,402,000	-	87,200	-	-	-	1,489,200
Meter Readers' Reports	-	-	459,800	-	-	-	459,800
Route Meter Investigation	-	-	216,800	-	-	-	216,800
Power Meter Investigation	757,000	1,162,000	153,600	-	-	-	2,072,600
Casual Visits - Day & Evening	-	-	-	-	-	-	-
Miscellaneous	-	-	972,700	-	-	126,000	1,098,700
Total	2,159,000	1,162,000	1,870,100	-	-	126,000	5,217,100

W.D.P.C. (Included in above figures) :

Accounts Office Queries	-	-	-	-	-	-	-
Meter Readers' Reports	-	-	96,200	-	-	-	96,200
Route Meter Investigation	-	-	58,800	-	-	-	58,800
Power Meter Investigation	-	1,162,000	153,600	-	-	-	1,315,600
Miscellaneous	-	-	227,400	-	-	84,000	311,400
Total	-	1,162,000	546,000	-	-	84,000	1,812,000

	S.P.C. + W.D.P.C.	W.D.P.C. (only)
Month ending April 30th, 1947	CS\$ 5,217,100.--	CS\$ 1,812,000.--
15 Months ending April 30th, 1947	CS\$ 80,215,070.--	CS\$ 214,184,400.--



25X1A

SHANGHAI POWER COMPANY  
AND  
WESTERN DISTRICT POWER COMPANY  
MONTHLY REPORT  
FOR  
MAY 1947

25X1A

REF. ID: A66164-1

25X1A

SHANGHAI POWER COMPANY  
AND  
WESTERN DISTRICT POWER COMPANY  
MONTHLY REPORT  
FOR  
MAY 1947

25X1A

REF ID: A66047



SHANGHAI POWER COMPANY

MONTHLY REPORT  
FOR  
MAY 1947

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SHANGHAI POWER COMPANY

S U M M A R Y

1. REVENUES & EXPENSES COMPARED WITH 1946 (C\$):

<u>Operating Revenues</u>	(C\$ Figures in Thousands)	Month of May	
		1947	1946
S.P.C.		C\$ 20,365,224	C\$ 3,145,057
W.D.P.C.		" 4,898,246	" 788,150
Combined **		<u>C\$ 21,553,978</u>	<u>C\$ 3,490,369</u>
<u>Operating Expenses</u>			
S.P.C.		C\$ 21,825,356	C\$ 3,059,370
W.D.P.C.		" 5,064,000	" 569,770
Combined **		<u>C\$ 22,984,864</u>	<u>C\$ 3,188,328</u>
<u>Net from Operation</u>			
S.P.C.		C\$ -1,462,132	C\$ 85,687
W.D.P.C.		" 168,754	" 218,380
Combined **		<u>C\$ -1,630,886</u>	<u>C\$ 302,067</u>

\*\* Inter-Company Items Eliminated.

2. ELECTRIC DEMAND, OUTPUT, SALES & LOSSES:

2A. Maximum Hour in KWH

S.P.C. Riverside Max. Hr. Generation.	158,513	119,064
W.D.P.C. Max. Hr. Demand.	32,232	21,968

2B. Net Output or Purchase in MKWH (M=1000)

S.P.C. Net Output	80,920	57,499
W.D.P.C. Purchase from S.P.C.	17,085	10,522

2C. Units Sold & Accounted for in MKWH

S.P.C. (Including Sales to W.D.P.C.)	75,787	50,828
W.D.P.C.	16,810	10,195

2D. Transmission & Distribution Losses in Percent of Net Output or Purchase

S.P.C. (W.D.P.C. considered as one customer)	6.5	11.6
W.D.P.C.	3.1	3.1

3. CUSTOMER SERVICE INSPECTIONS:

3A. Customers

S.P.C.	97,986	94,390
W.D.P.C.	21,058	19,389
Combined **	<u>119,040</u>	<u>115,778</u>

\*\* Inter-Company Items Eliminated.

SHANGHAI POWER COMPANY

- 2 -

3B. <u>Service Inspections</u>		<u>Month of May</u>	
		<u>1947</u>	<u>1946</u>
(C\$ Figures in Thousands)			
<u>Number</u>			
	S.P.C.	6,560	9,629
	W.D.P.C.	2,706	1,805
	Total	<u>9,266</u>	<u>11,434</u>
<u>Irregularities</u>			
	S.P.C.	1,068	1,633
	W.D.P.C.	420	364
	Total	<u>1,488</u>	<u>1,997</u>
<u>Cash Recovered (C\$)</u>			
	S.P.C.	10,697	1,325
	W.D.P.C.	1,066	127
	Total	<u>12,663</u>	<u>1,452</u>
<u>No. of Recoveries</u>			
	S.P.C.	32	48
	W.D.P.C.	9	4
	Total	<u>41</u>	<u>52</u>

4. EMPLOYEES:

<u>Number</u>			
	S.P.C.	3,054	2,952
	W.D.P.C.	125	150
	Total	+ 3,179	3,062

+(including staff on leave)

5. HIVERSIDE OPERATIONS:

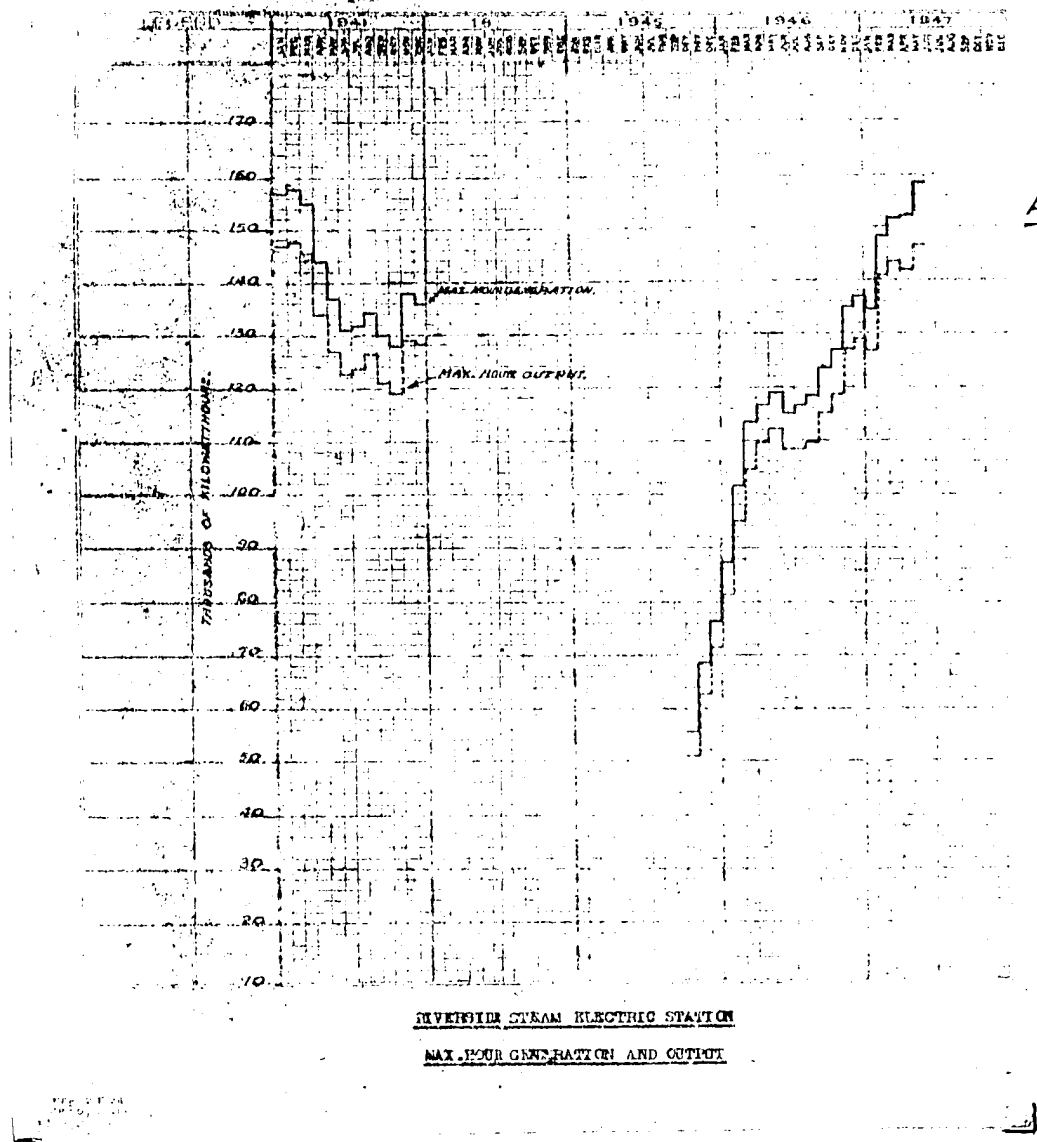
(1) <u>Generating Capacity</u>		<u>1947</u> \$	<u>1946</u>
Name plate rating	(KW)	173,500	159,500
Name plate rating	(KVA)	212,650	195,000
Working rating - Winter	(KVA)	216,020	198,370
Working rating - Summer	(KVA)	193,650	170,180

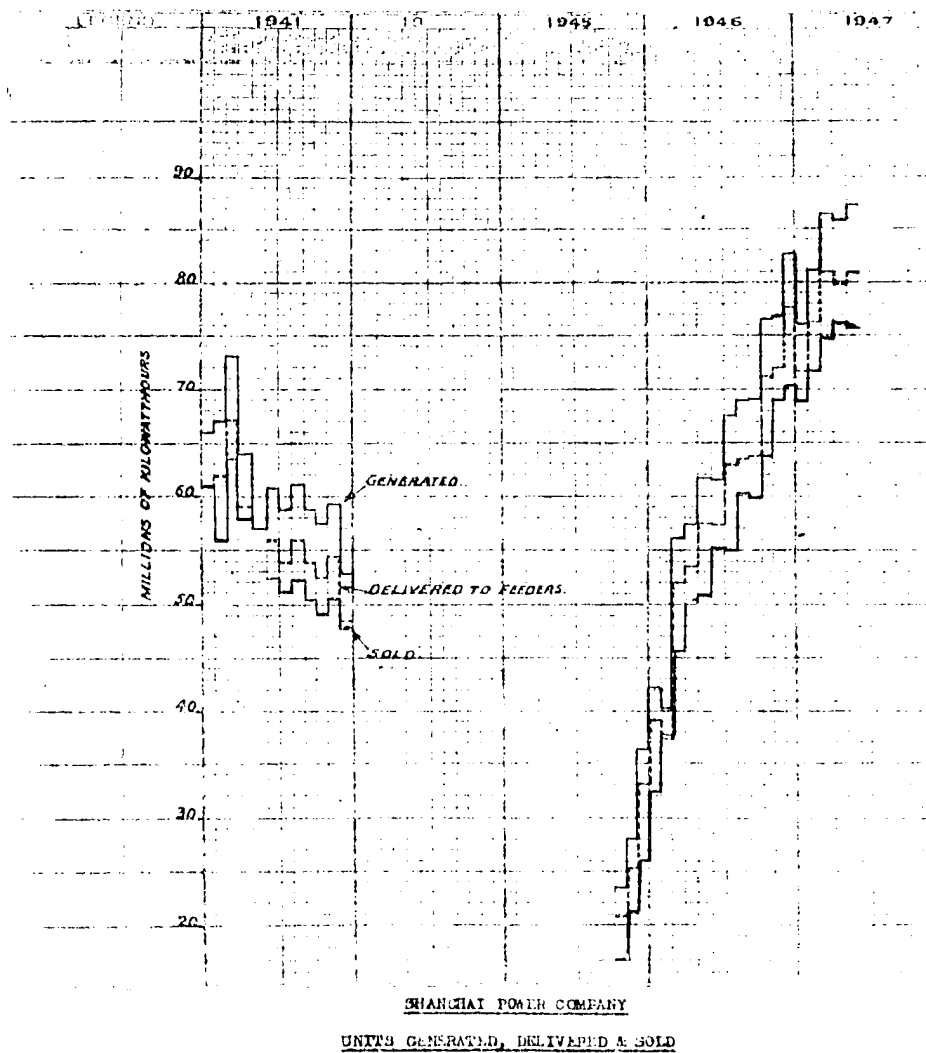
\$ Excludes TG-11 & TG-8.

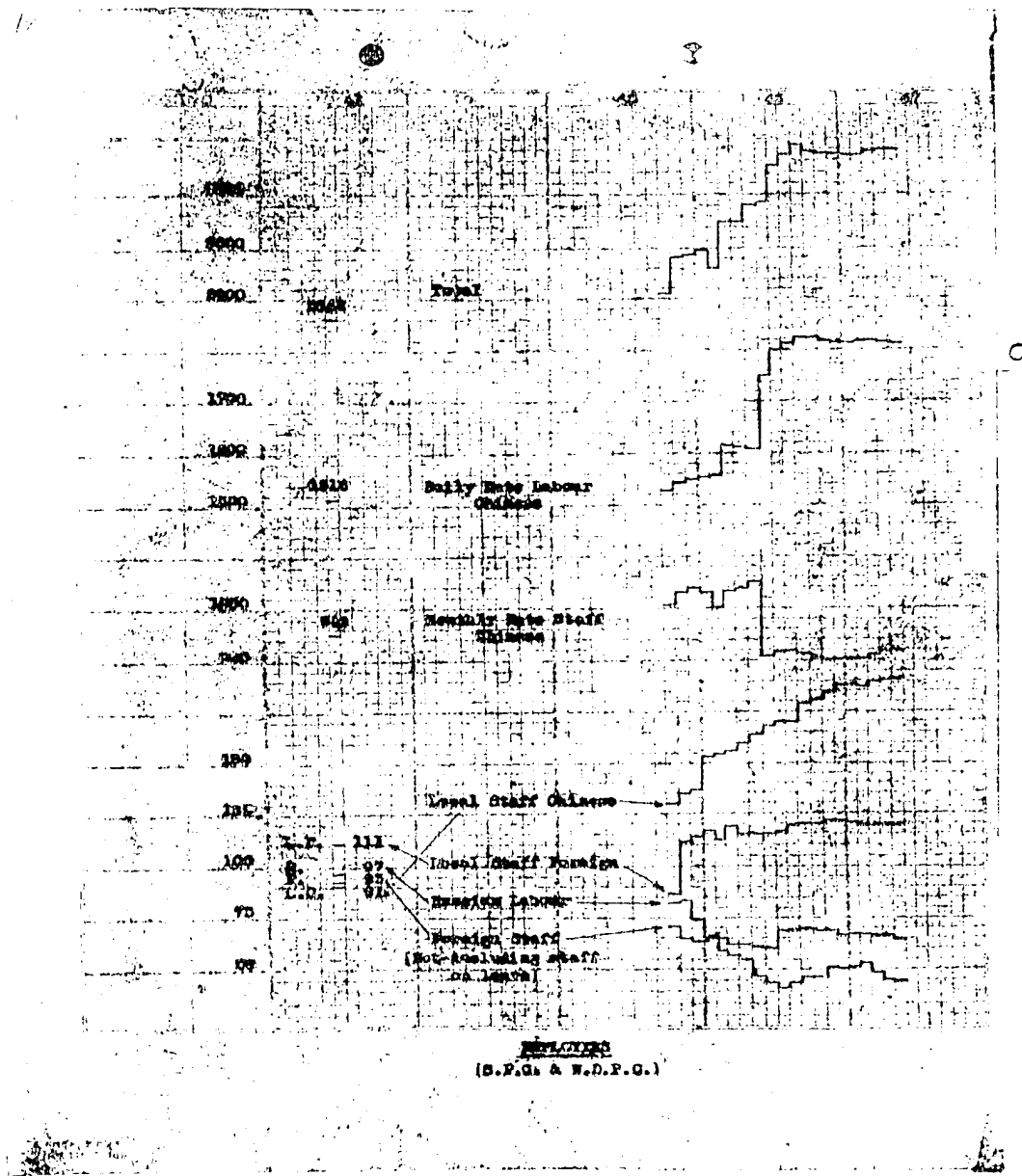
(2) Instantaneous Peak Generation (KW)	161,452	143,810
(3) Efficiency (HTU per KWH Output)	20,509	21,165
(4) Load Factor (Based on Output & Max.Hr. Output)	74.23	69.04

(5) Fuel in tons of 2240 lbs

	<u>1947</u>		<u>1946</u>	
	<u>Coal</u>	<u>Oil</u>	<u>Coal</u>	<u>Oil</u>
In stock at end of April	23,037	1,083	23,786	414
Received during month	24,990	30,354	24,987	15,844
Used during month (Including Sundries)	17,830	30,484	26,274	15,731
In stock at end of May	30,197	953	22,499	527







SHANGHAI POWER COMPANY

FORM NO. 10  
10-2000 (1-4-47)

SECRETARY AND ACCOUNTANCY  
MAY 1947

SHANGHAI POWER COMPANY AND WESTERN DISTRICT POWER COMPANY

Financial and Operating Reports for the month of May 1947 were despatched to New York on June 30, 1947.

Cash on Hand and in Banks - Shanghai

Balance of cash on hand and in current bank accounts in Shanghai on May 31, 1947 was as follows:-

<u>Current Bank Accounts</u>	<u>S.P.C.</u> <u>CN\$</u>	<u>W.D.P.C.</u> <u>CN\$</u>
Secretary and Treasurer	-	193,094,409.34
Hongkong and Shanghai Banking Corp.	98,212,192.55	-
National City Bank of New York	20,899,950.00	-
The Bank of China	10,405,832.00	-
Chekiang Industrial Bank, Ltd.	7,426,035,929.55	755,099,555.46
Compradore Cash on Hand	<u>2,031,312,154.24</u>	<u>857,682.84</u>
	<u>9,586,866,058.34</u>	<u>949,051,647.64</u>

Remittances to and from New York

During May 1947 the following remittances were obtained by us at the official rate of exchange:-

Remittances to New York Office

<u>Date</u>	<u>Amount</u>	<u>Remarks</u>
May 2	US\$ 50,000.00	for part of T.G.11
2	1,192.65	for purchase of materials shipped via s.s. Air Express
2	235.18	- do - s.s. Temeraire
2	109.15	- do - s.s. Hope Peak
2	47.96	- do - s.s. Marine Flier
3	1,136.27	- do - s.s. Marine Flier
5	7,425.28	- do - s.s. Williamette Victory
5	6.44	- do - s.s. Temeraire
9	9,431.08	- do - s.s. Marine Leopard
9	128.57	- do - s.s. Air Express
12	6,607.84	- do - s.s. Temeraire
12	8,379.90	- do - s.s. Willis Vickery
12	2,456.73	- do - s.s. Williamette Victory
22	1,600.02	- do - s.s. Hope Peak
22	3,098.09	- do - s.s. Ponce de Leon
22	10,293.50	- do - s.s. Marine Flier
28	1,656.80	- do - s.s. Mount Rogers
29	4,338.50	- do - s.s. Mount Rogers
29	918.75	- do - s.s. Mount Mansfield
29	471.25	- do - s.s. President Monroe
29	513.40	for purchase of portable engraving machine complete with accessories (shipment unknown)
30	11,230.15	for purchase of materials shipped via s.s. Mount Mansfield
30	<u>4,427.42</u>	- do - s.s. Iraq Victory
Total	US\$125,697.92	

SHANGHAI POWER COMPANY

- 2 -

FORM NO. 100  
10-10-47Remittances to London Agent

<u>Date</u>	<u>Amount</u>	<u>Remarks</u>
May 2	20. 9. 7	for 1 case spare parts for Gestetner duplicating machine
2	11.11.11	for 1 case porcelain insulators
2	127. 3. 1	for 1 case red fiber sheet
3	80. 1. 6	for purchase of materials shipped via s.s Benoorlich
3	134. 1. 1	for 2 cases wire gauze and mosquito netting
3	845. 0. 0	for 4 cases electric meters
3	23.12. 0	for 1 case oil resisting compound
3	152. 0. 0	for insurance and freight, etc.
30	24. 2. 9	for 3 parcels turbine spares
30	116. 8. 6	for standard type aerodynamic warhole blower with motor and delivery hose
30	56.13. 1	for 1 case pump spares
30	6. 4. 9	for 1 case spanners
Total	<u>21, 597 8. 3</u>	

The following statement shows the supervision fee payable to you with U.S. equivalent at the rate ruling at the end of each month to May 31, 1947:-

	<u>C.N.Dollars</u>	<u>Exchange Rate</u>	<u>U.S.Dollars</u>
Period Sept.17,1945 to April 30,1947	4,918,500,000	12,100	406,487.60
Month of May, 1947	<u>242,000,000</u>	12,100	<u>20,000.00</u>
	<u>5,160,500,000</u>		<u>426,487.60</u>

Accounts Payable

Unpaid fuel bills as at May 31, 1947 were as follows:-

<u>Coal and local charges</u>	
Unpaid bills for May	CN\$ <u>769,500,000</u>
<u>Coal freight</u>	
Unpaid bills for May	US\$ <u>45,765.00</u>
<u>Fuel Oil</u>	
Unpaid bills for May	US\$ <u>390,044.27</u>

During the month, the Texas Company wrote us with respect to the additional lighterage charges on fuel oil during the period April 1946 to February 1947, informing us that due to an adjustment on fuel oil shipped by "Capt. A. F. Lucas" we need only pay US\$123,481.46, instead of US\$168,000.00 which figure we had informed you in our previous letter. The amount, US\$123,481.46, was paid by us on May 7, 1947, at the official rate of exchange, CN\$12,000 to US\$1.

In the Safekeeping Committee Meeting for Shanghai Electric Utilities Surplus Funds on June 20, 1947, we asked for the reimbursement of the additional lighterage charges on fuel oil from the surplus funds based on the following reasoning:-

"If the lighterage costs had been known last year they would have been reflected in the revision of rates, and part of such costs would therefore have been borne by the electric utility companies which pur-

SHANGHAI POWER COMPANY

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REF. ID: A66712

charged power from Shanghai Power Company. Inasmuch as a great part of these costs arose during past months when "surplus fund" arrangements were in operation, they are considered a legitimate charge against "surplus fund."

Since the Surplus Funds Safeguarding Committee came into operation from June 1946 we withdrew our claim for the reimbursement of additional lightering charges for the period before June 1946, which amounted to only CN\$75,466,159. Our claim was accepted by the Committee and the amount of CN\$1,406,311,361 was paid back to us on June 21, 1947.

#### Accounts Receivable and Collections

The total amount due from consumers, excluding Municipal, as at May 31, 1947, was CN\$29,612,960,000 and an amount due from the Municipal Government for both companies was CN\$999,957,000.

#### Customers' Deposits

Deposits collected during the month for both companies amounted to CN\$176,621,000 and refunds to CN\$5,017,120. The amount of additional deposits unpaid on May 31, 1947 was CN\$89,195,000. The balance of deposits held against service charges for both companies amounted to CN\$7,501,204,000 of which the amount of CN\$4,400,920 (nominal value) was in the form of securities segregated as follows:-

	<u>S.P.C.</u> CN\$	<u>W.D.P.C.</u> CN\$
S.M.G. Debentures	12,620	-
Bank Guarantees	56,800	1,527,600
S.P.C. Tls. 6, Silver Preferred Stock	2,054,220	574,280
Shanghai Telephone Co.	2,100	-
S.P.C. First Mortgage Debentures, 5½% Dollar Series, due 1973	<u>131,300</u>	<u>42,000</u>
	<u>2,257,040</u>	<u>2,143,880</u>

#### Payroll

Our payroll for the month, with high cost of living index 23,500 times basic pay (scaled down in accordance with Municipal Government formula shown below), totalled CN\$8,001,935,000 segregated as follows:-

Foreign and Executive	CN\$ 1,187,222,000
Local	1,955,431,000
Chinese	4,686,533,000
Leave Pay	<u>172,749,000</u>
Total	<u>CN\$ 8,001,935,000</u>

The upward price trend has continued even more abruptly in May. The demand for the unfreezing of the cost of living index had so increased that the Central Government finally agreed to release the index figure before the end of the month. The flat allowance based on the prices of essential commodities was abolished and wages and salaries for May was computed on the basis which was in effect prior to the freezing of the index, namely :-



SHANGHAI POWER COMPANY

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REF. NO. 10  
47 000 (2-47)

<u>Monthly Basic Pay</u>	<u>Percentage applied on cost of living index</u>
Up to CN\$100	100% x Index
CN\$100 to CN\$150	70% x Index
CN\$151 to CN\$200	60% x Index
CN\$201 to CN\$500	50% x Index
CN\$501 to CN\$700	40% x Index
Over CN\$700	30% x Index

Rate Revisions

Early in May we proposed to the Bureau of Public Utilities a revision of rates based on the factors of fuel cost, salaries and wages and foreign exchange. In view of the unfreezing of the cost of living index and the possibility of further price increases, the authorities granted us an increase of CN\$24.5 per kWh on our basic rates effective retroactively from May 21, 1947. The additional revenues derived from the retroactive charges applied on consumption billed during May 21 to 31 were estimated around CN\$8,900,000,000 for S.P.C. and CN\$3,000,000,000 for W.D.P.C. As to the details of the recent revision of the rate, we understand the Consumers' Engineering Department will write to you more fully in their reports.

Dividend Equalization Reserve and General Reserve

During the month we set aside CN\$400,000,000 for Dividend Equalization Reserve and CN\$200,000,000 for General Reserve. Both amounts were 100% higher than the last month's figures and were charged to operating expenses for the month.

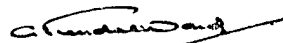
Employee Pension and Retirement Reserve

The monthly provision for Pension and Retirement Reserve was only CN\$10,000,000 in April. Mr. Thompson of Haskins and Sells, after making a general survey of our accounts during his visit to Shanghai, suggested increasing the monthly provision for this reserve to a figure which would also take care of the retirement gratuity for local appointees and regular employees. In view of the unfreezing of the cost of living index in May which is the main factor in the computation of retirement gratuity to local appointees and regular employees, the provision for Pension and Retirement Reserve in May was increased to CN\$600,000,000 per month which also was charged to the current month operating expenses.

Extraordinary Maintenance

Extraordinary maintenance expenditures, amounting to CN\$416,263,000 were charged to current month operating expenses and are segregated as follows:-

Alterations to Head Office Building	CN\$ 230,051,000
Painting coal transporters, belt conveyors and steel structures of No.5 boiler house	82,862,000
Reconstruct one phase transformers to standard voltage	80,400,000
Installation of partitions at Fearon Road Stores	22,950,000
Total	CN\$ 416,263,000

  
A. Kendal Ward,  
Secretary & Treasurer.

June 30, 1947.

June 10th, 1947.

SHANGHAI POWER COMPANY

CONSUMERS' MONTHLY REPORT FOR MAY

SHANGHAI POWER COMPANY

MAY STATISTICS

Analysis of K.W.H. Sales

	<u>This Year</u>	<u>Last Year</u>	<u>Increase</u>	<u>Increase %</u>
Residential Lighting)	8,990,233	5,015,582	3,974,651	79.2
Commercial Lighting )				
Residential Heating & Cooking)	1,708,213	979,128	730,085	74.6
Commercial Heating & Cooking )				
Bulk Supply Industrial	27,468,067	17,725,097	9,759,990	55.1
Bulk Supply Commercial	1,147,183	901,113	246,070	27.3
Small Power (Incl. D.C. Lifts)	4,692,647	2,345,317	2,347,330	100.1
<u>Public Utility:</u>				
Shanghai Trams	1,090,331	717,752	372,579	51.9
French Trams	1,970,000	1,102,200	867,800	78.7
Shanghai Waterworks	1,017,240	913,560	103,680	11.3
Chapei Co.	8,988,948	9,148,505	-159,557	-1.7
Intercompany - W.D.P.C.	17,084,800	10,521,800	6,563,000	62.4
Private Street Lighting	77,999	75,614	2,385	3.2
Municipal Street Lighting	192,228	189,398	2,828	1.5
Municipal Others	394,629	312,211	82,418	26.4
<u>Total</u>	<u>74,839,791</u>	<u>49,948,077</u>	<u>24,891,714</u>	<u>49.8</u>
Total Units Sold (12 months ending May 1947)	789,144,784	330,607,352	458,537,442	138.7

Analysis of Large Industrial Sales in K.W.H.

	<u>This Month</u>	<u>Last Month</u>	<u>Last Year</u>	<u>Increase % over last year</u>
Chinese Cotton Mills	19,781,789	20,078,467	10,037,830	97.1
Other Cotton Mills	180,620	188,050	2,074,410	-91.3
Total Cotton Mills	19,962,389	20,266,517	12,112,240	64.8
Flour Mills	618,300	849,600	1,474,500	-58.1
Rubber Products	877,815	817,815	213,670	179.9
Paper Mills	1,095,094	1,056,679	735,137	49.0
Lumber Mills	27,875	28,755	12,846	117.0
Egg Produce	-	-	-	-
Oil Mills	85,000	146,200	49,500	71.7
Ice & Cold Storage Factories	960,585	563,815	880,832	8.3
Tobacco Factories	156,305	156,635	151,873	2.9
Silk Mills	47,620	52,480	33,030	44.2
Miscellaneous Textiles	2,062,040	1,991,033	1,222,868	63.7
Metal Working	658,603	726,655	256,937	156.3
Woolen Mills	288,280	284,150	65,702	328.8
Miscellaneous Other	705,161	623,097	409,962	72.0
<u>Total</u>	<u>27,485,087</u>	<u>27,561,431</u>	<u>17,725,097</u>	<u>55.1</u>

- 1 - June 10th, 1947.

SHANGHAI POWER COMPANY

CONSUMERS' MONTHLY REPORT FOR MAY

SHANGHAI POWER COMPANY

MAY STATISTICS

Analysis of K.W.H. Sales

	<u>This Year</u>	<u>Last Year</u>	<u>Increase</u>	<u>Increase</u>
			<u>\$</u>	<u>%</u>
Residential Lighting)	8,990,488	8,015,588	974,900	12.2
Commercial Lighting )				
Residential Heating & Cooking)	1,708,213	978,128	730,085	74.6
Commercial Heating & Cooking )				
Bulk Supply Industrial	27,485,087	17,725,097	9,759,990	55.1
Bulk Supply Commercial	1,147,183	901,113	246,070	27.3
Small Power (Incl. D.C. Lifts)	4,892,647	2,345,317	2,547,330	100.1
<u>Public Utility:</u>				
Shanghai Trams	1,090,331	717,752	372,579	51.9
French Trams	1,970,000	1,102,200	867,800	78.7
Shanghai Waterworks	1,017,240	913,560	103,680	11.3
Chapel Co.	8,988,948	9,148,505	-159,557	-1.7
Interoompany - W.D.P.C.	17,084,800	10,521,600	6,563,200	62.4
Private Street Lighting	77,999	75,614	2,385	3.2
Municipal Street Lighting	192,226	189,398	2,828	1.5
Municipal Others	394,629	312,211	82,418	26.4
<u>Total</u>	<u>74,839,791</u>	<u>49,946,077</u>	<u>24,893,714</u>	<u>49.8</u>
Total Units Sold (12 months ending May 1947)	789,144,794	320,007,352	469,137,442	146.7

Analysis of Large Industrial Sales in K.W.H.

	<u>This Month</u>	<u>Last Month</u>	<u>Last Year</u>	<u>Increase</u>
				<u>% over</u>
				<u>last year</u>
Chinese Cotton Mills	19,781,789	20,078,467	10,037,830	97.1
Other Cotton Mills	180,600	188,050	2,074,410	-91.2
Total Cotton Mills	19,962,389	20,266,517	12,112,240	64.8
Flour Mills	618,300	849,600	1,474,500	-58.1
Rubber Products	877,815	817,815	313,670	179.9
Paper Mills	1,095,094	1,056,879	735,137	49.0
Lumber Mills	27,875	28,755	12,846	117.0
Egg Produce	-	-	-	-
Oil Mills	85,000	146,800	49,500	71.7
Ice & Cold Storage Factories	960,585	563,915	886,832	8.3
Tobacco Factories	156,305	156,635	151,873	2.9
Silk Mills	47,620	52,480	33,030	44.2
Miscellaneous Textiles	2,002,040	1,991,033	1,222,868	63.7
Metal Working	658,603	726,655	256,937	156.3
Woolen Mills	288,280	284,150	65,702	328.8
Miscellaneous Other	705,161	623,097	409,962	72.0
<u>Total</u>	<u>27,485,087</u>	<u>27,561,431</u>	<u>17,725,097</u>	<u>55.1</u>

SHANGHAI POWER COMPANY

CONNECTIONS

	<u>This Month</u>	<u>Last Month</u>	<u>Last Year</u>	<u>Increase during Month</u>
No. of Customers	97,988	97,788	94,290	320
" Refrigerators	8,475	8,458	8,217	17
" Cookers (Hired) x	2,952	2,954	2,980	-2
" Radiators ( " ) x	2,013	2,027	2,975	-14
" Water Heaters ( " ) x	69	67	54	2
" Misc. Appliances ( " ) x	169	169	167	-
H.P. of Motors ( " ) x	13,602	13,598	14,484	4

ø Includes Refrigerators installed in Western District Power Company Area.

x These figures include Appliances hired by Western District Power Co. of Shanghai.

CONNECTED LOAD

K.W. Lighting	101,893	101,653	98,076	240
" Heating: Comprising	(31,567)	(31,533)	(33,248)	(34)
" Cookers	18,171	18,179	18,225	-8
" Radiators	9,992	10,028	11,061	-36
" Water Heaters	124	120	103	4
" Miscellaneous	3,280	3,206	2,959	74
" Motors	227,714	227,592	229,889	122
" Industrial Heating	4,274	4,248	3,330	28
" W.D.P.C.	54,600	54,600	54,600	-
" Total	420,048	419,626	419,143	422

MONTHLY MOVEMENT IN CUSTOMERS

	<u>Total All Classes</u>
Total Customers Reconnected	76
Total Customers Disconnected	95
Loss	19
Total New Customers Connected	339
Total Increase During Month	220

SHANGHAI POWER COMPANY

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GENERAL COMMENTS.

Rate Revision.

During the month under review there was a worsening of the Chinese monetary situation and the purchasing value of the Chinese dollar rapidly decreased with a corresponding rise in the cost of commodities and living in general. It has been mentioned before that the H.C.L. "index" applied to adjustment of wages had been "frozen" as from that in effect for January 1947. At that time the index was set at 7,946. From January onwards the cost of living increased and for February, March and April payrolls certain adjustments had to be made to supplement the fixed index. However, conditions during May deteriorated so rapidly that dissatisfaction and unrest was apparent throughout the city especially among the working classes. Demonstrations were staged and representations made to the authorities with the result that the index was unfrozen and hiked to 23,500.

The application of the index is here repeated in brief. The "index" is applied to the basic salary of all local appointees and regular staff. It is applied in full to basic salaries up to CN\$100; a sliding scale is applied to salaries over CN\$100 as shown hereunder:-

<u>Basic salary</u>	<u>Index multiplier</u>
Up to \$100	100%
101 - 150	70%
151 - 200	60%
201 - 500	50%
501 - 700	40%
701 and over	30%

Prior to the announcing of the May index, the question of rate revision was taken up with the authorities. The rates in force at that time for general services were:-

	<u>Basic Rate</u> <u>CN\$/KWH</u>	<u>Coal Sur-charge</u> <u>effective</u> <u>Feb. 17th</u> <u>billing</u> <u>CN\$</u>	<u>Oil Sur-charge</u> <u>effective</u> <u>Feb. 17th</u> <u>billing</u> <u>CN\$</u>	<u>Total</u> <u>CN\$/KWH</u>
Residential Lighting, Cooking & Power .....	120	92	113	325
Commercial Lighting, Cooking & Power .....	120	92	113	325
Industrial Power, up to 50,000 KWH/month .....	120	92	113	325
Industrial Power, Excess over 50,000 KWH/month .....	180	92	113	385

SHANGHAI POWER COMPANY

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The formulae for computing the coal and oil surcharges automatically take care of cost variations for these two essentials but no such provision had been granted to cover increased labour costs etc., due to increase in H.C.L. index.

It was estimated that, if the May index was revised to 28,000, an additional \$245 per KWH on basic rate would compensate for the increase in payroll and other expenses affected by the new index.

This increase was approved by the local authorities and subsequently authorized by the Price Control Committee of the National Economic Council, Nanking. It was important that the revised rates, if and when approved, should be retroactive to include Bulk Supply billing for the month of May which commences on the 21st day of each month. Consequently, we were given permission to cover this contingency by over-printing on all bills issued from May 16th the following wording:-

"This Company is authorized by the Ministry of Economic Affairs to apply retroactively any revised rates or surcharges as and when approved by the competent authorities and for which time does not permit advance notification being given. Therefore the Company reserves the right to collect an additional amount for the consumption covered by this bill."

When the new rates were approved, authorization was given to apply them retroactive to and from May 21st. Exception has been made in the case of billing to two utility companies in our area, namely, Shanghai Waterworks and Shanghai Tramways. Both of these companies have also applied for increase in their tariffs and it was agreed that increase in their electricity charges would be delayed to June 1st, 1947.

The revised rates are set out hereunder in detail:-

	Basic Rate <u>CN\$ /KWH</u>	Fuel Surcharges <u>CN\$ /KWH</u>	Total Rate <u>CN\$ /KWH</u>
Residential Lighting, Cooking & Power .....	365.-	205.-	570.-
Commercial Lighting, Cooking & Power .....	365.-	205.-	570.-
Industrial Power - up to 50,000 K.W.H./Month .....	365.-	205.-	570.-
Industrial Power - excess over 50,000 K.W.H./Month .....	425.-	205.-	630.-

SHANGHAI POWER COMPANY

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	Basic Rate CN\$/KWH	Fuel Surcharges CN\$/KWH	Total Rate CN\$/KWH
Public Street Lighting & Traffic			
Signals .....	75.-	205.-	280.-
Private Street Lighting .....	320.-	205.-	525.-
Shanghai Waterworks .....	100.-	205.-	305.-
Shanghai Tramways .....	100.-	205.-	305.-
Chapei Company - usage up to 8,800,000 K.W.H. per month .....	65.-	205.-	270.-
Chapei Company - excess usage .....	365.-	205.-	570.-
French Company - usage up to 850,000 K.W.H. per month .....	65.-	205.-	270.-
French Company - excess usage .....	365.-	205.-	570.-

NOTE - Less 2% discount where supply is taken at high voltage.

Neon & Fluorescent Lighting Installations -

The ever growing popularity of these forms of lighting is causing some concern to the local Supply Companies, especially as the large majority of installations are not equipped with power factor corrective apparatus. It is estimated that in our territory alone there are over 50,000 fluorescent lamps installed and many more are being added daily.

The matter has been discussed at length at meetings of the Shanghai Power Supply Regulating Committee and it has been decided that strong joint action must be adopted. Unfortunately, there is only a limited supply of suitable condensers on the local market. Investigations are now in progress and further information will be available for next month's Report.

Considerable number of requests are being received for supply to refrigeration units. The majority of these units are for the preservation of essential foods during the summer months. Where possible, supply is being connected.

At a meeting of the Shanghai Power Supply Regulating Committee on May 15th the question of supply for air conditioning was discussed. It was agreed that all plants in our territory would be allowed to operate without restriction. Certain restrictions were imposed upon plants operating in the French Company territory.

COMMENTS: TOTAL KILOWATT-HOUR SALES

Comparison of Peak Load - K.W.

May 1947	April 1947	Post-war Peak May 1947	Pre-war Peak January 1940
161,432	156,430	161,432	162,575

Water Rounding Month (in days):

	May 1947	April 1947	Diff.
Schedule Rate Consumers	31.16	29.99	+1.17
Bulk Supply Consumers	30.40	30.30	+0.10
Municipal Consumers	31.00	30.00	+1.00

SHANGHAI POWER COMPANY

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Total Kilowatt-Hour Sales for the month of May were 74,839,791. This figure represents a decrease of 514,070 K.W.H. (or 0.7%) from last month's total sales, which is less of a decrease than normally occurs at this period of the year. It is estimated that sales this month were down approximately 2,500,000 K.W.H. due to shutdown of industrial loads on Labour Day (May 1st) and also to enforced reduction of industrial loads during the 13-day period that "C" Station was out of service for repairs and adjustments. Notwithstanding the foregoing, the current month's sales exceed by 1% the all time high for the month of May - namely 74,078,937 K.W.H. which were recorded in May 1937.

May sales have only been exceeded four times since 1930, as follows:

<u>Year</u>	<u>Month</u>	<u>Sales in K.W.H.</u>	<u>Increase over May 1947</u>
1936	December	76,325,957	2.0%
1940	April	76,102,020	1.7%
1937	March	75,766,867	1.2%
1937	January	75,730,867	1.2%

Combined Sales (S.P.C. & W.D.P.C.) to Other Electric Supply Companies in May were 16.1% of the total against 15.9% in April 1947, 41.0% in 1945 and 1.1% in 1940.

Residential & Commercial Lighting Sales decreased from 9,313,973 K.W.H. in April to 8,990,488 K.W.H. in May. This seasonal decline brought the total down by 3.5% whereas the meter-reading month was 3.9% longer. Percentage of the total was 12% as compared with 10% in May 1946.

Residential & Commercial Heating Sales also decreased seasonally to 1,708,213 K.W.H. which is only a decrease of 6.2% as compared with approximately 30% in normal times. The rainy and exceptionally cool weather throughout the whole month contributed to the relatively slight decrease. Discounting seasonal variations, the trend of lighting and heating usage continues upwards. As has been explained in previous Reports, this is to a large extent due to increased use of electricity for cooking, but possibly also due to an equal extent to increased usage by Small Power Consumers whose lighting and heating usage is included in this class.

Bulk Supply Industrial Sales were 27,485,087 K.W.H. as compared with 27,561,431 K.W.H. in April - a decline of 0.3%. The meter-reading periods were equal. Usage of 7 of the 13 groups of industries declined while that of the others showed slight increases.

A slight slackening of industrial demand took place at the beginning of the month due to labour unrest in connection with the unfreezing of the Cost Of Living Index. Many industries experienced difficulties in providing cash to pay wages in accordance with the unexpected high index but these difficulties seem to have been overcome during the third week of the month.

The import restrictions and the gradual decrease of cheap or free raw material supplies through UNRRA also have had their effect on the profits of many industries. On the whole, however, prospects seem to be fair and there are no indications of a permanent slump.



SHANGHAI POWER COMPANY

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Commercial Bulk Supply Usage showed a 1% gain although a seasonal decline is normal. The total was 1,147,183 K.W.H. An upward trend is expected during the next three-four months due to air-conditioning usage which commences towards the end of June.

Small Power Sales increased from 4,358,865 K.W.H. in April to 4,892,647 K.W.H. in May, a gain of 7.7% although the meter-reading month was only 3.9% longer. The current month's sales have been exceeded only once, in January 1947, when the figure was 5,084,116 K.W.H.

Shanghai Trams' consumption increased by 3.2% which corresponds to the longer meter-reading month. Sales for May were 1,090,331 K.W.H.

French Trams - The increase of consumption by 3% corresponds to the increase in the meter-reading period. Total sales, amounting to 1,970,000 K.W.H., are still well over their allotment. The reason for the increased usage is due to one of their generating units being out of commission because of overhaul. Another six-eight weeks are probably required before the unit can be put back into service.

Shanghai Waterworks took 1,017,240 K.W.H. in May against 1,202,760 K.W.H. in April.

Chapei Company consumed about the same as last month. S.P.C. sales were 8,988,948 K.W.H. Combined Sales (S.P.C. & W.D.P.C.) were 9,927,948 K.W.H. against 9,865,350 K.W.H. in April.

Intercompany Sales - A total of 17,084,800 units was sold to the Western District Power Company in May, representing a loss of 1.9% as compared with the previous month.

Private & Municipal Street Lighting showed only small changes.

Municipal Other Sales increased from 317,614 K.W.H. in April to 334,629 K.W.H. - a gain of 5.4%. Five out of the six sub-groups comprising this class contributed to the gain.

#### ANALYSIS OF LARGE INDUSTRIAL SALES (186)

(Figures in brackets indicate the number of consumers)

Cotton Mills (30) sales were 19,982,389 K.W.H. In spite of the Labour Day shutdown and the overhaul of "C" Station the decrease is only 302,000 units, or 1.5%.

This industry still depends almost exclusively on American cotton for raw material. Fortunately, imports last year through UNRRA and otherwise were extremely heavy and available supplies are estimated to be sufficient for at least another eight-ten months production.

Sporadic Government interference with prices have, at times, temporarily reduced profits, but never so far to the extent of influencing operating activity. Prospects for several months appear extremely good, but the question of raw cotton supplies will have to be solved in the not too distant future as presents imports are reported to be less than the rate of consumption and Chinese cotton is not available in sufficient quantities to make up the difference.

SHANGHAI POWER COMPANY

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Sales to Flour Mills (3) continued to decrease to 618,300 K.W.H. - a loss of 27.2%. The flow of UNRRA grain has now practically ceased, stocks are reduced and the mills have to rely on private imports and scant supplies of domestic grain. The prices of both grain and flour have been skyrocketing, with consequent decrease of consumption. Prospects are far from good and further depression may be expected.

Rubber Mills (10) - Nine out of the ten consumers in this class contributed to a 7.3% gain, which brought the total up to 877,815 K.W.H. This represents 98.6% of the all time high of 908,546 K.W.H. registered in December 1936.

The rubber industry is still riding on top of the boom crest, but due to import restrictions manufacturers tend to hoard raw materials. However, there is not yet the slightest shortage noticeable and prices are good. Prospects, therefore, in this industry are better than in any other.

Paper Mills (10) Sales continued to increase and established a new post-war high of 1,095,094 K.W.H. which is 3.6% above the previous month. Import restrictions have materially aided this industry which was experiencing difficulties a few months ago. Because of the very small quotas of printing paper (including newspaper) allowed, paper prices have increased to such an extent that cheap domestic paper now finds ready takers. Prospects are fair and energy demand may continue to increase.

Lumber Mills (4) - Sales to this industry were 27,875 K.W.H. but this is no indication of the real situation. The big (Bulk Supply) consumers' plants were destroyed during the war and their functions have been taken over by numerous small mills who do not figure in the classified returns. Actually, the lumber market is quite brisk, with ample supplies of domestic and American pine, while hardwoods are still scarce. Building costs are considerably lower than last autumn's high, both with regard to labour and materials. Construction is going on both of factories and small houses, especially in the Western Districts, but Governmental restrictions with respect to rentals of flats, unfortunately, put an absolute stop to office and apartment-house building. However, the housing situation is so critical that an early solution must be found, and this in turn must cause a building boom.

Oil Mills (2) - Usage was 95,000 K.W.H. in May as compared with 148,200 K.W.H. in April. Due to the civil war which has cut off the usual sources of supply of soya beans, there is a shortage of stock which will not be alleviated for another two-three months. The demand for and the price of oil is good, while the demands for oil cakes both as fertilizer and fuel are seasonally down.

Ice & Cold Storage Factories (16) sales were 960,585 K.W.H. against 563,815 K.W.H. last month, a seasonal increase of 70.4%. 15 out of the 16 consumers in this class have increased their usage. The Borden Co. (Amos Bird Division) remains closed.

With imports of American fruit and tinned goods restricted, last year's sales will hardly be reached this summer. However, the fruit trade with Formosa and the Southern Ports has been revived and probably surpasses the prewar level.

SHANGHAI POWER COMPANY

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REV. 10/53  
SP-20012471

Tobacco Factories (6) sales are at about April's level. Sales were 180,308 K.W.H. Due to the approach of the wet season dealers are reluctant to buy and a seasonal decline may be expected. However, import quotas of leaf have been liberal and a good improvement is certain in autumn.

Silk Mills (2) consumption declined from 55,480 K.W.H. in April to 47,820 K.W.H. in May, or by 9.3%. Combined sales (S.P.C. & W.D.P.C.) were 280,700 K.W.H. as compared with 284,560 K.W.H. in April. It is reported that Japanese rayon will arrive here sometime in June.

The unrealistic exchange rates have practically wiped out private exports. Increased competition from Japanese silk and rayon in the American market and from Italian silk, especially, in the European market have depressed prices. Domestic demand is good but only sufficient to enable operators to maintain the present operating level.

Miscellaneous Textiles (39) - Sales to this industry showed a further slight improvement, registering 2,002,040 K.W.H.

Metal Works (25) took 658,603 K.W.H. as compared with 720,655 K.W.H. in April, a loss of 62,000 K.W.H., or 9.4%, which is chiefly caused by the unexpected closing down of the Swiss-owned Chinese Aluminium Rolling Mills Ltd. - 810 Meichow Road - whose usage dropped from 135,000 K.W.H. in April to 14,400 K.W.H. in May.

Woolen Mills (7) - Sales to this group slightly increased and recorded 288,280 K.W.H. in May against 284,150 K.W.H. in April.

Miscellaneous Other (24) - Sales increased from 623,097 K.W.H. in April to 705,181 K.W.H. in May. All industries, with the exception of Printing Works and Shanghai Gas Company, contributed to the 13.2% monthly gain.

Notes & Records Division - Activities

Due to the increasing amount of work a new Chinese clerk was engaged.

A compilation of Connected Load, Maximum Demand and other data for S.P.C. & W.D.P.C. Combined from 1930 to date was completed.

A survey of lighting usage with study of costs was completed.

Contributions actually collected from consumers with respect to new connections or extensions were as follows:-

<u>Month</u>	<u>S.P.C.</u> <u>CNY</u>	<u>W.D.P.C.</u> <u>CNY</u>	<u>Combined</u> <u>CNY</u>
January	48,500	3,527,000	3,575,500
February	488,500	11,092,000	11,580,500
March	318,200	11,789,700	12,107,900
April	2,806,000	980,000	3,886,000
May	4,488,000	11,517,000	16,005,000
<u>5 Months Total</u>	<u>8,250,200</u>	<u>38,215,700</u>	<u>47,465,900</u>

SHANGHAI POWER COMPANY

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REF ID: A6616471

POWER SECTION

As mentioned in our Report for April, the electricity restrictions were lifted during the month and at the beginning of this month applications for power service continued to be received at the rate of about 25 per day. This involved a great deal of work for the Distribution Department Engineering as, owing to the heavily loaded condition of so many of the low voltage networks, the possibility of supplying a load of 25 H.P. or more had to be carefully investigated before passing the connect order through to the Installation Section. There was a tendency for the Engineering Department to become inundated with connect orders and it was therefore decided on the 6th of the month to temporarily discontinue accepting applications for loads exceeding 5 H.P.

The present system for routing connect orders is as follows:

C/O for a load under 25 H.P. is sent direct from this Department to the Installation Section of the Meter Department, and

C/O for a load of 25 H.P. or more is sent to the Distribution Department Engineering for investigation.

The following applications were accepted during the month:

Reconnections:	6 Applications totalling	395 H.P.
New Load	: 205 " " "	6,985 "

T o t a l : 211 Applications totalling 7,380 H.P.

Of the above total load about 15% covered official recording of unauthorized additions made during the period when the restrictions were in force.

These applications include the following load prospects, referred to in previous Reports:

Yung Foong Cotton Mill No. 2	1,000 H.P.	referred to in July 1946
Pioneer Steel Rolling (formerly known as Nitia Steel)	600 H.P.	" " " Nov. 1946
Sine Laboratory	550 H.P.	" " " Feb. 1947
Hua Sun Electric Co.	200 H.P.	" " " Jan. 1947

and

Ministry of Communications, Auto Supply	500 H.P.	" " "	later in this Report
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The remaining applications include 300 H.P. for N.R.C. Central Chemical Works (formerly operated by Minghua Industrial Corporation), 300 H.P. for Shanghai Paper Mill (formerly Shanghai Seisha K.K.) and loads of from 2 - 80 H.P. covering practically all types of industry in this area.

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REF. 57 577  
APR 23 1957

On May 1st, which was a general holiday (Labour Day), most of the factories shut down for twenty-four hours, that is, from the finish of night shift on the morning of the 1st until the start of day shift on the 2nd. The attached Station load curves for April 29th (a normal week-day) and May 1st, show the drop in load due to the holiday. In comparing these curves it should be borne in mind that April 29th was a bright, warm day, whereas on May 1st it was raining heavily all day, resulting in the evening lighting load coming on much earlier than usual.

At the beginning of the month the Station load conditions were such that emergency load reduction was necessary only when there was outage of generating plant or bad weather caused an increase in daytime lighting load. However, "C" Station was shut down for overhaul from May 12th to 23rd and during this period enforced load reduction was necessary practically every day. This had been foreseen and "Voluntary Load Reduction" was extended to include the small Cotton Mills on their "Stand-by Day" (approximately 2,000 K.W.) and Chapel Co. (2,000 K.W.) during daytime only. The French Co. was asked to reduce load over the evening peak period by 3,000 K.W., being the amount of increase in allotment granted to them while one of their 3,800 K.W. generators is out of commission (referred to in last month's Report). On May 31st "C" Station was again out of commission with a resulting increase in enforced load reduction. The Cotton Mills are still adhering to the schedule of one day of voluntary shutdown per week and generally speaking, normal load can be carried by Riverside Station when all generating plant is available.

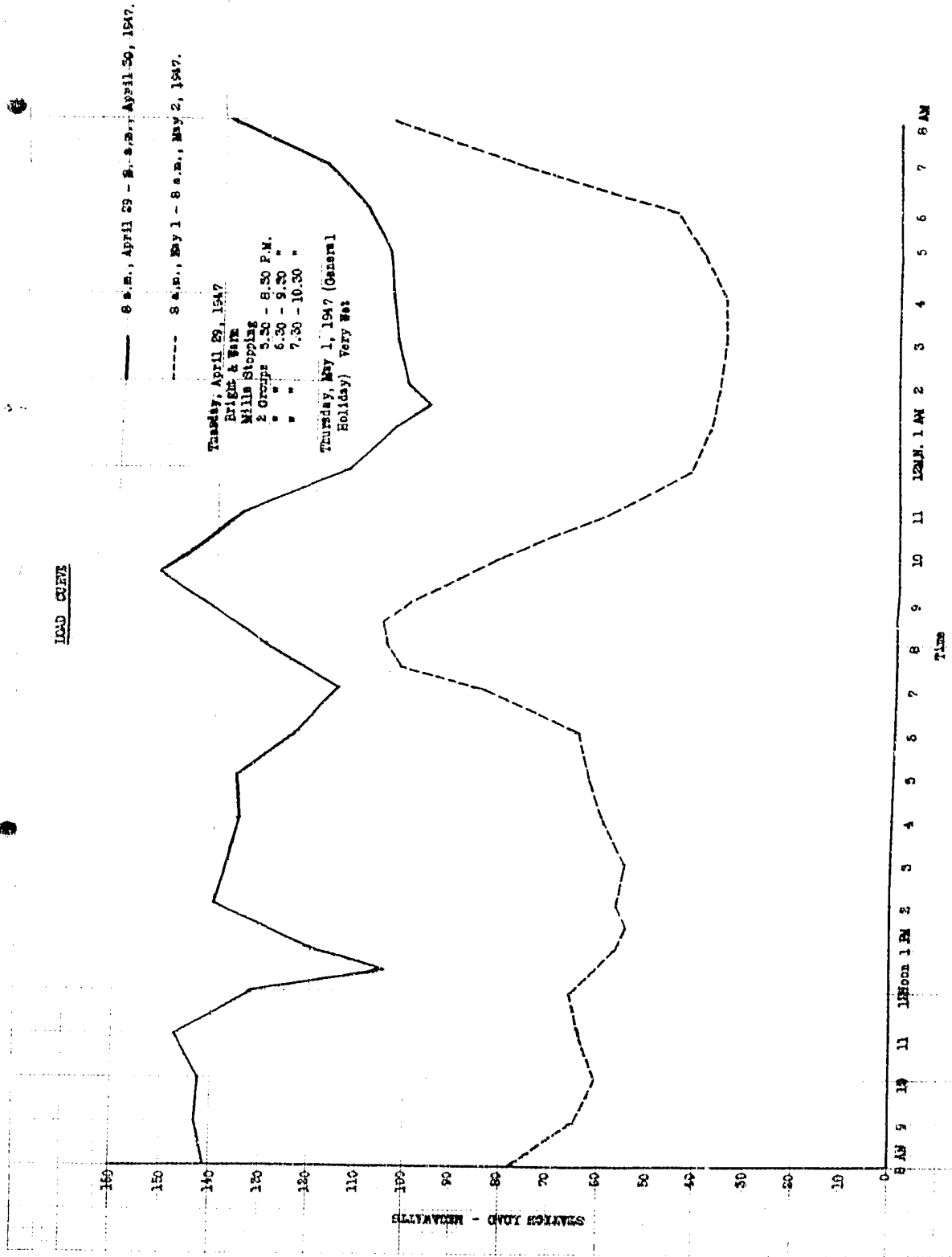
The loss of sales potentiality due to load reduction imposed on Cotton Mills amounted in May to approximately 3,217,000 K.W.H. and about 337,000 K.W.H. due to reduction applied to the Chapel and French Companies. Allowing for the gain of approximately 1,830,000 K.W.H. as a result of the Sunday working schedule, the total loss of sales potentiality due to insufficient generating capacity, amounted to approximately 1,720,000 K.W.H. as compared with 710,000 K.W.H. last month and 1,090,000 K.W.H. in March. The large increase, as compared with the two previous months, is accounted for by the fact that "C" Station was out of commission for 13 days during the month. Voluntary load reduction is still being calculated as lost sales.

During the month the Station maximum demand varied between 148,000 - 168,000 K.W. in the forenoon, 134,000 - 154,000 K.W. in the afternoon, with evening peak demands of 144,000 - 161,000 K.W. When there were no outages of generating plant, Riverside could cope with a sustained load of 148,000 K.W., but with "C" Station out of commission this figure was reduced to approximately 135,000 K.W. The maximum peak load carried was 161,000 K.W. and is the highest since the end of the Pacific War.

The following load prospects were recorded during the month:-

NEW LOAD:

Name: Boston Worsted No. 2 Mill.  
Address: 8 Dixwell Road.  
Connected Load: 1,500 H.P.  
Estimated Maximum Demand: 750 K.W.  
Estimated Annual Revenue: CN\$1,500,000.-



SHANGHAI POWER COMPANY

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REF ID: A667  
XP 404 (2-47)

This is a new factory and is in the same combine as Chaou Foong Cotton Mill. Development will take place in two stages as follows:

1st Stage - 4,000 spindles will be ready for operation about August 1947.

2nd Stage - additional 6,000 spindles expected to be installed early in 1950.

Supply will be given at 6.6 K.V. and consumer has ordered a 1,000 K.V.A. transformer and a 6.6 K.V. O.C.B. from England, but delivery is not expected for at least eighteen months. In order to give supply for the 1st Stage, it is planned to temporarily install a 500 K.V.A. transformer, ordered for Chaou Foong Cotton Mill and expected to arrive in 2/3 months' time. This Mill is at present supplied by a 325 K.V.A. transformer on hire from this Company.

ADDITIONAL LOAD:

Name: Ministry of Communications, Highway Bureau Auto Supply, Shanghai Rubber Factory.  
Address: Lane 131, House 10, Chaoyang Road.  
Additional Load: 500 H.P.  
Estimated Additional Maximum Demand: 250 K.W.  
Estimated Additional Annual Revenue: CN\$420,000,000.-

The additional load consists mainly of 8 rubber rollers. Supply at present is given at low voltage and as the additional load will bring the load demand up to 500 K.W., the supply voltage will have to be changed to 6.6 K.V.

The factory has been hired to Cheng Tai Rubber and this consumer is negotiating for the purchase of a suitable transformer to supply the load.

Name: Standard Shirts & Weaving Manufactory.  
Address: 216 Tongshan Road.  
Additional Load: 600 H.P.  
Estimated Additional Maximum Demand: 300 K.W.  
Estimated Additional Annual Revenue: CN\$880,000,000.-

The extension of the existing factory will create an additional load demand of approximately 300 K.W., bringing the total demand up to 500 K.W.

Supply for the additional load will be required about November of this year and will be given at 6.6 K.V. The consumer has already ordered a 650 K.V.A. transformer and 6.6 K.V. O.C.B. from a local manufacturer and delivery of this equipment is expected in about three months' time.

Name: Tien Chang Paper Mill.  
Address: 408 Yangtzepoo Road.  
Additional Load: 750 H.P.  
Estimated Additional Maximum Demand: 400 K.W.  
Estimated Additional Annual Revenue: CN\$550,000,000.-

SHANGHAI POWER COMPANY

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REF. 10.00  
SP. 100 (1-47)

The consumer plans to install new machinery consisting of one beater and one masher by the end of July and also one paper machine, one beater and one masher with auxiliary machinery by the end of 1947.

As the additional load will bring the total demand up to approximately 1,100 K.W., the consumer has been advised that the supply voltage will have to be changed to 23 K.V. and it will therefore be necessary for him to provide suitable equipment.

In the course of the month supply was given to the following new loads:-

- 1) Dayeh Printing Co. - 22b Rangoon Road.

This prospect was first mentioned in our Report for February 1947. Supply is given at 6.6 K.V. and the consumer has installed his own transformers aggregating 400 K.V.A. The estimated load demand is approximately 250 K.W. and it is expected to yield an annual revenue of CN\$250,000,000.-.

- 2) Dah Chung Hau Rubber Factory No. 3 - 241 Ningkuo Road.

This prospect was first mentioned in our Report for January 1947. Supply is given at low voltage from an S.P.C. 225 K.V.A. outdoor type transformer installed in the factory compound. The factory will have an estimated load demand of 160 K.W. which is expected to yield an annual revenue of CN\$200,000,000.-.

All revenues mentioned in this Report are based on the new net rates retroactive as from May 21st, i.e. CN\$30.- per K.W.H. for consumption of electricity up to 50,000 K.W.H. and CN\$590.- per K.W.H. for consumption in excess of this amount.

#### Power Installation Inspections -

The following inspections were made during this month:

<u>No. of Inspections in May</u>	<u>Unauthorized Additions</u>
139	29

#### RESIDENTIAL SECTION

Domestic Cooking - A further decrease in the total number of cookers connected was recorded for the month. The downward trend of cooker movements continues and it has now reached the lowest point since October 1945.

Due to the prevailing shortage and high price of coal, requests for electric cookers was very high during recent months. As no new connections of cookers are accepted at present, consumers are nevertheless still keeping in close touch with us in order to procure cookers as soon as they are available.

Home Service - Routine activities in this department were carried out.



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SEP 29 1947

Showroom - Work in the showroom was of a routine nature. Calls for cooker breakdowns have reduced considerably this month. There were, however, still many enquiries regarding hire of cookers.

Radiators and Water Heaters - A small seasonal decrease in the number of radiators rented was shown for the month.

There was an increase of two water heaters shown on our records this month. This increase was due to "transfers" and not new business.

Refrigerator Sales - Refrigerator sales for the month of May were very low. Dealers reported that a further drop in sales will be expected because the stock of new refrigerators in Shanghai at present is very low and the date of arrival of new shipments is uncertain.

#### HIRED PLANT INSTALLATION & MAINTENANCE SECTION

Workshop output:-

Motors repaired & tested .....	10
Cookers overhauled & tested .....	26
Water Heaters repaired & tested .....	5
Circuit Breakers " " " .....	4
Starters " " " .....	4
Hct Plates fabricated .....	404
Service calls attended .....	1,060

Hired Motors:-

New connections - 2 motors aggregating 25 H.P.  
Disconnections - 1 " " " 5 "

Four major breakdowns occurred. Two 200 H.P. motors were partially burnt out - one was rewound on site; the other was repaired in our Workshop.

Miscellaneous Work accounted for 310 man-days, most of which was in connection with Head Office alterations on the 4th and 6th floors.

#### ADVERTISING SECTION

Newspapers - One "position vacant" (Personnel Office) advertisement was inserted in the Sin Wan Pao and North China Daily News on May 10, 11 and 12, 1947.

Articles headlined "No Hike Of Public Utilities Rates", "Executive Yuan Approves 10% Increase of Public Utility Subsidy for May", "Hike Of Utility Rates Will Be Decided in the National Commodity Price Conference", were published in the Sin Wan Pao, Shun Pao and Ta Kung Pao. Another article appeared in the China Press headlined, "Utility Hike To Be Discussed In Nanking".

SHANGHAI POWER COMPANY

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SEP 29 1947  
CP 2000 12-011

The "Central Daily News", official organ of the Kuomintang, was reorganized into a private corporation on May 30, 1947. As there is no change in the personnel, the newspaper can be considered as a semi-official paper.

The Wo Bing Pao has been added to the list of newspapers to which we subscribe. This Chinese language daily is popular among semi-official organs and its news presentation and political views are similar to the Central Daily News (former official newspaper).

The "Courier de Chine" (periodical), a successor to "Journal de Shanghai" (daily), Shanghai's only French language newspaper, ceased publication on May 31, 1947. The reasons for the closure are, firstly, the departure of a large part of the French community from Shanghai after the war and, secondly, economic difficulties.

Magazines - The "Public Utility Monthly" repeated last month's "Industrial" advertisement. For a period this magazine was published every two months but it has again reverted to monthly publications.

General - A chart showing statistics of the coal reserves in the provinces of China was drawn as requested.

*A. E. Colterjohn*

A. E. Colterjohn  
Assistant Consumers' Engineer

AEC/cpo

June 30th, 1947.

WESTERN DISTRICT POWER COMPANY OF SHANGHAI,  
FEDERAL INC. U.S.A.

MAY STATISTICS.

Analysis of K.W.H. Sales.

	<u>This Year</u>	<u>Last Year</u>	<u>Increase</u>	<u>Increase</u>
				<u>%</u>
Residential Lighting)	1,538,888	890,748	647,940	72.7
Commercial Lighting )				
Residential Heating & Cooking)	572,360	378,121	194,239	51.4
Commercial Heating & Cooking )				
Bulk Supply Industrial	10,017,853	6,240,210	3,777,643	60.5
Bulk Supply Commercial	44,436	6,466	37,972	587.3
Small Power	2,832,060	1,322,410	1,509,670	114.2
<u>Public Utility:</u>				
Chapel Co.	939,000	1,175,400	-236,400	-20.1
Private Street Lighting	11,412	13,311	-1,899	-14.3
Municipal Street Lighting	23,097	23,765	-668	-2.6
Municipal Others	228,601	133,789	94,812	70.9
	<u>16,207,529</u>	<u>10,184,160</u>	<u>6,023,369</u>	<u>59.1</u>
Total Units Sold (12 months ending May 1947)	<u>186,177,175</u>	<u>56,918,081</u>	<u>109,259,094</u>	<u>192</u>
Total Units Purchased (12 months ending May 1947)	<u>176,003,710</u>	<u>70,647,462</u>	<u>105,356,248</u>	<u>149.1</u>
Distribution Losses (12 months average)	<u>5.6%</u>	<u>19.4%</u>	<u>-13.8%</u>	<u>-71.1</u>
Maximum Demand for Purchased Power - K.W.	<u>32,232</u>	<u>21,968</u>	<u>10,264</u>	<u>46.7</u>

Analysis of Large Industrial Sales in K.W.H.

	<u>This Month</u>	<u>Last Month</u>	<u>Last Year</u>	<u>Increase</u>
				<u>% over</u>
			<u>Last Yr.</u>	
Chinese Cotton Mills	6,827,020	7,044,450	3,309,400	106.2
Other Cotton Mills	3,900	3,600	725,330	-99.5
Total Cotton Mills	6,830,920	7,048,050	4,034,730	69.3
Flour Mills	83,247	114,437	380,025	-76.9
Rubber Products	264,904	239,227	76,975	244.1
Paper Mills	256,048	243,834	91,140	180.9
Lumber Mills	-	-	-	-
Ice & Cold Storage Factories	23,100	27,300	800	2,787.5
Silk Mills	233,080	232,080	107,180	117.5
Miscellaneous Textiles	1,738,579	1,775,364	1,271,268	36.8
Metal Working	113,030	104,575	40,972	175.9
Woolen Mills	344,515	342,890	157,050	119.4
Miscellaneous Other	130,430	107,900	100,070	30.3
Total	10,017,853	10,235,657	6,240,210	60.5

June 30th, 1947.

WESTERN DISTRICT POWER COMPANY OF SHANGHAI,  
FEDERAL INC. U.S.A.

MAY STATISTICS.

Analysis of K.W.H. Sales.

	<u>This Year</u>	<u>Last Year</u>	<u>Increase</u>	<u>Increase</u>
				<u>%</u>
Residential Lighting)	1,528,688	890,748	647,940	72.7
Commercial Lighting )				
Residential Heating & Cooking)	572,360	378,181	194,239	51.4
Commercial Heating & Cooking )				
Bulk Supply Industrial	10,017,853	6,240,210	3,777,643	60.5
Bulk Supply Commercial	44,438	6,466	37,972	587.3
Small Power	2,832,080	1,322,410	1,509,670	114.2
<u>Public Utility:</u>				
Chapel Co.	939,000	1,175,400	-236,400	-20.1
Private Street Lighting	11,412	13,311	-1,899	-14.3
Municipal Street Lighting	23,097	23,705	-608	-2.6
Municipal Others	228,801	133,789	94,812	70.9
	<u>16,807,529</u>	<u>10,184,160</u>	<u>6,023,369</u>	<u>59.1</u>
Total Units Sold (12 months ending May 1947)	166,177,175	56,918,081	109,259,094	192
Total Units Purchased (12 months ending May 1947)	178,003,710	70,647,462	105,356,248	149.1
Distribution Losses (12 months average)	5.6%	19.4%	-13.8%	-71.1
Maximum Demand for Purchased Power - K.W.	32,232	21,968	10,264	46.7

Analysis of Large Industrial Sales in K.W.H.

	<u>This Month</u>	<u>Last Month</u>	<u>Last Year</u>	<u>Increase</u>
				<u>% over</u>
			<u>Last Yr.</u>	
Chinese Cotton Mills	6,827,030	7,044,450	3,309,400	106.3
Other Cotton Mills	3,900	3,600	785,330	-99.5
Total Cotton Mills	6,830,930	7,048,050	4,024,730	69.3
Flour Mills	83,247	114,437	360,025	-76.9
Rubber Products	264,904	232,227	76,975	244.1
Paper Mills	256,048	243,834	91,140	180.9
Lumber Mills	-	-	-	-
Ice & Cold Storage Factories	23,100	27,300	800	2,787.5
Silk Mills	233,080	232,080	107,180	117.5
Miscellaneous Textiles	1,738,579	1,775,364	1,271,368	36.8
Metal Working	113,030	104,575	40,972	175.9
Woolen Mills	344,515	342,890	157,050	119.4
Miscellaneous Other	130,430	107,900	100,070	30.3
Total	10,017,853	10,235,657	6,240,310	60.5

WESTERN DISTRICT POWER COMPANY OF PENNSYLVANIA, INC. U.S.A.

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APR 1954

CONNECTIONS

	<u>This Month</u>	<u>Last Month</u>	<u>Last Year</u>	<u>Increase during Month</u>
No. of Customers	21,085	20,974	19,389	81
" Refrigerators	2,278	2,272	2,202	6
" Cookers (Hired) =	778	778	767	-
" Radiators ( " ) x	299	301	410	-2
" Water Heaters ( " ) x	26	26	22	-
" Miso. Appliances ( " ) x	29	29	29	-
H.P. of Motors ( " ) x	4,580	4,355	2,514	225

x Hired from S.P.C. and included in S.P.C. Statement.

CONNECTED LOAD

K.W. Lighting	15,000	14,951	14,142	49
" Heating: Comprising	(7,335)	(7,327)	(7,553)	(8)
" Cookers	5,609	5,600	5,484	9
" Radiators	1,227	1,262	1,724	-6
" Water Heaters	58	58	50	-
" Miscellaneous	211	206	226	5
" Motors	65,209	64,777	64,226	432
" Industrial Heating	1,051	1,055	869	-4
" Total	88,595	88,110	86,790	485

MONTHLY MOVEMENT IN CUSTOMERS.

	<u>Total All Classes</u>
Total Customers Reconnected	13
Total Customers Disconnected	27
Loss	14
Total New Customers Connected	95
Total Increase during Month	81

WESTERN DISTRICT POWER COMPANY OF SHANGHAI, CHINA, U.S.A.

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SEE REPORT  
OF THE COMPANY

COMMENTS: TOTAL KILOWATT-HOUR SALES

Maximum Demand for Purchased Power - K.W.

<u>May 1947</u>	<u>April 1947</u>	<u>Post-War Peak Feb, 1947</u>	<u>Pre-War Peak Feb, 1941</u>
32,232	31,870	33,032	30,188

Distribution Loss in Percentages:

<u>Monthly</u>		<u>1935</u>	<u>Annual</u>	
<u>May 1947</u>	<u>May 1946</u>	<u>1940</u>	<u>1945</u>	<u>1946</u>
5.1%	3.2%	2.6%	6.1%	24.8%

Meter-reading Month (in days):

	<u>May</u>	<u>April</u>	<u>Difference</u>
Schedule Rate Consumers	30.48	30.58	- 0.2%
Bulk Supply Consumers	30.00	30.00	-
Municipal Consumers	31.00	30.00	3.3%

Total Sales were 16,207,529 K.W.H. in May which is about the same as in April. Residential & Commercial lighting and Heating and Industrial Bulk Supply Sales decreased while Small Power and Chapel Company showed increases. The yearly gain was 59.1%.

Residential & Commercial Lighting Sales decreased 4.5% to 1,538,688 K.W.H. A downward trend is normal for this time of the year.

Residential & Commercial Heating Sales decreased seasonally from 638,192 K.W.H. in April to 592,330 K.W.H. in May - a loss of 10.3%. The current month's sales are, however, well above that of previous years.

Industrial Bulk Supply consumption declined from 10,235,657 K.W.H. in April to 10,017,863 K.W.H. in May, or by 2.1%, partly due to shutdowns of factories on Labour Day.

Bulk Supply Commercial usage, amounting to 44,438 K.W.H., was practically unchanged.

Small Power - The current month's sales registered a 7.7% gain, bringing the total up to 2,832,080 K.W.H. This is a normal seasonal increase. This class took 17.5% of the total against 13% in May 1946.

Chapel Company took 939,000 K.W.H. as compared with 853,200 K.W.H. in April, an increase of 10.1%. May usage to total was 5.8% against 11.5% in May 1946.

Private & Municipal Street Lighting - No significant variations were shown in sales to these classes.

WESTERN DISTRICT POWER COMPANY OF SHANSHAI, HONG KONG

HONG KONG

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REV. 12.1.57  
AP 48 (11.56)

Municipal Other Sales were 228,601 K.W.H., a 0.3% gain. Taking the 3.3% longer meter-reading month into consideration, sales showed a slight decline.

#### ANALYSIS OF LARGE INDUSTRIAL SALES (79)

(Figures in brackets indicate the number of consumers)

Cotton Mills (11) - A total of 6,830,920 K.W.H. was sold to cotton mills, representing a 3.1% decrease from the level of April. The Labour Day celebration and the overhaul of "C" Station contributed to the decrease.

Flour Mills (2) - A monthly loss of 27.3% brought the total down to 83,247 K.W.H. While the Hoong Fong Flour Mill remains closed, the Hwa Fong (Ko Kee) Flour Mill has greatly reduced its operations on account of insufficient supply of grain.

Rubber Factories (5) usage continued to increase and reached a new high of 284,904 K.W.H. which exceeded last month's returns by 10.7%.

Paper Mills (5) consumed 256,048 K.W.H., or 5% above the April figure

Ice & Cold Storage (1) - Sales declined to 23,100 K.W.H.

Silk Factories (4) consumption is practically unchanged - 233,080 K.W.H. The arrival of Japanese rayon sometime in June is reported.

Miscellaneous Textiles (36) - Sales declined in line with sales to cotton mills. A total of 1,738,579 K.W.H. was sold, representing a 2.1% decrease of the figure for April.

Metal Works (4) consumed 113,030 K.W.H. in May against 104,575 K.W.H. in April, an increase of 8.1%.

Woolen Mills (5) - The current month's sales to this industry were slightly above April's and amounted to 344,515 K.W.H.

Miscellaneous Other (8) - Increased sales to Stone Pulverizing Mills chiefly accounted for the 20.9% monthly gain, bringing the total up to 130,430 K.W.H.

#### POWER SECTION

The following applications for power service were accepted during the month:-

<u>Reconnections:</u>	2 Applications totalling	6 H.P.
<u>New Load</u>	: 88 " " "	2,150 "
<u>T o t a l</u>	: 90 Applications totalling	2,156 H.P.

WATSON DISTRICT POWER COMPANY OF SPANISH LAKE AL INC. U.S.A. - 5 -

SEE REPORT  
OF MAY (11-55)

These applications include 100 H.P. for Yeong Dah Mill and 150 H.P. for King Kong Rubber Factory, both of which are mentioned later in this Report.

The remaining applications for loads of from 2 - 35 H.P. cover practically all types of industry in this area.

During May the following load prospects were recorded:-

ADDITIONAL LOAD:

Name: Yeong Dah Mill.  
Address: 2450 Jessfield Road.  
Additional Load: 100 H.P.  
Estimated Additional Maximum Demand: 60 K.W.  
Estimated Additional Annual Revenue: CN\$120,000,000.-

New machinery consisting of 100 looms will be installed about August of this year. The additional load will bring the total demand up to 110 K.W., but owing to the heavily loaded condition of the L.V. network in this area, supply can only be given at 6.6 K.V. The consumer, therefore, has ordered a 250 K.V.A. transformer from a local manufacturer and a 6.6 K.V. O.C.B. from abroad. It has been agreed that when the transformer is available, supply will be given with the protection of the unit depending on our H.V. fuses until the arrival of consumer's 6.6 K.V. O.C.B.

Name: King Kong Rubber Factory.  
Address: 960 Keswick Road.  
Additional Load: 150 H.P.  
Estimated Additional Maximum Demand: 100 K.W.  
Estimated Additional Annual Revenue: CN\$180,000,000.-

This factory was connected up in November 1946 and was first mentioned in our Report for August 1946. Supply is given at 6.6 K.V. to a 100 K.V.A. transformer on hire which will be replaced later by consumer's 200 K.V.A. transformer, ordered from abroad.

The extensions planned consist of 3 rubber rollers and to supply the additional load the consumer has ordered a 150 K.V.A. transformer from a local manufacturer.

Power Installation Inspections - The following inspections were made during May:-

<u>No. of Inspections in May</u>	<u>Unauthorized Additions</u>
21	12

All revenues mentioned in this Report are based on the new net rates retroactive as from May 21st, i.e. CN\$530.- per K.W.H. for consumption of electricity up to 50,000 K.W.H. and CN\$590.- per K.W.H. for consumption in excess of this amount.

RESIDENTIAL SECTION

Domestic Cooking - In May there was no change in the total number of cookers on hire as the number of cookers connected was equal



WESTERN DISTRICT POWER COMPANY OF BRANSON, MO. ALING, U.S.A.

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to the number disconnected.

Home Service - Demonstrators were sent to two foreign homes to give advice on "baking" at consumers' requests.

Radiators and Water Heaters - There was no movement in Water Heaters and there were only a few radiators returned from service.

*A. E. Colterjohn*

A. E. Colterjohn

AEC/cpo

SHANGHAI POWER COMPANY

SHANGHAI POWER COMPANY  
 RIVERSIDE STEAM ELECTRIC STATION  
 MONTHLY GENERATION REPORT  
 MAY 1947

OUTPUT & PERFORMANCE DATA -

	A		B		C		D
	Total Station Net Output Kwh	Short Time Peak Demand Kw	St B Cross Generation Kwh	% of Total	Overall Heat Consumption Btu/net Kwh		
May 1947	80,919,510	161,432	41,354,955	47.32	20,509		
April 1947	79,761,694	156,430	38,030,787	44.31	20,128		
May 1946	57,499,078	123,810	28,174,548	45.65	21,165		
May 1941	52,395,933	138,347	34,430,615	60.36	18,962		
% increase over							
April 1947	1.48	3.20	8.74		1.59		
May 1946	40.73	30.39	46.78		-		
May 1941	54.44	16.69	20.11		8.04		
% decrease from							
April 1947	-	-	-		-		
May 1946	-	-	-		3.10		
May 1941	-	-	-		-		

	Hourly Station Net Output Kwh	St B Hourly Gross Generation Kwh
May 1947 (744 hr)	106,765	55,533
April 1946 (719 hr)	110,934	52,694
May 1946 (743 hr)	77,388	37,920
May 1941 (672 hr)	77,970	51,836
% increase over April 1947	-	5.09
% decrease from April 1947	1.96	-
% increase over May 1946	40.54	46.56
% increase over May 1941	39.49	8.49

Remarks -

The higher heat rate compared with April 1947 due to (1) poorer St load factor; (2) lower vacuum resulting from rising river water temp; (3) higher percentage of St use.

The better economy compared with May 1946 due to (1) higher percentage of St B generation; (2) 1/o of St C; (3) better equipment condition.

The higher heat rate compared with May 1941 due to lower percentage of St B generation resulting from higher St output.

SHANGHAI POWER COMPANY

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STEAM-GENERATORS -

SG No	Date		Hours o/c	Type of Inspection & Work Done	Hr not Avail- able	Total Hr Oper- ated	Operating Hr Since Last Overhaul
	o/c	1/o					
31	13	21	210	General inspection and repair (IMS) - Drum, tubes, furnace examined. 2 joints remade on soot blower line. 2 Clyde soot blowers examined. LF soot blower master valve cover joint remade, trap overhauled. De-5h pipe modified. HF soot blower reducing valve and relay valve overhauled. Burnt quenching nozzles repaired. LH Gauge glass examined. Feed line valve flange refaced. Ash hoppers cut to suit new ash trucks. Motors and starters cleaned, examined.			
	31		20	Ec and stop valve joint leak repair progressing (IDA).	230	510	1 205
30	3	10	154	Routine cleaning after 4153 hr operation (IMS) Drums opened for inspection, no active corrosion observed, wire brushed and painted. Tubes examined, 3 boiler tubes renewed, arch tubes turbo-cleaned and soft scale removed, screen tubes turbo-cleaned. Ec examined, press tested. 5h tubes and boxes examined, 5 tubes renewed and 1 plugged. IDF examined, impeller good. FDF examined, impeller wire brushed. Ph washed, center bearing examined, CI bush renewed. Brickwork repaired. Feeder gearing checked. All blowdown valves overhauled. FFB cleaned. Unit press tested, safety valves, Ec relief valve and water alarm checked. Motors and starters examined, cleaned.	154	582	4 659
29	24	25	10	IDF impeller examined (IMS) - Impeller good. 5 5h drains tested, 2 overhauled. FFB cleaned.	10	721	10 261
28	4/26	2	43	Rebalancing of IDF impeller completed (IDA) - Total time o/c = 146 hr.	43	696	8 019
27	12	12	0	FFB cleaned.	0	737	7 217
26	4	4	7	Coal chutes renewal (IDA) - Four lower half coal chutes renewed.			
	17	18	11	Ec leak repair (IDA) - One distributor tube renewed, 4 Ec caps rejointed. Ec press tested. 2 stoker connecting rods changed.	18	509	5 976
25	31		3	Repacking gland on soot blower valve progressing (IDA).	3	704	7 843

SHANGHAI POWER COMPANY

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SG No	Date		Hours o/c	Type of Inspection & Work	Hr not Avail- able	Total Hr Oper- ated	Operating Hr Since Last Overhaul
	o/c	1/c					
24	10	11	10	Grate repaired (IDA) - Ph washed.			
	17	18	21	Ec leak repair (IDU) - One distributor tube renewed, 1 Sh cap rejointed, 1 Ec vertical nipple renewed and groove in header welded. Unit soot cleaned and press tested.			
	24	25	14	Sh leak repair (IDA) - 3 Sh caps rejointed. LH FD casing patched. 1 Ec vertical nipple renewed, header welded. Rear ashpit wall patched. Unit press tested. Ph washed.	45	509	4 674
23	17	22	127	Defective IDF repair (IDU) - Impeller re-balanced, bearings reinstalled. Shaft journals skimmed. 2 FOB registers renewed. FD duct inspection doors fitted. LH side wall partly rebuilt. LH rear wall patched. RH side wall patched. IDF sealing plates repaired.	117	590	9 067
22	5	7	36	Ec leak repair (IDU) - Unit soot cleaned. Ph washed. 2 Ec tubes renewed, header welded and machined. 1 Ec cap rejointed. 2 Sh caps renewed. RH stoker crank shaft double bearing bracket renewed. Unit press tested.	67	474	3 693
21	30		31	Ec leak repair progressing (IDU).			
	3	4	11	Open valve overhauled (IDA) - LH Sh drain valve overhauled.			
	25	25	3	Ph elements washed (IDA) - All burner impellers renewed.	14	718	10 177
20	17	18	11	Ec leak repair (IDA) - 2 Ec caps rejointed. Sh drains overhauled. Blowdown pipe patched and drain cock flange rejointed. Ec press tested. Stoker gear inspected. Stoker motor changed. FOB impellers removed.	11	469	2 669
19	2/21	11	251	General overhaul and conversion to oil burning completed (IMS) - Total time o/c = 1891 hr. Drum inspected internally, usual film rust scale on upper section, hard mud deposit of no thickness on lower section, surface wire brushed and painted. Tubes examined in fairly good condition; 4 tubes out and header holes welded, machined; 5 tubes renewed. Headers found weak at rear header expansion edges, particularly in return tubes. Ec found good. Sh tubes examined in fairly good condition with isolated pitting, outlet header tubes re-expanded, headers scraped and painted. Walls rebuilt, baffles sealed. Grate removed, oil burning equipment installed. Motors and starters overhauled. IDF impeller rebladed. FDF bearings reinstalled, impeller scraped and wire brushed. Unit press tested, safety valves and water alarm checked.			

SHANGHAI POWER COMPANY

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SG No	Date		Hours o/c	Type of Inspection & Work Done	Hr not Avail-able	Total Hr Oper-ated	Operating Hr Since Last Overhaul
	c/g	1/c					
19	(continued)						
	15	15	2	IDE examined (IDU) - Additional resistance inserted in motor to increase motor speed.	253	485	405
18	3	4	13	No leak repair (IDA) - 2 No caps rejointed. 1 Sh drain overhauled. Unit press tested.			
	31		7	No leak repair progressing (IDA).	20	471	1 685
17	5	6	29	Defective No 3 Grate overhauled (IDU) - 1 set sprocket wheels and shaft, 5 rollers, 200 links, End motion shaft in gear box renewed.			
	11	11	6	No 2 Grate clutch overhauled (IDA) - New worm shaft and End motion shaft fitted. Ball races renewed. IDF casing patched.			
	24	25	14	RH Intermediate feed check valve overhauled (IDA).	49	410	9 256
16	23	30	169	Furnace chamber brickwork repair (IDU) - All spalled or damaged walls rebuilt. Several leaky No caps rejointed, No relief valve tested. 1 Sh cap rejointed. Valves overhauled. Unit soot cleaned, press tested, safety valves and water alarm checked.	169	518	13 487
15	-	-	0	RH blowdown pipe renewed. 2 broken driving links cut.	0	743	2 203
14	-	-	0	---	0	724	14 409
13	3/12	16	368	Partial overhaul after 3386 hr operation completed (IMS) - Total time o/c = 1336 hr. Drum cleaned from 1/4" soft scale deposit and examined, no active pitting or corrosion found, lower half painted. 6 bottom rows of main tubes, down comers and return tubes turbo-cleaned, examined. 2 thinned main tubes renewed, remainder in good condition. Sh tubes examined, no scale deposit. 37 No tubes renewed. 1/4" scale deposit in front mud box cleaned. All front headers cleaned. Relief valve overhauled, tested. All mountings overhauled. All grates overhauled, defective parts renewed. Dampers examined. Ash water pipe work repaired, sprayers renewed. Brickwork repaired, baffles sealed. Unit press tested, safety valves and water alarm checked. Aux motors and starters overhauled, tested.			
	28	28	2	Internal sample water pipe renewed (IDA).	370	339	339
12	-	-	0	One broken driving link on RH grate cut. Riddings cleaned.	0	450	2 303
11	24		176	Partial overhaul after 1874 hr operation progressing (IMS).	176	545	1 074

SHANGHAI POWER COMPANY

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SG No	Date		Hours o/c	Type of Inspection & Work Done	Hr not Avail-able	Total Hr Oper-ated	Operating Hr Since Last Overhaul
	o/c	1/o					
10	9	10	9	5h leak repair (IDA) - Leaky joints remade.			
	18	18	4	5h leak repair (IDA) - One leaky cap rejoined. Broken links cut out from jammed grates.	13	401	1 056
9	31		8	Rejointing leaky 5h caps progressing (IDA).	8	542	4 682

Notes:- 1. Unscheduled Outages -

(a) Units taken out immediately (IDU)

SG No	19	22	22	19	17	16	Total
Times o/o	1	1	2	1	1	1	7
Hours o/o	21	127	67	2	29	169	

(b) Repairs done on a deferred date (IDA)

SG No	31	28	26	25	24	21	20	18	17	13	10	9	Total
Times o/o	1	1	2	1	2	2	1	2	2	1	2	1	18
Hours o/o	-	43	18	3	24	14	11	20	20	2	13	8	

2. Tube Renewals -

SG No	30	22	19	13	Total
Boiler tubes	3	-	5	2	10
Ec "	-	2	-	37	39
Sh "	5	-	-	-	5

BOILER HOUSE AUXILIARIES -

1 - Feed Water Pumps (FWP) -

- FWP 25 - Gland repacked.
- FWP 22 - Governor and emergency trip valve gear cleaned. Outboard bearing repaired and oil renewed. Pump glands repacked.
- FWP 21 - General overhaul after 7916 hr operation progressing.
- FWP 20 - Outboard bearing joint remade and oil level lowered. Recirculator pipe removed and line blanked off.
- FWP 19 - Recirculator valve removed for repairs, line blanked.
- FWP 10-13-12 - Governor gear cleaned.
- FWP 14 - Motor cleaned, starter overhauled.
- FWP 11 - Suction pipe expansion joint repaired.
- FWP 5 - Re-installation progressing.
- FWP 3 - Cable between starter and motor renewed.
- FWP 2 - Outboard gland repacked.
- FWP 1-2 - SW supply blanked off.

2 - Auxiliary Fans in EH 2 -

- EDF 10-12 - Steam trap overhauled.
- IDF & EDF 9-11 - Motors and starters cleaned, examined.

SHANGHAI POWER COMPANY

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RAW COAL HANDLING PLANT -

Tr 1 - Grab hoist shackle annealed. Operating brake lining, agitator shaft and ploughs, weighing machine counter weight renewed. Broken case for traverse motor solenoid brake repaired.

Tr 2 - Weighing machine tested.

Tr 3 - Sustaining counter shaft bearing changed.

RT 2 - Burnt hoisting motor solenoid repaired. Weighing machine motor changed for overhaul.

BT 2-3 - Trolley equipment cleaned, repaired.

Tr & BC LC - Switches cleaned and examined.

BC 36 - 2" ball bearing and 36 ft belt renewed.

BC 44 - One 2" and one 2 1/2" ball bearing renewed.

BC 11, 12, 20, 21, 22, 41, 42, 43 & 44 - Motors and switches cleaned, examined.

FUEL OIL HANDLING PLANT -

FOP 14 - Reconditioned Quimby pump put i/c after renewing GI screws and boring out cylinder.

FOP 11 - New valve levers and links fitted.

FOP 10 - Lubricator overhauled. RH valve rod lengthened 7/16". Valve setting checked.

FOP 6 - Governor and emergency trip valve gear cleaned, tested.

FO Heaters - Cleaned.

PULVERIZED FUEL HANDLING PLANT -

1 - All FM (pulverizing mill) routine inspected and minor repairs made.

2 - Screw Conveyor motors cleaned and examined.

ASH HANDLING PLANT -

1 - Electric Locomotives (LE) -  
 LE 1 - One set small wheels changed.  
 LE 1-2-4 - Damaged trolley equipment repaired, controllers cleaned.  
 LE 3 - General overhaul progressing.

2 - Trucks & Tracks - Routine repairs progressing.

TURBO-GENERATORS -

TG No	Date		Hours o/c	Type of Inspection & Work Done	Hr not Avail-	Total Hr Oper-ated	Operating Hr Since Last Overhaul
	o/c	1/c					
13	13	23	267 1/2	Routine cleaning (IMS) - Governor dismantled, all parts examined, oiled. Electrical equipment cleaned, examined.	267 1/2	446	1 0633

SHANGHAI POWER COMPANY

EG No	Date		Hours o/c	Type of Inspection & Work Done	Hr not Avail-able	Total Hr Oper-ated	Operating Hr Since Last Overhaul
	o/c	1/c					
16	10	11	10 $\frac{1}{2}$	Routine cleaning (IMS) - Speeder gear spindle oiled.	10 $\frac{1}{2}$	730	2 619
15	4	4	1 $\frac{1}{2}$	Oil cooler water valve packing renewed (IDA).			
	17	18	12 $\frac{1}{2}$	Routine cleaning (IMS) - O/B gear examined, cleaned, tested, operated at 3270 rpm. CP 'B' thrust collars adjusted. Neutral OCB overhauled, step-up transformers cleaned.			
	26	26	0	Trip coils tested, cleaned. All connections tightened, cleaned. Fuses examined. O/L operation tested.			
14	20	20	3 $\frac{1}{2}$	Air, oil and transformer oil cooler cleaned (IMS).	13 $\frac{1}{2}$	716	12 724
	24	25	11	Routine cleaning (IMS) - Governor gear examined, rollers at spring ends renewed. CP 'A' outboard bearing cleaned, oil renewed.			
13	3/16	14	320	General overhaul after 10118 hr operation completed (IMS) - Total time o/c = 1422 hr. Steam rotor and cylinder examined; spindle blades in good condition, last wheel blade rivets to be renewed in next overhaul; diaphragms No 1-2-3-4 in good condition, No 5-6 heavy erosion on inlet edges, No 4-5-6 to be renewed on the arrival of ordered diaphragms; nozzle block holding bolts renewed, 2 outlet edge worn nozzles welded up. No 1 & 2 main bearings re-installed, all oil clearance checked. Alignment checked, shaft straightness tested. All rivets of expansion bellows renewed, bellows tested. Various parts and auxiliaries inspected, overhauled. Main OCB for aux and CP switch overhauled, oil changed, O/L protection tested.	14 $\frac{1}{2}$	709	13 022
12	2	2	2 $\frac{1}{2}$	Routine cleaning (IMS) - Governor gear examined, cleaned. CP glands repacked.	320	405	405
	22	24	63	Routine cleaning (IMS) - O/B gear examined, cleaned, tested, operated at 3300 rpm. All air and water valve glands repacked.			
	29	29	1	Test on electric side (IMS) - Governor adjusted in connection with HST 2 reverse power trip.	65 $\frac{1}{2}$	667	10 941
10	4	4	5 $\frac{1}{2}$	Routine cleaning (IMS) - O/B gear cleaned, tested, operated at 1640 rpm.	5 $\frac{1}{2}$	706	10 666
9	1	1	6	Condenser tested (IMS) - No leaks found.			
	31		6	Routine cleaning progressing (IMS).	12	696	12 233



SHANGHAI POWER COMPANY

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TG No	Date		Hours o/c	Type of Inspection & Work Done	Hr not Avail-able	Total Hr Oper-ated	Operating Hr Since Last Overhaul
	o/o	1/o					
8	1	1	6	Condenser tested (IMS) - No leaks found. SW strainer valve spindle to bearing cooling jacket repaired (IDU).	9 1/2	710	9 772
	22	22	3 1/2				
7	7	7	2 1/2	GP motor thrust bearing cleaned (IDA) - Grease renewed.			
	10	11	8 1/2				
5	27	27	9 1/2	Condenser tested (IMS) - No leaks found. Aux oil pump steam pipe cleaned (IDU) - Main steam chest examined. Unit in emergency commission. Vibration and main oil pump worm gear in bad condition.	20 1/2	356	9 866
	18	18	2 1/2				
4	22	22	2 1/2	Oil pipe joint to No 2 bearing remade (IDA). Condenser tested (IDA) - E tubes plugged. Ejector steam gauge renewed and relocated (IMS).			
	24	25	4 1/2				
4	30	30	2 1/2	Condenser tested (IDU) - One leaky tube removed for examination.	10 1/2	682	7 014
	25	25	6				
2	28	29	9 1/2	Air washer motor renewed (IMS) - Starting switch cleaned, examined. Oil changed. Condenser drain pipes cleaned.			
	31	31	1 1/2				
1	3	7	50 1/2	Defective spindle and valve for north condenser CW inlet removed for repairs (IDU). Routine cleaning progressing (IMS). Steam chest valves repaired (IDA) - Governor steam valve repaired.	16	704	7 662
	13	14	15 1/2				
1	18	18	4 1/2	Condenser tested (IDA) - 2 leaky tubes plugged. Condenser tested (IMS) - No leaks found. Steam chest drain valve repaired (IDU).			
	21	22	9				
1	26	26	2	Condenser tested (IDA) - E tubes plugged. Realignment and condenser repairs progressing (IDA).	220 1/2	314	1 366
	28	28	96				
1	9	9	6 1/2	Condenser tested (IMS) - No leaks found. Condenser tested (IMS) - No leaks found.			
	18	18	4 1/2				
	26	27	31	O/B gear and emergency trip valve examined (IMS) - O/B gear cleaned, tested, operated at 1620 rpm.	44	420	5 319

Notes:- Unscheduled Outages -

(a) Units taken out immediately (IDU) -

TG No	3	7	5	4	2	Total
Times o/c	1	1	1	1	1	5
Hours o/c	3 1/2	9 1/2	8 1/2	9 1/2	9	

(b) Repairs done on a deferred date (IDA) -

TG No	7	5	2	Total
Times o/c	1	2	4	7
Hours o/c	2 1/2	3 1/2	207	

SHANGHAI POWER COMPANY

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TURBINE HOUSE AUXILIARIES -1 - Circulating Water Pumps (CWP) -

- CWP 23 - Pump top bearing cleaned, grease renewed.
- CWP 26 - Pump gland repacked.
- CWP 24 - Pump impeller examined, piece of wood removed. Impeller and wearings found good. Pump glands repacked. Pump top bearing examined, cleaned, oil renewed. Electric equipment overhauled.
- CWP 22 - General overhaul (after 6390 hr operation) completed. Impeller rebalanced, wearing renewed, neck rings skimmed. Shaft tail skimmed. Pump bottom bearing reinstalled, other bearings examined good. Pump aligned, tested OK. Motor and starters overhauled.
- CWP 23-16-12-11 - Motor cleaned, switch overhauled.

2 - Service Water Pumps (SWP) -

- SWP 12 - Pump gland repacked.
- SWP 5 - Additional balance pipe installed to reduce balance chamber pressure.
- SWP 3 - General overhaul (after 2081 hr operation) progressing.

3 - Air Compressors (Cp) -

- Cp 1 & 2 - Routine cleaned.

4 - Sump Pumps (SP) -

- SP 1 & 2 - Suction strainers cleaned.

5 - Condensate Transfer Pumps (CTP) -

- CTP 11 & 12 - Pump gland sealing pipes installed. Water cups installed for sealing suction valve glands.

6 - Water Screen (WS) -

- WS 6 - General overhaul progressing.

FLOATING EQUIPMENT -

- TD "Reactor" - Boiler soot and scale cleaned. Furnace and bottom shell painted. Valves overhauled. Zinc block renewed. Safety valves tested. Main engine and auxiliaries overhauled.
- TD "Rectifier" - Beached for removing steel wire from propeller.
- Ladders - CL 13, 15 & 20 - Chimneys renewed.  
CL 5, 13 - Ladders repaired.

MISCELLANEOUS MECHANICAL EQUIPMENT -

- 1 - HP SW Line (BH 3) - 2 lengths corroded piping between GC 19 and 23 changed.
- 2 - Heating and Hot Water Boilers for Office and Main Store - Relief valves tested.
- 3 - Wharf Ash Water Pipe - 90 ft of 1" pipe installed and connected up to SW line for flushing ash trucks.
- 4 - Feed water Tanks - FT 5 & 6 - Float indicator renewed.
- 5 - Condensate Range - Expansion joint gland repacked.
- 6 - Venturi D - Pipe flange repaired.

SHANGHAI POWER COMPANY

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ELECTRICAL EQUIPMENT -1 - 23 kv BH Equipment -

AB 7/8, AG 15/18, AG 17, AG 19, Chaped - GCB overhauled.

2 - 6.6 kv BH Equipment -

Westinghouse Board - Structural repair work completed. Main and aux B/B 1/c. Re-connected switches as follows: ST 2, ST 3, ST 4, TG 12, HST 1, HST 2, ST 15, ST 16 and TG 13.

3 - Rotary and Motor Converters -

RC 1 - Reconditioned armature installed. Brushes and brushgears cleaned. Bearings remounted.

Oscillating gear overhauled, adjusted.

RC 2-3, MC 4 - Routine cleaned.

4 - Miscellaneous -

- (a) Battery MC sets cleaned, examined.
- (b) MC 1-2 motors and controllers cleaned, examined.
- (c) Station desk fans cleaned, tested.
- (d) Lamps over fuel oil burners in BH 5 installed.
- (e) Wiring for BG 31 BH micromax meters installed.
- (f) ST 17-18 tappings changed for high secondary voltage.
- (g) Foundry rewiring progressing.
- (h) Unnaturally wiring near Time Office Gate removed.
- (i) TH and Control Room Lighting - Fittings overhaul and lamp wattage increase progressing.
- (j) Hoisting motor in BH 3 cleaned, examined.

RIVERSIDE WORKSHOP -

1 - Overhauled 8 motors, 2 transformers, 7 CT, 1 voltage regulator, 2 exciter armatures; machined 24 brass contacts, 12 aluminium B/C gear handles, 3 bronze terminal sockets, 1 copper contact, 60 neutral terminals, 72 live line connectors; made 24 copper fixed sparking contacts, 18 copper moving contacts, 110 copper tubular cable sockets, 12 copper flag sockets, 15 lead sleeves, 50 concrete pole base frames, 1 link and fuse box, 3 LT link boxes, 12 MS armour clamps, 43 brass brush holder adjust springs, 90 copper contacts, 3 Siemens type fuses.

2 - Machined 24 MS forging shafts, 6 CI chilled rollers, 20 MS flanges, 640 MS and steel bolts and studs, 280 MS and tool steel pins and keys, 6 MS shafts, 845 miscellaneous articles for various purposes; ground 10 steel reamers; made 2 brass strainers, 36 copper strainers, 48 MS baffles, 60 MS covers, 11 MS trays, 1 MS tool box, 6 sets MS FO burners, 2 sets MS chains, 1 MS 5/8 tube, 24 steel links, 10 CI impellers, 10 CI registers, 2 CI small doors; repaired 3 brass blow lamps, 2 steel bolt cutters, 24 copper tubes, 40 MS stroke adjusters; overhauled 1 isolating valve; remounted 2 sets KM bearings, 4 sets brass bushes, 2 sets CI bearings, 2 sets brass bearings; balanced 1 IDF impeller, 1 set IDF blades.

SHANGHAI POWER COMPANY

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- 3 - Made 4 Ph plates, 4 MS arch plates, 3 MS indicator pipes, 1 MS gratings, 7 MS steps, 12 MS baffles, 10 MS plates; bent 69 boiler tubes; forged 35 MS roller pipes, 16 MS armour clamps, 30 MS stoker adjusters, 48 steel springs, 24 MS chains, 2330 lb MS spanners, flanges, rings, clamps, bolts, rivets, brackets, etc.
- 4 - Electric welded 42 pipe flanges, 16 pipe rollers, 5 MS Tee pieces, 5 concrete pole base frames, 3 MS gates, 2 MS platforms, 3 MS frames, 15 MS ash buckets; electric built 4 roller shafts, 1 MS roller ring, 1 motor rotor shaft, 1 impeller shaft; gas welded 1 chain wheel, 5 MS ash buckets, 32 MS chain links, 1 MS back plate, 1 gasoline tank; gas brazed 8 brass valve spindles, 7 brass cock spindles, 3 brass strainers, 21 copper tube ends; gas faced with stoddite 1 set stay bolts, 1/2 set IDF blades.
- 5 - Tinned 290 copper connectors; galvanized 5 anchor brackets, 25 armour clamps, 84 GI eye bolts, 2000 back plates, 4 single cable clamps, 50 GI bull washers, 12 back braces, 300 GI pole knee brackets, 100 MS washers, 200 GI bolts and nuts, 20 GI back clamps.
- 6 - Foundry produced 39300 lb cast iron, 1337 lb HD brass, 433 lb GP brass, 727 lb brass ingots, 1645 lb copper ingots.
- 7 - Building & Wharf Maintenance:-
- (a) Repaired windows for Office Building and Switch House, platform on ash wharf, roof on top of foundry building, hand railing in TH.
  - (b) Made concrete bases fire hydrants No 4 & 18, column bases in Foundry.
  - (c) Repaired brick walls in Glen Road Staff Quarters.
  - (d) Repaired shed in front of BH 2; installed ladder, gratings and handrails in St PF bunker.
  - (e) Painting of steel structures of coal handling plant progressing.
  - (f) Maintenance work to all plumbing and piping in Station progressing.

MISCELLANEOUS NOTES

The labour roll at Riverside totals 1334 including 24 Foreign and 85 Local Agreement, 59 Russians, 9 Subsidiary Staff (Foreign Watchmen), 19 Chinese Apprentice Engineers and 1138 Chinese Staff.

SHANSHAI POWER COMPANY

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The general labour situation showed a marked deterioration over last month, culminating in a sit down strike on May 9th, the operation staff however continued to work except for a few isolated cases which were finally ironed out satisfactorily, and allowed the operation of the plant to proceed normally.

The strike was caused primarily by the inability of the staff to obtain rice on the local market at reasonable prices, etc. The Company finally agreed to advance a loan to the staff whereupon they agreed to return to work; as in all cases of labour trouble of this magnitude, it was some considerable period before they again settled down to a reasonable days work.

Further labour difficulties arose during the month, overtime again being one of the major problems, next being the difficulty of staffing "C" Station, workmen from other parts of the station refusing to be transferred, the milling staff from BH 4 being a typical example. Negotiations have been on foot for some time regarding the latter. However to date no satisfactory solution of the problem has been found.

The annual leave program for workmen has now been put into effect, and has undoubtedly complicated matters particularly in the operation division, several questions have been raised by the Labour Union regarding annual leave and the provision of extra staff, several difficult operational problems have also arisen due to overlapping of sick leave and regular leave, several operation shifts being seriously depleted from one cause and another. It is hoped however to surmount the various difficulties as and when they arise, although considerable skill and care has to be exercised by the supervisors to prevent labour trouble of one kind or another.

The sickness racket continues unabated, and consideration is being given to the question of changing the Company Doctors around with a view to reducing the possibility of undue pressure being brought upon the Doctors by the workmen. The average % of absenteeism due to sickness and/or other causes, of the Regular Chinese Staff amounting to 4.56% for the monthly rate, and 6.27% for the daily rate; the sickness % being 2.51% and 4.55% respectively.

General -

The plant has continued to be operated at maximum output of available equipment.

Our total station net output increased from 79,761,694 Kwh in April, to 80,919,510 Kwh in May, this increase 1.45% being due to longer operating period. The Hourly Station Net Output dropped slightly by 1.96% as compared with April, namely 106,763 Kwh as compared with 110,934 Kwh.

SHANGHAI POWER COMPANY

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SG 31 steamed successfully at approx 350,000 lb/hr for a total of 985 hours until May 12 when the unit was taken off load for inspection as per arrangement.

Mr R Hughes, B & W Engineer, expected to proceed to North China and wished to have an inspection of the unit before so doing, in addition several jobs required attention e.g. a slight leak on the main feed water valve on the left hand side of the economiser, and the Governor Gear on TG 18 unit required early attention, and as subsequent events proved, the decision to take the unit off load was a good one.

The steam-generator was put back in commission on May 21 after being out of commission for a total of 210 hours, the turbine unit was put in commission on May 23 after an outage of 267 hours.

Unfortunately we have to record that some more leaky joints have come to light, two in particular being the joints on the Main Feed Water check valves on the left hand side of the economiser rear, these leaks appeared after the steam temperature had been raised to 985 F, it will unquestionably be necessary to take the unit off load in the near future.

The arrival and commissioning of the new ash cars has eased the ashing situation considerably, but by no means solved same.

General observations and remarks made since the overhaul are as follows:

Whilst not serious, a certain amount of slagging and dust accumulation had occurred in the boiler and a slight change in the disposition of the soot blower nozzles has been effected with a view to preventing the accumulation and banking of dust at the points as found.

Inspection of the drum shows the inside to be in good condition.

The quenching nozzles in the ash hoppers were found to have burnt away, in future a continuous small flow of water will be arranged for.

Approx 100 round handhole joints in boiler headers began to leak after the unit had been taken off load, since when new gaskets were fitted.

Refacing of the main feed valve flanges LH side of unit and insertion of new gasket has proved successful, considerable difficulty was experienced in removing the nuts from holding bolts of valve cover, information to be sought as to the best method of tightening up bolts on the HP steam side of this unit.

CHANDLER POWER COMPANY

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Investigation of the governor hunting troubles experienced reveals that due to turbine cylinder expansion the lag-shaft moved and caused severe binding of the governor dash-pot and pilot valve. Friction in the bearings was found due to infiltration of dirt, and lack of sufficient clearance in the bearings caused severe binding of the steam admission control valve.

Close attention has been given to the above mentioned items, which include the fitting of sight feed lubricators for the cam shaft bearings and the installation of hoods and screens around the control gear, incorrect type of oil was held to be partly responsible for the Governor Gear trouble.

Work on the Westinghouse Board has continued very satisfactorily, and it is hoped to have this board in full commission in the near future. BBT 1 and TG 12 have already been reconnected.

A contract has been placed for the painting of all coal handling plant equipment, also all steel work external to BH 5, work has commenced and after close supervision is now proceeding satisfactorily.

A considerable improvement in the general lighting of the Turbine House has been effected, but much work in this direction remains to be carried out, lack of fittings and more particularly, suitable lamps remains the problem, no high power lamps are available on the local market.

Erection of an additional Fuel Oil Tank FOT 4 of 10,000 bbl capacity has commenced, when this tank is commissioned it is hoped that some of our oil pumping and storage difficulties will disappear.

Considerable attention has been paid to the question of Feed Water problems, and it is interesting to record that appreciable improvements have been effected, due mainly to increased frequency of blow-down, close attention to the isolation of town-water and condensate, and the maintenance of evaporating boilers on town-water make up.

Further work along this direction will be pursued, and some piping changes are contemplated in BH 2 to facilitate the segregation of town and condensate water.

The connection to steam range for the Critical Pressure Gauge in BH 3 has been moved and is now in operation, the relocation it is hoped will result in improved control of steam pressure in BH 3, thereby preventing unnecessary operation of Relief Valves (200 psi) located in BH 5.

As in previous months, practically all maintenance work other than that occurring due to forced outages, has been carried out during off peak periods, nights and week-ends, etc., thereby necessitating a considerable amount of overtime.

BHAN-DHAL POWER COMPANY

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BC Units -

The unscheduled outages show a decrease over the previous month namely 7 as against 9; the deferred outages however registered an increase namely 18 as against 13 for previous month.

The total hours BC were out of commission for unscheduled and deferred outages registered an appreciable decrease over the previous month, namely 591 hours as against 674 hours, and were made up as follows:-

Unscheduled outages	-	415 hours as against 427 hours.
Deferred outages	-	176 hours as against 247 hours.

Tube renewals registered an appreciable increase namely 54 as against 14 for previous month.

Major maintenance work for the month consisted of the following:

- BC 31 - o/c 230 hours for general inspection and repairs and refacing of main feed line flange LH side of unit.
- BC 30 - o/c 154 hours for routine cleaning and examination after 4133 hours operation. 3 boiler tubes and 5 Ec tubes were renewed, and appreciable amount of brickwork rebuilt in furnace walls.
- BC 23 - o/c 127 hours for repairs and balancing of ID Fan, and extensive repairs to furnace walls.
- BC 19 - o/c for a total of 251 hours this month, the conversion to oil firing was however completed, 3 tubes were renewed and furnace walls completely rebuilt, considerable time was lost owing to the scarcity of fire bricks, many old bricks were obtained on site, chiefly from BH 1, the center wall being almost completely built from old fire bricks.
- BC 16 - o/c 169 hours mainly for extensive repairs and rebuilding of furnace walls.
- BC 13 - o/c 368 hours this month, total time o/c 1556 hours for partial overhaul after 3386 hours operation, 37 Ec tubes and 2 boiler tubes were renewed.

TG Units -

Unscheduled outages 5 in number totalling 33 hours, and deferred outages 7 in number totalling 213 hours occurred during the month.

Major maintenance work for the month consisted of the following:

- TG 18 - o/c 227 hours for routine cleaning and examination of governor gear in particular. The governor gear was completely dismantled, bearings eased and arrangements



LHMAN POWER COMPANY

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made to allow for expansion. New oil feed arrangement for governor cam shaft installed, as also brass mesh screen around cam shaft with a view to prevention of excessive grit accumulation. Governor pilot valve completely dismantled for examination.

- TG 13 - o/c for a total of 1422 hours after 10118 hours operation, major overhaul completed. No 1 & 2 main bearings reinstalled, alignment checked as also shaft truth, all rivets of expansion bellows renewed, governor gear given a complete overhaul.
- TG 2 - o/c 220 hours for repairs to steam chest valves, and major work on condenser joints, ferrules and packing, etc. Alignment of unit also checked.

The total outages for all causes apart from those outlined above amounted to 178.5 hours.

Trouble with condenser air leakage is still being experienced mainly with TG 1, 2 & 7 units, the remaining units have been considerably improved during this last month and can now be considered as being satisfactory.

#### Electrical -

Apart from the reconstruction of the Westinghouse Board which has now been completed as far as the structure is concerned, and the following circuits recommended:- ST 2, 3 & 4; TG 12, 13; HWT 1 & 2; and ST 13, 15 & 16, the electrical work has been of a routine nature.

The reconditioned RC 1 armature was installed and the machine put on load.

#### Fuel Oil Supply -

The erection of the second 10,000 bbl tank FOT 4 is now well advanced, and Texas Company are well ahead with the erection of their third 109,000 bbl tank.

Several difficulties and delays in the fuel oil delivery have occurred, in some cases necessitating taking delivery from lighters, however we did not have to cut load on this account, but were within a few hours of having to do so on several occasions, the difficulty in almost each case being due to permit delays.

Our fuel oil consumption for the month totalled 30,484 tons, the max daily consumption being 1,151 tons, and the average daily consumption for the month being 963.35 tons.

It will be appreciated that our existing oil fuel pumping equipment is taxed to the utmost, and we are therefore anxiously looking forward to receiving the much needed additional pumping equipment and heaters, etc.

CHINA POWER COMPANY

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Temporary CW Discharge Canal -

The shortage of timber as also the prevailing prices for that available, has prevented any work being carried out on this project.

Designs have now been made for the construction of an open concrete duct, and also a closed concrete duct along similar lines to the existing one; bids are expected in the near future. However having in view the prevailing high cost of local labour, it is anticipated that the cost of construction will be extremely heavy.

Workshops -

The workshops continue to be loaded down with work, and a considerable amount of overtime is being worked.

A large amount of work has been placed to outside contractors which has eased the situation, and night shifts have been worked on several important repair jobs, e.g. BG 31 repairs.

Whilst efforts to obtain some much needed machine tools and other equipment locally are being pressed to the utmost, we have not been able to obtain delivery up to the present. It is anticipated however that we shall obtain some equipment in the near future.

Buildings -

Owing mainly to the weather conditions that prevailed during the month, no extensive building repairs were undertaken. However considerable progress has been made in connection with the painting of steel structures associated with the cooling plant; here again work was held up due to inclement weather.

Repairs to the Turbine House windows and walls are to be put in hand next month, and we hope to effect an appreciable amount of repair work before the advent of the typhoon season.

Fuel -

Coal receipts were 24,990 tons during May, made up of 2 kinds of coal. 17,893 tons were burned and 132 tons issued by Stores and 5 tons issued for US Navy use, making a total of 17,630 tons. Total stocks on June 1, 1947 (8.00 am) were 30,197 tons, consisting of 23,385 tons on mechanical storage, 3,689 tons on dead storage and 3,920 tons in bunkers. Coal deliveries during the period were 7,160 tons more than burned plus issued, and stocks were increased a like amount.

Oil receipts were 30,353.64 tons during May, and 30,484 tons were burned. Total stocks on June 1, 1947 (8.00 am) were 952.54 tons.

Mud Dredging -

During the month 4,000 cubic yards of mud (25 lighters of 160 cubic yards per lighter) dredged from in front of our wharves and pump houses.


SHAN SHAI POWER COMPANY

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Coke & Briquettes -

During the month 289,849 lb of coarse coke were recovered from ashes, of which 61,689 lb were issued to the coke recovery contractor. Out of the balance remaining, 34,020 lb were issued for station use and the rest delivered to Stores.

During the month 197.1 metric tons of anthracite coal were received from the Fuel Control Commission, and 86.4 tons issued for the manufacture of briquettes for sale to employees, total amount of briquettes issued was 237.6 tons.



C J Fleace

CJP/S

Encls: SG Water Report  
TG Oil Report  
Characteristic Curves

Shanghai, June 26, 1947.

OFFICE USE  
 GENERATION ENGINEER  
 CHEMIST ENGINEER  
 MAINTENANCE ENGINEER  
 GENERATION SUPT.  
 REC.  
 TEL. OFFICE  
 LUBRICATION BUREAU

RIVERSIDE STEAM ELECTRIC STATION  
 TURBINE OIL SERVICE DATA

DATE: 10/1/56

TG No.	OPERATING HR	MAKE-UP		CENTRIFUGE OPERATION				LABORATORY REPORT			REMARKS
		GAL	DESCRIPTION	HR	DRY SOLIDS GM	SOLIDS GM PER 1000 HR	WATER LB	VISCOSITY 100P F/BRAYN	ACIDITY MG/KOH/100	DEMULSITY ML/100	
10	10/1	50	DTM 10 797	307	86	74	62		0.325	8	
16	10/2	50	"	190	19	27	297		0.622	12	
15	10/3	50	"	66	5	7	40		1.130	34	
14	10/4	50	"	36	-	-	2		1.02	56	
13	10/5	50	"	7	-	-	-		0.336	5	
12	10/6	50	"	62	3	4	24		10.53	32	
11	10/7	50	"	54	5	43	54		0.14	34	
10	10/8	50	"	12	12	17	2		10.647	6	
9	10/9	50	"	108	1	1	6		1.78	40	
8	10/10	50	"	73	30	32	366		0.54	31	
7	10/11	50	"	108	1	1	6		0.14	2	acid test successful
6	10/12	50	"	73	30	32	366		1.365	12	00 2
5	10/13	50	"	108	1	1	6		1.56	57	
4	10/14	50	"	73	30	32	366		1.12	7	
2	10/15	50	"								
1	10/16	50	"								

HISTORY OF OIL BATCHES

TG No.	LAST FULL CHARGE			TOTALS TO DATE				MAKE-UP DATA			OPERATING HRS SINCE LAST OVERHAUL	
	DATE	GAL	DESCRIPTION	OPERATING HR	SOLIDS GM	SOLIDS GM/1000 HR	WATER LB	WATER LB/1000 HR	TOTAL GALLONS	GAL PER 1000 HR		MG PER GAL
10	10/1	50	Rio T Cool L	150								1025
16	10/2	50	DTM 10 797	701	100	116	727	278	95	36	29	2819
15	10/3	50	DTM 10	6102	3127	32	7090	129	2191	36	57	1200
14	10/4	50	Small R	64259	3704	27	12008	211	2475	36	26	15297
13	10/5	50	DTM 10 797	765			4	3	10	20	31	765
12	10/6	50	DTM 10	58437	23	1	6	-	553	10	106	16365
11	10/7	50	"									
10	10/8	50	DTM 10	67349	653	10	1064	16	2071	32	32	2650
9	10/9	50	Rio T Cool L	6404	136	19	283	34	237	26	35	5404
8	10/10	50	DTM 10	42933	5031	47	6131	79	2162	33	30	6032
7	10/11	50	DTM 10	50116	1093	36	143	5	1496	60	29	6319
6	10/12	50	"									
5	10/13	50	Rio T Cool L	7014	76	11	38	5	94	15	75	7014
4	10/14	50	"	7750	235	30	2072	2079	86	11	90	7750
2	10/15	50	Old DTM	1365					166	122	8	1365
1	10/16	50	Old DTM	6320					258	4	21	6320

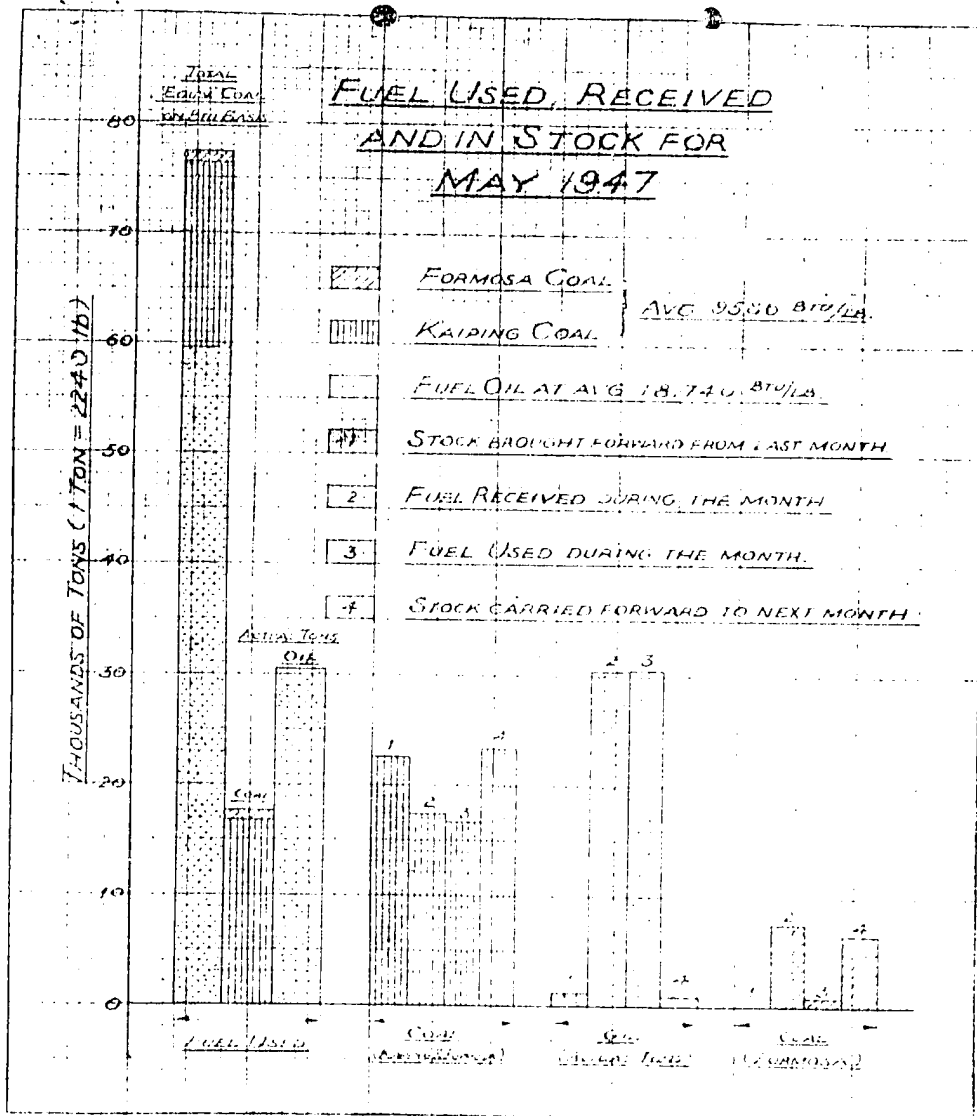
*Okwen*  
*Don Baker*

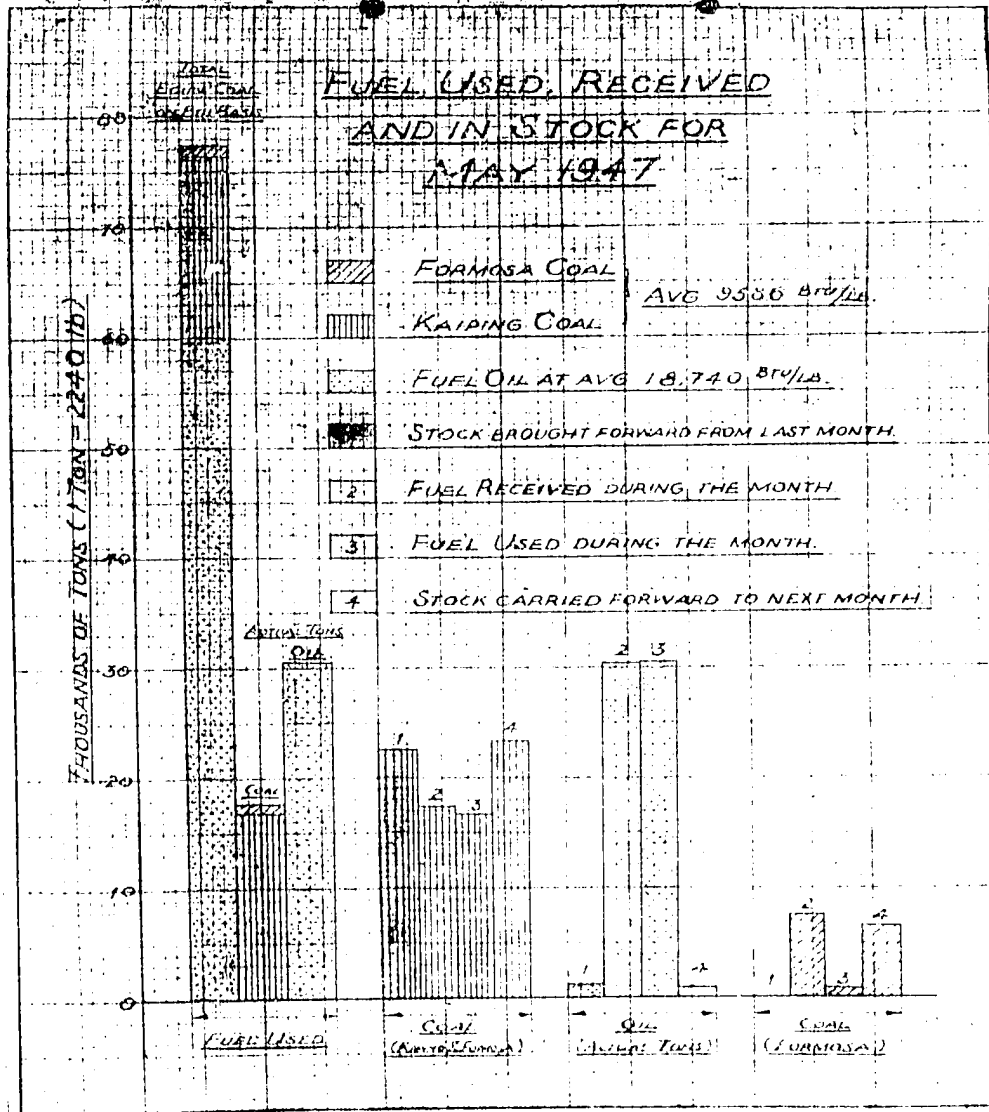
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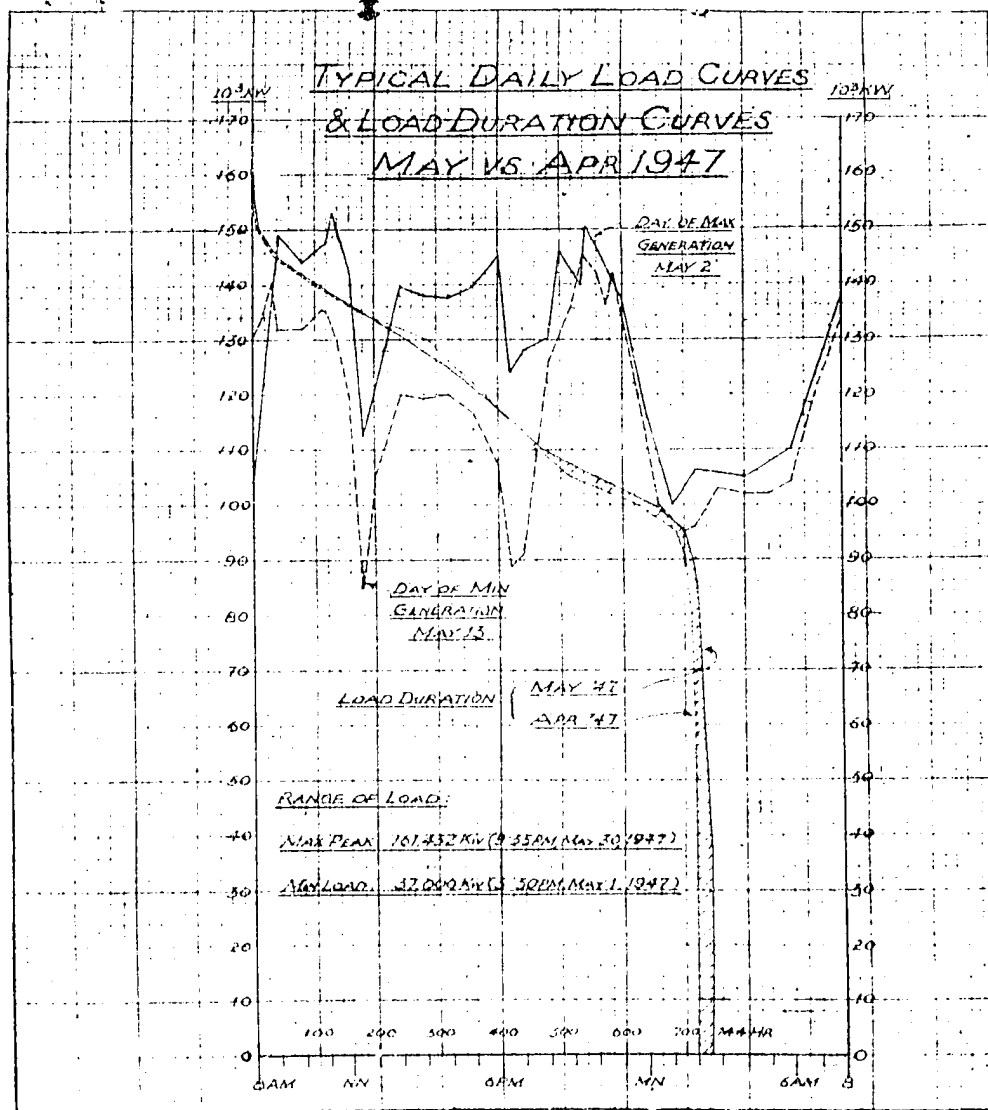
**SHANGHAI POWER COMPANY  
CHEMICAL LABORATORY**

**FOR THE WATER OF NO. 194**

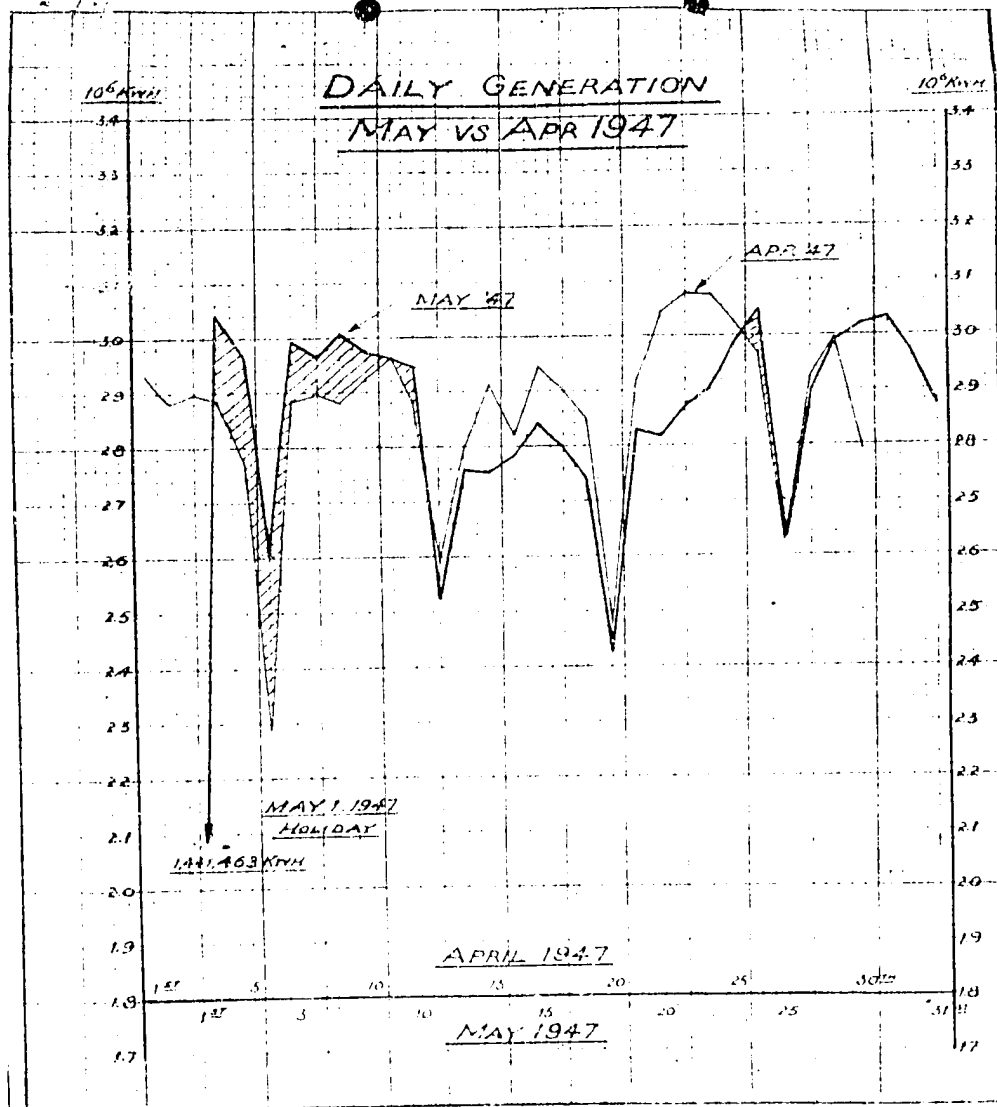
COT TIME	TOTAL IN TANKS PER HOUR			SCALE RATE			No. of			CHEMICALS ADDED LB	DATE	194	
	1st	2nd	TOTAL	1st	2nd	TOTAL	1st	2nd	TOTAL				
1													
2													
3													
4													
5													
6													
7													
8	54	129	143	273	1.8	675	4	11.1	2327	20	33	123	
9	19	131	140	325	1.8	843	5	11.0	2323	34	26	78	
10	44	79	125	486	3.9	2156	8	10.9	2344	34	72	213	
11	31	141	152	309	2.1	1543	4	11.1	2718	18	27	219	
12	31	68	99	558	2.3	130	14	10.9	2774	18	32	79	
13	23	141	184	558	2.8	257	8	11.2	1487	18	30	79	
14	37	77	114	374	1.9	680	5	11.0	2359	23	104	49	
15	30	143	173	585	2.4	112	8	11.2	1513	7	19	13	
16	9	23	34	64	2.4	23	5	20	10.4	184	20	50	34
17	23	61	98	195	2.4	62	45	44	10.6	638	8	8	54
18	13	34	49	88	1.1	39	18	23	10.6	531	8	10	24
19	24	45	69	203	2.8	93	41	45	10.5	678	5	5	24
20	10	64	83	143	1.7	53	23	40	10.8	548	8	10	24
21	18	89	77	153	2.8	41	24	49	10.7	534	10	10	24
22	18	45	64	391	4.4	66	21	19	10.8	719	10	15	24
23	21	53	79	174	2.4	64	23	34	10.7	569	15	18	24
24	19	53	77	208	2.3	66	10	37	10.8	613	17	24	24
25	23	89	91	197	1.9	48	23	53	10.9	604	6	6	24
26	39	64	95	533	3.6	103	40	24	10.6	696	23	20	24
27	33	53	89	183	1.7	83	45	25	10.5	688	23	23	24
28	33	68	110	206	1.7	88	39	50	10.7	722	10	10	24
29	33	68	110	206	1.7	88	46	30	10.7	696	18	18	24
30	33	68	110	206	1.7	88	46	30	10.7	696	18	18	24
31	33	68	110	206	1.7	88	46	30	10.7	696	18	18	24











SHANGHAI POWER COMPANY

May 31, 1947

SHANGHAI POWER COMPANY  
AND  
WESTERN DISTRICT POWER COMPANY OF SHANGHAI  
FEDERAL INC., U.S.A.

DISTRIBUTION OPERATING DEPARTMENT

MONTHLY LETTER FOR MAY 1947

The following outlines the activities in connection with operation, maintenance and construction work in this Department.

I OPERATION

(A) SERVICE FAILURES AND TROUBLE CALLS

(1) Major Service Failures

(a) Load Reduction due to insufficient generating capacity at Riverside

Date	May 2	May 4	May 5	May 6	May 7
Area affected	WDPC French Chapel	SFC French Chapel	SFC French	SFC French Chapel	SFC WDPC French Chapel
Supply from substation	Robison Connaught	Tonquin Connaught	Riverside Yangchow Tonquin	Riverside Yangchow Tonquin	5 sub- stations
Feeder	E 7	CC 101	4 feeders	10 feeders	12 feeders
Customer	4 customers & LV net- works	1 customer	4 customers	12 customers & LV net- works	15 customers & LV net- works
Duration of supply inter- ruption	1 hr 39 mins to 2 hrs 16 mins	15 mins to 28 mins	13 mins to 45 mins	12 mins to 4 hrs 25 mins	10 mins to 3 hrs 57 mins
Esti- mated kVA-hrs lost	Company's area	AM 3,300 Ev 1,100	Ev 1,620	AM 48,715 PM 3,600	AM 31,810 PM 15,766
	Chapel	AM 4,530	Ev 410	Ev 1,500	AM 12,385 AM 7,900
	French	AM 500	Ev 1,860	Ev 3,000	AM 1,325 AM 1,170
	Total	8,330	3,370	6,120	66,046 56,646
Remarks	AM - refers to morning peak load period (8 am to 12 noon) PM - " " afternoon " " " (12 noon to 7 pm) Ev - " " evening " " " (after 7 pm)				

SHANGHAI POWER COMPANY

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(a) Load Reduction due to insufficient generating capacity at Riverside (cont.)

Date	May 8	May 10	May 13	May 14	May 15
Area affected	SPC Chapei French	Chapei	SPC French	SPC Chapei	SPC Chapei
Supply from substation	Tonquin Robison	Connaught	Riverside	Riverside Yangchow Tonquin	Riverside Yangchow Tonquin Robison
Feeder	CC 103	E 11	A 10	5 feeders	5 feeders
Customer	New China Textile	Chapei Chang An	Kung Dah 1	5 customers & IV net- works	4 customers
Duration of supply interruption	11 mins to 2 hrs 43 mins	2 hrs 35 mins	3 hrs 24 mins to 3 hrs 35 mins	7 mins to 11 mins	3 mins to 25 mins
Esti- mated kVA-hrs lost	Company's area	Ev 220	AM 8,500	Ev 720	Ev 1,318
	Chapei	AM 7,850 Ev 1,080	AM 6,200	Ev 540	Ev 830
	French	Ev 1,120	AM 920		
	Total	10,270	6,200	9,420	1,260
Remarks	AM - refers to morning peak load period (8 am to 12 noon) PM - " " afternoon " " " (12 noon to 7 pm) Ev - " " evening " " " (after 7 pm)				

SHANGHAI POWER COMPANY

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(a) Load Reduction due to insufficient generating capacity at riverside (cont.)

Date	May 16	May 17	May 18	May 19	May 20	
Area affected	SPC WDPC French Chapei	SPC WDPC French Chapei	SPC WDPC Chapei	CPC WDPC French Chapei	SPC WDPC French Chapei	
Supply from substation	Tonquin Connaught Robison	Riverside Yangchow Tonquin Robison	Tonquin Connaught Robison	Riverside Yangchow Tonquin Robison	5 sub- stations	
Feeder	5 feeders	12 feeders	3 feeders	14 feeders	18 feeders	
Customer	7 customers & LV net- works	14 customers & LV net- works	6 customers & LV net- works	13 customers & LV net- works	21 customers & LV net- works	
Duration of supply interruption	3 mins to 2 hrs 17 mins	4 mins to 3 hrs 6 mins	1 hr 34 mins to 2 hrs 20 mins	23 mins to 2 hrs 40 mins	16 mins to 4 hrs 45 mins	
Esti- mated kVA-hrs lost	Company's area	AM 19,130 EV 390	AM 6,742 EV 2,112	EV 15,130	AM 8,100 PM 17,160 EV 23,120	AM 45,828 PM 31,818 EV 3,250
	Chapei	EV 4,980	AM 396 EV 7,500	EV 6,570	AM 6,400 EV 5,600	AM 14,400 PM 1,560 EV 775
	French	AM 600	AM 430		AM 130	AM 1,210
	Total	25,090	23,183	22,700	61,560	93,659
Remarks	AM - refers to morning PM - " " afternoon EV - " " evening	" " " afternoon " " " evening	peak load period (8am to 12 noon) " " " (12 noon to 7 pm) " " " (after 7 pm)			

SHANGHAI POWER COMPANY

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(a) Load Reduction due to insufficient generating capacity at Riverside (cont.)

Date	May 21	May 22	May 23	May 24	May 25	
Area affected	SPC WDPC French Chapei	SPC WDPC French Chapei	SPC WDPC French Chapei	SPC French Chapei	SPC	
Supply from substation	5 sub-stations	5 sub-stations	5 sub-stations	Riverside Connaught Tonquin	Yangchow	
Feeder	21 feeders	19 feeders	9 feeders	4 feeders	G 7, 8.	
Customer	21 customers & LV networks	20 customers & LV networks	8 customers & LV networks	7 customers & LV networks	Sung Sing 6 & LV networks	
Duration of supply interruption	27 mins to 8 hrs 49 mins	2 mins to 4 hrs 19 mins	18 mins to 3 hrs 47 mins	12 mins to 2 hrs 41 mins	26 mins	
Estimated kVA-hrs lost	Company's area	AM 91,345 PM 27,920 Ev 24,190	AM 86,556 PM 55,216 Ev 1,250	AM 32,283 PM 18,410	AM 7,517	AM 1,100
	Chapei	AM 11,630 PM 14,634 Ev 5,260	AM 9,780 PM 11,500	AM 9,950 PM 7,610	AM 6,420	
	French	AM 1,072	AM 1,090	AM 894	AM 725	
	Total	166,051	134,392	69,047	14,662	1,100
Remarks	AM - refers to morning peak load period (8 am to 12 noon) PM - " " afternoon " " " (12 noon to 7 pm) Ev - " " evening " " " (after 7 pm)					

SHANGHAI POWER COMPANY

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(a) Load Reduction due to insufficient generating capacity at Riverside (cont.)

Date	May 26	May 27	May 28	May 29	May 31	
Area affected	SPC WDPC French Chapel	SPC French Chapel	SPC WDPC Chapel	SPC WDPC French Chapel	SPC WDPC French Chapel	
Supply from substation	5 sub-stations	Riverside Yangchow Tonquin Cennaught	Riverside Tonquin Robison	Riverside Tonquin Cennaught Robison	Riverside Yangchow Tonquin Robison	
Feeder	10 feeders	7 feeders	2 feeders	7 feeders	14 feeders	
Customer	8 customers & LV networks	8 customers	2 customers	6 customers & LV networks	18 customers & LV networks	
Duration of supply interruption	9 mins to 1 hr 15 mins	59 mins to 3 hrs 40 mins	21 mins to 2 hrs 46 mins	13 mins to 3 hrs 32 mins	5 mins to 3 hrs 57 mins	
Estimated kVA-hrs lost	Company's area	AM 7,123	AM 40,020	AM 2,873	AM 34,047	AM 44,915 PM 18,003 Ev 12,150
	Chapel	AM 3,360	AM 8,780 PM 8,100	AM 8,310	AM 12,980	AM 2,620 Ev 4,671
	French	AM 130	AM 960		AM 950	AM 1,070 PM 630
	Total	10,613	55,960	11,183	47,977	84,059
Remarks	AM - refers to morning peak period (8 am to 12 noon) PM - " " afternoon " " (12 noon to 7 pm) Ev - " " evening " " (after 7 pm)					

SHANGLAI POWER COMPANY

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(b) Other Causes

Date	May 3	May 7	May 9	May 11	May 18
Area affected	WDPC	Chapei	Chapei	Chapei	WDPC
Supply from substations	Connaught	Fearon	Fearon	Fearon	International P/M
Feeder	E 4	B 11/18	B 11/18	B 11/18	International P/M
Customer	10 customers & LV networks	Chapei Paotung	Chapei Paotung	Chapei Paotung	International P/M
Cause of failure	Consumer's C Ts at Mou Haing Steel faulty	Fault on Chapei system	Fault on Chapei system	Fault on Chapei system	Fuse link mechanically pulled apart
Fault cleared by	E 4 OCB	B 11/18 OCB	B 11/18 OCB	B 11/18 OCB	D/O fuse
Damage to equipment	SFC None	None	None	None	None
Duration of supply interruption	54 mins to 1 hr 36 mins	31 mins	26 mins	35 mins	1 hr 37 mins
Load affected KVA	Company's area	1,200			300
	Chapei		1,300	1,600	100
	French				
Remarks					

SHANGHAI POWER COMPANY

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(b) Other Causes (cont.)

Date	May 25	May 30
Area affected	WDPC	SPC
Supply from substation	Robison	Kashing
Feeder	DF 71/72	B 17 Chapel Tiendong
Customer	48 customers & LV networks	6 customers & LV networks
Cause of failure	Cable fault	Chapel Co. CCB fouled by a rat
Fault cleared by	DF 71/72 CCB	B 17 Chapel Tiendong
Damage to equipment	DF 71/72 cable	SPC None
Duration of supply interruption	1 hr 2 mins to 3 hrs 11 mins	1 hr 30 mins to 2 hrs 8 mins
Load affected kVA	Company's area	1,200
	Chapel	700
	French	
Remarks		



SHANGHAI POWER COMPANY

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(2) Classified Service Failures (including Item 1)(a) Caused by Defective Equipment

Equipment		Number of Failures	
		This Month	Last Month
Overhead Lines:	HV	-	-
	LV	3	-
Underground Lines:	Cables	1	1
	Joints	-	-
	Potheads	1	-
Transformers and voltage regulators		-	-
Switchgear		-	-
Power fuses		4	1
Protective equipment		-	-
Traction equipment		-	-
Metering equipment		-	-
Current and potential transformers		-	-
Street lighting:	Series	1	-
	Multiple	9	4
Other Company's equipment		-	-
Total (a)		19	6

(b) Other Causes

Cause of Failure		Number of Failures	
		This Month	Last Month
Foreign agencies:	Overhead Lines	1	3
	Street lighting	-	-
	Underground Lines	-	1
Tram trolleys:	Overhead Lines	-	-
	Street lighting	2	1
Theft of equipment		-	-
Typhoons and storms		-	-
Lightning		2	-
Flood		-	-
Fire		-	1
Vermin and birds		1	-
Overload		2	-
Customers' equipment failures:			
	Company's area	2	-
	Ex franchise area	3	-
Company's staff:	Misoperation	-	-
	Fouled by workmen	1	2
Generating station trouble		24	14
Undetermined		4	1
Total (b)		42	23
Total (a & b)		61	29

SHANGHAI POWER COMPANY

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(3) Trouble Calls attended to by System Trouble Section

	Number of Calls					
	This Month			Last Month		
	SFC	WDPC	Total	SFC	WDPC	Total
<u>Company's installation</u>						
23 kV overhead and underground lines	1	2	3	-	1	1
6,600 volt overhead and underground lines	5	1	6	3	4	7
380 volt overhead and underground lines	10	10	20	3	2	5
Street lighting lines and equipment	45	1	46	13	1	14
Traffic signals	133	7	140	168	15	183
House service connections and wires	99	28	127	34	18	52
Substation equipment	-	-	-	2	-	2
DC Traction equipment and lifts	-	-	-	-	-	-
Fire calls	51	3	54	61	13	74
False alarms	3	1	4	1	3	4
Miscellaneous	3	2	5	4	2	6
<u>Customers' premises</u>						
Lighting	800	187	987	749	154	902
Power	100	65	165	72	44	116
Heating	42	11	53	37	20	57
Total Trouble Calls attended to	1292	318	1610	1146	277	1423
Average per day	41.7	10.2	51.9	38.2	9.2	47.4

(B) TRANSFORMERS AND REGULATORS

(1) Connected and/or Disconnected from Service

Location	Capacity in kVA		Remarks
	Connected	Disconnected	
Yangchow (PL Transformers)	3x52 $\frac{1}{2}$	3x110	To reconstruction for network use.
Ward-Dalry PT	325		Reinstalled.
Fearon (PL Transformers)	4x62 $\frac{1}{2}$	3x225	To reconstruction for network use.
Chungking (Voltage Regulator)	260		Reinstalled.
Shanghai Chung Hwa Book	1,000	325	Take over the load of Foo Shing Tobacco.
Chaoyang		3,000	Removal of standby transf.
China Lumber	125	625	Load decrease.
Foo Shing Tobacco		225	Dismantled.
Shanase		520	) Interchanging of Voltage ) Regulator to relieve ) the O/L one at Tsapoo.
Tsapoo		260	Removal of Regulator.
Darroch (Voltage Regulator)		130	

ANANOHAL POWER COMPANY

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WDPC

Location	Capacity in kVA		Remarks
	Connected	Disconnected	
Koswick-Rockhill PT	125	62½	Load increase.
Farren's PT	62½	62½	Transformer failed in service.
Edinburgh	940	625	Load increase.
Brenan	3,000		Load increase.

U N I T S

SPC MDPC

- (2) Taps changed for Network Voltage Regulation 5 1
- (3) Switched on or off Load for Operational Purposes 2 -
- (4) Under Observation due to Overload or Overheating

SPC

Location	Capacity kVA	Type	Max. Load		Max. oil top temp.	Ambi-ent temp.	Temp. Rise	Remarks
			%	Hours duration				
Tea Tobacco Co.	225	Outdoor	108	2	64	35	39	
Bubbling Well	200	Indoor	115	½	49	19	30	
(Ind. Voltage Regulator)	260	"	125	1	45	19	26	
Burkill-Tatung PT	325	Outdoor	105	½	53	16	37	
Moulmein (Ind. Voltage Regulator)	260	Indoor	102	½	43	29	20	
Shanhaikwan (Ind. Voltage Regulator)	260	"	143	½	45	22	23	VR is to be interchanged with a 520 kVA at Kianguo S/S.
Widow's Monument PT	225	Outdoor	123	½	36½	15	21½	
Avenue Edward VII-Chungking PT	225	"	111	½	40	14½	25½	
Yaton-Taku MT	225	"	116	½	40	19.5	20.5	
Yu Yuen-Hart PT	125	"	118	½	37	20	17	
Yangtzepoo-Dalny PT	125	"	102½	1	35	21	14	
Ward-Chemulpo PT	225	"	117	1	48	20	28	
Wuchow PT	225	"	114	½	34	19	15	
Yung Woo Industrial OT	125	"	111	½	48½	21	27½	
Ferry-Connaught PT	325	"	103	2	34½	25½	29	

SHANGHAI POWER COMPANY

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Location	Capacity kVA	Type	Max. Load % Hours duration	Max. oil temp.	Ambi- ent temp.	Temp. Rise	Remarks	
Tsung Tsung	325	Indoor	85	70	23	47	) Transformers ) have been ) equipped ) with tem- ) perature ) indicating ) plasters ) which will ) give colour ) indication ) when top ) oil tem- ) perature ) reach 70°C.	
Foo Shing Tobacco	225	Outdoor	158 <sup>1</sup>	70	16	54		
Custom House	325	Indoor	113 <sup>1</sup>		25			
N. Chekiang-Tiundoong PT	225	Outdoor	120		15 <sup>1</sup>			
N. Chekiang-Haining PT	225	"	103		21			
Seymour-Bubbling Well PT	225	"	88	1	16			
N. Kiangse-Woochang PT	225	"	107 <sup>1</sup>	1	25 <sup>1</sup>			
Sinza-Medhurst PT	225	"	120	1	18			
Stone Bridge	325	Indoor	123	1	19 <sup>1</sup>			
Maipai-Seymour PT	325	Outdoor	109 <sup>1</sup>		22			
Gordon-Markham PT	325	"	101 <sup>1</sup>		19			
Wing On No.3	200	Indoor	85 <sup>1</sup>		19 <sup>1</sup>			
San Sing C/W PT	125	Outdoor	90		18			
Clock Tower	325	"	150*	70	21 <sup>1</sup>	68 <sup>1</sup>		
Gordon-Wuting PT	225	"	100	1	16			
E. Broadway-Chaoufoong PT	225	"	123	1	45	27	) 120 amperes ) transferred ) to Clock ) Tower.	
Patons & Baldwins W/M	625	Indoor	110	2 <sup>1</sup>	56	24		32
Robison-Seymour PT	225	Outdoor	155	1	51	19		32
Standard Shirts OT	225	"	105	1	55	21 <sup>1</sup>	33 <sup>1</sup>	) Transformer ) will be ) changed to ) 325 kVA.
Chengtu-Taku PT	225	"	107	1	42	21	21	) Standby ) transformer ) switched on.
Meichow-Chaoyang PT	225	"	105	1	44	23	21	
Hallar-Tungchow PT	62 <sup>1</sup>	"	126	1 <sup>1</sup>	28	19	9 <sup>1</sup>	
Kwangse Tr.No.1	1000	Indoor	138	2	61	20	41	
Seymour-Changping PT	225	Outdoor	136	1 <sup>1</sup>	57	25 <sup>1</sup>	31 <sup>1</sup>	) Transformer ) needs to be ) enlarged.
Kiaochow	125	"	110	1	41	20	21	) Transformers ) have been ) equipped ) with tem- ) perature ) indicating ) plasters ) which will ) give colour ) indication ) when top ) oil tem- ) perature ) reach 70°C.
Dalny-Wayside PT	225	"	60	2				
E. Seward-Chaoufoong PT	225	"	105	1				
Wing On 5	625	Indoor	101	2				
Tongshan-Dent PT	325	Outdoor	114	1 <sup>1</sup>				
Pingliang-Washing PT	225	"	93.7					
Point-Kungping PT	225	"	123					
Shanghai C/M No.6	325	"	129 <sup>1</sup>					
Baikal-Lincyang PT	325	Indoor	117 <sup>1</sup>	1				
Wetmore-Ward PT	225	"	129	1 <sup>1</sup>				
Hochien-Fungfow PT	50	"	63	6				
Pingliang-Ningwu PT	125	"	105					
Washing-Point PT	325	"	109					

1 Transformer replaced by LV feeder from Shanghai Chung Hwa Book Company.  
 2 Transformer has been changed to 940 kVA size.  
 \* Load relieved after Ward-Dalny PT was installed.

SHANGHAI POWER COMPANY

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## WDPC

Location	Capacity kVA	Type	Max. Load		Max. oil top temp.	Ambi- ent temp.	Temp. Rise	Remarks
			%	Hours dura- tion				
Riding School PT	225	Outdoor	102	1	58	27	31	
Yu Yuen "D" PT	325	"	112	1	50	23	27	
Tion Yih No.2 OT	325	"	114	1	50	25	25	
Chung Woo P/M	325	"	106	1	67	25	42	Load reliev- ed by tam- porary transformer.
Dah Doong C/M	625	Indoor	117	1	62	27	35	
Robison-Kiaochow PT	225	Outdoor	112	1	33	19	14	
Dah Yuen PT	325	"	106	1	38	25	13	
Singapore-Connaught PT	225	"	103	1	44	28	16	
Hubertus Apartment PT	35	"	104	1	38	27	11	
Yu Yuen "A" PT	225	"	140	1	47	21	26	Transformer needs to be enlarged.
Wah Fong Rubber Co. OT	225	"	126	1	58	22	36	
K. Tse An Pang "B" PT	50	"	151	1	49	23	26	Informed Engineering Department.
Columbia Club PT	125	"	126	1	49	23	26	
Connaught PT	225	"	103	1	50	23	27	
Ming Sung PT	225	"	111	1	42	23	19	
Great Western-Lincoln PT	35	"	132	1	34	23	11	Letter sent to Engineer- ing Dept.
Kung Sung W/M	200	Indoor	132	1	72	25	47	Transformer needs to be enlarged.
Chen Ka Jao PT	20	Outdoor	116	1	31	23	8	
Dollar Radio Station PT	37½	Indoor	124	1	46	27	19	
Great Western Court PT	125	Outdoor	148	1	55	24	29	Transformer needs to be enlarged.
Fah Wah-Hsing Hwa Jao PT	225	"	103	1	35	23	12	
Jossfield-Kinnear PT	225	"	106	1	50	23	27	
Hungjao-Chun Shan "W" PT	50	"	112	1	33	21	12	

SHANGHAI POWER COMPANY

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## (C) MISCELLANEOUS TESTS

Units	Equipment	Voltage	Nature of test	Reason for test
4	Current Transformer 200/5A 15 VA made by Wua Tung	6,600	Overvoltage, insulation resistance, ratio and polarity	Prior to commissioning (consumer's property).
-	Underground supply to Dah Yeh Printing Company	6,600	Overload, overvoltage, insulation resistance and polarity	New installation.
-	Consumer's installation at Dah Yeh Printing Co.	6,600	Overload, overvoltage, insulation resistance and panel protective wiring	New installation.
1	Synchronous Condenser No.1 at Tonquin Substation	6,600	Insulation and continuity	After overhaul on site.
-	Transformer oil from Mou Shing Steel & Iron Factory	6,600	Breakdown voltage	Check condition of oil.
3	Current transformer 50/5A, BTH Kwenming Substation	6,600	Overvoltage	New Installation.
-	Consumer's installation at Mou Shing Steel Substation	6,600	Overvoltage and general inspection	Periodic checking.
3	Cooling fans for Mercury Arc Rectifier 10 A full load	110	Insulation resistance and running condition	Prior to commissioning.
1	Synchronous Motor 655 kVA BTH property of Shanghai Waterworks	6,600	Insulation resistance and continuity	Yearly routine.
-	OCB and transformer oils, property of Shanghai Waterworks	6,600	Breakdown voltage	Yearly routine.
-	Filling compound (fairly hard bitumen black) from Ewo Cotton Mill	-	Dielectric strength	Consumer's request.

SHANGHAI POWER COMPANY

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Units	Equipment	Voltage	Nature of test	Reason for test
2	Transformer 3 $\phi$ 1,200 kVA Okumura Property of Ex-Tokwa No.1	$\frac{6,600}{22,000}$	Overvoltage, insulation resistance, continuity and overload	Prior to re-energizing of 2-1,200 kVA transformers.
-	Rectifier equipment fan motor chokes at Clock Tower Substation	-	Fan motor operating characteristics	To determine the correct choke tap.
1	Mercury Arc Rectifier fan motor at Clock Tower Substation	110	Fan motor operating characteristics	Check fan motor performance.
1	Transformer 940 kVA 3 $\phi$ IGE	$\frac{6,600}{380}$	Insulation resistance and oil breakdown	After overhaul.
10	PL Transformers 62 $\frac{1}{2}$ kVA 1 $\phi$ GE	$\frac{6,000}{2,000}$	Insulation resistance continuity voltage ratio, overvoltage, and oil breakdown	After overhaul.
2	HP mercury vapour lamps with choke and condenser made by GEC Type Osira	$\frac{200}{250}$	Operation characteristics	Experimental installation.
1	Pump Motor No.14 660 kVA, BTH Property of Shanghai Waterworks	6,300	Insulation resistance, continuity, no volt release	Yearly routine.
-	OCB and transformer oil, property of Shanghai Waterworks	-	Breakdown voltage	Yearly routine.
1	Oil Circuit Breaker, 200 A made by Klin, property of Dah Yeh Printing Press	6,600	Overload and insulation resistance	New installation (OCB changed).
-	Traction Rectifier Equipment at Clock Tower Substation	-	Feeder loading and voltage, anode and cathode load sharing, transformer winding temp. and fan motor currents	Check new bulbs' performance.
3	Traction rectifier glass bulbs at Clock Tower Substation	-	Load sharing among 3 bulbs	Investigation.

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Units	Equipment	Voltage	Nature of test	Reason for test
2	Main anode chokes for Traction Rectifier	-	Determination of impedances	Comparison of two chokes.
1	Transformer 3,000 kVA 3 $\phi$ Westinghouse, Brennan Substation	23,000 6,600	Overvoltage, insulation resistance, breakdown, phase relation, volt ratio.	New installation.
9	Overcurrent indicators, Brennan Substation	-	Operating current	Routine.

II MAINTENANCE

Routine inspection, maintenance and testing of plant on the transmission and distribution systems have proceeded according to programme.

(A) PROTECTION, BATTERIES AND TELEPHONES

(1) Protection Tests

Type of Protection	Number of Panels where tests carried out	
	SFC	WDPC
Overload and/or Earth Leakage Feeder or Transformer Balance	24	-
	17	1
Total	41	1

(2) Relays

Type of Relay	Number of relay Elements			
	SFC		WDPC	
	Circuit tests	Changed	Circuit tests	Changed
Inverse Time	-	-	-	-
Instantaneous	22	2	-	-
Total	22	2	-	-



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(3) Batteries

Work done	Lead-Acid & Edison Types		Ni-Fe Type	
	110V in Primary Substations	Telephone Exchange	30 V in Secondary Substations	
	SPC		SPC	WDPC
Inspected, cleaned and topped up	27	5	55	16
Equalizing charges conducted	4	3	1	-
Charged and discharged	-	1	1	-
Electrolyte changed	-	-	2	-

(4) Auto-Telephone Equipment and Lines

Instruments installed	-
" disconnected	1
" changed	3
" moved	3
" overhauled	-
" faults repaired	21
Line faults located and repaired	5
Switches overhauled	4
Exchange equipment faults repaired	7
Miscellaneous equipment overhauled	-

(B) TRANSFORMERS AND REGULATORS

- (1) Overhauled (Core lifted, windings and connections examined, IR tested, oil changed)

SPC

Location	Capacity in kVA	Workshop	Reason for overhaul
Sung Sing No.6	940	Pearon S/S	Over 10 years in service.
Shantung-Wuhu PT	225	"	Over 10 years in service.
Chase Bank	325	"	Defects to be rectified.
Chungking	260	Riverside	Regulator noisy when on load, due to loose stator laminations.

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WDPC

Location	Capacity in kVA	Workshop	Reason for overhaul
Edinburgh	625	Fearon S/S	Over 10 years in service.

U N I T S

	<u>SPC</u>	<u>WDPC</u>
(2) <u>Inspected on site</u> .....	50	3
(3) <u>Oil-Dielectric tested</u> .....	46	6
(4) <u>Oil-Acidity tested</u> .....	-	-

(C) OIL CIRCUIT BREAKERS

(1) Overhauled and Tripping Mechanism Tested

Reason for test	Number of OCBs tested			
	SPC		WDPC	
	Company's property	Customer's property	Company's property	Customer's property
Routine and special maintenance	57	36	1	5
Oil circuit breakers tripped	2	-	-	-
New installation or operation resumed	-	6	-	1
Total	59	42	1	6

U N I T S

	<u>SPC</u>	<u>WDPC</u>
(2) <u>Oil-Dielectric strength tested</u> .....	38	1
(3) <u>Oil changed</u> .....	17	-

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(D) PRIMARY SUBSTATIONSRegular and Special Maintenance

Substation	Com-pany	Equipment	Work done	% completed
Primary Sub-stations	SPC	Power trans-formers	Inspection of transformer breathers and dry out sorbent	100
Fearon	SPC	Switchgear	Overhaul and overload test of all HV OCBs	100
Primary Sub-stations			Overhaul and overload test all DC circuit breakers	60
Fearon	SPC	Rotary Plant	Repairs of 3,600 kVA synchronous motor of MG 3	75
Tonquin			Overhaul two synchronous condensers	100
Fearon and Tonquin	SPC	Instrument transformers	Inspection and clean-down of all potential transformers and current transformers also test oil	100
Primary Sub-stations	SPC & WDPC	Various sub-station equipment	Overhaul of substation fans Checking of all portable earth wires and clamps Inspection of all fire extinguishers Testing of all rubber gloves	50 95 100 100
Primary Sub-station	SPC & WDPC	Batteries	Routine maintenance	To programme
Safety devices inspection and check on artificial respiration practice carried out according to programme.				

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(E) SECONDARY SUBSTATIONS

Location	Com- pany	Work done	% completed
Chusan	SPC		20
Takwa No.1	"		100
Asia Steel Works	"		100
Koa Iron Works	"	<u>Biannual Regular Maintenance</u>	100
Kwangso	"		97
Shanso	"	Overhaul of switchgear, testing of	85
Chekiang	"	automatic protective equipment,	70
Kung Yung Textile	"	inspection of transformers and	100
Wing On Store Extension	"	regulators, inspection of all	100
Shanghai China Merchant Stock Exchange	"	electrical equipment and cleaning.	100
Hongkong & Shanghai Bank	"		100
Continental Emporium	"		100
Hwa Lun P/M	WDPC		100
Yung Tai Nail	"		100
Chwang Kee Rolling Steel	"		100
Eastern District		Overhaul of six power transformers at Fearon Substation	100
All districts		Inspection of PT links boxes against bird nests	100
All districts		Overhaul of lightning arresters	100
All districts		Installation of Telephone Desk in substations	95
All districts		Overhaul of overload testing gears	40
All districts		Inspection of pole transformers carried out according to programme	
All districts		Inspection of safety devices and check on artificial respiration practice carried out according to programme	

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(P) OVERHEAD LINES AND STREET LIGHTING

(1) Inspection and Overhaul of Overhead Lines (All Districts)

N i l.

(2) Repairs and Replacements of Overhead Line Equipment (All Districts)

N i l.

(3) Poles and Pole Bases - Routine and Special Maintenance

	<u>SPC</u>	<u>WDPC</u>
Poles inspected .....	-	-
Wood poles painted .....	-	-
Iron poles painted .....	-	-
Concrete poles repaired .....	-	-
Decayed wood poles renewed: Main .....	2	1
Suspension .....	2	1
Stay .....	-	2
Concrete bases inspected .....	-	-
Concrete bases repaired .....	-	-
Concrete bases renewed .....	2	-
Cast iron sleeves renewed .....	4	3
Cast iron sleeves replaced by concrete bases .....	-	-
Obsolete concrete sleeves replaced by concrete bases .....	-	-

(4) Street Lamps burnt and renewed

	<u>SPC</u>	<u>WDPC</u>
Municipal street lighting .....	1,257	170
Private street lighting .....	1,126	204
Total .....	2,383	374

(5) Traffic Signal Switches

Location	Installed	Removed	Replaced	Overhauled
Eastern District	-	-	-	-
Central District	-	-	9	52
Western District	-	-	-	6

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(G) OIL TREATMENT PLANT

Location	Transformer Oil				Switch Oil			
	Issued	Returned	Filtered	Stock	Issued	Returned	Filtered	Stock
	US gallons							
Fearon Oil Depot	2,238	3,173	4,134	2,049	610	420	1,053	605
On Site - SFC	-	-	-	-	-	-	-	-
WDPC	-	-	-	-	-	-	-	-
Total	2,238	3,173	4,134	2,049	610	420	1,053	605

Samples of Oil Tested for Breakdown ..... 147

(H) UNDERGROUND CABLES

	<u>% completed</u>	
	<u>SFC</u>	<u>WDPC</u>
(1) <u>Inspection and Maintenance</u>		
Idle cable risers .....	100	100
Road condition along cables in Eastern District .....	100	-
Central District duct line and manholes .....	100	-
	<u>Units</u>	
	<u>SFC</u>	<u>WDPC</u>
Cable potheads and joints: 23 kV .....	1	-
(including standardization) 6.6 kV .....	22	-
380 V .....	-	1
Feeder pillars .....	1	-
Underground cables slung and protected: .....	-	Robison Road W. of Kiao- chow Road

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(2) 23 kV Underground Cable Failures located and repaired ..... 4

SPC

Feeder name	Location of failure	Faulty cores	Cause of failure	Repairs
AD 57	Cable	B	Moisture from Joint 15	Length of 695 feet replaced by new cables and three new joints.
	Joint 15		Joint sleeve cracked due to compound expansion	
AD 22	Joint 72	B	Obsolete design	Faulty core of 10 feet length replaced by new cable and two single core joints; sound core joints remade in position.
AC 33	Joint 34	R	Obsolete design	Remade in position.
AC 24	Cable	B	Undetermined (probably a weak spot when manufactured)	Faulty core of 10 feet length replaced by new cable and two single core joints. Due to damage of lead sheath on W & R phase cores, two new single core joints made.

WDPC Nil.

(3) 6.6 kV Underground Cable Failure located and repaired ..... Nil

(4) 380 V Underground Cable Failures located and repaired ..... 2

SPC

Feeder name	Location of failure	Faulty cores	Cause of failure	Repairs
Chokiang LV No.10	Pole pothead	R, B, neutral	Obsolete design	Remade in position.
Shanghai City Ferries PL ex 2-ex 3	Cable	Phase, neutral, spare	Mechanical damage (external cause)	Whole length of 60 feet replaced by new cable and two new potheads.

WDPC Nil.

(5) Pilot and Telephone Underground Cable Failure located and repaired ..... Nil

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(6) Underground Cable Preventive repairs ..... 1

SPC Nil.

WDPC

Feeder name	Location of weakness	Cause of weakness	Repairs
Kung Yih L 4	Cable (10 feet from pole pothead)	Live FL suspension wire touching cable; burnt armour, lead sheath and belt insulation	Damaged part covered by cotton tape and lead sleeve.

(I) BUILDING MAINTENANCE

	<u>Location</u>	<u>Work done</u>	<u>% completed</u>
SPC	1. Fearon Underground trench gear shed	Repairs to roof	70
	2. Fearon Stores	Alterations to lavatory accommodation	100
	3. Fearon Yard	Erecting Tin Hut for substation Blacksmith Shop	80
	4. Fearon Yard	Cleaning Transport Division workmen's lavatory	100

WDPC Nil.

III CONSTRUCTION WORK

(A) SERVICES

	<u>SPC</u>	<u>WDPC</u>
(1) <u>House Services</u>		
Connections .....	539	191
Disconnections .....	63	23
Net increase .....	476	168
(2) <u>Municipal Street Lighting</u>		
Connections .....	-	-
Disconnections .....	-	-
Net increase .....	-	-



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	<u>SPC</u>	<u>WDPC</u>
(3) <u>Private Lighting</u>		
Connections .....	64	1
Disconnections .....	52	1
Not increase .....	12	Nil

(B) OVERHEAD LINES

(1) <u>Erection</u>	<u>Area</u>	<u>Location</u>	<u>Route length yards</u>	<u>Number of poles</u>
6.6 kV 3-wire	WDPC	Keswick Road N. of Rockhill Avenue	43	-
380 V 4-wire	SPC	Tsitsihar Road - Lung Poong D. & W. LV feeder	61	-
"	SPC	Tongshan Road between Singkei- pang Road and Chaoufoong Road (Tungchow LV feeder)	2,000	-
"	SPC	Macno Road E. of Seymour Road	17	-
"	SPC	Tonquin Road N. of Macno Road	106	-
"	WDPC	Brennan Road - Yuan Yuan LV feeder	71	-
"	WDPC	H.393 ana 400 Hungjao Road	28	-

(2) Salvage  
Nil.

(3) <u>Poles</u>	<u>SPC</u>	<u>WDPC</u>
Erected .....	6	12
Removed .....	9	4
Moved at the request and expense of the Municipality .....	-	-

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(C) UNDERGROUND LINES(1) Installation

Cable -	SPC -	Nil.
	WDPC -	1. 11 yds, .025 sq in, 3-core, 6.6 kV cable for supply to Keswick-Rockhill PT.
Joints and potheads -	SPC	1. One 6.6 kV transformer pothead for supply to reinstalled Ward-Dalny PT.
		2. One 6.6 kV indoor pothead in metering cubicle for supply to Da Yeh Printing Co., Rangoon Road.
	WDPC	1. One 6.6 kV pole pothead and one 6.6 kV transformer pothead for supply to Keswick-Rockhill PT.
		2. One 6.6 kV tee-joint for supply to Chapel Kwang Poh from E 4.

(2) Salvage

Cable -	SPC	1. At Da Yeh Printing Co. 2 yds of .025 sq in, 3-core, 6.6 kV cable salvaged.
	WDPC	Nil.
Joints and potheads -	SPC	1. At Da Yeh Printing Co. two 6.6 kV obsolete type indoor potheads salvaged and cable to former Chemulpo-Rangoon PT sealed.
	WDPC	Nil.

(3) Deviation

	SPC	Nil.
	WDPC	1. Chapel Kwang Poh feeder tied into E 4 in Kung Yih Substation.

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(D) SUBSTATION

	<u>Substation</u>	<u>Work done</u>	<u>% completed</u>
SPC	1. Macao-Ferry Road area	Rearrangement of distribution transformers	100
	2. Chuso Bank, Szechuen Road	Replacement of a 325 kVA transformer with a 225 kVA unit	50
	3. Kwonming	Reinstallation switch gear and panel for Ward-Dalry PT	100
	4. Da Yeh Printing Co., Tongoon Road	Installation of metering cubicle for 6.6 kV supply	100
	5. Jen Tai Lumber, Yangtzepoo Road	Replacement of a 625 kVA transformer with a 125 kVA unit	60
	6. Chaoyang	Removal of one 3,000 kVA transformer	100
	7. Shanghai Iron and Steel Works (Chapoi)	Installation of metering cubicle for 6.6 kV supply	90
	8. Shanghai Club	Removal of one 940 kVA spare transformer	80
WDPC	1. Brennan	Installation of one 3,000 kVA transformer	75
	2. Edinburgh	Replacement of a 625 kVA transformer with a 940 kVA unit	100

(E) BULK SUPPLY METERING

<u>Work done</u>	<u>SPC</u>	<u>WDPC</u>	<u>Total</u>
Metering equipment installed	1	1	2
" " removed	1	2	3
" " changed	4	3	7

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(F) VARIOUS WORK

	<u>Nature of work</u>	<u>Location</u>	<u>% completed</u>
SFC	1. Redrummyng of cables from rotten to good reels and repairs to cable reels	Fearon Road	100
	2. Change Kwenming LV No.2 pothead tails	Puoting Road	100
	3. Installation of Kerite cable on temporary transformer	Fearon Workshop	100
	4. Repair and paint danger board for trench work	Fearon trench gear shed	100
	5. Supervision of manufacture of 9 new cable reels by contractor	Fearon yard	40
	6. Repair motor pumps	Fearon trench gear shed	40
	7. Reconnect HST 1 and TG 12 to Westinghouse board	Riverside Generating Station	100
	8. Change one 6.6 kV pothead on HST 1	Riverside Generating Station	100
WDPC	Nil.		

IV WORK DONE FOR CONSUMERS

	<u>Location</u>	<u>Nature of work</u>	<u>% completed</u>
	1. Clock Tower Substation	Reconstruction and extension of 440 kW rectifier equipment (Property of Tramway Company)	100
	2. Shanghai Water Works, Yangtazepoo Road	6.6 kV installation in new consumer's substation for secondary pumping station.	40

V STAFF

(A) CHANGES

Engineering and Office Staff

<u>SFC</u>	None
<u>WDPC</u>	None

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Monthly Rate Staff

SFC

Liang Ying Poi Clerk Transferred from Daily Rate Staff  
(COX.29)

WDPC

None

Daily Rate Staff

SFC

CSF.23 Fitter Engaged  
 CUX.21 Labourer "  
 ECX.10 " "  
 ECX.13 " "  
 ECX.15 " "  
 CCX.29 " Transferred to Monthly Rate Staff

WDPC

None

(B) ACCIDENTS

Date	Employee injured	Location of accident	Description of accident	Fatal or permanent injured	Disabled for the period of
May 26	Lee Tsze Chang	Ground Floor Kung Yih Substation	The rope was released from the bottom of the box through his pulling, he stepped backward and fell down into the trench causing contusion to his chest.	No	Two weeks

VI MISCELLANEOUS

(A) Theft of Materials  
 (In SFC and WDPC Areas).

Nil.

*S. L. Dong*  
 S. L. Dong

Acting Distribution Operating Engineer

Appendix

TRANSPORT DIVISION

MONTHLY LETTER - MAY 1947

The following outlines the activities of the Transport Division during the month.

(A) MOTOR VEHICLES

Vehicles	Passenger cars	Pick-ups	Station wagons	Vans	Trucks	Special vehicles*	Trailers
In Operation	51	10	2	5	14	3	4
In Storage	-	-	-	-	-	-	4

\* Oil tanker and 20-ton lorries

(1) Operating Data on Motor Vehicles

Type	No. in service		GASOLINE							
			Issue (gallons)		Usage (gallons)		Mileage run		Average m.p.g.	
			May	Apr.	May	Apr.	May	Apr.	May	Apr.
Passenger cars	51	51	5,603	5,722	5,801	5,606	67,443	66,575	11.6	11.9
Station wagons	2	2	179	214	174	214	2,038	2,668	11.4	12.4
Pick-ups	10	10	881	831	881	824	11,247	10,559	12.8	12.8
Trucks (1 1/2-ton)	2	2	216	202	216	202	2,208	2,056	10.2	10.2
Trucks (3 1/2-ton)	9	9	1,055	1,165	1,053	1,148	7,010	8,154	5.2	7.1
Lorries (6-ton)	2	2	244	204	244	204	1,055	932	4.3	4.5
Lorries (20-ton)	2	2	69	51	69	51	110	81	1.4	1.5
Oil tanker truck	1	1	13	7	13	-	45	-	3.5	-
Motor vans	2	2	145	142	145	142	1,200	1,233	8.3	8.6
Trouble Section van	1	1	147	125	147	125	1,124	1,141	7.6	9.1
Cooker vans	2	2	465	454	465	445	3,392	3,591	7.3	8.0
Bus	1	1	491	556	491	556	2,858	3,184	5.9	5.7
Trailers	3	3	-	-	-	-	-	-	-	-
Total	93	93	9,706	9,673	9,699	9,521	99,730	100,174	10.3	10.3

(2) Maintenance Work on Motor Vehicles

Type	General Overhaul completed		Emergency Overhaul completed		Minor adjustments and repairs		Repairs after			
							Accident		Breakdown	
	May	Apr.	May	Apr.	May	Apr.	May	Apr.	May	Apr.
Passenger cars	-	-	55	42	40	37	4	8	9	9
Station wagons	-	-	4	3	2	2	-	-	-	3
Pick-ups	-	-	17	16	5	7	-	-	-	1
Trucks (1 1/2-ton)	-	-	8	4	3	4	-	1	-	1
Trucks (3 1/2-ton)	-	1	13	8	6	9	-	-	5	3
Lorries (6-ton)	-	-	2	-	2	2	1	-	-	1
Lorries (20-ton)	-	-	-	-	-	-	-	-	-	-
Oil tanker	-	-	-	-	-	-	-	-	-	-
Meter vans	-	-	8	6	2	2	-	-	-	1
Trouble Section van	-	-	-	-	1	-	-	-	-	-
Cooker van	-	-	-	-	-	-	-	-	-	-
Bus	-	-	4	7	1	1	-	-	-	-
Trailers	-	-	-	1	-	-	-	-	-	-
Total	-	1	111	87	63	64	5	9	14	19

(B) GASOLINE CONSUMPTION

Type of Vehicle	Gallons per month		Average gals. per week		Percentage of total gasoline used this month
	May	Apr.	May	Apr.	
Passenger cars	5,803	5,722	1,450	1,431	59.7%
Trucks	3,903	3,951	975	988	40.3%
Total	9,706	9,673	2,425	2,419	100.0%

(C) GASOLINE ISSUES AND STOCKS

Description	Issues (US gallons)		Petron Stock (US gallons) at the end of this month: Total - 1,029 gallons
	May	Apr.	
Cars	5,803	5,722	
Trucks	3,903	3,951	
Other purposes	199	333	
Total	9,905	9,906	

(D) MOTOR CAR ENGINE LUBRICATING OIL

Description	Issues (US Gallons)		Fearon Stock (US gallons) at the end of this month: Total - 344 gallons
	May	Apr.	
Cars	141	148	
Trucks	161	164	
Other purposes	4	10	
Total	306	322	

(E) MAJOR HAULAGE JOBS

Units	Equipment		Description	Moved		Size of truck	Man-days
	Capacity kVA	Weight lbs		From	To		
1	62 $\frac{1}{2}$	1,800	Transformer	Kwangse Road S/S	Riverside Workshop	3 $\frac{1}{2}$	10
3	62 $\frac{1}{2}$	3x1,800	"	Kwangse Road S/S	Fearon Road S/S	3 $\frac{1}{2}$	10
3	62 $\frac{1}{2}$	3x1,800	"	Peking Road S/S	Fearon Road S/S	3 $\frac{1}{2}$	10
3	62 $\frac{1}{2}$	3x1,800	"	Fearon Road Stores	Fearon Road S/S	-	10
1	325	5,620	"	Fearon Road Stores	Ward-Dairy PT	20	24
1	150	4,080	"	Fearon Road S/S	Fearon Road Stores	3 $\frac{1}{2}$	16
1	225	6,900	"	Fearon Road S/S	Fearon Road Stores	3 $\frac{1}{2}$	16
1	125	3,530	"	Fearon Road Stores	Keswick-Rockhill PT	3 $\frac{1}{2}$	8
1	62 $\frac{1}{2}$	2,115	"	Keswick-Rockhill PT	Haiphong Rd Stores	3 $\frac{1}{2}$	8
1	260	15,400	"	Riverside Workshop	Chungking Road S/S	20	40
1	940	16,800	"	Fearon Road S/S	Edinburgh Road S/S	20	)40
1	325	5,620	"	Fearon Road S/S	Edinburgh Road S/S	20	
1	625	16,800	"	Edinburgh Road S/S	Fearon Road S/S	20	)40
1	520	23,300	"	Shanne Road S/S	Tsopoo Road S/S	20	
1	260	15,400	"	Tsopoo Road S/S	Shanne Road S/S	20	)20
1	130	10,645	"	Darroch S/S	Kashing S/S	20	
1	225	5,180	"	Foo Sing Tobacco Company	Riverside Workshop	3 $\frac{1}{2}$	16
3	62 $\frac{1}{2}$	3x1,800	"	Fearon Road S/S	Yangchow Road S/S	3 $\frac{1}{2}$	10
2	150	2x1,080	"	Yangchow S/S 2nd floor	Yangchow S/S ground floor	-	16
4	62 $\frac{1}{2}$	4x1,800	"	Fearon Road S/S ground floor	Fearon S/S 2nd floor	-	10
2	225	2x5,900	"	Fearon Road S/S 2nd floor	Fearon Road S/S ground floor	-	20
1	20	800	"	Riverside Workshop	Haiphong Rd Stores	3 $\frac{1}{2}$	10
2	62 $\frac{1}{2}$	2x1,800	"	Chokiang Road S/S	Fearon Road S/S	3 $\frac{1}{2}$	10
3	62 $\frac{1}{2}$	3x1,800	"	Fearon Road S/S	Fearon Road Stores	-	10
1	325	6,075	"	Fearon Road S/S	Wan Fong Worsted	20	24



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(F) BICYCLES

(1) Taxi Bicycle and Tricycle Service

Department	Type	No. in service	Issued for temp. use	Issued as taxi	Remarks
Transport Division	Bicycles	48	18	12	-
	Tricycles	7	7	-	-
Meter Department	Bicycles	24	-	-	-
	Tricycles	-	-	-	-

(2) Bicycle and Tricycle Maintenance

Type	No. in service	General overhaul		Minor adjustments and repairs		Routine inspection		Repairs after accident	
		May	Apr.	May	Apr.	May	Apr.	May	Apr.
Company's bicycles	253	13	4	94	99	11	13	1	-
Employees' bicycles	46	-	-	12	13	3	2	-	-
Tricycles	10	-	-	3	3	-	-	-	-
Pedicabs	3	-	-	3	3	-	-	-	-
Trailers	2	-	-	1	-	-	-	-	-
Total	314	13	4	113	123	14	15	1	-

(G) HANDCARTS

Type	No. in service	No. in storage	No. in construction	Number in repair	
				Maintenance	After Accident
Large 2-ton	2	1	-	-	-
Standard 1-ton	15	7	-	-	-
House Service	3	2	-	-	-
Balancing	3	3	-	-	-
Total	23	11	-	-	-

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(E) GARAGE WORKSHOP

Shop	WORK DONE	
	Transport Division	Other divisions
Vulcanizing	Repaired for - Motor cars: 19 tires; 229 tubes Bicycles: 27 tires; 21 tubes	Filling rubber compound into three glands on top of fuse boxes for Yangchow Substation.
Tailor	Repairs to 45 seat covers 36 upholstery 29 uniforms	Manufacture of 16 seat covers
		Making canvas bags for Eastern District. Making canvas bags for Central District. Repairing leather arm chairs for Consumers' Engineer's Department.
Faint	Repainted: 1 motor car; Touched up: 101 motor car jobs; 113 bicycle jobs	3 bicycles
		Polishing leather arm chairs for Consumers' Engineer's Department. Ducc frames for cabinets for Meter Department. Ducc telephone desks for Eastern District. Painting lavatory seat covers for DOD Engineers Lavatory.
Welding	Repaired by welding 38 motor vehicle bodies 29 engine parts 23 chassis parts	
		Brazing OCB main moving contacts for Primary Substations. Brazing two cable end sockets onto traction feeder choke coil for Park Substation.
Battery	Replaced: 6 batteries Repaired: 24 " Charged: 154 "	
Blacksmith	Forged: 42 new parts Repaired: 161 damaged parts	
		Making clamps for bottle stand for Test Room.
Whitesmith	Repaired - 31 vehicle radiators 24 bumpers 18 bodies 21 doors 37 windown 59 various small parts	
Electrical	Repaired or overhauled - 11 starters 6 dynamos 64 horns	
		Jointing a strip of lead sheath onto a lead sleeve for Kung Yin Substation.

SIANGHAI POWER COMPANY

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Shop	WORK DONE	
	Transport Division	Other divisions
Carpenter	Repairs to 23 vehicle bodies	Repairs to 21 chairs 2 revolving chairs 6 desks 7 extension ladders repairing leather arm chairs for Consumers' Engineer's Department. Fixing typewriter to desk for Head Office (Mr. Ferguson). Repairing HV fuse operating stick for Trouble Section.
Machine	Repairs to 82 engine parts 168 other parts Manufacture of 77 engine parts 493 other parts	Making die support for Construction Underground. Repairing OCB main moving contacts for Primary Substation. Repairing drill vise for Western District. Repairing cutting pliers for Western District. Repairing copper contacts for Con- naught Substation.
Lubrication Centre	Motor vehicles: Oil changed: 36 General inspection: 63 General lubrication: 63	-

(I) ACCIDENTS

(1) Motor Vehicles

Date	Vehicle		Location of accident	Description of accident	Damage to SPC vehicle			SPC driver to blame?	Persons injured	
	Type	No.			Major	Minor	None		Staff	Out- siders
May 5	Pass. car	52733	Ezra Road	Collided with car	-	x	-	No	No	No
May 6	Pass. car	10693	Ewangoo Road	Damaged by rickshaw	-	x	-	No	No	No
May 8	1 1/2-ton van	30030	Yanatsnepoo	Collided with car	-	x	-	No	No	No
May 8	1 1/2-ton van	30056	Av. Jeffrey	Collided with tricyclo	-	-	x	Yes	No	Yes
May 9	3 1/2-ton truck	30657	Woozung Road	Collided with truck	-	x	-	Yes	No	No
May 10	Pass. car	17348	Av. Haig	Collided with bus	-	x	-	No	No	No
May 26	Pick-up	30044	Yanatsnepoo	Collided with truck	-	x	-	No	No	No
May 27	Pass. car	10675	Hardoon Road	Collided with car	-	x	-	No	No	No
May 30	Pass. car	52441	Hanking Road	Knocked down a pedestrian	-	-	x	No	No	Yes
May 31	Pick-up	30052	Weihuiwei Road	Collided with handcart	-	x	-	No	No	No

SHANGHAI POWER COMPANY

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(2) Bicycles and Tricycles

Date	Bicycle No.	User	Location of accident	Description of accident	Damage to SPC bicycle		
					Major	Minor	None
May 17	84	V. J. Sung	Haining Road	Collided with pedicab	-	x	-

(3) Details of Accidents involving general public

Date	Location of accident	Damage to outside vehicle			Injury to outsiders			Remarks
		Major	Minor	None	Major	Minor	None	
May 5	Ezra Road	-	-	x	-	-	x	
May 6	Kwangse Road	-	-	x	-	-	x	
May 8	Yangtzeppoo	-	-	x	-	-	x	
May 8	Av. Joffre	-	-	x	-	x	-	
May 8	Woonsung Road	-	-	x	-	-	x	
May 10	Av. Haig	-	-	x	-	-	x	
May 26	Yangtzeppoo	-	-	x	-	-	x	
May 27	Haroon Road	-	-	x	-	-	x	
May 30	Nankin Road	-	-	x	-	x	-	
May 31	Weihaiwei Road	-	-	x	-	-	x	

(4) Staff

None.

...NATIONAL POWER ...

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(J) STAFF

(1) Supervisory Staff

No change.

(2) Clerical Staff

No change.

(3) Monthly Rate Staff

Driver	TDT.19	engaged.
Drivers	TDC.94,95	engaged.
Driver	TDT.25	reverted to Car Driver TDC.92.
Driver	TDT.28	reverted to Car Driver TDC.91.
Cleaner	TOQ.7	promoted to Car Driver TDC.93.

(4) Daily Rate Labour

No change.

*S. L. Dong*  
S. L. Dong

Acting Distribution Operating Engineer.

SHANGHAI POWER COMPANY

Shanghai, June 6th, 1947

The General Manager :

METER & TESTING DEPARTMENT  
LARCENY OF ELECTRICITY  
MONTHLY REPORT FOR MAY, 1947.

Accounts Office Queries :

One case of larceny was detected, and revenue amounting to CN\$1,463,400 has been recovered.

One case of damaged meter was found. The cost of repairs, etc. amounting to CN\$135,000 has been paid by the consumers.

Meter Readers' Reports :

One case of larceny was detected, and revenue amounting to CN\$558,000 has been recovered.

Six cases of damaged meters were found when following up these reports. The cost of repairs, etc. amounting to CN\$548,800 has been paid by the consumers.

Route Meter Investigation :

One case of larceny was detected, and revenue amounting to CN\$334,000 has been recovered.

Six cases of damaged meters were found. The cost of repairs, etc. amounting to CN\$627,800 has been paid by the consumers.

Power Meter Investigation :

Three cases of larceny were detected, and revenue amounting to CN\$5,401,000 has been recovered.

Three cases of damaged meters were found. The cost of repairs, etc. amounting to CN\$151,000 has been paid by the consumers.

Casual Visits - Day :

Two cases of damaged meters were found. The cost of repairs, etc. amounting to CN\$206,900 has been paid by the consumers.

Small Area Investigations :

One case of larceny was detected, and revenue amounting to CN\$804,000 has been recovered.

Miscellaneous :

Sixteen cases of damaged meters were reported by Installation Section's staff. The cost of repairs, etc. amounting to CN\$2,300,000 has been paid by the consumers.

Damaged or Missing Main Fuse Box Lead Seals :

Thirty-eight cases of above infringement of Company's Regulations have been handled by the Installation Section. Fees paid by consumers total CN\$133,000.

SHANGHAI POWER COMPANY.

-2-

SUMMARY :

Seven cases of larceny have been detected and settled during the month together with thirty-four cases of damaged meters and/or associated equipment. Revenue amounting to CN\$12,662,900 has been recovered, of which :-

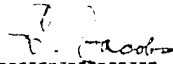
- a. CN\$3,560,400 represent recovered revenue.
- b. CN\$3,969,500 represent an estimated cost of repairs to damaged meters and associated equipment.
- c. CN\$ 133,000 represent fees paid for damaged or missing main fuse box lead seals.

Estimated Unmetered Consumption:

Fifty-nine cases of unmetered consumption due to defective or damaged meters were estimated on Consumers' Accounts Inspect Orders during the month. The estimated consumption represents 10,247 K.W. hours, amounting to CN\$3,330,275 of recovered revenue.

NOTE :-

Three cases of unmetered supply taken by various units of the Chinese Armed Forces have been reported by the Installation & Investigation Sections' staff and Meter Readers during the month. These have been passed to the Installation Section for action in concert with Consumers' Engineer's Department.

  
-----  
E. Jacobs,  
Meter & Testing Engineer

AVG/zkc

SHANGHAI POWER COMPANY

MAY, 1947.

S.P.C. + W.D.P.C.

NATURE OF INVESTIGATION	PREMISES INSPECTED	METERS INSPECTED	REGULARITIES FOUND	LAPSEY CASES		Damaged and/or Missing Meters	TOTAL CASES
				Jumpers	Tempered Meters		
Accounts Office Queries	664	669	173	-	1	1	2
Meter Readers' Reports	13	13	13	-	1	6	7
Route Meter Investigation	2205	2894	1027	1	-	6	7
Power Meter Investigation	471	1023	148	3	-	3	6
Casual Visits - Day	69	137	18	-	-	2	2
Small Area Investigations	450	614	92	1	-	-	1
Informers' Letters	1	2	1	-	-	-	-
Miscellaneous	1	21	16	-	-	16	16
Total	3894	5372	1468	5	2	34	41

W.D.P.C. (Included in above figures) :

Accounts Office Queries	116	122	54	-	-	-	-
Meter Readers' Reports	1	1	1	-	1	1	2
Route Meter Investigation	622	734	267	-	-	2	2
Power Meter Investigation	331	705	92	1	-	1	2
Casual Visits - Day	3	4	1	-	-	1	1
Informers' Letters	1	2	1	-	-	-	-
Miscellaneous	3	3	2	-	-	2	2
Total	1084	1622	420	1	1	7	9

Month ending	S.P.C. + W.D.P.C.		W.D.P.C. (only)	
	Premises Meters	Irregularities Cases	Premises Meters	Irregularities Cases
May 31, 1947	3,694	5,372	1,468	41
12 Months ending May 31, 1947	47,237	65,305	21,353	562
			13,181	18,456
			6,347	119



CHARLES E. POWER COMPANY

MAY, 1947

ANALYSIS OF CASES RECOVERED FOR ESTIMATED LOSS OF REVENUE FROM CUSTOMERS INVOLVED IN LARCENY OF ELECTRICITY AND FOR DAMAGED OR MISSING METERS AND BROKEN MAIN FUSE SEALS.

S.F.C. + W.D.P.C.

NATURE OF INVESTIGATION	Jumpers	Temporarily Meters	Damaged Meters	Missing Meters	Part Payment	Broken Main Fuse Seals	TOTAL
	Ct.	Ct.	Ct.	Ct.	Ct.	Ct.	Ct.
Accounts Office Queries	-	1,453,400	135,000	-	-	-	1,588,400
Meter Readers' Reports	-	558,000	545,800	-	-	-	1,103,800
Route Meter Investigation	334,000	-	627,800	-	-	-	961,800
Power Meter Investigation	5,411,000	-	151,000	-	-	-	5,562,000
Casual Visits - Day	-	-	236,900	-	-	-	236,900
Small Area Investigations	804,000	-	-	-	-	-	804,000
Miscellaneous	-	-	2,084,000	216,000	-	133,000	2,433,000
<b>Total</b>	<b>6,539,000</b>	<b>2,021,400</b>	<b>3,753,500</b>	<b>216,000</b>	<b>-</b>	<b>133,000</b>	<b>12,662,900</b>

W.D.P.C. (Included in above figures):

Accounts Office queries	-	-	-	-	-	-	-
Meter Readers' Reports	-	558,000	78,800	-	-	-	636,800
Route Meter Investigation	-	-	143,500	-	-	-	143,500
Power Meter Investigation	621,000	-	62,200	-	-	-	683,200
Casual Visits - Day	-	-	108,100	-	-	-	108,100
Miscellaneous	-	-	335,600	-	-	49,000	384,600
<b>Total</b>	<b>621,000</b>	<b>558,000</b>	<b>729,400</b>	<b>-</b>	<b>-</b>	<b>49,000</b>	<b>1,957,400</b>

	S.F.C. + W.D.P.C.	W.D.P.C. (only)
Month ending May 31st, 1947	Ct. \$12,662,900.00	Ct. \$1,957,400.00
12 Months ending May 31st, 1947	Ct. \$61,428,080.00	Ct. \$16,023,410.00



MONTHLY REPORT

FOR

JUNE 1947

INDEX

REPORT:

	<u>Section</u>	<u>Page</u>
Letter of Transmittal		
Revenues & Expenses (Compared with 1946)	1	2
Electric Demand, Output, Sales & Losses	2	1
Maximum Hour in KWH	2A	1
Not Output or Purchase in MKWH	2B	1
Units Sold & Accounted for in MKWH	2C	1
Transmission & Distribution Losses in % of Net Output or Purchase	2D	1
Customers, Service Inspections	3	1
Customers	3A	1
Service Inspections	3B	2
Employees	4	2
Riverside Operations	5	2

CHARTS:

Max. Hour Generation & Output	A
Units Generated, Delivered & Sold	B
Employees	C

APPENDIX:

Reports

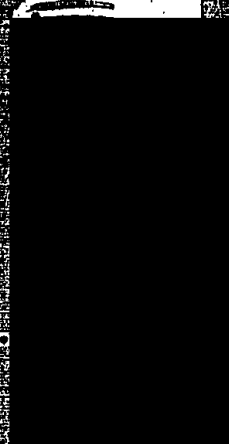
Secretarial & Accountancy - S.P.C. & W.D.P.C.	I
Consumers' Monthly Report - S.P.C.	II
Consumers' Monthly Report - W.D.P.C.	III
Generation Report	IV
Distribution Operation Division - S.P.C. & W.D.P.C.	V
Larceny of Electricity	VI

SUMMARY

COMPARED WITH 1965 (C):

Items	Month of June	
	1967	1966
(C) Figures in thousands)		
	C\$ 43,725,119	C\$ 3,663,707
	= 12,810,071	= 231,507
	<u>C\$ 30,915,048</u>	<u>C\$ 3,432,199</u>
	C\$ 57,497,644	C\$ 3,973,708
	= 11,843,493	= 621,049
	<u>C\$ 45,654,151</u>	<u>C\$ 3,352,659</u>
	C\$ 19,207,478	C\$ 650,009
	= 666,578	= 39,365
	<u>C\$ 18,540,900</u>	<u>C\$ 610,644</u>

25X1A



Inter-Company Items Eliminated.

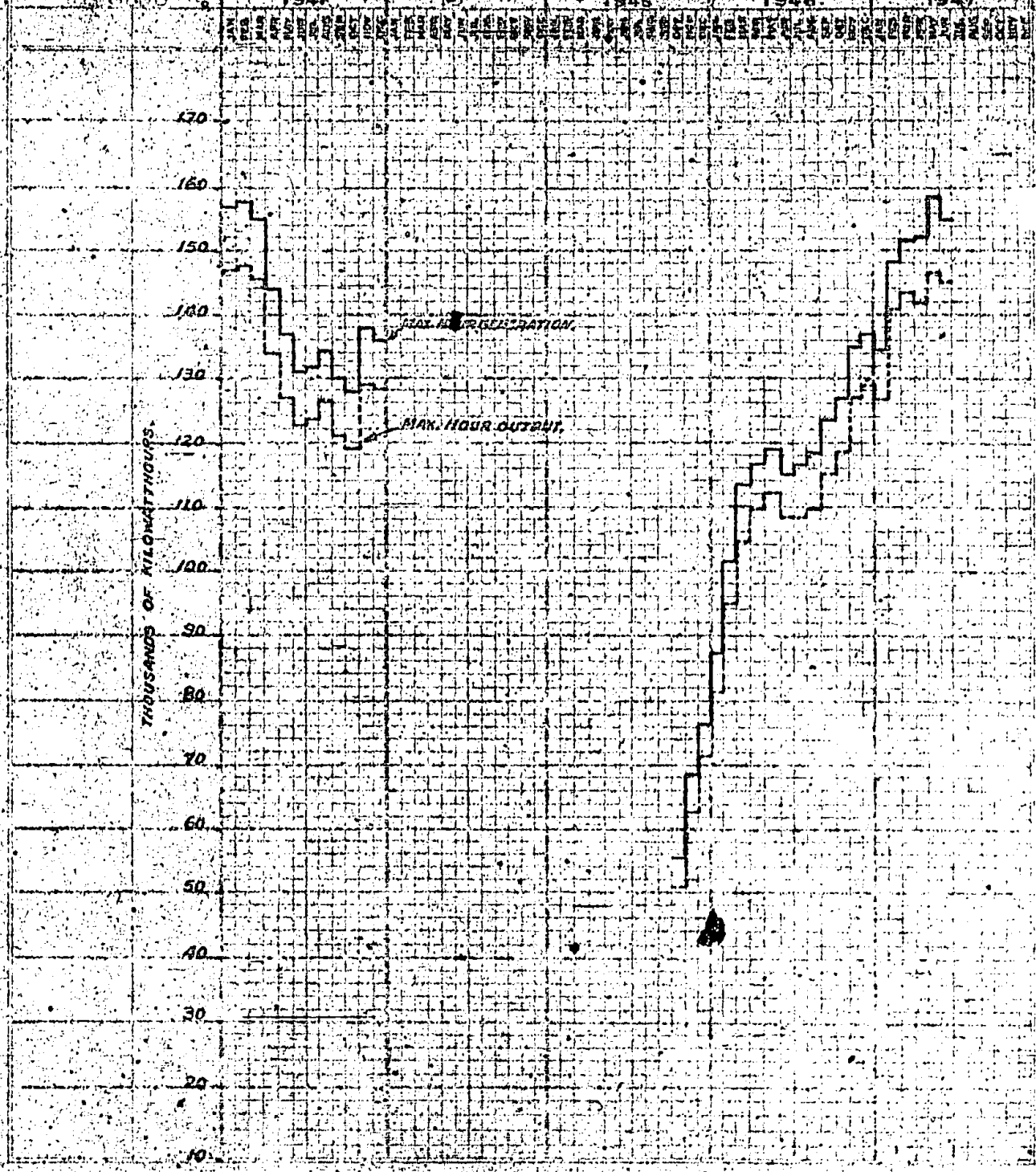
OUTPUT, SALES & LOSSES:

in MWH		
Reverse Max.Hr.Generation.	183,199	115,055
Max.Hr.Demand.	30,428	21,558
or Purchase in MWH (M-1000)		
Net Output	78,978	57,345
Purchase from S.P.C.	19,533	11,604
Accounted for in MWH		
(Including sales to W.D.P.C.)	77,334	55,862
	17,844	11,000
Losses		
of Net Output or Purchases		
(W.D.P.C. considered as one customer)	8.1	3.7
	5.0	5.2

W.D.P.C. INSPECTIONS:

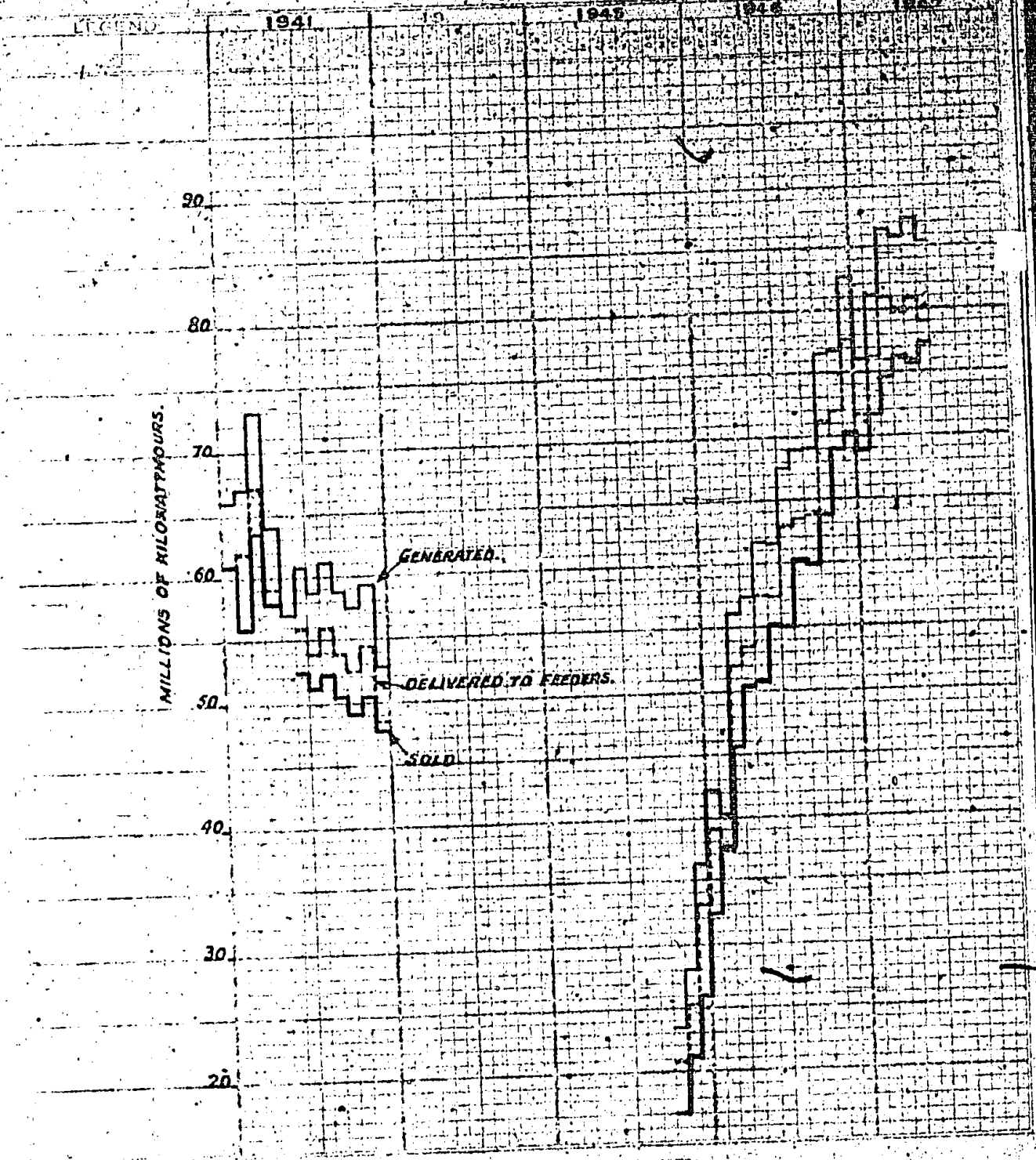
S.P.C.	93,032	94,918
W.D.P.C.	21,144	19,609
Combined **	<u>114,176</u>	<u>114,527</u>

Inter-Company Items Eliminated.

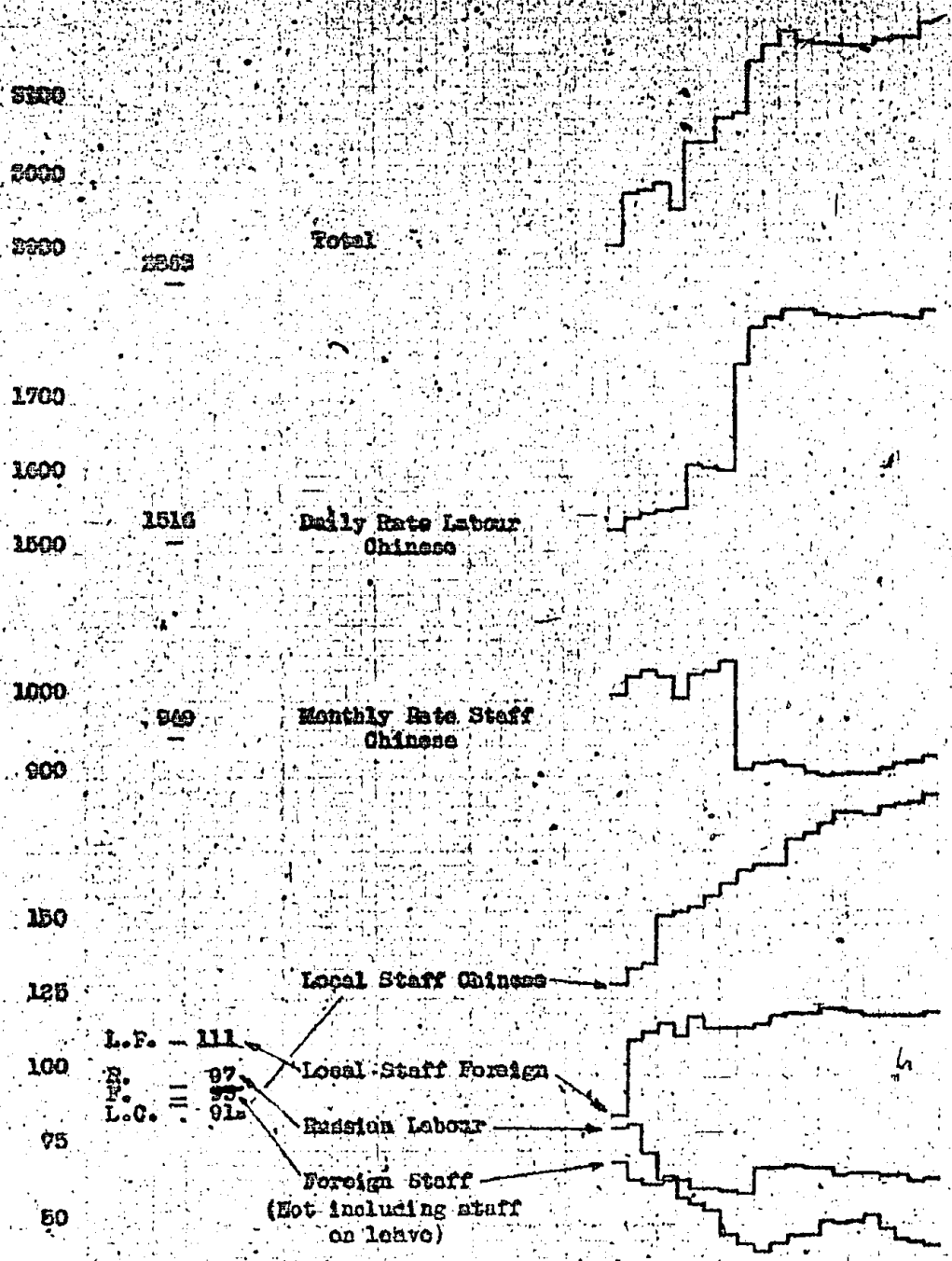


HIVERSIDE STEAM ELECTRIC STATION

MAX. HOUR GENERATION AND OUTPUT



SHANGHAI POWER COMPANY  
UNITS GENERATED, DELIVERED & SOLD



EMPLOYEES  
(S.P.C. & W.D.P.C.)

Approved For Release 2000/04/18 : CIA-RDP80-00809A000500550001-7

SECRETARY AND ACCOUNTANCY  
JUNE, 1947SHANGHAI POWER COMPANY AND EASTERN DISTRICT POWER COMPANY

Financial and Operating Reports for the month of June 1947 will be despatched to New York around the end of July.

Cash on Hand and in Banks - Shanghai

The balance of cash on hand and in bank accounts in Shanghai on June 30, 1947 was as follows:

<u>Current Bank Accounts</u>	<u>S. P. C.</u> CNY	<u>W. D. P. C.</u> CNY
Secretary & Treasurer	-	193,094,409.34
Hongkong & Shanghai Banking Corporation:		
General Fund Account	101,250,149.56	-
Fixed Deposit Accounts	1,000,000,000.00	-
National City Bank of New York	20,899,950.00	-
The Bank of China	10,405,832.00	-
Chekiang Industrial Bank Ltd.	11,334,835,004.55	3,234,197,258.46
Compradore Cash on Hand	8,761,163,778.24	742,872.84
Total -	15,228,534,714.34	3,428,033,940.64

Remittances to and from New York

During June 1947 the following remittances were obtained by us at the official rate of exchange:

Remittances to New York Office

<u>Date</u>	<u>Amount</u>	<u>Remarks</u>
June 2	US\$ 50,000.00	for part of T.G. 11
4	481.11	for 10 bundles steel flanges for machinery parts
4	189.71	for 20,000 pcs. wire hadp type padlock seals for locking motors
7	19,001.89	for purchase of various materials shipped via S/S Marina Leopard, S/S Mount Rogers and S/S Air Express
10	6,941.82	for purchase of various materials shipped via S/S Mount Manfield
10	13.35	for purchase of various materials shipped via S/S Mount Rogers
10	83.20	for purchase of one complete replacement thermal system for Foxboro recorder-controller
12	4,406.36	for purchase of materials shipped via S/S President Monroe, S/S Hope Peak and S/S Mount Rogers
12	188.54	for 12 rolls paper charts and 160 lbb. galvanized iron wire netting
14	57.93	for one bundle angle mild steel
14	12.00	for 12 pcs. CNY-NEO-TAP clamps for overhead cable system
17	1,534.02	for purchase of various materials shipped via S/S Mount Rogers, S/S Mount Manfield and S/S Marina Leopard
25	59.10	for 10 pcs. graphite crucibles for workshop foundry
30	6,354.37	for purchase of various materials shipped via S/S President Polk
	US\$ 89,322.40	



Approved For Release 2000/04/18 : CIA-RDP80-00809A000500550001-7

Remittances to London Agent

<u>Date</u>	<u>Amount</u>	<u>Remarks</u>
June 2	£ 1,276. 0. 0	for purchase of various boiler materials
4	918.18. 0	for two pcs. oil separators
7	17.10. 7	for one case hand taps
7	5.18. 9	for one parcel terminals
7	2.13. 4	for one parcel cork strips
12	77.13. 1	for one case paper charts for recording equipment
14	13. 2. 6	for 50 pcs. Eoon tube voltage testers
14	8. 9. 1	for 4 bundles flat mild steel-bars
14	159. 9. 6	for 6 cases containing mild steel bolts and nuts, wire nails, mild steel and brass, machine and wood screws
17	2.14. 2	for one parcel screw dies
19	7.19. 7	for one case grinding wheels
25	4. 4.11	for 89 gross mild steel split pins
30	2.15. 2	for 18.6 gross brass washers
30	4. 8.11	for one d/bag spring steel lock washers
30	22. 3. 8	for one case Freeseppahn sheets
Total	<u>£ 2,509.18. 3</u>	

The following statement shows the supervision fee payable to you with U.S. equivalent at the official rate ruling at the end of each month to June 30, 1947:

	<u>G.N. Dollars</u>	<u>Exchange Rate</u>	<u>U.S. Dollars</u>
Period Sept. 17, 1945 to May 31, 1947	5,160,800,000	18,100	428,487.60
Month of June	248,000,000	18,100	80,000.00
Total	<u>5,408,800,000</u>		<u>448,487.60</u>

Accounts Payable

Unpaid fuel bills as at June 30, 1947 were as follows:-

Coal including freight

Unpaid bills for June

US\$ 797,720,000  
\*\*\*\*\*

Fuel Oil

Unpaid bills for June

US\$ 3,225,700,391  
\*\*\*\*\*

Accounts Receivable and Collections

The total amount due from consumers, excluding Municipal, as at June 30, 1947 was US\$ 51,628,399,000 and the amount due from the Municipal Government for both companies was US\$ 1,507,937,000. These figures include the revenue derived from an increase of US\$ 245 per kWh on our basic rates effective retroactively from May 21, 1947 as authorized by the Bureau of Public Utilities. Since the

application of the new rate was made retroactively from May 21, and the billing of the retroactive charges started from June 9, the balances in Accounts Receivable due both from ordinary consumers and from Municipal Government increased considerably in the current month. However, cash collections in June were generally quite satisfactory. 5

#### Customers' Deposits

Deposits collected during the month for both companies amounted to CN\$ 51,016,000 and refunds to CN\$ 2,943,000. The amount of additional deposits unpaid on June 30, 1947 was CN\$ 74,443,000. The balance of deposits held against service charges for both companies amounted to CN\$ 7,349,272,000 of which the amount of CN\$ 4,400,920 (nominal value) was in the form of securities segregated as follows:-

	<u>S. P. C.</u> CN\$	<u>H. D. P. C.</u> CN\$
S.M.C. Debentures	12,620	-
Bank Guarantee	25,600	1,527,600
S.P.C. 5% Silver Preferred Stock	2,034,220	574,220
Shanghai Telephone Company	8,100	-
S.P.C. First Mortgage Debentures, 5 1/2% Dollar Series, due 1973	131,300	42,000
	<u>2,257,040</u>	<u>8,143,820</u>

#### Payroll

Our payroll for the month, with high cost of living index 25,300 times basic pay (scaled down in accordance with Municipal Government formula), totalled CN\$ 11,062,861,800 segregated as follows:-

Foreign and Executive	CN\$ 3,723,002,000
Local	2,093,792,300
Chinese	5,073,802,500
Leave Pay	170,465,000
	<u>CN\$ 11,062,861,800</u>

#### Rate Revisions

Further to our letter for May with respect to the above subject, the retroactive charges on sales during the period May 21 to 31, amounting to CN\$ 11,333,153,000 for S.P.C. and CN\$ 2,303,449,000 for H.D.P.C., were included in the operating revenues for June, as per our cable of operating results to you on July 10, 1947.

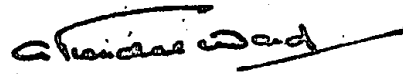
At the time of writing this letter, the authorities in Nanking have agreed to a further revision of our rates mainly due to the increase in the price for coal delivered in July. The latest revision which is effective from July 1, 1947, brings our rates for ordinary consumers up to CN\$ 1,150 per kWh. The Consumers' Engineering Department's monthly report will give fuller details on this last revision.

Material Replacement Reserve

In view of the upward tendency of commodity prices, and on account of the fact that our computation of electric rates is based entirely on the current operating costs, it was decided to apply a 200% surcharge on stores issues (except fuel cost) to operating expenses, with a corresponding credit to a Material Replacement Reserve starting from June 1, 1947, which practice was suggested by us in our letter to you dated April 23, 1946, and was agreed to by you in Mr. Weidinger's letter dated May 8, 1946. The total amount of surcharge on material issued to operating expenses for the month of June was CNY 977,124,000. The percentage for the surcharge will, of course, be revised from time to time in view of the replacement cost of material in Stores.

Accrual for Chinese Government Profits Tax

We accrued CNY 400,000,000 to cover this tax per our book entry for May 1947. With the increase in our rates, we decided to accrue an extra sum of CNY 1,800,000,000 to cover this tax on net revenues derived from retroactive charges. The amount accrued for the current month was CNY 2,200,000,000, making a total of CNY 4,000,000,000 charged to operating expenses in the current month in respect of the accrual for this tax.

  
A. Kandal Ward  
Secretary & Treasurer

July 18, 1947



July 22nd, 1947

Approved For Release 2000/04/18 : CIA-RDP80-00809A000500550001-7

CONSUMERS' MONTHLY REPORT FOR JUNESHANGHAI POWER COMPANYJUNE STATISTICSAnalysis of K.W.H. Sales

	<u>This Year</u>	<u>Last Year</u>	<u>Increase</u>	<u>Increase</u> <u>%</u>
Residential Lighting)	8,569,209	5,099,537	3,469,672	68.0
Commercial Lighting )				
Residential Heating & Cooking)	1,642,070	1,113,159	528,911	47.5
Commercial Heating & Cooking )				
Bulk Supply Industrial	28,141,653	20,499,446	7,642,207	37.3
Bulk Supply Commercial	1,276,322	1,032,091	244,231	23.7
Small Power (Incl. D.C. Lifts)	4,629,967	2,740,752	1,889,215	68.9
<u>Public Utility:</u>				
Shanghai Trams	1,069,559	825,085	244,474	29.6
French Trams	1,571,000	1,080,300	490,700	45.4
Shanghai Waterworks	1,187,010	862,440	324,570	37.6
Chapel Company	9,405,845	8,758,850	646,995	7.4
Intercompany - W.D.P.C.	18,332,800	11,604,000	6,728,800	58.0
Private Street Lighting	78,004	65,810	12,194	18.5
Municipal Street Lighting	192,243	189,910	2,333	1.2
Municipal Others	377,097	429,243	-52,146	-12.1
<u>Total</u>	<u>76,472,779</u>	<u>54,300,623</u>	<u>22,172,156</u>	<u>40.8</u>
Total Units Sold (12 months ending June 1947)	815,671,496	371,015,932	444,655,564	119.8

Analysis of Large Industrial Sales in K.W.H.

	<u>This Month</u>	<u>Last Month</u>	<u>Last Year</u>	<u>Increase</u> <u>% over</u> <u>Last Year</u>
Chinese Cotton Mills	19,534,907	19,781,789	11,559,035	69.0
Other Cotton Mills	222,650	180,600	2,547,990	-12.6
Total Cotton Mills	19,757,557	19,962,389	14,107,025	40.1
Flour Mills	875,700	618,300	1,175,940	-25.5
Rubber Products	820,985	877,815	361,840	126.9
Paper Mills	1,177,870	1,095,094	816,939	44.2
Lumber Mills	27,985	27,875	8,385	233.8
Egg Produce	-	-	-	-
Oil Mills	104,600	85,000	47,950	118.1
Ice & Cold Storage Factories	1,362,545	960,585	1,262,825	7.9
Tobacco Factories	196,485	156,305	165,206	18.9
Silk Mills	48,840	47,620	40,020	22.0
Miscellaneous Textiles	2,099,881	2,002,040	1,455,980	44.2
Metal Working	636,395	658,603	471,299	35.0
Woolen Mills	312,200	288,280	75,327	314.5
Miscellaneous Other	720,610	705,181	510,710	41.1
<u>Total</u>	<u>28,141,653</u>	<u>27,485,087</u>	<u>20,499,446</u>	<u>37.3</u>

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CONNECTIONS

	<u>This Month</u>	<u>Last Month</u>	<u>Last Year</u>	<u>Increase during month</u>
No. of Customers	98,062	97,986	94,918	76
" Refrigerators	8,495	8,475	8,321	20
" Cookers (Hired) x	2,961	2,952	2,980	9
" Radiators { " } x	1,984	2,013	2,866	-29
" Water Heaters { " } x	70	69	56	1
" Misc. Appliances { " } x	169	169	167	-
H.P. of Motors	13,698	13,602	14,484	96

∅ Includes Refrigerators installed in Western District Power Company Area.  
x These figures include Appliances hired by Western District Power Co. of S'hai

CONNECTED LOAD

K.W. Lighting	102,164	101,893	98,493	271
" Heating: Comprising	(31,665)	(31,567)	(33,473)	(98)
" Cookers	16,189	18,171	18,231	18
" Radiators	9,986	9,992	12,122	-6
" Water Heaters	124	124	105	-
" Miscellaneous	3,366	3,280	3,015	86
" Motors	229,075	227,714	229,890	1,361
" Industrial Heating	4,274	4,274	3,477	-
" W.D.P.C.	54,600	54,600	54,600	-
" Total	421,778	420,048	419,933	1,730

MONTHLY MOVEMENT IN CUSTOMERS

	<u>Total All Classes</u>
Total Customers Reconnected	64
Total Customers Disconnected	226
Loss	162
Total New Customers Connected	238
Total Increase During Month	76

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GENERAL COMMENTS

Rate Revision - No sooner had the revised rates referred to in last month's Report been approved and put into effect on May 21st, 1947, than it was again found necessary to make application for rate revision. This was due mainly to the announcement of the Fuel Control Commission that the cost of coal would be increased from \$162,800 to \$520,000 per ton as from July 1st, 1947. Also, it was foreseen that the H.C.L. Index would again be increased. The Nanking authorities would not sanction an H.C.L. formula, and it was realized that the existing fuel surcharges would be far from adequate to yield the revenue required in July, which, we estimated, would have to be approximately \$70 billion. From analysis it was found that a compensatory rate could be deduced by changing the existing coal surcharge formula to:

Increase of rate = \*\$2.00/kWh/\$1,000/ton variation of coal price above basic price of \$80,000/ton (\$0.20/kWh to be transferred to Surplus Fund Committee)  
\*(This figure in the old formula was \$1.00)

Applying this coal surcharge formula together with the existing oil surcharge formula, the following calculations show how the new rate has been computed:-

	<u>July</u>	<u>Basic</u>
Coal cost	\$520,000	\$80,000
Oil cost	169,608	43,000
Coal surcharge =	$\left( \frac{520,000 - 80,000}{1,000} \right) \times 2 = \$$	880.00
Oil surcharge =	$\left( \frac{169,608 - 43,000}{1,000} \right) \times 1 = \$$	126.60
Total fuel surcharges		= \$1,006.60
		Say <u>\$1,010.00</u>

(This difference of approximately \$3.-, together with 10% of total coal surcharge - \$880.- - goes to Surplus Fund - namely, \$91.- per kWh.)

	<u>Basic</u>	<u>Fuel surcharges</u>	<u>Total</u>
Now Rate	\$120.-	\$1,010.-	\$1,130.- ✓

Although the revised coal surcharge formula was used in computing this revised rate, it cannot be accepted as established. The whole question of arriving at a permanent and equitable method to cover all variations in costs is now under negotiation and the means of arrival at the rates now in force are decidedly makeshift pending results of the present discussions. ✓

Miscellaneous Charges - In view of devaluation of the Chinese dollar, opportunity has been taken to revise all miscellaneous charges, including the monthly rentals for plant on hire. These charges have been increased by approximately 100%.

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The following shows details of the revised rates which were authorized to be put into effect as from July 1st, 1947:-

	Revised Rates Effective July 1st, 1947 CNS/KWH	Previous revision effective May 21st, 1947 CNS/KWH
Residential Lighting, Cooking & Power ...	1,130	570
Commercial Lighting, Cooking & Power ...	1,130	570
Industrial Power - up to 50,000 kWh/month	1,130	570
Industrial Power - excess over 50,000 "	1,190	630
Public Street Lighting & Traffic Signals	580	280
Private Street Lighting .....	1,085	525
Shanghai Waterworks .....	805	305
Shanghai Tramways .....	850	322
Chapai Co. - usage up to 8,800,000 kWh per month .....	570	270
Chapai Co. - excess usage .....	1,039	570
French Co. - usage up to 850,000 kWh per month .....	570	270
French Co. - excess usage .....	1,039	570

NOTE - Less 2% discount where supply is taken at high voltage

Neon and Fluorescent Lighting Installations - Mention was made in last month's Report of discussions at the Shanghai Power Regulating Committee meetings on the question of making a ruling that all Neon and Fluorescent Lighting installations must be equipped with power factor corrective apparatus. Decision was reached and with the full approval of the Bureau of Public Utilities a suitably worded notice was published in the local press on June 25th and 26th, 1947.

COMMENTS: TOTAL KILOWATT-HOUR SALES

The meter-reading months were as follows:

	June	May	Difference
Schedule Rate Consumers	29.92	31.16	-3.8%
Bulk Supply Consumers	30.70	30.40	+0.3%
Municipal Consumers	31.00	31.00	0.0%

Total Kilowatt-Hour Sales for June were 76,472,779 - an increase of 1,700,000 units, or 2.3%, over May's total of 74,840,000 kWh. The increase was mainly due to higher Intercompany Sales, while Industrial Bulk Supply also increased, although only slightly. The other classes showed little change.

June sales constituted an all-time high, exceeding the pre-war high of 76,325,957 kWh (December 1936) by nearly 150,000 units.

Residential & Commercial Lighting Sales were down from 9,000,000 kWh in May to 8,569,209 kWh in the current month. This is a decrease of 430,000 kWh, or 4.7%, i.e. slightly more than accounted for by the shorter reading month. Nebulosity was normal, and the upward revision of rates may have had some effect on the usage.

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Residential Heating & Cooling Consumption declined from 1,700,000 kWh in May to 1,642,070 kWh in June, a decrease of 3.5%, corresponding closely to the shorter meter-reading period.

Industrial Bulk Supply consumers took 28,141,653 kWh in June compared with 27,485,087 kWh in May. The slight increase was mainly due to seasonally higher Ice & Cold Storage usage.

Commercial Bulk Supply usage was 1,642,070 kWh compared with 1,700,000 kWh the previous month. An increase, due to air-conditioning, would have been normal, but exceptionally cool weather prevailed throughout the month and air-conditioning installations were hardly operated, thus not influencing the total.

Small Power Consumers totalled 4,629,967 kWh against 4,700,000 kWh in May. Taking the shorter month into consideration there was practically no change.

Shanghai Trams' total of 1,069,559 kWh was unchanged from last month, while

French Trams reduced their usage from 1,970,000 kWh in May to 1,571,000 kWh during the current month. The reduction was mainly due to emergency load reduction enforced by us during plant outage. Consumer has still one unit under repair which is expected to be back in commission in August.

Shanghai Waterworks' consumption was seasonally up, from 1,017,000 kWh in May to 1,187,000 kWh in June.

Chapei Company took 9,405,845 kWh in June as against 9,000,000 kWh last month.

Neither the French nor Chapei Companies had their demands satisfied and enforced reductions were necessary in their territories.

Public & Private Street Lighting showed little change.

Municipal Others totalled 377,097 kWh - a slight reduction from May.

#### ANALYSIS OF LARGE INDUSTRIAL SALES

Cotton Mills' sales were 19,757,557 kWh compared with 19,960,000 kWh last month. While the decrease is insignificant it reflects the difficulties experienced by this and other industries, not so much due to decreased demand as to outside interference. At present yarn prices are controlled and the control is temporarily, at least, being enforced, whereas raw cotton prices are free. As the imports of cotton are smaller than the normal rate of usage, the prices of imported cotton are abnormally high and is being hoarded while the cheaper Chinese cotton is used as much as possible. Chinese cotton is of fair quality but the fibres are generally short and the yarn with too much mixture lacks strength. In other words, the mills are countering the Government price regulating policy by lowering the quality.

The emergency load reduction necessary during the month also acted as a deterrent to increased activity as labour, of course, had to be paid during the enforced shutdowns and this brought operating costs up.

However, the demand for yarn continues good, and the present operating level will no doubt be maintained and increased as energy becomes available.



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Flour Mills took 879,700 kWh in June. This is a considerable increase over May's total of 620,000 units and is due to local grain being harvested at this time. The present level may be maintained for another month but a decrease is probable later unless imports improve.

Rubber Products - Sales to this industry declined somewhat to 820,985 kWh from last month's level of 880,000 units as import restrictions on raw rubber made operators hesitate to maintain activities. However, the demand is good and exports are fair, though more competition is reported. Increased sales may be expected in the autumn.

Paper Mills' usage went up from 1,100,000 kWh in May to 1,177,870 kWh in the current month. The increase was general as all the mills showed mounting activities. Imports are still small and prices high, so prospects continue good for this industry.

Lumber Mills showed no change with a total of 27,985 kWh. As mentioned in last month's Report these returns do not indicate the real situation as many small shops have replaced the former Bulk Supply Consumers. Although stocks are ample and construction is going on, energy consumption is low due to lack of woodworking machinery. Work which might easily be done by machines is now carried out by hand. For instance, simple doors and windows which might be 80-85% machined, are here at present 100% handmade. With labour at US\$5 per day (official rate. Say, US\$1.50 open rate), building costs are still too high for real improvement.

Egg Produce remains idle. Several attempts have been made to revive this industry both by British and American interests and both in Shanghai and outports. However, all attempts have failed due to the high costs of labour, construction and eggs, and at present there seems to be no prospects of resumed operations.

Oil Mills - Sales increased from 85,000 kWh in May to 104,600 kWh in June. Stocks of soya and cotton seeds are still short but some broad beans produced locally have been pressed. The demand for fertilizer cakes for July sowing has bettered prices, but real improvement may not be expected till the autumn demand for cakes for fuel sets in.

Ice & Cold Storage Plants showed normal seasonal improvement with a total of 1,362,545 kWh compared with May's total of 960,000 kWh. Smaller imports of perishable goods caused lower usage by storage plants, while ice plants, notably for the new Fishing Fleet, used considerably more than last year. The total is slightly over the 1946 level of 1,260,000 kWh.

Tobacco Factories - Usage improved from 156,000 kWh in May to 196,485 kWh in the current month due to increased activity by the Yee Tsoong Tobacco Co. Ltd. (Ward Road plant). The usage of other consumers dropped seasonally, as expected. Activities may increase in July-August as imports are small and the demand good although prices are temporarily depressed due to the wet season.

Silk Mills - The two weaving mills in this group showed no improvement (June usage: 48,840 kWh; May usage: 47,620 kWh) as exports are still at a complete standstill due to causes described in previous reports.

There does not seem to be much chance for Chinese silk producers to regain their pre-war export markets. Even Pongee from Southern Ports, which previously occupied a favoured position, is now meeting with disastrous competition

from rayon which sells at 1/3 to 1/2 the price. Exports at present are about 25-30% of the pre-war level and practically entirely handled through Governmental agencies who incur considerable losses in their disposal. The best that can be hoped for the Shanghai mills is for them to maintain the present operating level, which satisfies local demand.

Miscellaneous Textiles Sales increased slightly from 2,000,000 KWH in May to 2,099,881 KWH in June. Individual consumers showed very small changes as most barely maintained their activities. With yarn prices controlled, Profits are fair. Dyes are expensive but prices of piecegoods have been adjusted to cover both this item and increased labour costs. Swiss and American dyes have totally replaced German brands on the market although pre-war stocks of the latter are still available and a small cargo is reported to have arrived via Holland. The former German Agents ("Defag") are trying to contact their principals with the view of re-establishing trade but as the factories are now in British hands, success seems doubtful.

Domestic demand is good and prospects fair.

Metal Working took 636,395 KWH in June compared with 658,603 KWH in May. The Swiss-owned Chinese Aluminium Rolling Mills are still practically idle due to a political controversy. Nails, Textile Machinery and Wire Works generally increased, and Rolling Mills reduced, activities. Prospects are fair and the present level may be maintained but hardly appreciably increased until the Aluminium Mills resume full-scale operations.

Woolen Mills increased their usage from 288,000 KWH in May to 312,200 KWH in June. Spinning mills increased, and Weaving mills decreased, their consumption. This movement is normal and seasonal as the production to stocks of yarn makers precedes that of weavers. Increased activities may be hoped for by both groups with the approach of autumn.

Miscellaneous Others took 312,200 KWH as compared with only 288,000 KWH last month. Usage by Breweries and Aerated Water Companies were seasonally up; by Coal Briquettes down.

#### POWER SECTION

In last month's Report it was mentioned that we had temporarily discontinued accepting applications for loads exceeding 5 H.P. Further restrictions were imposed as from the 16th of this month when it was decided to suspend connection for all new or additional power load. This was done to check the increase of load, but exceptions will be made in cases of jobs already in hand and jobs involving consumers who have not yet signed an application but have placed orders for transformers, switchgear, etc. It was found necessary to re-impose the ban on power connections owing to lack of generating capacity, due to frequent outages of plant for repairs and also lack of distribution capacity. The distribution transformers ordered locally have not yet been delivered and as a consequence it has not been possible to connect up new or additional load at a number of points on the system. Requests for power supply for essential services will be submitted to the Power Supply Regulating Committee for approval.

The following applications for connection of power service were accepted during the month:-

Reconnections:	4 Applications totalling	17 H.P.
New Load	: 78 " "	1,566 "
Total	: 82 Applications totalling	1,583 H.P.

Of the above total approximately 20% covered official recording of unauthorized additions made during the period when restrictions were previously in force.

These applications include the following load prospects:-

Koo Tien Zung Cotton Mill - 410 H.P. referred to in March 1947  
and  
Woo Ho Weaving Factory - 200 H.P. " " later in this Report.

The remaining applications include 188 H.P. for N.R.C. Central Electrical Manufacturing Works and loads of from 1 - 5 H.P. covering practically all types of industry in this area.

Owing to outages of generating plant, there was a considerable increase in the amount of enforced load reduction throughout the month. T.G.'s 1 and 2 were out of commission all month, "C" Station, which was shut down for repairs on May 31st, was in commission again on the afternoon of the 9th, while T.G. 7, taken out of commission on June 17th for an extensive overhaul, will not be available again until early in August. Added to this was an emergency repair to the main steam line during the night of 21st-22nd, which necessitated shutting down T.G.'s 15 and 16. As Riverside could only cope with a sustained load of approximately 93,000 kW while the steam line was being repaired, it was necessary to arrange for load reduction of approximately 12,000 kW during the night. It was therefore arranged that all the small Cotton Mills plus three C.T.I.I. Mills would shut down during night shift to give the required load reduction.

On the evening of June 2nd in Tonquin Substation a fault developed in Station Transformer No. 1 which caused an explosion and the oil caught fire. As a precautionary measure it was considered advisable to de-energize 23 kV and 6.6 kV cables in the vicinity of the fire and this resulted in supply interruptions to consumers of approximately two hours' duration. A general clean-down of bus-bars, insulators, etc. was essential owing to soot deposits and this job was done on June 3rd-4th, when Tonquin Substation was totally shut down from 11.00 p.m. June 3rd - 7.00 a.m. June 4th. This affected all industrial consumers supplied from this Substation.

During the month the large Textile Mills suffered an average loss per mill of approximately 35 production hours due to enforced load reduction. In order to eliminate the injustice of this burden being borne entirely by one industry, it was decided, with the approval of the Bureau of Public Utilities, to request other industrial plants, with a maximum demand of 100 kW or more, to shut down one weekday per week from 8.00 a.m. - noon and 2.00 p.m. - 5.00 p.m. This scheme, which is similar to the one in operation from September 16th, 1946 - March 10th, 1947, became effective as from June 30th, and it is estimated that the reduction in load will be approximately 3,000 kW per day. Public utilities, food industries and banknote printing plants have been excluded from the scheme.

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The loss of sales potentiality due to enforced load reduction imposed on Cotton Mills amounted in June to approximately 4,392,000 kWh and about 648,000 kWh due to load reduction applied to the Chapel and French Companies. Deducting the gain of approximately 1,830,000 kWh as a result of the Sunday working schedule, the total loss of sales potentiality due to insufficient generating capacity was approximately 3,210,000 kWh as compared with 1,720,000 kWh last month. The large increase this month is due to the increased outages of generating plant as outlined earlier in this Report. Voluntary load reduction is still being calculated as lost sales.

During the month, with good weather conditions, the average Station potential demand was about 163,000 kW in the forenoon, 147,000 kW in the afternoon and 156,000 kW in the evening. Adverse weather conditions during daytime, e.g. thunderstorms which are prevalent at this season of the year, caused an increase in potential demand of 10,000 - 12,000 kW due to increase in lighting load. With all T.G. plant, except T.G.'s 1 and 2, available, Riverside could negotiate a maximum sustained demand of about 146,000 kW with instantaneous peak demands of 156,000 kW in the evening when the power factor is higher. Whereas with "C" Station also out of commission, the maximum sustained demand that could be negotiated was approximately 134,000 kW and instantaneous peak demands of 146,000 kW in the evening.

The following load prospects were recorded during the month:-

NEW LOAD:

Name: Woo Ho Weaving Factory.  
Address: 1013 Whashing Road.  
Connected Load: 200 H.P.  
Estimated Maximum Demand: 100 kW.  
Estimated Annual Revenue: CN\$220,000,000.-

This is a new knitting factory to manufacture underwear and supply, required about August of this year, will be given at low voltage.

There is a possibility that the factory may be extended in about a year's time, creating an increase in demand of about 160 kW. If this should materialize the supply voltage would have to be changed to 6.6 kV and consumer has been advised it would then be necessary for him to provide his own transformer.

Name: Hung Dah Rubber Factory.  
Address: 355 Chining Road.  
Connected Load: 1,000 H.P.  
Estimated Maximum Demand: 550 kW.  
Estimated Annual Revenue: CN\$210,000,000.-

This is a new factory, development of which is expected to take place in two stages, as follows:-

1st Stage - Machinery consisting of 5 rubber rollers and auxiliaries, expected to be installed by October of this year - Estimated Demand: 160 kW.

2nd Stage - Additional 15 rubber rollers to be installed by the end of 1948 - Estimated Additional Demand: 290 kW.

Supply for the ultimate demand of 550 kW would be given at 6.6 kV, but as the second stage of the scheme is at present considered doubtful, it is planned to supply the first stage at low voltage.

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Name: Chung Yuan Paper Factory  
 Address: 2180 Yangtzepoo Road.  
 Connected Load: 9,000 H.P.  
 Estimated Maximum Demand: 6,000 kW.  
 Estimated Annual Revenue: CN\$17,300,000,000.-

The erection of this factory to manufacture wood pulp will introduce a new industry into the Shanghai area. The main load will consist of 2-4,000 H.P., 2,300 V. synchronous motors to drive the wood crushing plant, with additional 380 V. motors aggregating 1,000 H.P. for driving auxiliary plant. Development will take place in two stages, as follows:-

1st Stage - Supply for an estimated load demand of 3,000 kW will be required about the end of this year.

2nd Stage - Supply for an estimated additional load demand of 3,000 kW will be required early in 1949.

It is planned to give supply for the ultimate load demand of 6,000 kW direct from Riverside at 23 kV, but owing to the present shortage of 23 kV equipment, the first stage of the scheme will probably be supplied temporarily from Chaoyang Substation.

The consumer has been advised regarding the type of equipment to be ordered.

ADDITIONAL LOAD:

Name: Chong Shing Spinning & Weaving Co. Ltd.  
 Address: 11 Robison Road.  
 Additional Load: 650 H.P.  
 Estimated Additional Maximum Demand: 420 kW.  
 Estimated Additional Annual Revenue: CN\$1,250,000,000.-

The consumer plans to install an additional 14,000 spindles which will bring the total demand up to 750 kW. Supply for the additional load will be required about August of this year.

The supply voltage, at present 380 V., will be changed to 6.6 kV and the consumer has already ordered two 600 kVA transformers and two high voltage oil circuit breakers from a local manufacturer.

In the course of the month supply was given to the following new loads:-

(1) Hwa Foong Worsted Mill - 66 Linching Road.

This prospect was first mentioned in our Report for January 1947. Supply is given at low voltage from a 325 kVA transformer installed in consumer's substation.

The estimated load demand is approximately 200 kW and it is expected to yield an annual revenue of CN\$230,000,000.-.

(2) Shanghai Iron & Steel Works - Whangshing Road, Chapei.

This factory is located in the Chapei Company's franchise area and the prospect was first referred to in our Report for April 1947.

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Supply is given at 6.6 kV from S.P.C. overhead lines to Chapel Company's overhead lines, through H.V. drop-out fuses, installed at a point close to the boundary between the franchise areas.

It has been agreed that the maximum demand must not exceed 1,000 kW and it is expected that the annual revenue will be CN\$1,450,000,000.--.

The agreement is that electricity bills at standard Industrial Rates will be sent to the Chapel Company, who will in turn bill the consumer.

All revenues mentioned in this Report are based on net rates in force during the month, viz:-

CN\$530 - per kWh for consumption of electricity up to 50,000 kWh  
and CN\$570 - per kWh for consumption in excess of this amount.

Power Installation Inspections:-

The following inspections were made during the month:-

<u>No. of Inspections in June</u>	<u>Unauthorized Additions</u>
251	31

RESIDENTIAL SECTION

Domestic Cooking - Cooker movements for the month of June continued on a low level. The number of cookers connected was slightly higher than the number disconnected, resulting in a small increase in the total figures. No new cooker connections were made, while all cookers connected during the month were transfers.

Showroom - Work in the showroom has been comparatively dull, which is not unusual during the summer season. No electric fans have been sent in for display this summer for dealers knew that we are not interested in displays at present.

Home Service - Routine work was carried out by this department. Many calls for investigation of "high consumptions" were attended to this month at the request of consumers.

Radiators & Water Heaters - The number of hired radiators returned this month was not as high as last month. A check from our records of all the radiators returned revealed that the majority of the returns were from ordinary domestic and commercial consumers. There are, however, still many radiators kept on hire by doctors, hospitals, etc.

No movement in Water Heaters was recorded.

Refrigerator Sales - Dealers reported that sales of new refrigerators continued to be low with only a slight increase over the previous month's figure.

HIRED PLANT INSTALLATION & MAINTENANCE SECTION

## Workshop output:-

Motors repaired .....	11 pcs.
Oil Switches & Starters overhauled .....	6 "
Cookers repaired & tested .....	30 "
Water Heaters repaired & tested .....	5 "
Hot Plates fabricated .....	362 "
Service Calls attended .....	1,041

## Hired motors:-

New Connections - 2 motors aggregating 41 H.P.  
Disconnections - Nil

Two major breakdowns occurred - one was a worn bearing, the other the stator coils burnt out.

Miscellaneous work accounted for 344 man-days, most of which was for the Head Office Mess Room, 4th Floor library and Compradore's office.

Recent arrivals of vital material and Chromalox surface units will be a great help to our maintenance of cookers.

ADVERTISING SECTION

Newspapers - The following are notices which have appeared this month:

"Revised Rates" was published in the English, Russian and Chinese Language newspapers on June 10th, 1947.

"Neon and Fluorescent Lighting Installations" was inserted in all the local leading dailies on June 25th and 26th, 1947. This notice was jointly put in by the Shanghai Power Company, Western District Power Company of Shanghai, Federal Inc. U.S.A., Compagnie Francaise de Tramways et d'Eclairage Electriques de Shanghai, The Chapel Electricity & Waterworks Co. Ltd., Pootung Electric Supply Co. Ltd., and Chinese Electric Power Co. Ltd. Therefore, the bills will be paid proportionately by the six above-mentioned Companies. The notification contained the statement that all new Neon and Fluorescent Lighting installations must be equipped with adequate capacitors before connections could be given and that existing installations having no capacitors in circuit must be registered with the Company. Consumers with this form of lighting are allowed a six months' time limit to order and install capacitors, failing which the installations would be disconnected without notice.

An announcement of "Entrance Examination for Student Engineers" was inserted in the Shun Pao, Sin Wan Pao, Ta Kung Pao and Chung Yang Jih Pao on June 26th and 27th, 1947. It was a joint notice by the Bureau of Public Utilities, Shanghai Municipal Government, and Shanghai Power Company. This programme for training electrical engineers was sponsored by Dr. T.C. Tsao, Commissioner of Public Utilities in cooperation with the Shanghai Power Company. Student engineers will be admitted to Class of 1947 to undergo a period of training in Shanghai Power Company. The aim of this training programme is to turn out qualified engineers urgently needed to rehabilitate and develop the electrical industry in this country.

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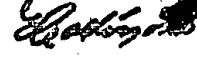
On July 4th, 5th and 6th, 1947, a Position Vacant (Personnel Office) advertisement was inserted in the North China Daily News, China Press, Shun Pao and Sin Wan Pao.

The "Russkoye Slovo" and "Shanghai Echo" approached us for our Notices but were told that we shall advertise in the respective dailies in the near future when the Company will advertise more extensively. The former is the only local White Russian daily - first publication June 1st, 1947. The latter is a Jewish Emigrant daily printed in the German language, published since May 1940.

Articles appeared in the North China Daily News and China Press under the following headlines: "Utility Charges To Be Doubled", "Public Utility Bureau Revives Training Of Utility Men", "Subsidies For Utility Firms Not Yet Halted", "Engineers Inspect Riverside".

The following appeared in the Shun Pao and Commercial Journal: "Due To Special Circumstances The Shanghai Power Company Is Given A Higher Increase", "Different Air-Conditioning Rule For Different Localities".

Magazines - The "Utility Monthly" repeated the last advertisement.



A. E. Colterjohn  
Assistant Consumers' Engineer

cpo



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WESTERN DISTRICT POWER COMPANY OF CHANDLER, PA.  
FEDERAL INC. U.S.A.JUNE STATISTICSAnalysis of K.W.H. Sales

	<u>This Year</u>	<u>Last Year</u>	<u>Increase</u>	<u>Increase</u>
				<u>%</u>
Residential Lighting)	1,588,293	857,650	730,643	85.2
Commercial Lighting )				
Residential Heating & Cooking)	607,005	410,133	196,872	48.0
Commercial Heating & Cooking )				
Bulk Supply Industrial	11,014,429	6,850,462	4,163,967	60.8
Bulk Supply Commercial	45,813	7,416	38,397	517.8
Small Power	2,866,715	1,594,228	1,272,487	79.8
<u>Public Utility:</u>				
Chapel Co.	849,600	1,031,400	-181,800	-17.6
Private Street Lighting	11,337	9,302	2,035	21.9
Municipal Street Lighting	23,097	23,763	-666	-2.8
Municipal Others	235,548	213,609	21,939	10.3
<u>Total</u>	<u>17,241,837</u>	<u>10,997,963</u>	<u>6,243,874</u>	<u>56.8</u>
Total Units Sold (12 months ending June 1947)	172,421,049	65,488,952	106,932,097	163.3
Total Units Purchased (12 months ending June 1947)	182,732,510	78,026,662	104,705,848	134.2
Distribution Losses (12 months average)	5.6%	16.1%	-10.5%	-65.2
Maximum Demand for Purchased Power - kW	30,422	21,556	8,866	41.1

Analysis of Large Industrial Sales in K.W.H.

	<u>This Month</u>	<u>Last Month</u>	<u>Last Year</u>	<u>Increase</u>
				<u>% over</u>
				<u>Last Year</u>
Chinese Cotton Mills	7,254,210	6,827,020	4,087,850	77.5
Other Cotton Mills	3,900	3,900	770,280	-99.5
Total Cotton Mills	7,258,110	6,830,920	4,858,130	49.4
Flour Mills	82,300	83,247	223,075	-63.1
Rubber Products	267,044	264,904	88,950	200.2
Paper Mills	434,083	256,048	87,160	398.0
Tobacco Factories	1,440	-	-	-
Ice & Cold Storage Factories	30,800	23,100	31,400	-1.9
Silk Mills	247,235	233,080	129,025	91.6
Miscellaneous Textiles	1,856,097	1,738,579	1,138,372	63.1
Metal Working	113,075	113,030	45,878	146.5
Woolen Mills	384,375	344,515	187,610	104.9
Miscellaneous Other	339,160	130,430	60,862	457.3
<u>Total</u>	<u>11,014,429</u>	<u>10,017,853</u>	<u>6,850,462</u>	<u>60.8</u>

CONNECTIONS

	<u>This Month</u>	<u>Last Month</u>	<u>Last Year</u>	<u>Increase during month</u>
No. of Customers:	21,114	21,055	19,608	89
" Refrigerators	2,284	2,278	2,207	6
" Cookers (Hired) x	784	778	771	6
" Radiators { " } x	272	299	397	-27
" Water Heaters { " } x	27	26	23	1
" Misc. Appliances { " } x	29	29	29	-
H.P. of Motors { " } x	4,628	4,580	3,514	48

x Hired from S.P.C. and included in S.P.C. Statement

CONNECTED LOAD

K.W. Lighting	15,060	15,000	14,215	60
" Heating: Comprising	(7,331)	(7,335)	(7,542)	(-4)
" Cookers	5,673	5,609	5,507	64
" Radiators	1,276	1,357	1,698	-81
" Water Heaters	60	58	52	2
" Miscellaneous	322	311	285	11
" Motors	66,569	65,209	64,226	1,360
" Industrial Heating	1,051	1,051	867	-
" Total	90,011	88,595	86,850	1,416

MONTHLY MOVEMENT IN CUSTOMERS

	<u>Total All Classes</u>
Total Customers Reconnected	18
Total Customers Disconnected	35
Loss	17
Total New Customers Connected	106
Total Increase During Month	89

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COMMENTS: TOTAL KILOWATT-HOUR SALES

The reading month was as follows:

	<u>June</u>	<u>May</u>	<u>Increase</u>
Schedule Rate Consumers	30.91	30.48	1.4%
Bulk Supply Consumers	31.80	30.00	6.0%
Municipal Consumers	31.00	31.00	-

Total Kilowatt-Hour Sales for June were 17,241,837 kWh compared with 16,200,000 kWh in May. This increase of over 1,000,000 kWh was almost entirely due to higher usage by Industrial Bulk Supply Consumers.

Residential & Commercial Lighting usage showed no change, and

Residential & Commercial Heating usage showed only a slight increase (6%), approximately equal to the number of new consumers.

The tendency to increased individual usage for these two services seems to be at least temporarily checked by the recent rate revisions from \$325.- to \$1,130.- per kWh.

Industrial Bulk Supply Consumers took 11,014,429 kWh this month against last month's total of 10,000,000 units. This is a 10% increase and thus 4% more than due to the reading period. Higher usage by Cotton Mills (both Spinning & Weaving) caused the increase, as other industries showed smaller changes.

Commercial Bulk Supply (Country Hospital) showed no change.

Small Power totalled 2,866,715 kWh against 2,830,000 last month.

Chapel Company took only 849,600 kWh in June compared with 940,000 kWh in May.

Public & Municipal Street Lighting showed no change. Approximately 120 lamps on Hungjao Road, outside the railway, were connected during the month.

Municipal Others took 235,438 kWh - the same as last month.

ANALYSIS OF LARGE INDUSTRIAL SALES

Cotton Mills showed an appreciable gain from 6,800,000 kWh in May to 7,258,110 kWh in the current month. The increase was general as all the 11 mills in the group gained. The C.T.I.I.-operated Shanghai Cotton Spinning & Weaving Mill No. 6 used 2,225,000 kWh - a new post-war high for an individual consumer.

Flour Mills used 82,300 kWh only - the same as last month but only about 25% of last year's high.

Rubber Products maintained their high level of operation with 267,044 kWh compared with 265,000 kWh in May, while

Paper Mills increased theirs from 256,000 kWh in May to 434,083 kWh

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in June. Actually, the increase was due to the transfer to this class from Small Power of two consumers, "Hai King Paper Mill" with usage of 72,600 kWh, and "Pao Shan Paper Mill" with usage of 96,233 kWh. The other mills showed small changes only.

Ice & Cold Storage Factories gained seasonally from 23,000 kWh last month to 30,800 kWh in the current month.

Silk Mills took 247,235 kWh, a 6% gain over May's total of 233,000 kWh, corresponding to the longer meter-reading period.

Miscellaneous Textiles showed a good improvement with a usage of 1,856,807 kWh as against 1,738,579 kWh in May. This is an increase of 120,000 kWh, or 7%, which is slightly more than the increase of the reading month. Shirt and Underwear Factories gained more, Printing and Dyeing less, than the average gain for the class.

Metal Working showed no change, which in view of the 6% longer month, means decreased activity.

Woolen Mills' sales, on the other hand, improved from 344,000 kWh in May to 384,375 kWh in June, or by 12.8%.

Miscellaneous Others' consumers showed small changes only, but the total jumped from 130,000 kWh in May to 339,160 kWh in June due to the inclusion in this group of two consumers transferred from the class of "Small Power" - the Tien Yuan Electro-Chemical Works Ltd. with a usage of 157,000 kWh, and Chung Kwang Electro-Chemical Works with a usage of 41,580 kWh.

#### POWER SECTION

The following applications for power service were accepted during the month:-

Reconnections:	2 Applications	totaling	8 H.P.
New Load	: 41	"	" 247 "
T o t a l	: 43 Applications	totaling	255 H.P.

The above total includes 3 applications for deep-well drilling, one for 15 H.P. and two for 35 H.P. each. The remaining applications for loads of from 1 - 5 H.P. cover practically all types of industry in this area.

During the month the following load prospects were recorded:

#### ADDITIONAL LOAD:

Name: Nanyang Rubber Goods Mfg. Co. Ltd.  
Address: 48 Kong Ka Jao, Jessfield Road.  
Additional Load: 150 H.P.  
Estimated Additional Maximum Demand: 90 kW.  
Estimated Additional Annual Revenue: CN\$150,000,000.-

The consumer plans to install 3 new rubber rollers and the additional load will bring the total estimated demand up to 180 kW.

Supply will be given at low voltage from a 225 kVA outdoor type transformer to be installed in consumer's compound.

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Name: Dah Chung Spinning & Weaving Factory.  
 Address: 500 Lincoln Avenue Branch.  
 Additional Load: 900 H.P.  
 Estimated Additional Maximum Demand: 550 kW.  
 Estimated Additional Annual Revenue: CN\$2,100,000,000.--.

This consumer at present operates two factories, one at 544 Warren Road (formerly Lee Ming Cotton Mill) and the other at Kong Ka Jao, Jessfield Road. It is planned to erect a new factory and transfer the machinery from the aforementioned factories to the new location. Additional machinery has also been ordered from abroad.

This project has been held up for some months owing to difficulty experienced in procuring a suitable site. However, the building permit has now been granted by the Bureau of Public Works and it is expected that building construction will start very soon.

The development of the factory will take place as follows:-

- 1st Stage - 10,000 spindles to be transferred from 544 Warren Road, Supply required about November 1947 - Estimated Maximum Demand: 300 kW.
- 2nd Stage - 5,000 spindles transferred from Kong Ka Jao, Jessfield Road, plus 200 new looms - Supply for additional load required about January 1948 - Estimated Additional Maximum Demand: 250 kW.
- 3rd Stage - 15,000 new spindles ordered from abroad. Supply for this load will be required early in 1949. Estimated Additional Maximum Demand: 450 kW.

Supply for the final demand of 1,000 kW will be given at 23 kV, but as a temporary measure the first and second stages will be supplied at 6.6 kV.

The consumer has been advised regarding the purchase of suitable 23 kV equipment.

#### Power Installation Inspections:

The following inspections were made during June:-

<u>No. of Inspections in June</u>	<u>Unauthorized Additions</u>
29	18

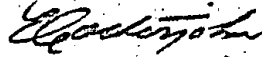
#### RESIDENTIAL SECTION

Domestic Cooking - During the month there were no cookers disconnected in the Western Area, only two cookers were transferred from S.P.C. area, so a small increase in the total number of cookers connected was recorded. No new business was transacted.

Home Service - Few "high consumption" calls were attended to by this department. Routine work continued normally.

Radiators & Water Heaters - A fairly large decrease in the number of radiators rented was recorded for the month.

There was an increase of one water heater recorded this month. This increase was also due to transfer from one area to another.



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MONTHLY GENERATION REPORT

MONTHLY GENERATION REPORT

JUNE 1947

OUTPUT & PERFORMANCE DATA

	A	B	C		D		E
	Total Station Net Output Kwh	Plant Load Factor %	St B Gross Generation Kwh	% of Total	St C Gross Generation Kwh	% of Total	Overall Heat Consumption Kwh/net Kwh
June 1947	73,971,874	101.837	59,844,009	80.89	14,017,000	19.43	19,083
May 1947	60,910,610	101.434	41,554,955	67.53	19,355,030	31.63	20,509
June 1946	57,363,024	117.073	23,733,577	41.39	-	-	21,744
June 1941	53,903,931	122.473	54,657,030	53.00	-	-	19,703
\$ increase over							
May 1947	-	0.03	-	-	59.97	-	-
June 1946	57.71	57.89	45.43	-	-	-	-
June 1941	41.83	21.93	13.24	-	-	-	0.80
\$ decrease from							
May 1947	3.41	-	3.10	-	-	-	3.43
June 1946	-	-	-	-	-	-	0.84
June 1941	-	-	-	-	-	-	-

	Hourly Station Net Output Kwh	St B Hourly Gross Generation Kwh	St C Hourly Gross Generation Kwh
June 1947 (720 hr)	109,658	84,603	23,079
May 1947 (744 hr)	109,763	53,835	17,184
June 1946 (720 hr)	70,644	37,209	-
June 1941 (744 hr)	73,143	57,641	-
\$ increase over May 1947	0.83	-	34.31
\$ increase over June 1946	57.71	45.50	-
\$ increase over June 1941	45.93	-	-
\$ decrease from May 1947	-	1.94	-
\$ decrease from June 1941	-	0.44	-

Remarks -

The lower heat rate compared with May 1947 due to (1) better load factor; (2) higher St C generation.

The better economy compared with June 1946 due to (1) higher St B generation; (2) 1/3 of St C; (3) better load factor; (4) less percentage of St use.

The slightly higher heat rate (despite better St load factor and 1/3 of St C) compared with June 1941 due to the fact that a great part of the increased load demand has to be met by less efficient (almost obsolete) units in St A.

IV

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STEAM-GENERATORS

SG No.	Date o/o	Hours 1/o	Hours o/o	Type of Inspection & Work Done	Hr not Avail-able	Total Hr Oper-ated	Operating Hr Since Last Overhaul
31	5/31	7	168	Leaky Es and Stop Valve joint repaired (IDU) - All check valve joints bolted to manifold and LH side economiser inlet feed lines, Es header inlet joint and check valve cover joints remade. Both joints of boiler RH main feed valve remade. Boiler stop valve cover joint remade. Pinholed valve body of Sh steam sampling valve welded and tested. Various parts and auxiliaries inspected, cleaned, checked, minor repairs made.			
	29	30	0	Aux 'A' electrical equipment routine cleaned.	168	553	1 763
30	29	29	8	Copes valve changed (IDU) - Whistle ground and machined.	8	694	8 353
29	10	10	8	IDF inspection (IDA).			
	19	19	10	Damaged IDF motor replaced by temporary spare of 200 hp (IDU).			
	21	22	12	Es examination (IDA) - Es press tested, examined. Ry-lift safety valve ground. Es outlet header welded. RH Sh drain changed. 3 steam range joints remade.			
	24	24	4	IDF motor replaced by 450 hp spare (IDA) - PAF fibre washer renewed, center bearing adjusted, oil changed.	28	608	10 929
28	8	9	3	IDF rebalanced (IDA) - Motor outer bearing examined, cleaned.			
	18	18	8	IDF examined (IDA) - IDF rebalanced, motor outer bearing examined, slip ring and brush-gear overhauled, new contacts fitted.			
	16	17	20	Es leak repair (IDU) - 4 Es tubes renewed. 1 holed Es tube welded.	28	678	8 697
27	15	16	9	Es leak repair (IDU) - 1 Es cap rejoined. IDF motor bearing examined, cleaned, COB overhauled.			
	30	30	8	Copes valve joint remade (IDU).	16	609	9 916
26	14	15	80	Es leak repair (IDA) - One Es tube and cap nipple renewed. One leaky nipple re-expanded, 11 caps rejoined. Grate repaired; 5 ash pusher plates, 1 connecting rod and 2 stroke adjuster bolts renewed. Furnace and ashpit brickwork repaired. Es press tested.			
	21	22	15	Es leak repair (IDA) - 1 Es nipple renewed, 1 Es nipple re-expanded, 14 Es caps rejoined. Drum air valve overhauled, grate washed and inspected. 10 ash pusher plates, 14 tuyeres and 1 connecting rod renewed. Es press tested.	33	626	6 488



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EG No	Date		Hours o/c	Type of Inspection & Work Done	Hr not Avail- able	Total Hr Oper- ated	Operating Hr Since Last Overhaul
	o/c	1/c					
25	5/31	1	5	Repacking of soot blower valve completed (IDA) - Total time o/c = 6 hours.			
	23	23	4	Unit o/c for remaking leaky joints on steam transfer line (IDA) - 2 lengths of EH blowdown piping renewed.	7	709	8 552
24	23	29	25	Routine cleaning (IES) - Unit soot cleaned. Grate washed, inspected. 200 tuyeres, 25 ash pusher plates renewed. All valve gland packing added. Ph washed. LH rear furnace wall rebuilt.	25	561	5 215
23	-	-	0	Ph washed.	0	716	9 781
22	5/31	1	6	Ea leak repair completed (IDU) - Total time o/c = 37 hours. One Ea tube renewed. Grate examined, 40 tuyeres, 20 ash pusher plates, 3 dumping bars, 1 deflector plate and 1 rotor throat changed. Furnace brickwork repaired. Unit press tested.			
	15	20	103	Routine cleaning (IES) - One Ea header renewed and new tubes (10), nipples, dist tubes fitted. 1 leaky Ea tube and 1 outlet nipple renewed. 41 Ea caps and 3 Sh caps renewed. 8 Sh Copes drain valves overhauled. Grate washed and inspected. Furnace and ashpit brickwork repaired. Ph washed. Unit press tested.			
21	8	8	6	FOB tip steam cleaning system installed (IMS). Safety valve casing gear fitted. Ph washed, defective elements removed.	112	492	4 175
20	14	15	20	Unit roughly cleaned (IDA) - 5 Ea caps rejoined. Sh drain valve flange and Copes valve steam pipe flange welded, machined. All valve gland packing added. Grate washed. 1 side bar, 80 tuyeres, 8 dumping bars, 16 ash pusher plates, 8 connecting rods and 3 stroke adjusters renewed. Ashpit water service cleaned. Furnace brickwork repaired. Ea press tested.	6	708	10 885
19	15	15	4	Additional resistance fitted to starter to increase fan speed (IES) - Fuel oil trip valve wiring completed.	20	406	3 075
18	5/31	1	6	Ea leak repair completed (IDA) - Total time o/c = 15 hours. 1 dist tube re-expanded, 3 Ea caps rejoined, Ea press tested.	4	703	1 193
	10	12	37	Routine cleaning (IDU) - Leaky dist tubes re-expanded or renewed. Leaky Ea caps rejoined. 150 tuyeres, 16 ash pusher plates, 1 dumping bar renewed. Ashpit water service cleaned. Soot blowing system cleaned, checked. Ea press tested.	45	310	1 993

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SG No	Date		Hours o/c	Type of Inspection & Work Done	Hr not Avail-able	Total Hr Oper-ated	Operating Hr Since Last Overhaul
	o/c	i/c					
17	7	8	13	Routine cleaning (DS) - Copos valve steam pipe joint remade. 3 Sh caps renewed. 1 strickle door realigned. 2 gear boxes overhauled.	13	238	9 545
16	15	15	14	FDF outer bearing overhauled (DS).	36	661	14 149
	17	17	1	FDF engine replaced by motor (DS).			
	18	18	2	FDF inner bearing examined (DS).			
	24	24	19	Es leak repair (IDU) - 2 corroded Es tubes renewed, 2 leaky Sh caps rejoined.			
15	16		360	Partial overhaul after 2553 hr operation progressing (DS).	360	352	2 555
14	15	15	14	FDF outer bearing overhauled (DS).	91	604	15 013
	17	17	1	FDF engine replaced by motor (DS).			
	18	18	2	FDF inner bearing examined (DS).			
	27		74	Repair re to furnace brickwork progressing (DS) - General examination of unit to be made.			
13	-	-	0	---	0	703	1 045
12	7	8	13	Leaky Copos drain and sample water valves overhauled (IDA) - All gph pits cleaned.	13	471	2 774
11	5/24	30	692	Partial overhaul after 1874 hours operation completed (DS) - Total time o/c = 874 hours. Drum opened, examined, wire brushed, cleaned, no active pitting or corrosion found, and painted. All tubes turbo-cleaned, examined, 2 leaky return tubes renewed, remainder of tubes in fairly good condition. Front headers cleaned internally. Sh tubes and headers examined, no scale deposit, tube ends thin at expansion. Es tubes examined, usual soft scale and sludge in tubes, 3 pitted tubes renewed, others in fairly good condition, relief valve overhauled and tested. All mountings and grates overhauled. Dampers examined, baffles sealed, ashpits repaired. New continuous blow piping from mud box installed. Unit press tested, safety valves checked, water alarm adjusted.			
10	-	-	0	Two broken driving links on jammed LE grate cut out.	663	19	19
9	5/31	1	7	Rejointing leaky Sh caps completed (IDA) - Total time o/c = 15 hours.	0	447	1 533
	21	21	3	One leaky return tube re-expanded (IDU) - Drum opened and examined for scale deposit, found in fairly good condition.			
	29	29	7	IDF, FDF motors and OCB cleaned, examined (DS).			
					17	421	5 103

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Notes:- 1. Unscheduled Outages -(a) Units taken out immediately (IDU)

<u>SG No</u>	<u>31</u>	<u>30</u>	<u>29</u>	<u>28</u>	<u>27</u>	<u>26</u>	<u>18</u>	<u>16</u>	<u>9</u>	<u>Total</u>
Times o/c	1	1	1	1	2	1	1	1	1	10
Hours o/c	162	5	10	20	15	6	37	19	8	(277)

(b) Repairs done on a deferred date (IDA)

<u>SG No</u>	<u>29</u>	<u>28</u>	<u>26</u>	<u>25</u>	<u>20</u>	<u>18</u>	<u>12</u>	<u>9</u>	<u>Total</u>
Times o/c	2	2	2	2	1	1	1	1	12
Hours o/c	16	8	53	7	20	6	15	7	(110)

2. Tube Renewals -

<u>SG No</u>	<u>28</u>	<u>26</u>	<u>22</u>	<u>16</u>	<u>11</u>	<u>Total</u>
Boiler Tubes	-	-	-	-	2	2
Econ "	4	1	12	2	3	22

BOILER HOUSE AUXILIARIES -1 - Feed Water Pumps (FWP) -

- FWP 22 - General overhaul after 6720 hr operation. Turbine side inspected, all found good. Pump impeller good, impeller suction wearing ring rebushed, restriction plug reset, screw flange adjusted, suction and discharge gland boxes rebushed and repacked, suction expansion joint annealed. No 1 bearing good, No 2 & 3 bearings reinstalled. O/S gear tested, operated at 6500 rpm. Pump tested, governor adjusted.
- FWP 21 - General overhaul after 7916 hr operation completed. Shaft renewed, but the material was not suitable, pump put in emergency commission. Machining of new shaft of ASEM A96-39, Class B steel progressing.
- FWP 17 - Motor inner bearing\* repaired, oil renewed.
- FWP 14 - Worn out low voltage coil leads renewed. Starter cleaned, examined.
- FWP 12,13,15 - Governor cleaned.
- FWP 9 - Starting switch checked.
- FWP 8 - Discharge and gland sleeve renewed. Pump glands repacked, all bearings cleaned and oil renewed.

2 - Auxiliary Fans in EH 2 -

- FWF 14-16 - Fan disconnected from steam engine, motor belt drive fitted. Burnt outer bearing replaced from IDF 13-15 steam engine.
- FWF 10-12 - Lubricating rings for fan inside bearing adjusted.

RAW COAL HANDLING PLANT -

- Tr 1 - Weighing machine overhauled, worn parts renewed. Several knife edges ground or renewed. Hoisting counter bearings adjusted, one key for gear wheel and one cab wheel renewed. Operating wire and grab chain part renewed. \*Weighing machine tested.

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Tr 3 - Weighing machine clutch spring renewed.  
 Tr 1,2,3 - Controllers and trolley equipment repaired.  
 HT 2 - General overhaul progressing.  
 BT 3 - Wire rope for BC 34 travelling gear renewed.  
 BC 25 - Coal tripper travelling gears overhauled.  
 BC 2,3,11,19,23,26,28,41,42,43 - Routine cleaned.  
 BE 1 - 4 buckets and 3 shafts renewed.

FUEL OIL HANDLING PLANT -

1 - BH 3 & 4 oil heaters cleaned twice.  
 2 - FOP 10 oil end opened, small piece of wood removed.  
 3 - FOH steam drain repaired.  
 4 - FOP 14 all glands repacked, steam valve setting checked.

PULVERIZED FUEL HANDLING PLANT -

FM 1,2,4 - Usual inspection and minor repairs made.  
 FM 3 - General overhaul after 7604 TCM (in 12 months) progressing.

ASH HANDLING PLANT -

1 - Electric Locomotives (LE) -  
 LE 1 & 2 - Routine cleaned.  
 LE 3 - General overhaul completed.  
 LE 4 - General overhaul progressing.  
 2 - Trucks & Tracks - Maintenance work progressing.

TURBO-GENERATORS -

TG No	Date		Hours	Type of Inspection & Work Done	Hr not Avail-able	Total Hr Oper-ated	Operating Hr Since Last Overhaul
	o/c	1/c	o/c				
18	5/30	9	198 $\frac{1}{2}$	Unit o/c for repairing of SG 31 (IDA).	198 $\frac{1}{2}$	581	1 604
16	21	22	14 $\frac{1}{2}$	Routine cleaning (IMS) - O/S gear examined, cleaned, tested, operated at 3270 rpm. Steam cross-over expansion joint welded up.	14 $\frac{1}{2}$	703	3 388
15	12	12	2	Brushgear cleaned and examined (IMS) - Slip-ring brushes near exciter side changed.			
	21	21	7	CP 'A' switch overhauled, oil changed and contacts cleaned (IMS) - Pump motor cleaned.			
	26	26	3	Condenser tested (IDA) - 8 tubes plugged.			
	28	29	12	Condenser tested (IDA) - 7 tubes plugged.	24	697	15 411
14	23	23	2 $\frac{1}{2}$	Condenser tested (IDA) - 1 tube plugged.			
	25	25	6	Condenser tested (IDA) - 2 tubes plugged.	7 $\frac{1}{2}$	698	15 720
13	2	3	7 $\frac{1}{2}$	Routine cleaning (IMS).			
	7	8	5 $\frac{1}{2}$	Installation of condenser by-pass connection valve (IMS).			
	20	21	5	Routine cleaning (IMS).	19	699	1 103
12	3	4	7	) Routine cleaning twice (IMS).	12	700	11 641
	20	20	3				

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TG No	Date		Hours o/c	Type of Inspection & Work Done.	Hr not Avail-able	Total Hr Oper-ated	Operating Hr Since Last Overhaul
	o/c	1/c					
10	7	8	11	Routine cleaning (IMS).	11	671	11 537
9	5/31	1	4	Routine cleaning completed (IMS) - Total hours o/c = 10 hours.	4	693	12 925
8	14	15	11	Routine cleaning (IMS) - CP thrust bearing examined, oil renewed, water jacket cleaned. 23 kv and neutral OCB overhauled; overloaded relay cleaned and tested; step-up transformer cleaned, TP alignment checked, coupling renewed and bolts and washers changed.	11	638	10 450
7	12	12	7	Governor examined, condenser tested and oil cooler cleaned (IDA) - 3 condenser tubes plugged.			
	17		356	General overhaul (after 10,037 hours operation) progressing (IMS).	343	201	-
5	7	8	10	Routine cleaning (IMS) - Main steam strainer examined.			
	25	25	2	Condenser tested (IDA) - One tube plugged.	12	661	7 675
4	5/31	1	5	Routine cleaning completed (IMS) - Total time o/c = 5 1/2 hours.			
	14	13	12	Routine cleaning (IMS) - Main steam strainer examined and cleaned; north condenser CB inlet valve No 81 repaired.	17	681	8 343
2	5/28		720	Unit not put back 1/c (IDA) - Generator removed, to be used for TG 1.	720	0	1 366
1	1		698	Generator stator burnt out (IDU) - TG 2 stator installed on TG 1 with original TG 1 electric rotor, generator aligned and connected up after pressure test of 6.6 kv cables. Condenser repaired, 150 damaged tubes renewed, all packing changed.	698	4	5 323

Notes:- Unscheduled Outages -(a) Units taken out immediately (IDU) -  
TG 1 - o/c 698 hours for burnt out stator.(b) Repairs done on a deferred date (IDA) -

TG No	13	15	14	7	5	Total
Times o/c	1	3	3	1	1	7
Hours o/c	198 1/2	15	7 1/2	7	2	(230)

TURBINE HOUSE AUXILIARIES -1. - Circulating Water Pumps (CWP) -

- CWP 24-26-23 - Starting switches overhauled, main switches cleaned and motor cleaned.
- CWP 24 - Pump opened up, wood obstacles removed, impeller found good, thrust bearing pad renewed.
- CWP 23 - General overhaul after 7306 hours operation; work progressing.
- CWP 21-22 - Supply cables re-connected to Ferguson-Pullin Board.
- CWP 15 & 17 - Switch overhauled, motor cleaned.

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2 - Service Water Pumps (SWP) -

- SWP 3 - General overhaul progressing.
- SWP 2 - General overhaul after 5689 hours operation.  
Impeller good, wearing rings renewed and neck rings skimmed. No 1 impeller boss ring renewed, No 2 OK. Balance discs and seat skimmed, shaft and keys, bearings all good, coupling OK. Bolts and washers changed, motor cleaned and switch overhauled.

3 - Air Compressors (Op) -

- Op 1 - Routine cleaned, safety valve tested - 95 psi.

4 - Sump Pumps (SP) -

- SP 1 & 2 - Suction strainers cleaned.
- SP 1 - Burnt contacts on oil switch changed.

FLOATING EQUIPMENT -

- Coal Lighters - Routine repaired.

MISCELLANEOUS MECHANICAL EQUIPMENT -

- 1 - BH 4 main steam range joints remade. MRA/1 and MRA/4 bye-pass overhauled.
- 2 - TG 4 Isolating Valve opened, examined and found good.
- 3 - Office Heating; circulating pump motor changed.
- 4 - BH 4 lift; general examination, wire rope cleaned and regreased.

ELECTRICAL EQUIPMENT -

1 - 23 kv SH Equipment -

- ES 1-2, ES 6-7, EP 2, Ro 2, EP 7, HST 3, AM 80 - Switches overhauled.
- AB 9, 10 - Doubled up and installed in Cell 21.
- AD 13, 14, ES, EP 1, Ro 4, EP 4, ES A, ES 3-4, IT 1 - Routine cleaning and trip test.

2 - 6.6 kv SH Equipment -

- A 1/2, 3/4, 5/6, 7, 8/13, 9, 10, 11/13, ST 6/10 - Routine cleaning and trip test.
- ST 14 - HT and LT OCB overhauled.

3 - Rotary Converters -

- RC 1 - Field rheostats on RC 1 and RC 3 interchanged.
- RC 2 - Supply cable re-connected to Westinghouse Board.
- RC 3 - Burnt armature repaired.

4 - Miscellaneous -

- (a) Main supply cable for foundry installed.
- (b) Reversing switch for coal briquette motor installed.
- (c) WS 7 motor changed for overhaul.
- (d) Station desk fans overhauled.

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RIVERSIDE WAREHOUSE -

- 1 - Overhauled 7 motors, 4 transformers, 2 fan motors, 1 electric drill; machined 120 links fuses; made 3 links and fuse boxes, 100 T/c tubular cable socket, 4 GI trays, 6 6.6 kv link sticks, 30 insulator and terminals, 24 grid type fuses, 24 copper morganite brushes, 70 copper contacts; repaired 1 moving contact, 1 25 kv link stick, 14 carbon brushes; silver plated 9 links and fuses; galvanized 200 GI back plates.
- 2 - Machined 6 valve discs, 1 set carbon packing rings, 169 MS flanges, 60 MS agitators, 4 MS friction clutches, 6 GI side bars, 822 MS and steel bolts, studs, screws, etc., 13 MS shafts, 8 MS punches, 4 MS couplings, 36 MS and brass bushes, 5 GI sprocket wheels, 223 miscellaneous articles for various purposes; ground 300 rubber plugs; made 6 GI flywheel housing, 20 sets FO torch and burner pipes, 1 set Ph elements, 3 copper strainers, 4 load hammers, 3 brass cylinders, 1 steel spring, 40 brass oil rings, 1 set MS float gear cover and GI wheels, 20 sets steel links; repaired 28 copper tubes, 4 sets MS wheels; installed coal briquette machine and coal crusher; reinstalled 18 thrust bearing pads, 1 GI bearing.
- 3 - Made 2 angle iron brackets, 10 MS buckets, 6 MS baffles, 1 MS flange and damper; bent 3 copper joint sleeves, 16 MS pipes; annealed 80 Ex headers; forged 40 flat cold steel chisels, 36 steel springs, 12 MS chains, 560 MS bolts and rag bolts, 4080 lb MS articles.
- 4 - Electric and gas welded 50 concrete pole base frames, 32 pipes and pipe flanges, 4 sets air locks, 1 Ph hopper, 1 grating, 4 ash car wheels, 3 transformer tanks, 2 MS rings, 4 gratings and platforms; electric build up 2 pump shafts, 2 rotor shafts, 2 valve spindles, 40 Sh caps; gas welded 2 condensate pipes, 1 GI bearing housing, 1 GI oil cooler, 1 GI oil heater, 20 sets FO strainers; gas brazed 24 grid type fuse, 2 rotor conductor rings, 35 copper tube ends, 72 brass connectors, 10 brass trolley wheels, 4 copper expansions, 1 Copes valve.
- 5 - Foundry produced: 38,433 lb CI castings.  
513 lb HD brass castings.  
77 lb GP brass castings.  
412 lb copper ingots.
- 6 - Building & Wharf Maintenance:-
  - (a) Repaired roofs over BH 2 and TG 1; windows in office and service buildings; main gates in No 1 Stores.
  - (b) Maintenance work to all plumbing and pipe-work progressing.
  - (c) Repaired roof over Stores 6 & 10; floor tiles in TH; concrete work on ash wharf; yard paving blocks south and north end of TH.
  - (d) Filled in depression with concrete on TG 11 foundation.

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- (e) Erected new brick walls adjacent to Stores 6, 9 and 10; platform below Station "C" raw coal bunker.
- (f) Repairs to steel sashes of TH progressing.

MISCELLANEOUS NOTES

The labour roll at Riverside totals 1334 including 23 Foreign and 85 Local Agreement, 59 Russians, 9 Subsidiary Staff (Foreign Watchmen), 22 Chinese Apprentice Engineers and 1136 Chinese Staff.

The general labour situation has been an exceedingly difficult one during the month, however it showed a slight improvement towards the end of the month. We have had several labour disputes, mainly in connection with the Staffing, etc., of BH 5 both operation and maintenance crews.

The Mill operators from BH 4 protested against being transferred to BH 5, however it is anticipated that a satisfactory solution will eventually be forthcoming.

Difficulties were also experienced with standby shift fitters for BH 5, and it is still impossible to obtain shift fitters from existing staff.

Arrangements are now being made whereby it is thought possible we could dispense with the paying of overtime for burner tip cleaning, etc, by means of providing additional burners and reorganising cleaning program.

Approximately two days were lost on SO 31 outage due to the refusal of the maintenance crew to work overtime when requested, matter patched up on a temporary basis, many factors involved but basically men are pressing for additional staff, in fact a complete maintenance crew for BH 5 which of course cannot be considered.

Turbine House operation staff also objected to being transferred from one group of machines to another, demanded more or less that they only drive certain units, the basic idea being to get more overtime, etc. Matter finally settled satisfactorily after protracted negotiations.

Apart from the sickness racket practiced amongst the TH operators, the situation was further aggravated by the introduction during the month of an annual leave program for the whole staff. The operation staff being frequently reduced to a dangerously low level from various causes.

The workmen were unquestionably anticipating a large increase in staff in order to offset sickness, annual leave, etc; however all attempts to force additional staff have so far been circumvented.

The sickness racket continues, however a change around of Company Doctors was effected with a view to effecting an improvement in sickness absenteeism.



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The average % of absenteeism due to sickness and/or other causes, of the Regular Chinese Staff amounted to 6.86% for the monthly rate, and 11.12% for the daily rate; the sickness % being 2.12% and 3.23% respectively.

General -

The plant continued to be operated at maximum output of available equipment.

Our total station net output decreased slightly from 80,919,810 Kwh in May to 78,971,874 Kwh for June, the decreased output being due to lower Station 'B' output for the month, owing to operating SG 29 at reduced output on account of ID Fan failure.

The hourly station net output increased by 0.85% over May, namely 109,683 Kwh as against 108,763 Kwh.

The Load Factor (based on Gross Generation) increased from 75.68% in May to 76.36% in June.

SG 31 - TG 18 -

These units were shut down from May 31 to June 7, a total of 186 hours during the month.

Shut down necessitated for repair of two leaky check valves on LH side of economiser.

A further eleven joints were attended to including cover joint on HP steam valve on the HP manifold, main feed valve joint on RH side of economiser, pipe flange joint below main feed valve, and refacing of inlet manifold flange on the LH side of economiser, this latter job necessitated removal of manifold to Workshop for machining in order to correct 0.03" mis-alignment.

A stiffer spring was fitted to the Governor Pilot Valve of TG 18, and whilst a slight improvement has been obtained, fluctuation is still considered excessive.

Since recommissioning the Units have continued to operate satisfactorily, with the exception of a leak which developed in the top flange of the shut-off valve for the power control valve; it was found possible to repair this leak without shutting down, but a small leak developed on one of the lower flanges of the shut-off valve, however it is thought that it will not be necessary to shut down for repairs.

Considerable difficulties have occurred in connection with slagging, on one occasion a huge clinker formed across ash hopper compartments which took 7 hours to remove.

It has been decided to provide additional poking holes in ash hoppers and also extend platform on south side for convenience of operators.

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Modifications are being made to Ash Car Bodies (one at a time) with a view to preventing the ash sticking in chutes, the idea being to eliminate acute angle of hopper on the discharge side and modify doors.

Sticking of fuel both in raw coal and EF bunkers still causes considerable trouble, as also jamming of EF Feeder Gear, steps are in hand to overcome this trouble.

#### Westinghouse Board -

The reconnection of Auxiliary equipment to this Board has now been successfully completed except for ST 11 & 12, the latter transformers now being overhauled.

#### Painting -

Painting of coal handling equipment, etc, proceeding satisfactorily, aluminium paint (first coat) applied to IDW ducts, EH 5, found unsatisfactory due to discolouration, matter now being discussed with paint manufacturers.

#### Caltex Construction -

Erection of FOT 4 nearing completion and it is hoped to apply water test in near future.

#### Feed Water -

Considerable attention given to the problem of Feed Water contamination, difficulties being experienced with condenser leakages, particularly with TG 1 & 5 units, although 4 split tubes were found in TG 14 condenser and eight split tubes in TG 15.

The feed water problem is however receiving constant attention, the evaporating boilers in EH 2 are now being thoroughly overhauled in turn, and a more frequent inspection schedule will be enforced in future.

#### TG Units -

A major breakdown occurred on TG 1 stator; it is feared that one phase winding is completely burnt out. It was therefore decided to transfer sound stator from TG 2 unit and rebuild TG 1 which incidentally possesses the best Turbine and Electric Rotor, the condenser to be given a major overhaul and all tube ferrules to be repacked, etc.

The major overhaul of TG 7 unit commenced in accordance with Messrs Parsons' suggestions.

As in previous months, practically all maintenance work other than that occurring due to forced outages, has been carried out during off peak periods, nights and week-ends, etc, thereby necessitating considerable overtime.

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SG Units -

The unscheduled outages show an increase over the previous month namely 10 as against 7; the deferred outages however registered a decrease, namely 12 as against 18 for previous month.

The total hours SG were out of commission for unscheduled and deferred outages however registered a considerable decrease, namely 397 hours as against 591 hours for previous month, and were made up as follows:-

Unscheduled outages - 277 hours as against 415  
Deferred outages - 110 hours as against 176

Tube renewals registered a considerable decrease, namely 24 as against 54 for previous month.

Major maintenance work for the month consisted of the following:-

- SG 31 - o/c 264 hours for renewal of check valve joints, machining of manifold flange face LH side of economiser inlet.  
Renewal joints RH main feed water valve and renewal of joint Boiler Stop Valve on HP manifold, etc.
- SG 29 - o/c 28 hours owing to failure of ID Fan motor. A 200 hp motor installed in place of 400 hp original and unit operated at reduced load, namely 65,000 lb/hr evaporation for approx 7 days.
- SG 22 - o/c 112 hours. Routine cleaning. Renewal of 1 Economiser Header and 12 Economiser Tubes.
- SG 15 - o/c 360 hours for partial overhaul after 2555 hours operation.
- SG 14 - o/c 91 hours. Repairs to furnace brickwork. General examination of unit and cleaning.
- SG 11 - o/c 698 hours for partial overhaul after 1874 hours operation. 2 Return Tubes and 3 Economiser Tubes renewed. All tubes, headers, etc, cleaned and examined.

TG Units -

Unscheduled outages 1 only, namely TG 1 with Stator fault, and deferred outages 7 in number totalling 230 hours occurred during the month.

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Major maintenance work for the month consisted of the following:-

- TG 18 - o/c 198½ hours (due to outage of SG 31).
- TG 7 - o/c 343 hours for major overhaul in accordance with Messrs C A Parsons' suggestions. Unit completely stripped, condenser main expansion joints remade, couplings refitted, new centering rings made, LP wheels being replaced, etc. Work progressing including re-lining and repacking of condenser tubes.
- TG 1 - o/c 698 hours. Stator fault, one phase burnt out. Stator transferred from TG 2 unit. Condenser packings completely renewed, also 150 damaged tubes.

The total outages from all causes apart from major outages outlined above amounted to 130.75 hours only.

#### Electrical -

The re-connection of Auxiliaries to the revamped Westinghouse Board has now been completed, except for ST 11 & 12, these transformers are now undergoing a major overhaul.

Other work confined to routine overhauls, except for major breakdown of RC 3 armature which has only recently been completely rewound, exact cause of failure indeterminable.

Armature has again to be completely rewound, main damage caused by bursting of binding wire band, which however was not held to be fundamental cause of failure.

#### Fuel Oil Supply Tanks -

The erection of second 10,000 bbl tank FOT 4 by Galtex now well advanced, hope to apply water test early next month.

Erection of Galtex third 109,000 bbl tank practically completed.

Delivery of Fuel Oil has not presented any major difficulties this month, measuring of tanks, etc, running smoothly.

Our fuel oil consumption for the month totalled 29,673 long tons, the max daily consumption being 1,074 tons, and the average daily consumption for the month being 989.1 tons.

Some additional fuel oil pumping equipment has arrived in Shanghai and we are expecting delivery shortly.

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Workshops -

The Workshops continue to be loaded down with work.

An appreciable amount of work has been placed outside with contractors, but it is still being found necessary to work night shifts on certain work.

Buildings -

Owing to a strong anti cyclone which occurred during the month, considerable damage was done to various roofs of buildings. No 3 Store was damaged beyond repair and will have to be completely rebuilt.

Fuel -

Coal receipts were 14,688 tons during June, made up of 2 kinds of coal. 15,260 tons were burned and 102 tons issued by Stores, making a total of 15,362 tons. Total stocks on July 1, 1947 (8.00 am) were 29,523 tons, consisting of 22,634 tons on mechanical storage, 3,689 tons on dead storage and 3,200 tons in bunkers. Coal deliveries during the period were 674 tons less than burned plus issued, and stocks were decreased a like amount.

Oil receipts were 50,504.77 tons during June, and 29,673 tons were burned. Total stocks on July 1, 1947 (8.00 am) were 1,724.31 tons.

Mud Dredging -

During the month 4,160 cubic yards of mud (26 lighters of 160 cubic yards per lighter) dredged from in front of our wharves and pump houses.

Coke & Briquettes -

During the month 270,984 lb of coarse coke were recovered from ashes, of which 67,745 lb of coarse coke were issued to the coke recovery contractor and 50,252 lb of coarse coke were issued for Company use, and 653,053 lb in Stores on July 1, 1947.

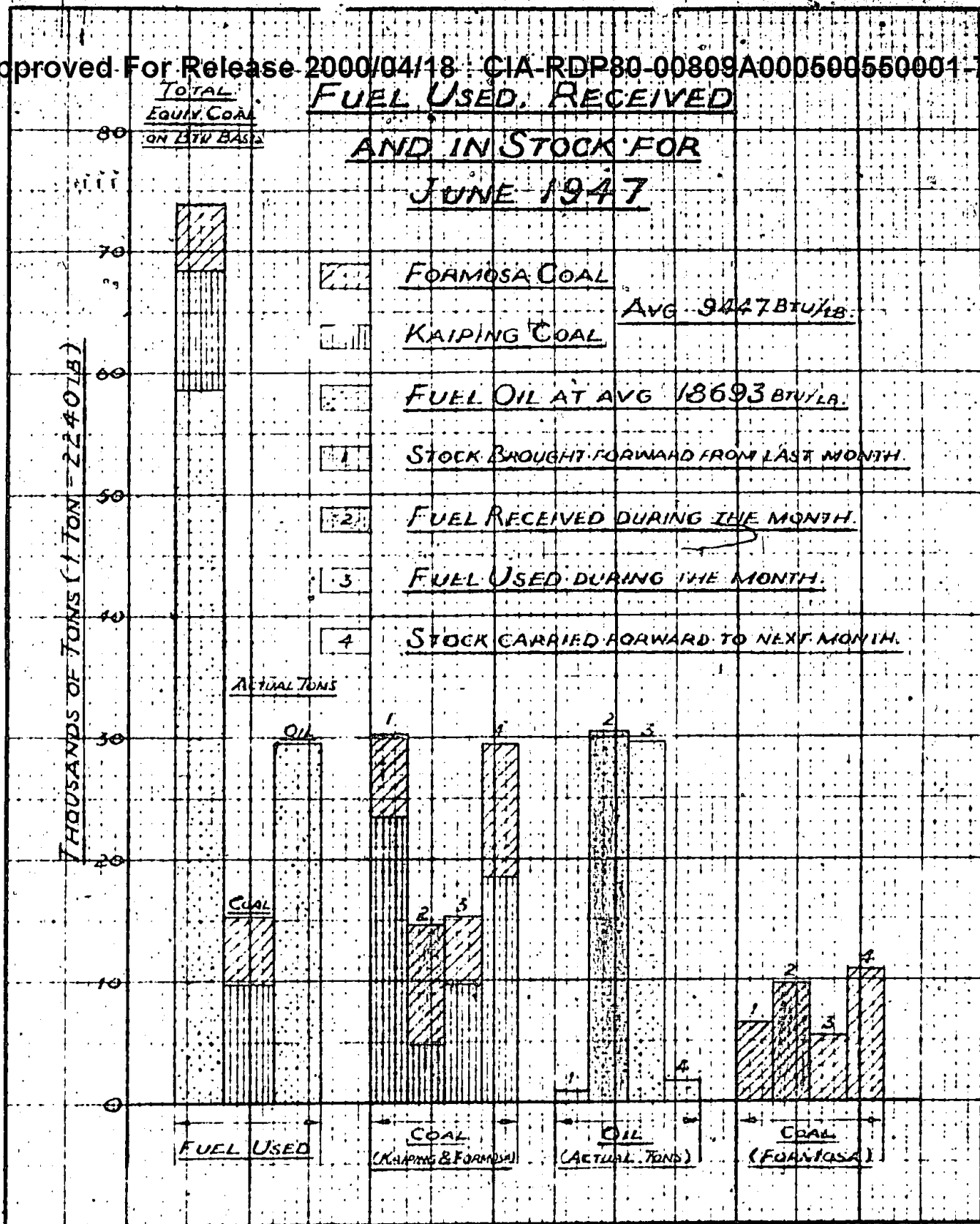
During the month 93.6 metric tons of anthracite coal were received from the Fuel Control Commission, and 91.2 tons issued for the manufacture of briquettes for sale to employees, total amount of briquettes issued was 297.60 tons.

  
C J Fleaco

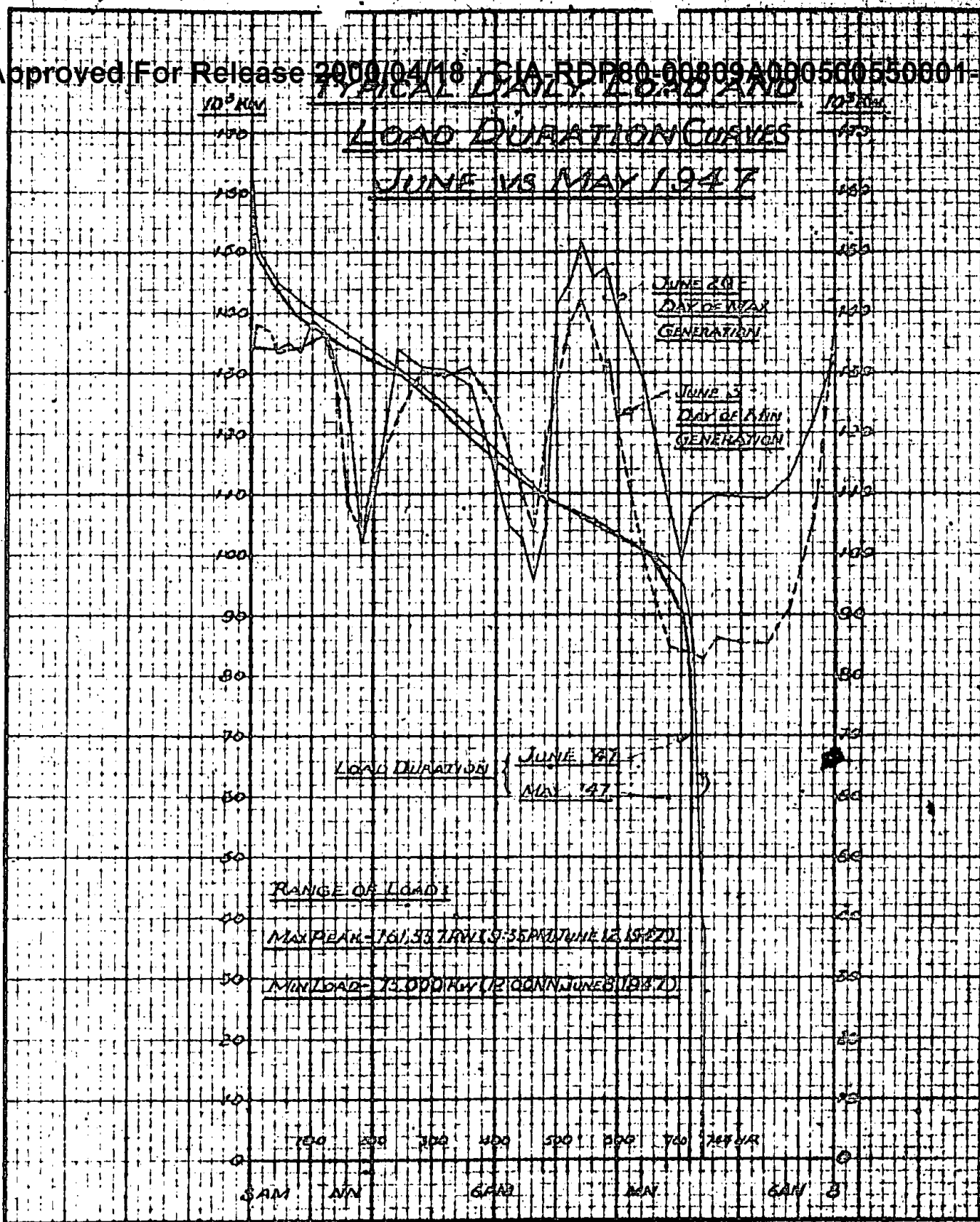
CJP/S

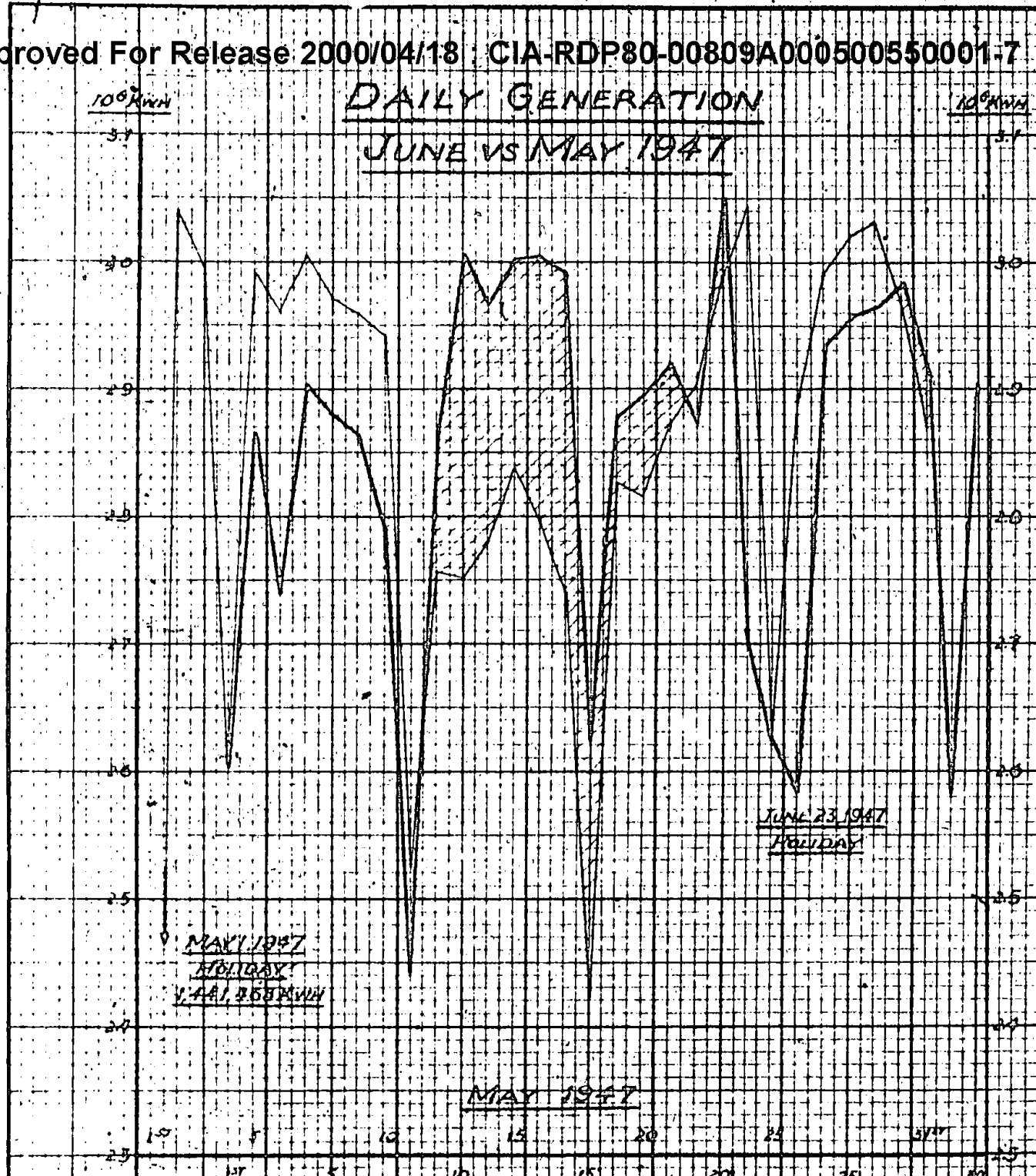
Encls: SG Water Report  
TG Oil Report  
Characteristic Curves

Shanghai, July 24, 1947.



TYPICAL DAILY LOAD AND  
LOAD DURATION CURVES  
JUNE VS MAY 1947







RIVERSIDE STEAM ELECTRIC STATION  
SHANGHAI POWER COMPANY  
CHEMICAL LABORATORY

**ANALYSIS**  
**BOILER WATER ANALYSIS**

DATE

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TIME	ALKALINITY PARTS PER MILLION EQUIV. Na <sub>2</sub> CO <sub>3</sub>		SODIUM SULPHATE PPM	RATIO	Na Cl	Ca, Mg	SiO <sub>2</sub>	Na <sub>2</sub> SO <sub>4</sub>	pH	K MICROBARS	CIBICITIC ACID	CHEMICALS ADDED LB				BLOW DOWN INCHES	REMARKS
	CARBONATE	CIBICITIC										SODIUM SULPHATE	SODIUM CHLORIDE	SODIUM PHOSPHATE	SODIUM SILICATE		
1	22	23	200	1.4	980	6	20.0	22.0	22.0	22.0	40	0	0	0	0	2.5	
2	20	20	190	1.4	485	5	20.0	21.0	20.0	20	20	0	0	0	0	1.5	
3	20	20	172	1.3	210	5	20.0	19.0	20.0	20	20	0	0	0	0	7.5	
4	20	20	187	1.9	777	6	20.0	20.0	20.0	20	20	0	0	0	0	6.5	
5	27	24	202	1.0	210	9	21.0	21.0	20	20	0	0	0	0	0	2.0	
6	21	21	202	1.0	896	6	20.0	20.0	20.0	20	20	0	0	0	0	2.0	
7	25	25	188	1.6	70	2.0	20.0	20.0	20.0	20	20	0	0	0	0	2.0	
8	24	24	88	1.0	21	4	20.0	20.0	20.0	20	20	0	0	0	0	2.0	
9	21	21	146	1.0	82	20	20.0	20.0	20.0	20	20	0	0	0	0	2.0	
10	20	20	171	1.6	70	2.5	20.0	20.0	20.0	20	20	0	0	0	0	2.0	
11	20	20	197	1.0	82	20	20.0	20.0	20.0	20	20	0	0	0	0	2.0	
12	20	20	197	1.0	70	2.5	20.0	20.0	20.0	20	20	0	0	0	0	2.0	
13	20	20	197	1.0	70	2.5	20.0	20.0	20.0	20	20	0	0	0	0	2.0	
14	20	20	197	1.0	70	2.5	20.0	20.0	20.0	20	20	0	0	0	0	2.0	
15	20	20	197	1.0	70	2.5	20.0	20.0	20.0	20	20	0	0	0	0	2.0	
16	20	20	197	1.0	70	2.5	20.0	20.0	20.0	20	20	0	0	0	0	2.0	
17	20	20	197	1.0	70	2.5	20.0	20.0	20.0	20	20	0	0	0	0	2.0	
18	20	20	197	1.0	70	2.5	20.0	20.0	20.0	20	20	0	0	0	0	2.0	
19	20	20	197	1.0	70	2.5	20.0	20.0	20.0	20	20	0	0	0	0	2.0	
20	20	20	197	1.0	70	2.5	20.0	20.0	20.0	20	20	0	0	0	0	2.0	
21	20	20	197	1.0	70	2.5	20.0	20.0	20.0	20	20	0	0	0	0	2.0	
22	20	20	197	1.0	70	2.5	20.0	20.0	20.0	20	20	0	0	0	0	2.0	
23	20	20	197	1.0	70	2.5	20.0	20.0	20.0	20	20	0	0	0	0	2.0	
24	20	20	197	1.0	70	2.5	20.0	20.0	20.0	20	20	0	0	0	0	2.0	
25	20	20	197	1.0	70	2.5	20.0	20.0	20.0	20	20	0	0	0	0	2.0	
26	20	20	197	1.0	70	2.5	20.0	20.0	20.0	20	20	0	0	0	0	2.0	
27	20	20	197	1.0	70	2.5	20.0	20.0	20.0	20	20	0	0	0	0	2.0	
28	20	20	197	1.0	70	2.5	20.0	20.0	20.0	20	20	0	0	0	0	2.0	
29	20	20	197	1.0	70	2.5	20.0	20.0	20.0	20	20	0	0	0	0	2.0	
30	20	20	197	1.0	70	2.5	20.0	20.0	20.0	20	20	0	0	0	0	2.0	
31	20	20	197	1.0	70	2.5	20.0	20.0	20.0	20	20	0	0	0	0	2.0	
AVG											21.4	67	21.5	21.5			

COMES 10-  
GENERATION ENGINEER  
CHEMICAL ENGINEER  
MAINTENANCE ENGINEER  
GENERATION SUPT  
LUBRICATION BUREAU

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RIVERSIDE STEAM ELECTRIC STATION  
TURBINE OIL SERVICE DATA

DATE July 10, 1947

July 1947

TG No.	OPERATING HR	MAKE-UP		CENTRIFUGE OPERATION				LABORATORY REPORT			REMARKS
		GAL	DESCRIPTION	HR	DRY SOLIDS GM	SOLIDS GM PER 1000 HR.	WATER LB	VISCOSITY 150° F/GAL/DY	ACIDITY MG KOH/GM	DEMULSITY MIN.	
18	532							90	0.025	2	
16	703	81	DIE Lt	503	104	148	920	91	0.043	2	
15	687	82	DIE Lt	92			132	93	1.00	3	
14	687	45	DIE Lt	389	67	95	154	94	0.61	5	
13	600	8	DIE Lt					91	0.039	3	
12	700	10	DIE Lt					93	0.60	3	
11											
10	672			67			30	90	0.20	5	
9	604			60	51	75	61	91	0.072	6	
8	663			62	22	32	41	93	1.94	4	ac. amount 0.25 mg
7	202	30	Tycol	35	22	100					
6											
5	661	25	Tycol Lt	147			1	95	0.078	2	
4	601	28	Tycol Lt	690	83	119	5024	90	0.032	1	
2								103	0.79	5	
1		4						102	1.11	7	

HISTORY OF OIL BATCHES

TG No.	LAST FULL CHARGE			TOTALS TO DATE				MAKE-UP DATA			OPERATING HRS SINCE LAST OVERHAUL	
	DATE	GAL	DESCRIPTION	OPERATING HR	SOLIDS	SOLIDS GM/1000 HR	WATER LB	WATER LB/1000HR	TOTAL GALLONS	GAL PER 1000 HR		TO HR PER GAL
18	Nov 45	876	Mo Tycol Lt	1605								1605
16	Nov 46	940	DIE Lt 797	3522	596	119	1037		143	44	23	3322
15	Aug 39	948	DIE Lt	61699	2112	36	18002	120	2213	50	28	13380
14	Jan 37	327	Shell D-8A	64786	3771	30	13242	208	1225	30	25	27685
13	Nov 47	103	DIE Lt 797	1462			4	3		14	73	1423
12	Apr 39	111	DIE Lt	59157	53	1	6	-	505	10	105	16368
11												
10	June 36	1220	Tycol Lt	66041	686	10	1058	16	2071	23	33	11339
9	May 43	520	Mo Tycol Lt	9098	207	23	844	36	227	23	38	9098
8	Sept 36	520	Tycol Lt	68621	3153	47	6222	78	2152	23	31	7591
7	July 37	290	Tycol Lt	30316	1115	77	120	8	1523	50	20	6816
6												
5	July 43	250	Mo Tycol Lt	7676	78	30	59	5	109	14	70	7676
4	June 46	250	"	8401	323	39	23797	2323	111	13	76	8401
2	Jan 36	300	Old DIE	1642					266	90	13	1642
1	Apr 34	286	Old Shell	4547					250		15	4547

Operating hrs since last overhaul data has been corrected.

*J C Baker* *A Haven*  
J C Baker A Haven

June 30, 1947

SHANGHAI POWER COMPANY  
AND  
WESTERN DISTRICT POWER COMPANY OF SHANGHAI  
FEDERAL INC., U.S.A.

DISTRIBUTION OPERATING DEPARTMENT

MONTHLY LETTER FOR JUNE 1947

The following outlines the activities in connection with operation, maintenance and construction work in this Department.

I OPERATION

(A) SERVICE FAILURES AND TROUBLE CALLS

(1) Major Service Failures

(a) Load Reduction due to insufficient generating capacity at Riverside

Date		June 1	June 2	June 3	June 4	June 5
Area affected		SFC WDPC Chapel	SFC WDPC Chapel French	SFC WDPC Chapel French	SFC WDPC Chapel French	SFC WDPC Chapel French
Supply from substation		5 sub-stations	5 sub-stations	5 sub-stations	5 sub-stations	5 sub-stations
Feeder		13 feeders	16 feeders	14 feeders	17 feeders	22 feeders
Customer		11 customers	17 customers & LV networks	13 customers & LV networks	21 customers & LV networks	25 customers & LV networks
Duration of supply interruption		7 mins to 2 hrs 31 mins	10 mins to 3 hrs 33 mins	13 mins to 4 hrs	16 mins to 3 hrs 51 mins	24 mins to 4 hrs 21 mins
Esti- mated kVA-hrs lost	Company's area	AM 12,280 PM 15,942 Ev 15,942	AM 35,354 PM 9,050 Ev 9,050	AM 50,630 PM 15,400 Ev 1,702	AM 66,518 PM 37,200 Ev 7,680	AM 48,358 PM 15,376 Ev 21,400
	Chapel	Ev 3,250	Ev 4,200	AM 3,400 Ev 530	AM 9,145 Ev 6,350	AM 3,040 Ev 6,350
	French		AM 950	AM 1,080	AM 1,026	AM 1,060
	Total	31,452	49,564	74,762	127,719	95,584
Remarks		AM - refers to morning peak load period (8 am to 12 noon) PM - " " afternoon " " (12 noon to 7 pm) Ev - " " evening " " (after 7 pm)				

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(a) Load Reduction due to insufficient generating capacity at Riverside (cont.)

Date	June 6	June 7	June 8	June 9	June 10	
Area affected	SFC WDPC Chapel French	SFC WDPC Chapel French	SFC WDPC	SFC WDPC Chapel French	SFC Chapel French	
Supply from substation	5 sub-stations	5 sub-stations	Robison Yangchow	5 sub-stations	Riverside Tonquin Connaught	
Feeder	18 feeders	17 feeders	4 feeders	13 feeders	3 feeders	
Customer	21 customers & LV net-works	22 customers & LV net-works	4 customers	16 customers & LV net-works	3 customers	
Duration of supply interruption	7 mins to 3 hrs 44 mins	33 mins to 3 hrs 44 mins	1 hr 29 mins to 1 hr 44 mins	31 mins to 3 hrs 32 mins	21 mins to 1 hr 1 min	
Estimated kVA-hrs lost	Company's area	AM 48,975 PM 8,490 EV 3,970	AM 53,570 PM 10,600 EV 7,550	AM 11,050	AM 66,949 AM 3,950	AM 2,090 AM 2,448
	Chapoi	EV 3,795	AM 4,220 EV 4,050			
	French	AM 950	AM 980		AM 920	AM 275
	Total	66,120	80,970	11,050	71,819	4,813
Remarks	AM - refers to morning peak load period (8 am to 12 noon) PM - " " afternoon " " " (12 noon to 7 pm) EV - " " evening " " " (after 7 pm)					

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(a) Load Reduction due to insufficient generating capacity at Riverside (cont.)

Date	June 11	June 12	June 13	June 14	June 15	
Area affected	SFC EDPC Chapel French	SFC EDPC Chapel French	SFC EDPC Chapel French	SFC EDPC Chapel French	SFC Chapel French	
Supply from substation	Riverside Yangchow Tonquin Robison	Riverside Tonquin Connaught Robison	Tonquin Connaught Robison	Riverside Yangchow Tonquin Connaught	Riverside Yangchow Tonquin Connaught	
Feeder	8 feeders	13 feeders	3 feeders	15 feeders	6 feeders	
Customer	11 customers & LV net- works	14 customers & LV net- works	2 customers	17 customers & LV net- works	7 customers	
Duration of supply interruption	25 mins to 3 hrs 46 mins	5 mins to 3 hrs 54 mins	18 mins to 3 hrs 26 mins	59 mins to 4 hrs	2 mins to 2 hrs 16 mins	
Esti- mated kVA-hrs lost	Company's area	AM 27,180 PM 13,400	AM 45,500 PM 29,950 Ev 1,080	AM 18,500 PM 5,000 Ev 900	AM 44,392 PM 17,570	AM 15,150 Ev 3,150
	Chapel	AM 8,600 PM 9,000	AM 12,900 PM 9,400	AM 6,500 PM 8,250 Ev 2,700	AM 16,240 PM 10,640	Ev 2,500
	French	AM 825	AM 930 PM 1,020	AM 570 PM 550 Ev 4,600	AM 980 PM 980	Ev 5,200
	Total	69,005	100,780	45,570	90,782	26,000
Remarks	AM - refers to morning peak load period (8 am to 12 noon) PM - " " " afternoon " " " (12 noon to 7 pm) Ev - " " " evening " " " (after 7 pm)					

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## (a) Load Reduction due to insufficient generating capacity at Riverside (cont.)

Date	June 16	June 17	June 18	June 19	June 20
Area affected	Chapel French	SFC EDFC Chapel French	SFC EDFC Chapel French	SFC EDFC Chapel French	SFC EDFC Chapel French
Supply from substation	Tonquin Connaught	5 sub-stations	5 sub-stations	5 sub-stations	5 sub-stations
Feeder	E 4, E 11 Chapel Chunshan	18 feeders	12 feeders	20 feeders	22 feeders
Customer	3 customers	22 customers & LV networks	15 customers & LV networks	20 customers & LV networks	26 customers & LV networks
Duration of supply interruption	28 mins to 1 hr 18 mins	38 mins to 4 hrs 20 mins	21 mins to 3 hrs 48 mins	44 mins to 3 hrs 50 mins	20 mins to 4 hrs 33 mins
Estimated kVA-hrs lost	Company's area	AM 65,280 PM 14,480 Ev 22,250	AM 48,070 PM 8,800 Ev 3,417	AM 62,570 PM 33,415 Ev 41,060	AM 45,951 PM 22,960 Ev 18,280
	Chapel	AM 1,125 Ev 3,340	AM 13,100 PM 11,300 Ev 6,400	AM 9,120 PM 9,360 Ev 3,920	AM 9,170 PM 7,270 Ev 3,890
	French	AM 130 Ev 5,200	AM 1,170 PM 1,065 Ev 11,750	AM 1,025 PM 940 Ev 7,120	AM 1,035 PM 985 Ev 9,890
	Total	9,795	146,795	91,772	169,285
Remarks	AM - refers to morning peak load period (8 am to 12 noon) PM - " " afternoon " " " (12 noon to 7 pm) Ev - " " evening " " " (after 7 pm)				

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(a) Load Reduction due to insufficient generating capacity at Riverside (cont.)

Date	June 21	June 24	June 25	June 26	June 27	
Area affected	SFC EDFC Chapel French	SFC EDFC Chapel French	SFC EDFC Chapel French	SFC EDFC Chapel French	SFC EDFC Chapel French	
Supply from substation	5 sub-stations	6 sub-stations	5 sub-stations	5 sub-stations	5 sub-stations	
Feeder	19 feeders	14 feeders	28 feeders	22 feeders	24 feeders	
Customer	23 customers & LV networks	15 customers	33 customers & LV networks	26 customers & LV networks	27 customers & LV networks	
Duration of supply interruption	2 mins to 4 hrs 29 mins	30 mins to 3 hrs 39 mins	13 mins to 4 hrs 29 mins	9 mins to 4 hrs 15 mins	23 mins to 4 hrs 36 mins	
Estimated kVA-hrs lost	Company's area	AM 60,748 PM 42,450	AM 32,910 PM 8,500 Ev 14,375	AM 58,555 PM 60,362 Ev 19,957	AM 60,345 PM 61,730 Ev 1,260	AM 70,980 PM 56,540 Ev 23,070
	Chapel	AM 18,380 PM 10,700	AM 11,180 PM 8,450 Ev 5,200	AM 19,432 PM 9,600 Ev 5,070	AM 16,490 PM 11,100 Ev 6,840	AM 9,070 PM 9,800 Ev 5,820
	French	AM 1,230 PM 1,060	AM 800 PM 920 Ev 9,000	AM 1,175 PM 1,045 Ev 9,130	AM 950 PM 985 Ev 3,330	AM 2,960 PM 1,060 Ev 9,700
	Total	134,568	91,335	184,326	163,050	189,000
Remarks	AM - refers to morning peak load period (8 am to 12 noon) PM - " " afternoon " " " (12 noon to 7 pm) Ev - " " evening " " " (after 7 pm)					

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(a) Load Reduction due to insufficient generating capacity at Riverside (cont.)

Date	June 28	June 29	June 30	
Area affected	SPC EDPC Chapei French	SPC EDPC Chapei French	SPC EDPC Chapei French	
Supply from substations	5 sub-stations	5 sub-stations	5 sub-stations	
Feeder	21 feeders	9 feeders	18 feeders	
Customer	23 customers & LV net-works	9 customers & LV net-works	20 customers & LV net-works	
Duration of supply interruption	19 mins to 4 hrs 20 mins	21 mins to 3 hrs 58 mins	19 mins to 3 hrs 38 mins	
Estimated KVA-hrs lost	Company's area	AM 71,930 PM 37,000 Ev 17,060	AM 21,860 Ev 7,030	AM 31,530 PM 40,633 Ev 13,250
	Chapei	AM 20,440 PM 13,550 Ev 6,570	AM 3,930 Ev 4,880	AM 45,180 PM 5,810 Ev 5,900
	French	AM 2,900 PM 980 Ev 10,950	Ev 8,450	AM 2,350 PM 964 Ev 9,900
	Total:	181,380	46,150	155,519
Remarks	AM - refers to morning peak load period (8 am to 12 noon) PM - " " afternoon " " " (12 noon to 7 pm) Ev - " " evening " " " (after 7 pm)			



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(b) Other Causes

Date	June 2	June 5	June 9	June 10	June 10	
Area affected	SFC Chapai	SFC	SFC	EDPC	SFC	
Supply from substation	Tonquin	Riverside	Tungchow	Brenan	Dah Kong 1	
Feeder	Station Transf 1	A 5/6	Tongshan- E Hanbury O/H line	F 9 O/H line	A 1/2	
Customer	9 customers & LV net- works	12 customers & LV net- works	3 customers & LV net- works	24 customers & LV net- works	Dah Kong 1	
Cause of failure	Explosion & fire on Station Transformer No.1	Flash-over on A 7 cable links caused by workmen	Cable pothead faulty	HV mains poles collapsed	A 1/2 OCB faulty	
Fault cleared by	Station Transformer OCB	A 5/6 OCB	Tongshan-E Hanbury O/H line OCB	F 9 O/H line OCB	A 1/2 OCB	
Damage to equipment	One transformer	None	One pothead	None	OCB	
Duration of supply interruption	40 mins to 2 hrs 12 mins	17 mins to 33 mins	1 hr 29 to 7 hrs 43 mins	1 hr to 12 hrs 55 mins	1 hr to 10 hrs 9 mins	
Load affected kVA	Company's area	18,100	1,700	300	1,000	4,800
	Chapai	2,950				
	Fronch					
Remarks						

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(b) Other Causes (cont.)

Date	June 12	June 13	June 14	June 16	June 20	
Area affected	WDPC	SFC	WDPC	SFC	SFC	
Supply from substations	Edinburgh	Sung Sing 6	Dah Doong C/M	Riverside	Shanghai Iron & Steel	
Feeder	AM 80	Chinese Aluminum Rolling Mill	Dah Doong C/M	A 8/13 O/H line	Shanghai Iron & Steel	
Customer	34 customers & LV networks	17 customers & LV networks	Dah Doong C/M	11 customers & LV networks	Shanghai Iron & Steel	
Cause of failure	AM 80 cable fault	Overload	D/O fuse element pulled apart	6.6 kV O/H line fouled by foreign matter	Consumer's equipment faulty	
Fault cleared by	AM 80 OCB	Chinese Aluminum Rolling Mill OCB	D/O fuse	A 8/13 OCB	HV D/O fuses	
Damage to equipment	AM 80 cable joint	None	None	None	(SFC) None	
Duration of supply interruption	2 mins to 21 mins	25 mins	46 mins	52 mins to 58 mins	37 mins	
Load affected kVA	Company's area	2,200	2,090	625	560	1,000
	Chapai					
	French					
Remarks						

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(b) Other Causes (cont.)

Date	June 20	June 24	June 25	June 26	June 27	
Area affected	SFO	SFO	SFO	SFO	SFO	
Supply from substation	Shanghai Iron & Steel	Shanghai Iron & Steel	Wing On S	Fearon	Tsepo	
Feeder	Shanghai Iron & Steel	Shanghai Iron & Steel	Wing On S	B 17	N Kiangse-Tiendong FT	
Customer	Shanghai Iron & Steel	Shanghai Iron & Steel	Wing On S	6 customers & LV networks	N Kiangse-Tiendong FT	
Cause of failure	Flash over on consumer's equipment	Consumer's equipment faulty	Consumer's 6.6 kV OCB fouled by rat	Undetermined	LV mains fouled by foreign matter	
Fault cleared by	HV D/O fuse	HV D/O fuse	Wing On S OCB	B 17 OCB	N Kiangse-Tiendong OCB	
Damage to equipment	(SFO) None	(SFO) None	(SFO) None	None	None	
Duration of supply interruption	1 hr 50 mins	2 hrs 39 mins	20 mins	13 mins	33 mins	
Load affected kVA	Company's area	1,000	1,000	1,500	1,400	200
	Chapai					
	French					
Remarks						

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(b) Other Causes (cont.)

Date	June 27	June 29	
Area affected	WDFC	EPC	
Supply from substation	Clock Tower	Wing On Stores (old)	
Feeder	D 1 O/H line	Wing On Stores (old)	
Customer	10 customers & LV networks	Wing On Stores (old)	
Cause of failure	Undetermined	Consumer's LV OCB faulty	
Fault cleared by	D 1 OCB	Wing On Stores (old) OCB	
Damage to equipment	None	(EPC) None	
Duration of supply interruption	28 mins	44 mins	
Load affected kVA	Company's area	2,400	500
	Chapel		
	French		
Remarks			

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(2) Classified Service Failures (including Item 1)(a) Caused by Defective Equipment

Equipment	Number of Failures	
	This Month	Last Month
Overhead Lines: HV	1	-
IV	3	3
Underground Lines: Cables	0	1
Joints	1	-
Potheads	1	1
Transformers and voltage regulators	2	-
Switchgear	1	-
Power fuses	2	4
Protective equipment	1	-
Traction equipment	-	-
Motoring equipment	-	-
Current and potential transformers	-	-
Street lighting: Series	-	1
Multiple	7	9
Other Company's equipment	-	-
Total (a)	19	19

(b) Other Causes

Cause of Failure	Number of Failures	
	This Month	Last Month
Foreign agencies: Overhead Lines	9	1
Street lighting	2	-
Underground Lines	-	-
Tram trolleys: Overhead Lines	-	-
Street lighting	3	2
Theft of equipment	-	-
Typhoons and storms	7	-
Lightning	-	2
Flood	-	-
Fire	-	-
Vermis and birds	1	1
Overload	1	2
Customers' equipment failures:		
Company's area	5	2
Ex franchise area	3	3
Company's staff: Misoperation	-	-
Fouled by workmen	1	1
Generating station trouble	28	24
Undetermined	4	4
Total (b)	64	42
Total (a & b)	83	61

(3) Trouble Calls attended to by System Trouble Section

Company's installation	Number of Calls					
	This Month			Last Month		
	SFC	WDPC	Total	SFC	WDPC	Total
23 KV overhead and underground lines	-	2	2	1	2	3
6,600 volt overhead and underground lines	12	4	16	5	1	6
380 volt overhead and underground lines	32	15	47	10	10	20
Street lighting lines and equipment	31	11	42	45	1	46
Traffic signals	130	8	138	133	7	140
House service connections and wires	149	63	212	99	28	127
Substation equipment	5	-	5	-	-	-
DC Traction equipment and lifts	2	-	2	-	-	-
Fire calls	35	6	41	51	3	54
False alarms	5	1	6	3	1	4
Miscellaneous	20	5	25	3	2	5
<u>Customers' premises</u>						
Lighting	936	212	1148	600	187	987
Power	113	60	173	100	65	165
Heating	41	14	55	42	11	53
Total Trouble Calls attended to	1511	401	1912	1292	318	1610
Average per day	50.3	13.4	63.7	41.7	10.2	51.9

(B) TRANSFORMERS AND REGULATORS(1) Connected and/or Disconnected from ServiceSFC

Location	Capacity in kVA		Remarks
	Connected	Disconnected	
China Development and Finance Corporation	125	625	Load decrease.
Hamilton House	625	2x325	Shortage of 325 kVA transf. New installation.
Jong Fong Worsted	325		Load increase.
Clock Tower	940	325	Removal of standby transf.
Shanghai Club		940	Load increase.
Standard Shirt OT	325	225	Interchanging of regulator
Tsepooc (Ind. Voltage Regulator)	520		at Tsepooc and Shang.
Tonquin		625	Transformer failed in service.
Yee Tsong Tobacco	325	325	Transf. changed from outdoor to indoor due to shortage of outdoor type.
National Institute (Biological)	225		New installation.
Darroch		500	June 18, 1947 Sold to Chapel Electricity Company

WDPC

Location	Capacity in kVA		Remarks
	Connected	Disconnected	
Plum Well Villas PT	62½	62½	Transformer failed in service.
Jessfield-Chun Shan PT	62½		New installation.
Great Western Court PT	225	125	Load increase.
Connaught-Jessfield PT		68½	PT dismantled.
Columbia-Rockhill PT		35	Transformer already replaced by a 62½ kVA on March 10, 1947 due to overload.

U N I T S

WFO      WDPC

- (2) Taps changed for Network Voltage Regulation
- (3) Switched on or off Load for Operational Purposes
- (4) Under Observation due to Overload or Overheating

-      1  
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WFO

Location	Capacity kVA	Type	Max. Load		Max. oil top temp.	Ambi-ont temp.	Temp. Rise	Remarks
			\$	Hours duration				
Chengtu-Shanhaiwan PT	225	Outdoor	106	½	43	22	21	
Avenue Edward VII-Chungking PT	225	"	112	1	46	20½	25½	
Widow's Monument PT	225	"	111	½	44	20	24	
Chin Foong Brass	325	"	111	½	61½	26	35½	
Da An Rubber OT	225	"	121	½	42	20½	21½	
Jessfield-Yu Yuan PT	125	"	120	½	48½	20½	28½	
Chengtu-Taku PT	225	"	107	½	40	21	19	
Wuchow PT	225	"	120	1	38	22	16	
E Broadway-Chaoufoong PT	225	"	112	½	41½	22½	19	
Yangchow-Wetmore PT	225	"	103.8	½	55	28½	26½	
Meichow-Chaoyang PT	225	"	126	1	50½	26	24	
Hailar-Tungchow PT	62½	"	147	½	32	22	10	W O in hand Transformer needs to be enlarged
Patons & Baldwins W/M	625	Indoor	117	½	63	31½	31½	
E Yuhang-Chusan PT	325	Outdoor	108	1	46	25½	20½	
Thorne-E Kashing PT	125	"	116	1½	41	26	15	
Yung Woo Industrial OT	125	"	102	1	49	26	23	
Ward-Chemulpo PT	225	"	111.2	1	49	24	25	
Ward-Liaoyang PT	325	"	104	1	57	30	27	
Carlton Apartment	125	"	103	½	49	27	22	
Shanhaiwan (Ind. Voltage Regulator)	260	Indoor	145	1	57	27	30	W O in hand
Ferry-Connaught PT	325	Outdoor	101	1½	61	27½	23½	
Bubbling Well	200	Indoor	115	½	57	27	30	W O in hand
(Ind. Voltage Regulator)	260	"	120	½	57	27	30	

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## SPC

Location	Capacity kVA	Type	Max. Load		Max. oil top temp.	Ambi- ent temp.	Temp. Rise	Remarks
			\$	Hours dura- tion				
Dalny-Wayside PT	225	Outdoor	61½	1½				Transformers have been equipped with tem- perature indicating plasters which will give colour indication when top oil tem- perature reach 70°C.
E Seward-Chaoufoong PT	225	"	131½	1½				
Wing On 5	625	Indoor	90½	1½				
Tongshan-Dent PT	825	Outdoor	104	1½				
Pingliang-Washing PT	225	"	92.7	1½				
Point-Kungping PT	225	"	126	1½				
Shanghai C/M No.6	325	"	117½	1½				
Baikal-Liaoyang PT	325	"	83½	1½				
Wetmore-Hard PT	225	"	99½	1½				
Hochien-Sungfow PT	50	"	59.2	1½				
Pingliang-Ningwu PT	125	"	81½	1½				
Washing-Point PT	325	"	109.2	1½				
Tsung Tsoong Custom House	325	Indoor	114	1½	70	26	44	
	325	"	113	1½	70	29	41	
N Chekiang-Tiendong PT	225	Outdoor	117	1½				
N Chekiang-Haining PT	225	"	115	1½				
Seymour-Bubbling Well PT	225	"	85	1½				
N Kiangse-Woochang PT	225	"	115	1½				
Sinza-Medhurst PT	225	"	93	1½				
Stone Bridge	325	Indoor	112	1½				
Maipai-Seymour PT	325	Outdoor	101	1½				
Gordon-Markham PT	325	"	105	1½				
Wing On No.3	200	Indoor	103	1½				
San Sing C/W PT	125	Outdoor	90	1½				
Gordon-Wuting PT	825	"	102½	1½				

## WDPC

Location	Capacity kVA	Type	Max. Load		Max. oil top temp.	Ambi- ent temp.	Temp. Rise	Remarks
			\$	Hours dura- tion				
Dah Doong C/M	625	Indoor	118	1½	69	31	38	Letter sent to Engineering Department May 8, 1947
Connaught PT	225	Outdoor	112	1½	42	22	20	
Robison-Kiaochow PT	225	"	106	1½	42	22	20	
Kiaochow-Penang PT	325	"	102	1½	48	33	25	
Dah Yuen PT	325	"	106	1½	54	28	26	
Hubertus Apartment PT	35	"	114	1½	34	22	12	
Great Western-Lincoln Avenue PT	35	"	150	1½	34	21	13	
Ming Sung PT	225	"	118	1½	44	28	16	W O in hand
Yu Yuen "A" PT	225	"	117	1½	49	25	24	
Tien Yih No.2 D & W OT	325	"	106	1½	56	28	28	
Columbia Club PT	125	"	128	1½	55	35	30	
Kung Sung W/M	200	Indoor	128	1½	73	29	44	
Wah Foong Rubber OT	825	Outdoor	113	1½	65	32	33	
Great Western Riding School PT	325	"	119	1½	60	29	31	
Fah Wah Hsing Hwa Jao PT	225	"	106	1½	53	32	20	



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(c) MISCELLANEOUS TESTS

Units	Equipment	Voltage	Nature of test	Reason for test
2	Rectifier fan motors	110	No load running and speed measurement	Comparison
2	Electro tin fuse wire made by the Chase-Shawmut Company	-	Minimum fusing current and characteristic	Acceptance
-	Consumer's installation at Shanghai Iron and Steel Works (Chapei)	6,600	Overvoltage, Insulation Resistance, continuity, polarity, CT connection and oil test	New installation
3	Transformers 400 kVA 3 $\phi$ made by GE Property of Wing On 1	$\frac{6,300}{500}$	Overvoltage, Insulation Resistance, ratio, polarity and phase relationship	Spare transformer put in service
3	Rectifier fan motors at Clock Tower Substation	110	Temperature rise survey	High motor current at no load (9.5 amps)
1	Transformer 500 kVA made by Sing An Elec Mfg Co, property of Shanghai Waterworks	$\frac{6,600}{370}$	Overvoltage, Insulation Resistance, volt ratio, and phasing relationship	Prior to commissioning
2	Rectifier fan motor	110	24 hours running	To find running characteristics
2	Oil circuit breakers property of Jan Teh Cotton Mill	6,600	Overload protection	Routine
1	Induction voltage regulator at Taspoo Substation	6,600	Overvoltage and Insulation Resistance	Prior to commissioning
1	Transformer 125 kVA made by Wah Tung at China Development Substation	$\frac{6,600}{380}$	Insulation Resistance and overvoltage	Prior to commissioning
60 ft	Underground cable Bolted type make unknown	6,600	Overvoltage and Insulation Resistance	Prior to commissioning

Units	Equipment	Voltage	Nature of test	Reason for test
1	No.1 Shackle insulator	6,600	Overvoltage	Effect of surface contamination from smoke
1	Transformer 62 $\frac{1}{2}$ kVA 3 $\phi$ made by Osaka	$\frac{6,300}{380}$	Insulation Resistance, continuity and pressure test	Suspected faulty
2	Synchronous motors property of Shanghai Iron and Steel Works	6,600	Overvoltage	After fault
-	Consumer's installation at Mou Hsing Steel and Iron Factory	6,600	Overload and over-voltage	After change of CTs

## II MAINTENANCE

Routine inspection, maintenance and testing of plant on the transmission and distribution systems have proceeded according to programme.

### (A) PROTECTION, BATTERIES AND TELEPHONES

#### (1) Protection Tests

Type of Protection	Number of Panels where tests carried out	
	SFC	WDPC
Overload and/or Earth Leakage	29	-
Feeder or Transformer Balance	25	2
Total	54	2

#### (2) Relays

Type of Relay	Number of Relay Elements			
	SFC		WDPC	
	Circuit tests	Changed	Circuit tests	Changed
Inverse Time	6	3	-	-
Instantaneous	-	3	-	2
Total	6	6	-	2

(3) Batteries

Work done	Lead-Acid & Edison Types		Ni-Fe Type	
	110V in Primary Substations	Telephone Exchange	30 V in Secondary Substations	
	SFO		SFO	WDPC
Inspected, cleaned and topped up	19	6	55	11
Equalizing charges conducted	6	-	-	-
Charged and discharged	-	-	3	-
Electrolyte changed	-	-	-	-

(4) Auto-Telephone Equipment and Lines

Instruments installed .....	2
" disconnected .....	-
" changed .....	-
" moved .....	6
" overhauled .....	1
" faults repaired .....	21
Line faults located and repaired .....	8
Switches overhauled .....	2
Exchange equipment faults repaired .....	4
Miscellaneous equipment overhauled .....	-

(B) TRANSFORMERS AND REGULATORS

(1) Overhauled (Core lifted, windings and connections examined, IR tested, oil changed)

SFO

Location	Capacity in kVA	Workshop	Reason for overhaul
Hamilton House	325	Fearon S/S	Over 10 years in service
Standard Shirt OT	225	"	Routine overhaul
China Lumber	625	"	Over 10 years in service

WDPC

Location	Capacity in kVA	Workshop	Reason for overhaul
Farren's PT	625	Fearon S/S	W Ø HV leads burnt out due to flashover by lightning

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	U N I T S	
	SFC	WDPC
(2) <u>Inspected on site</u> .....	14	-
(3) <u>Oil-Dielectric tested</u> .....	28	20

(C) OIL CIRCUIT BREAKERS

(1) Overhauled and Tripping Mechanism Tested

Reason for test	Number of OCBs tested			
	SFC		WDPC	
	Company's property	Customer's property	Company's property	Customer's property
Routine and special maintenance	55	27	2	3
Oil circuit breakers tripped	4	-	-	-
New Installation or operation resumed	1	4	-	-
Total	60	31	2	3

	U N I T S	
	SFC	WDPC
(2) <u>Oil-Dielectric strength tested</u> .....	32	-
(3) <u>Oil changed</u> .....	20	-

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(D) PRIMARY SUBSTATIONSRegular and Special Maintenance

Substation	Company	Equipment	Work done	\$ completed
Primary Sub-stations	SFC	Switchgear	Overhaul and overload test all DC circuit breakers	70
Yangchow			Overhaul and overload test of all HV CCBs	100
			Install lighting at KDR 5 switch-gear	50
Fearon	SFC	Rotary Plant	Repairs of 3,600 kVA synchronous motor of MG 3	90
Yangchow	SFC	Instrument transformer	Inspection and cleardown of all potential transformers and current transformers also test oil	100
Primary Sub-stations	SFC & WDPC	Various sub-station equipment	Inspection of all gas mask	20
			Overhaul of substation fans	60
			Checking of all portable earth wires and clamps	100
Primary Sub-station	SFC & WDPC	Batteries	Routine maintenance	To programme
Safety devices inspection and check on artificial respiration practice carried out according to programme.				

(E) SECONDARY SUBSTATIONS

Location	Com- pany	Work done	% completed
Chusan	SFC		85
China Lumber	"		100
Funning	"		100
Patons & Baldwins Woolen	"		100
Butterfield and Swire Paint Shop	"	<u>Biannual Regular Maintenance</u>	100
Cheng Tai Rubber	"	Overhaul of switchgear, testing of	100
Paramount Ballroom	"	automatic protective equipment,	100
Oriental Textile	"	inspection of transformers and	100
Chekiang	"	regulators, inspection of all	80
Sincere	"	electrical equipment and cleaning.	100
Sun Sun Stores	"		100
Clock Tower	"		100
Kwangse	"		98
Shanse	"		90
Eastern District		Overhaul of seven power transformers at Fearon Substation	100
All districts		Installation of telephone desk in substations	100
All districts		Overhaul of overload testing gears	90
All districts		Checking of standard auxiliary equipment in substations	40
All districts		Inspection of wrought iron substations	50
All districts		Inspection of pole transformers carried out according to programme	100
All districts		Inspection of safety devices and check on artificial respiration practice carried out according to programme	100

(B) OVERHEAD LINES AND STREET LIGHTING

(1) Inspection and Overhaul of Overhead Lines (All Districts)

System voltage	Locations where maintenance of overhead lines has been carried out to programs
580	Kweming Road between Whaching and Kinchow Roads
"	Tongshan Road between Liayang and Kinchow Roads
6,600	A 7 & A 8 at Kwiyang between Yangszepoo and N of Pingliang Roads
"	A 7 & A 8 at Poyang between Tengyueh and Tinghai Roads
"	Ferry-Bubbling Well tie line

(2) Repairs and Replacements of Overhead Line Equipment (All Districts)

Equipment	Inspected	Repaired	Renewed
Stays	67	-	2
Brackets	293	-	5
Line switches	2	-	-
Lightning arrestors	6	-	-
Insulators	906	-	33
Fuses	12	-	-
Series transformers	2	-	-
Lamp fittings	15	-	-
Lamp brackets	22	-	-
Connections	-	-	-

(3) Poles and Pole Bases - Routine and Special Maintenance

	<u>SFO</u>	<u>WDFO</u>
Poles inspected .....	196	-
Wood poles painted .....	-	-
Iron poles painted .....	-	-
Concrete poles repaired .....	-	-
Decayed wood poles renewed: Main .....	5	1
Suspension .....	5	1
Stay .....	3	2
Concrete bases inspected .....	130	-
Concrete bases repaired .....	-	-
Concrete bases renewed .....	3	2
Cast iron sleeves renewed .....	4	3
Cast iron sleeves replaced by concrete bases .....	-	-
Obsolete concrete sleeves replaced by concrete bases .....	-	-

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	<u>SFC</u>	<u>WDPC</u>
(4) <u>Street Lamps burnt and renewed</u>		
Municipal street lighting .....	1167	155
Private street lighting .....	830	129
Total .....	1997	284

(5) Traffic Signal Switches

Location	Installed	Removed	Replaced	Overhauled
Eastern District	-	-	-	3
Central District	-	-	-	48
Western District	-	-	2	3

(G) OIL TREATMENT PLANT

Location	<u>Transformer Oil</u>				<u>Switch Oil</u>			
	<u>Issued</u>	<u>Returned</u>	<u>Filtered</u>	<u>Stock</u>	<u>Issued</u>	<u>Returned</u>	<u>Filtered</u>	<u>Stock</u>
	US gallons							
Fearon Oil Depot	2,756	3,083	5,436	2,353	316½	240½	631½	411
On Site - SFC	-	-	-	-	-	-	-	-
WDPC	-	-	-	-	-	-	-	-
<b>Total</b>	<b>2,756</b>	<b>3,083</b>	<b>5,436</b>	<b>2,353</b>	<b>316½</b>	<b>240½</b>	<b>631½</b>	<b>411</b>

Samples of Oil Tested for Breakdown ..... 147

(H) UNDERGROUND CABLES

	<u>\$ completed</u>	
	<u>SFC</u>	<u>WDPC</u>
(1) <u>Inspection and Maintenance</u>		
Idle cable risers .....	100	100
Road condition along cables in Eastern District .....	100	-
Central District duct line and manholes .....	100	-
	<u>U N I T S</u>	
	<u>SFC</u>	<u>WDPC</u>
Cable potheads and joints: 23 kV .....	22	-
(including standardization) 6.6 kV .....	87	32
390 V .....	-	-
Feeder pillars .....	-	-
Underground cables slung and protected: .....	E Seward Rd	Robison Rd
	W of Arthur	W of
	Road	Kiaochow Rd



(2) 23 kV Underground Cable Failure located and repaired .....

4

SFC

Feeder name	Location of failure	Faulty cores	Cause of failure	Repairs
AH 53	Joint 38	R	Obsolete design	Remade in position
AM 80	Joint 2	W	Obsolete design	Length of 13 feet replaced by new cable and two new joints
AC 51	Cable	B	Undetermined (Probably a weak spot during process of manufacturing)	Faulty core of 4 feet length replaced by new single core cable and two new single core joints

WDPC

Feeder name	Location of failure	Faulty cores	Cause of failure	Repairs
DF 71	Cable	R	Initially defective sheath	Length of 130 feet replaced by new cable and two new joints

(3) 6.6 kV Underground Cable Failure located and repaired .....

2

SFC

Feeder name	Location of failure	Faulty cores	Cause of failure	Repairs
Station Transf. No.1, Tonquin Substation	Pothole near transformer	R,W,B	Overheating due to fire	Remade in position
Tongchan Rd overhead line	Fole pothead	R,W,B	Initially weak insulators	Remade in position

WDPC

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- (4)
- 380 V Underground Cable Failures located and repaired
- ..... 1

SFC

Feeder name	Location of failure	Faulty cores	Cause of failure	Repairs
PL circuit Honan Road Bridge	No.3945- 3948 Lamp Stand	2	Low voltage disturbance	Length of 28 feet replaced by new cable and one new joint

WDPC Nil.

- (5)
- Pilot and Telephone Underground Cable Failure located and repaired
- ..... 1

SFC

Feeder name	Location of failure	Cause of Failure	Repairs
Fearon- Chekiang	Cable	Cracks lead sheath	Length of 11 feet replaced by new cable and two new joints

WDPC Nil.

- (6)
- 23 kV Underground Cable Preventive repairs
- ..... 2

SFC

Feeder name	Location of weakness	Cause of weakness	Repairs
AD 57	Joint 10	Sleeve cracked due to compound ex- pansion, moisture penetrated cable	Length of 75 feet replaced by new cable and two new joints
AD 57	Joint 13	Sleeve cracked due to compound expansion	Joint remade in position

WDPC Nil.

- (7)
- 380 V Underground Cable Preventive repairs
- ..... 2

SFC

Feeder name	Location of weakness	Cause of weakness	Repairs
Tsepo LV 5	Pole pothead	Obsolete design	Replaced by new pothead
Tsepo LV 6	Pole pothead	Obsolete design	Replaced by new pothead

WDPC Nil.

(I) BUILDING MAINTENANCE

	<u>Location</u>	<u>Work Done</u>	<u>\$ completed</u>
SFO	1. Fearon Underground trench gear shed	Repairs to roof	80
	2. Underground Workshop	Build up store-room for coke and sundries	50
	3. Fearon yard	Erecting tin hut for substation & garage blacksmith shop	85
	4. Kashing Substation	Repairs to roof	100
	5. Chusan Substation	Repairs to roof	100
	6. Connaught Substation	Repairs to roof	100
	7. Fearon Chinese Mess Room	Supervision of roof repairing by contractor	100
	8. DOD office, Fearon	Repairs to roof	100
	9. DOD Engineering staff lavatory	Redecorating	100
	10. Construction Substation Workshop	Building alterations	10
WDPC	1. Edinburgh Substation	Repairs to roof	100

III CONSTRUCTION WORK

(A) SERVICES

	<u>SFO</u>	<u>WDPC</u>
(1) <u>House Services</u>		
Connections .....	487	179
Disconnections .....	83	16
Net increase	404	163
(2) <u>Municipal Street Lighting</u>		
Connections .....	1	-
Disconnections .....	-	-
Net increase .....	1	-

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(3) Private Lighting

Connections .....	58	10
Disconnections .....	54	-
Net increase .....	4	10

(B) OVERHEAD LINES

(1) Erection

	<u>Area</u>	<u>Location</u>	<u>Route length yards</u>	<u>Number of poles</u>
6.6 kV. 3-wire	SPC	Yu Ming Weaving Factory	58	1
"	"	Chinese Industrial Gas	60	1
"	WDPC	200 Tunxin Road	23	-
380/200 V 4-wire	SPC	Tungchow LV feeder	44	-
"	"	Macao Road E of Seymour	25	-
"	"	Opposite of Clock Tower	27	-
"	WDPC	19 Dun Wei Road	130	-
"	"	Amherst Avenue E and W of Plum Well Villas PT	137	-

(2) Salvage

380/200 V 4-wire	SPC	Opposite of Clock Tower	20	-
"	"	Tungchow LV feeder	350	-

(3) Polos

	<u>SPC</u>	<u>WDPC</u>
Erected .....	11	11
Removed .....	4	4
Moved at the request and expense of the Municipality .....	-	-

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(C) UNDERGROUND LINES(1) Installation

- Cable - SPC
1. 23 yds, .025 sq in, 3-core, 6.6 kV cable for supply to National Research (East) OT, Hochien Road.
  2. 23 yds, .025 sq in, 3-core, 6.6 kV cable for supply to Yue Ming Cotton Weaving Factory, Ward Road.
  3. 19 yds, .4 x .2N sq in, 4-core, 66 V cable for supply to Hung Dah Rubber Factory.
  4. 93 yds, 16-pair telephone cable for new offices on 6th floor, Head Office, Nanking Road.

WDPC Nil.

- Joints and potheads - SPC
1. One 6.6 kV pole pothead and one 6.6 kV transformer pothead for supply to National Research (East) OT, Hochien Road.
  2. One 6.6 kV pole pothead and one 6.6 kV indoor pothead in metering cubicle for supply to Yue Ming Cotton Weaving Factory, Ward Road.
  3. One 660 V pole pothead and one 660 V indoor pothead in LV No.5 switch cubicle, Tonquin Substation, for supply to Hung Dah Rubber Factory.
  4. Sixteen 16-pair telephone potheads for new offices on 6th floor, Head Office, Nanking Road.
  5. One 6.6 kV indoor pothead for supply to Wai Fong Worsted Mill, Linching Road.

WDPC Nil.

(2) Salvage

Cable - SPC Nil.

WDPC Nil.

- Joints and potheads - SPC
1. One 6.6 kV transformer pothead salvaged and cable potended at Foo Shing Tobacco, Macao Road.

WDPC Nil.

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- (3) Deviation      SPC      1. Due to change of local transformer, cable moved to wall and pothead type altered, in Clock Tower Substation.
2. Due to change of voltage regulator, cable pothead moved to new position in Tsepo Substation.

MDFC      Nil.

(D) SUBSTATION

	<u>Substation</u>	<u>Work Done</u>	<u>% completed</u>
SPC	1. Chase Bank, Szechuen Road	Replacement of a 325 kVA transformer with a 225 kVA unit	50
	2. Jan Tai Lumber, Yangtsepo Road	Replacement of a 625 kVA transformer with a 125 kVA unit	100
	3. Shanghai Iron and Steel Works (Chapel)	Installation of metering cubicle for 6.6 kV supply	100
	4. Shanghai Club	Removal of one 940 kVA spare transformer	90
	5. Clock Tower	Replacement of a 325 kVA transformer with a 940 kVA unit	100
	6. Wua Fong Worsted Mill, Linching Road	Installation of a 325 kVA transformer	100
	7. China Development and Finance Corp, Kiangso Road	Replacement of a 625 kVA transformer with a 125 kVA unit	100
	8. Bubbling Well	Modification and extension of traction rectifier building	75
	9. Yue Ming Cotton Weaving Factory, Ward Road	Installation of metering cubicle for 6.6 kV supply	95
	10. National Research (East) Hochien Road	Installation of a 225 kVA OT	95
	11. Tonquin	Installation of switch gear in LV Panel 5 for supply to Hung Dah Rubber Factory	100

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	<u>Substation</u>	<u>Work Done</u>	<u>% completed</u>
SFC	12. Hamilton House	Replacement of 2-325 kVA transformers by a 625 kVA unit	100
	13. Zung Foong D & W, Teitsihar Road	Reinstall LV bus bar and links for network supply	30
	14. China Fibre Container Company	Installation of LV network feeder	20
	15. Yoo Tsoong Tobacco Company, Thorburn Road	Change of distribution transformers	40
	16. Dah Chung Dyeing, Penang Road	Replacement of a 325 kVA transformer with a 940 kVA unit	20
	17. Dah Kong No. 1, Yangtzepoo Road	Removal of balance relays, and installation of 6.6 kV cable links	100
WDFC	1. Bronan	Installation of 1-3,000 kVA, 23/6.6 kV transformer	100
	2. Van Fong Yung, Kiaochow Road	Installation of additional LV network feeder	100

(E) BULK SUPPLY METERING

<u>Work Done</u>	<u>SFC</u>	<u>WDFC</u>	<u>Total</u>
Metering equipment installed	2	-	2
" " removed	1	-	1
" " changed	1	6	7

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(F) VARIOUS WORK

	<u>Nature of work</u>	<u>Location</u>	<u>% completed</u>
SPC	1. Redrumming of cables from rotten to good reels and repairs to cable reels	Haiphong Depot	18
	2. Scrapping cable from AD 57 fault	Fearon Workshop	20
	3. Repair and paint danger stands for trench work	Fearon Workshop	80
	4. Building up kerosene tank base	Fearon yard	70
	5. Repair barbed wire barricade	Fearon Workshop	25
	6. Inspect and clean TG 1 pothead	Riverside Generating Station	100
	7. Reconnect cables for HST 2, RC 2, RC 3 to Westinghouse Board	Riverside Generating Station	100
	8. Reconnect cables for CWP 21, CWP 22 to FP board	Riverside Generating Station	100
	9. Supervision of manufacture of 9 new cable reels by contractor	Fearon yard	100
	10. Repair motor pumps	Fearon trench gear shed	100
	11. Inspection of eleven 23 kV, "H" type joints, Design 308, in service	AD 57, ED 56 cables	100
WDPO	Nil.		

IV WORK DONE FOR CONSUMERS

	<u>Location</u>	<u>Nature of work</u>	<u>% completed</u>
1.	Shanghai Water Works, Yangtzepoo Road	6.6 kV installation in new consumer's substation for secondary pumping station	100
2.	Bubbling Well Substation	Reconstruction and extension of 400 kW rectifier equipment (property of Tramway Company)	10
3.	Toyoda Cotton Mill, Jessfield Road	Removal of 1-1,200 kVA transformer	30



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V STAFF(A) CHANGESEngineering and Office StaffSFC

Wang, T C Student Engineer engaged

WDPC

None

Monthly Rate StaffSFC

Chou Shang Chung Junior clerk engaged

WDPC

None

Daily Rate StaffSFC

CSX.4	Labourer	transferred from WDPC
CUX.10	"	engaged
CHK.4	"	engaged
CSQ.8	"	transferred to WDPC
CSFZ.1	Fitter (Temporary)	engaged
CSFZ.2	" ( " )	engaged
CSFZ.3	" ( " )	engaged
CSFZ.1	Painter ( " )	engaged
CSOZ.1	Carpenter ( " )	engaged
CSXZ.1	Labourer ( " )	engaged
CSXZ.2	" ( " )	engaged
CSXZ.3	" ( " )	engaged

WDPC

WQ.7	Improver	transferred from SFC
WOK.39	Labourer	transferred to SFC

(B) ACCIDENTS

Nil.

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VI MISCELLANEOUS

(A) Theft of Materials  
(In SEC and WDFC Areas).

Nil.



S. L. Dong  
Acting Distribution Operating Engineer

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AppendixTRANSPORT DIVISIONMONTHLY LETTER - JUNE 1947

The following outlines the activities of the Transport Division during the month.

(A) MOTOR VEHICLES

Vehicles	Passenger cars	Pick-ups	Station wagons	Vans	Trucks	Special vehicles*	Trailers
In Operation	51	10	2	5	14	3	4
In Storage	-	-	-	-	-	-	4

\* Oil tanker and 20-ton lorries

(1) Operating Data on Motor Vehicles

Type	No. in service		GASOLINE							
			Issue (gallons)		Usage (gallons)		Mileage run		Average m.p.g.	
	June	May	June	May	June	May	June	May	June	May
Passenger cars	51	51	5,928	5,803	5,942	5,801	70,130	67,443	11.8	11.6
Station wagons	2	2	189	179	189	174	2,549	2,038	13.5	11.4
Pick-ups	10	10	949	881	958	881	12,277	11,247	12.8	12.8
Trucks (1 $\frac{1}{2}$ -ton)	2	2	210	216	210	216	2,081	2,208	9.9	10.2
Trucks (3 $\frac{1}{2}$ -ton)	9	9	1,157	1,053	1,157	1,053	8,318	7,010	7.1	5.2
Lorries (6-ton)	2	2	244	244	256	244	1,171	1,055	4.6	4.3
Lorries (20-ton)	2	2	132	69	132	69	230	110	1.7	1.4
Oil tanker truck	1	1	-	13	-	13	-	45	-	3.5
Meter vans	2	2	153	145	153	145	1,326	1,200	8.7	8.3
Trouble Section van	1	1	202	147	202	147	1,381	1,124	6.9	7.6
Cooker vans	2	2	505	465	505	465	3,732	3,392	7.4	7.3
Bus	1	1	502	491	502	491	3,012	2,858	6.0	5.9
Trailers	8	8	-	-	-	-	-	-	-	-
Total	93	93	10,171	9,705	10,206	9,699	105,207	99,730	10.4	10.3

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(2) Maintenance Work on Motor Vehicles

Type	General Overhaul completed		Emergency Overhaul completed		Minor adjustments and repairs		Repairs after			
							Accident		Breakdown	
	June	May	June	May	June	May	June	May	June	May
Passenger cars	-	-	52	55	39	40	9	4	10	9
Station wagons	-	-	1	4	1	2	-	+	1	-
Pick-ups	-	-	28	17	9	6	1	-	3	-
Trucks (1 $\frac{1}{2}$ -ton)	-	-	4	8	2	3	1	-	3	-
Trucks (3 $\frac{1}{2}$ -ton)	-	-	9	13	7	6	1	-	4	5
Lorries (6-ton)	-	-	2	2	1	2	-	1	-	-
Lorries (20-ton)	-	-	-	-	-	-	-	-	-	-
Oil tanker	-	-	-	-	-	-	-	-	-	-
Motor vans	-	-	11	8	1	2	-	-	-	-
Trouble Section van	-	-	-	-	-	1	-	-	-	-
Cooker van	-	-	-	-	-	-	-	-	-	-
Bus	-	-	3	4	1	1	-	-	-	-
Trailers	-	-	-	-	-	-	-	-	-	-
Total	-	-	110	111	71	63	12	5	21	14

(B) MOTOR CAR ENGINE LUBRICATING OIL

Description	Issues (US gallons)		
	June	May	
Cars	151	148	Fearon stock at the end of this month: 754 US gallons
Trucks	177	164	
Other purposes	10	10	
Total	338	322	

(C) MAJOR HAULAGE JOBS

Units	Equipment			Moved		Size of truck	Man-days
	Capacity KVA	Weight lbs	Description	From	To		
1	390	9,000	Transformer	Fearon Road S/S	Wha Tung Eng Works	20	12
1	150	4,080	"	" " "	" " " "	6	8
1	225	4,750	"	" " "	" " " "	20	12
2	225	2x4,750	"	" " "	" " " "	20	6
1	225	4,750	"	Delhi S/S	" " " "	20	16
1	150	4,080	"	Yangchow S/S	" " " "	6	16
1	625	13,000	"	Wayside S/S	Tonquin S/S	20	20
1	625	13,000	"	Tonquin S/S	Wayside S/S	20	20
1	940	16,800	"	Shanghai Club	Fearon Road S/S	20	20
1	625	13,000	"	Fearon Road S/S	Wing On No.5	20	20
1	940	16,800	"	Ferry Substation	Clock Tower S/S	20	20
1	325	5,620	"	Clock Tower S/S	Ferry Substation	20	20
1	120 HP	3,360	Motor	Tien Chang P/M	Riverside Workshop	.6	16
1	500	8,950	Transformer	Sing On Elec Works	Water Works(Yang-tzopoo Road)	20	30
1	325	5,620	"	Fearon Road S/S	Standard Shirts OT	20	12
1	625	16,800	"	Riverside Switch House	Riverside Workshop	3 1/2	30
1	625	16,800	"	Riverside Workshop	Riverside Switch House	3 1/2	30
1	125	3,310	"	Fearon Road Stores	China Development Finance Corp	20	20
1	625	13,000	"	China Development Finance Corp	Hamilton House	20	20
1	62 1/2	1,800	"	Farron's PT	Fearon Road S/S	6	5
3	325	2x5,620	"	Hamilton House	Fearon Road S/S	20	11
1	225	4,750	Transformer	Fearon Road Stores	Great Western Court	20	20
1	125	4,040	"	Great Western Court	Riverside Workshop	20	7
1	225	5,417	"	Riverside Workshop	610 Hoshion Road	20	10
1	390	9,000	"	Delhi Substation	Wha Tung Eng Works	20	10
1	4,200	17,400	"	Riverside Workshop	Riverside Switch House	20	20
1	625	16,800	"	Riverside Switch House	Riverside Workshop	3 1/2	30
1	325	5,620	"	Fearon Road S/S	Yue Ming C/M	20	30
-	-	100,000	Rice	Markham Road	Riverside, Fearon, Haiphong Stores	5 x 6	2x50
-	-	6,000	Rice	Markham Road	Fearon Road Stores	6	13
1	62 1/2	1,800	Transformer	Haiphong Stores	Robison Substation	3 1/2	5
1	62 1/2	1,800	"	Connaught-Jessfield	Robison Substation	3 1/2	5
6	325	6x4,665	"	Wha Tung Eng Works	Riverside Workshop	6	8
1	1,000	17,770	"	Wayside Substation	Sung Sing No.8	20, 6	40
1	1,200	18,000	"	Toyoda C/M	Shanghai C/M No.2&3	3x20	3x40
1	1,200	18,000	"	Toyoda C/M	Shanghai C/M No.2&3	3x 6	3x40
1	325	4,665	"	Fearon Substation	Yue Tsoong Tob Co	20	12
1	325	6,075	"	Yue Tsoong Tob Co	Fearon Road S/S	20	12
Total		442,389					784

(D) BICYCLES

(1) Taxi-Bicycle and Tricycle Service

Department	Type	No. in service	Issued for temp. use	Issued as taxi	Remarks
Transport Division	Bicycles	48	18	13	-
	Tricycles	7	7	-	-
Meter Department	Bicycles	24	-	-	-
	Tricycles	-	-	-	-

(2) Bicycle and Tricycle Maintenance

Type	No. in service	General overhaul		Minor adjustments and repairs		Routine inspection		Repairs after accident	
		June	May	June	May	June	May	June	May
Company's bicycles	253	2	18	85	94	9	11	-	1
Employees' bicycles	46	-	-	8	12	4	3	-	-
Tricycles	10	-	-	5	3	-	-	-	-
Pedicabs	3	-	-	5	8	-	-	-	-
Trailers	2	-	-	-	1	-	-	-	-
<b>Total</b>	<b>314</b>	<b>2</b>	<b>18</b>	<b>93</b>	<b>118</b>	<b>13</b>	<b>14</b>	<b>-</b>	<b>1</b>

(E) HANDCARTS

Type	No. in Service	No. in Storage	No. in Construction	Number in repair	
				Maintenance	After Accident
Large 2-ton	2	1	-	-	-
Standard 1-ton	15	7	-	-	-
House Service	2	2	-	-	-
Balancing	3	3	-	-	-
<b>Total</b>	<b>23</b>	<b>11</b>	<b>-</b>	<b>-</b>	<b>-</b>

(F) TRANSPORT WORKSHOP

Shop	WORK DONE		
	Transport Division	Other Divisions	
		Manhours	% of total
Vulcanizing	Repaired for - Motor cars: 29 tires; 164 tubes Bicycles: 15 tires; 22 tubes	-	-
Tailor	Repairs to Manufacture of 39 seat covers 12 seat covers 31 Upholstery 25 uniforms	48	15.7
Paint	Repainted: 1 motor car; 8 bicycles Touched up: 112 motor car jobs; 98 bicycle jobs	48	15.7
Welding	Repaired by welding 42 motor vehicle bodies 25 engine parts 26 chassis parts	126	41.2
Battery	Replated: 6 batteries Repaired: 22 " Charged: 146 "	-	-
Blacksmith	Forged: 47 new parts Repaired: 156 damaged parts	56	18.3
Whitesmith	Repaired - 25 vehicle radiators 19 bumpers 15 bodies 24 doors 30 windows 60 various small parts	-	-
Electrical	Repaired or overhauled - 12 starters 6 dynamos 53 horns	-	-

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Shop	WORK DONE		
	Transport Division	Other divisions	
		Manhours	% of total
Carpenter	Repairs to 25 vehicle bodies	Repairs to 16 chairs 3 revolving chairs 8 desks 3 extension ladders	Manufacture of 4 chairs 1 extension ladder
		----- Minor repairs:	
		8	2.6
Machine	Repairs to 75 engine parts 166 other parts  Manufacture of 60 engine parts 528 other parts	20	6.5
Lubrication Centre	Motor vehicles: Oil changed: 60 General inspection: 61 General lubrication: 61	-	-

## (G) ACCIDENTS

## (1) Motor Vehicles

Date	Vehicle		Location of accident	Description of accident	Damage to SFC vehicle			SFC driver to blame?	Persons injured	
	Type	No.			Major	Minor	None		Staff	Out- siders
June 2	Pass. car	17519	Connaught Rd	Damaged by bicycle	-	x	-	No	No	No
June 4	Pick-up	30050	W Soochow Rd	Hit against a hydrant	-	x	-	No	No	No
June 5	Pass. car	14619	Nanking Road	Collided with tramcar	-	x	-	Yes	No	No
June 11	Pass. car	13306	Rue du Consulat	Collided with car	-	-	x	No	No	No
June 11	Pass. car	10654	Szechuen Road	Collided with car	-	x	-	No	No	No
June 14	Pass. car	52434	Avenue Joffre	Collided with pedicab	-	-	x	No	No	Yes
June 14	Pass. car	52441	Jessfield Rd	Hit by a bus	-	x	-	No	No	No
June 16	Pass. car	17347	N Szechuen Rd	Collided with Jeep	-	x	-	No	No	No
June 22	Pass. car	52782	Avenue Road	Collided with car	-	x	-	No	No	No
June 23	Pass. car	17346	Edinburgh Rd	Collided with handcart	-	x	-	No	No	No
June 29	Pass. car	17520	Avenue Joffre	Collided with Jeep	-	x	-	Yes	No	No

Frequency: 9,654 miles per accident.



(2) Bicycles and Tricycles

None.

(3) Details of Accidents involving general public

Date	Location of accident	Damage to outside vehicle			Injury to outsiders			Remarks
		Major	Minor	None	Major	Minor	None	
June 2	Connaught Road	-	-	X	-	-	X	
June 4	W Scochow Road	-	-	X	-	-	X	
June 5	Nanking Road	-	-	X	-	-	X	
June 11	Rue du Consulat	-	X	-	-	-	X	
June 11	Szechuen Road	-	-	X	-	-	X	
June 14	Jessfield Road	-	-	X	-	-	X	
June 14	Avenue Joffre	-	X	-	-	X	-	
June 16	N Szechuen Road	-	-	X	-	-	X	
June 22	Avenue Road	-	-	X	-	-	X	
June 23	Edinburgh Road	-	-	X	-	-	X	
June 29	Avenue Joffre	-	-	X	-	-	X	

(4) Staff

None.

(J) STAFF(1) Supervisory Staff

Assistant Mr. C. H. Lan engaged.

(2) Clerical Staff

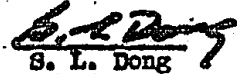
No change.

(3) Monthly Rate Staff

Car Drivers	TDC.95, 97, 98	engaged
Truck Driver	TDT.12	engaged

(4) Daily Rate Labour

Improver	TFQ.2	promoted to Transport fitter TF.7
Apprentice	TFA.9	promoted to Transport fitter improver TFQ.8.



S. L. Dong  
Acting Distribution Operating Engineer

Shanghai, July 6th, 1947.

The General Manager :

METER & TESTING DEPARTMENT  
LARCENY OF ELECTRICITY  
MONTHLY REPORT FOR JUNE, 1947.

Accounts Office Queries :

One case of larceny was detected, and revenue amounting to CN\$13,258,000 has been recovered.

Two cases of damaged meters were found. The cost of repairs, etc. amounting to CN\$358,000 has been paid by the consumers.

Meter Readers' Reports :

Six cases of damaged meters were found when following up these reports. The cost of repairs, etc. amounting to CN\$949,000 has been paid by the consumers.

Route Meter Investigation :

One case of larceny was detected, and revenue amounting to CN\$338,000 has been recovered.

Four cases of damaged meters were found. The cost of repairs, etc. amounting to CN\$348,400 has been paid by the consumers.

Power Meter Investigation :

One case of larceny was detected, and revenue amounting to CN\$337,000 has been recovered.

One case of damaged meter was found. The cost of repairs, etc. amounting to CN\$110,000 has been paid by the consumer.

Miscellaneous :

Two cases of larceny were detected when following up reports from Installation Section's staff, and revenue amounting to CN\$4,516,000 has been recovered.

Fourteen cases of damaged meters were reported by Installation Section's staff. The cost of repairs, etc. amounting to CN\$4,161,000 has been paid by the consumers.

Damaged or Missing Main Fuse Box Lead Seals :

Eighteen cases of above infringement of Company's Regulations have been handled by the Installation Section. Fees paid by consumers total CN\$116,000.

Summary :

Five cases of larceny have been detected and settled during the month together with twenty-seven cases of damaged meters and/or associated equipment.

SUMMARY (Cont'd)

Revenue amounting to CN. \$25,507,400 has been recovered, of which:-

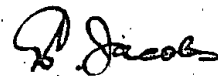
- a. CN. \$19,267,000 represent recovered revenue.
- b. CN. \$ 5,924,400 represent an estimated cost of repairs to damaged meters and associated equipment.
- c. CN. \$ 116,000 represent fees paid for damaged or missing main fuse box lead seals.

Estimated Unmetered Consumption:

Thirty-nine cases of unmetered consumption due to defective or damaged meters were estimated on consumers' Accounts Inspect Orders during the month. The estimated consumption represents 23,200 K.W. hours, amounting to CN. \$13,224,000 of recovered revenue.

NOTE :-

Five cases of unmetered supply taken by various units of the Chinese Armed Forces have been reported by the Installation and Investigation Sections' staff and Meter Readers during the month. These have been passed to the Installation Section for action in concert with Consumers' Engineer's Department.



E. Jacobs,  
Meter & Testing Engineer

JUNE, 1947.

S.P.C. + U.D.P.C.

NAME OF INVESTIGATION	PREMISES INSPECTED	METERS INSPECTED	IRREGULARITIES FOUND	LARCENY CASES		Damaged and/or Missing Plant	TOTAL CASES
				Jumpers	Tempered Meters		
Accounts Office Queries	654	664	164	-	1	2	3
Meter Readers' Reports	21	21	21	-	-	6	6
Route Meter Investigation	1871	2585	901	1	-	4	5
Power Meter Investigation	265	609	95	1	-	1	2
Casual Visits - Day	40	56	10	-	-	-	-
Casual Visits - Evening	4	7	1	-	-	-	-
Small Area Investigations	276	410	57	-	-	-	-
Informers' Letters	1	2	1	-	-	-	-
Miscellaneous	23	24	6	1	1	14	16
<b>T o t a l</b>	<b>3154</b>	<b>4577</b>	<b>1256</b>	<b>3</b>	<b>3</b>	<b>27</b>	<b>32</b>

U.D.P.C. (Included in above figures):

Accounts Office Queries	121	126	44	-	1	1	2
Meter Readers' Reports	4	4	4	-	-	-	-
Route Meter Investigation	626	789	294	-	-	1	1
Power Meter Investigation	1	1	1	-	-	1	1
Casual Visits - Day	104	13	3	-	-	-	-
Casual Visits - Evening	4	7	1	-	-	-	-
Small Area Investigations	153	227	12	-	-	-	-
Informers' Letters	1	1	1	-	-	-	-
Miscellaneous	8	2	8	1	-	1	2
<b>T o t a l</b>	<b>802</b>	<b>1170</b>	<b>368</b>	<b>1</b>	<b>1</b>	<b>4</b>	<b>6</b>

	S.P.C. + U.D.P.C.		U.D.P.C. (only)	
	Premises	Meters	Premises	Meters
Month ending June 30, 1947	3,134	4,377	33	1,170
12 Months ending June 30, 1947	45,571	64,802	537	18,859
				368
				6,579
				127

J U N E, 1 9 4 7

ANALYSIS OF CASE RECOVERED FOR ESTIMATED LOSS OF REVENUES  
FROM CONSUMERS INVOLVED IN LARCENY OF ELECTRICITY AND FOR  
DAMAGED OR MISSING METERS AND BROKEN MAIN FUSE SEALS.

S.P.C. + W.D.P.C.

NAURE OF INVESTIGATION	Jumpers CN\$	Tampered Meters CN\$	Damaged Meters CN\$	Missing Meters CN\$	Broken Main Fuse Seals CN\$	TOTAL CN\$
Accounts Office Queries	-	13,259,000	356,000	-	-	13,614,000
Meter Readers' Reports	-	-	949,000	-	-	949,000
Route Meter Investigation	856,000	-	349,400	-	-	1,204,400
Power Meter Investigation	697,000	-	110,000	-	-	747,000
Miscellaneous	1,423,000	3,093,000	3,955,400	225,600	116,000	8,793,000
T o t a l	2,916,000	16,351,000	5,698,800	225,600	116,000	25,307,400

W.D.P.C. (Included in above figures):

Accounts Office Queries	-	13,259,000	155,000	-	-	13,391,000
Route Meter Investigation	-	-	-	-	-	-
Power Meter Investigation	-	-	110,000	-	-	110,000
Miscellaneous	1,423,000	-	334,000	-	47,500	1,804,500
T o t a l	1,423,000	13,259,000	577,000	-	47,500	15,305,500

	S.P.C. + W.D.P.C.	W.D.P.C. (only)
Month ending June 30th, 1947 ...	CN. 225,307,400.-	CN. 115,305,500.-
12 Months ending June 30th, 1947 ...	84,990,530.-	31,186,500.-



SHANGHAI POWER COMPANY  
AID  
WESTERN DISTRICT POWER COMPANY OF SHANGHAI  
FEDERAL INC., U.S.A.

MONTHLY REPORT

FOR

JULY 1947

ILLEGIB





SHANGHAI POWER COMPANY  
AND  
WESTERN DISTRICT POWER COMPANY OF SHANGHAI  
FEDERAL INC., U.S.A.

MONTHLY REPORT

FOR

JULY 1947

ILLEGIB





SHANGHAI POWER COMPANY

MONTHLY REPORT  
FOR  
JULY 1947

I N D E X

<u>REPORT:</u>	<u>Section</u>	<u>Page</u>
Letter of Transmittal		
Revenues & Expenses (Compared with 1946)	1	1
Electric Demand, Output, Sales & Losses	2	1
Maximum Hour in KWH	2A	1
Net Output or Purchase in MKWH	2B	1
Units Sold & Accounted for in MKWH	2C	1
Transmission & Distribution Losses in % of Net Output or Purchase	2D	1
Customers, Service Inspections	3	1
Customers	3A	1
Service Inspections	3B	2
Employees	4	2
Riverside Operations	5	2
 <u>CHARTS:</u>		
Max. Hour Generation & Output		A
Units Generated, Delivered & Sold		B
Employees		C
 <u>APPENDIX:</u>		
<u>Reports</u>		
Secretarial & Accountancy - S.P.C. & W.D.P.C.		I
Consumers' Monthly Report - S.P.C.		II
Consumers' Monthly Report - W.D.P.C.		III
Generation Report		IV
Distribution Operation Division - S.P.C. & W.D.P.C.		V
Larceny of Electricity		VI

SHANGHAI POWER COMPANY

S U M M A R Y

1. REVENUES & EXPENSES COMPARED WITH 1946 (C\$):

<u>Operating Revenues</u> (C\$ Figures in Thousands)	<u>Month of July</u>	
	<u>1947</u>	<u>1946</u>
S.P.C.	C\$ 66,855,923	C\$ 3,690,631
W.D.P.C.	" 15,357,733	" 802,629
Combined *	<u>C\$ 66,914,974</u>	<u>C\$ 3,855,069</u>
<u>Operating Expenses</u>		
S.P.C.	C\$ 40,379,868	C\$ 3,241,666
W.D.P.C.	" 15,111,966	" 783,163
Combined *	<u>C\$ 42,392,952</u>	<u>C\$ 3,388,637</u>
<u>Net from Operation</u>		
S.P.C.	C\$ 26,276,255	C\$ 448,965
W.D.P.C.	" 245,767	" 19,486
Combined *	<u>C\$ 26,522,022</u>	<u>C\$ 468,451</u>

\* Inter-Company Items Eliminated.

2. ELECTRIC DEMAND, OUTPUT, SALES & LOSSES:

2A Maximum Hour in KWH

S.P.C. Riverside Max. Hr. Generation	145,265	116,527
W.D.P.C. Max. Hr. Demand in KW	29,743	22,120

2B Net Output or Purchase in MKWH (M-1000)

S.P.C. Net Output	79,223	62,814
W.D.P.C. Purchase from S.P.C.	16,182	10,854

2C Units Sold & Accounted for in MKWH

S.P.C. (Including Sales to W.D.P.C.)	74,053	55,041
W.D.P.C.	15,372	10,298

2D Transmission & Distribution Losses in Percent of Net Output or Purchase

S.P.C. (W.D.P.C. considered as one customer)	6.5	12.4
W.D.P.C.	5.0	5.1

3. CUSTOMERS, SERVICE INSPECTIONS:

3A Customers

S.P.C.	98,224	93,389
W.D.P.C.	21,241	19,879
Combined *	<u>119,464</u>	<u>115,267</u>

\* Inter-Company Items Eliminated.

MANHATTAN POWER COMPANY

- 2 -

3B Service Inspections		Month of July	
		1947	1946
<u>Number</u>	(C\$ Figures in Thousands)		
	S.P.C.	9,363	9,649
	W.D.P.C.	402	1,208
	Total	9,765	10,857
<u>Irregularities</u>	S.P.C.	1,649	1,694
	W.D.P.C.	73	435
	Total	1,722	2,129
<u>Cash Recovered (C\$)</u>	S.P.C.	9,721	1,821
	W.D.P.C.	14,307	248
	Total	24,028	2,069
<u>No. of Recoveries</u>	S.P.C.	31	42
	W.D.P.C.	8	6
	Total	39	48

4. EMPLOYEES:

<u>Number</u>		1947	1946
	S.P.C.	3,071	3,025
	W.D.P.C.	125	127
	Total * (Including Staff on Leave)	3,196*	3,152

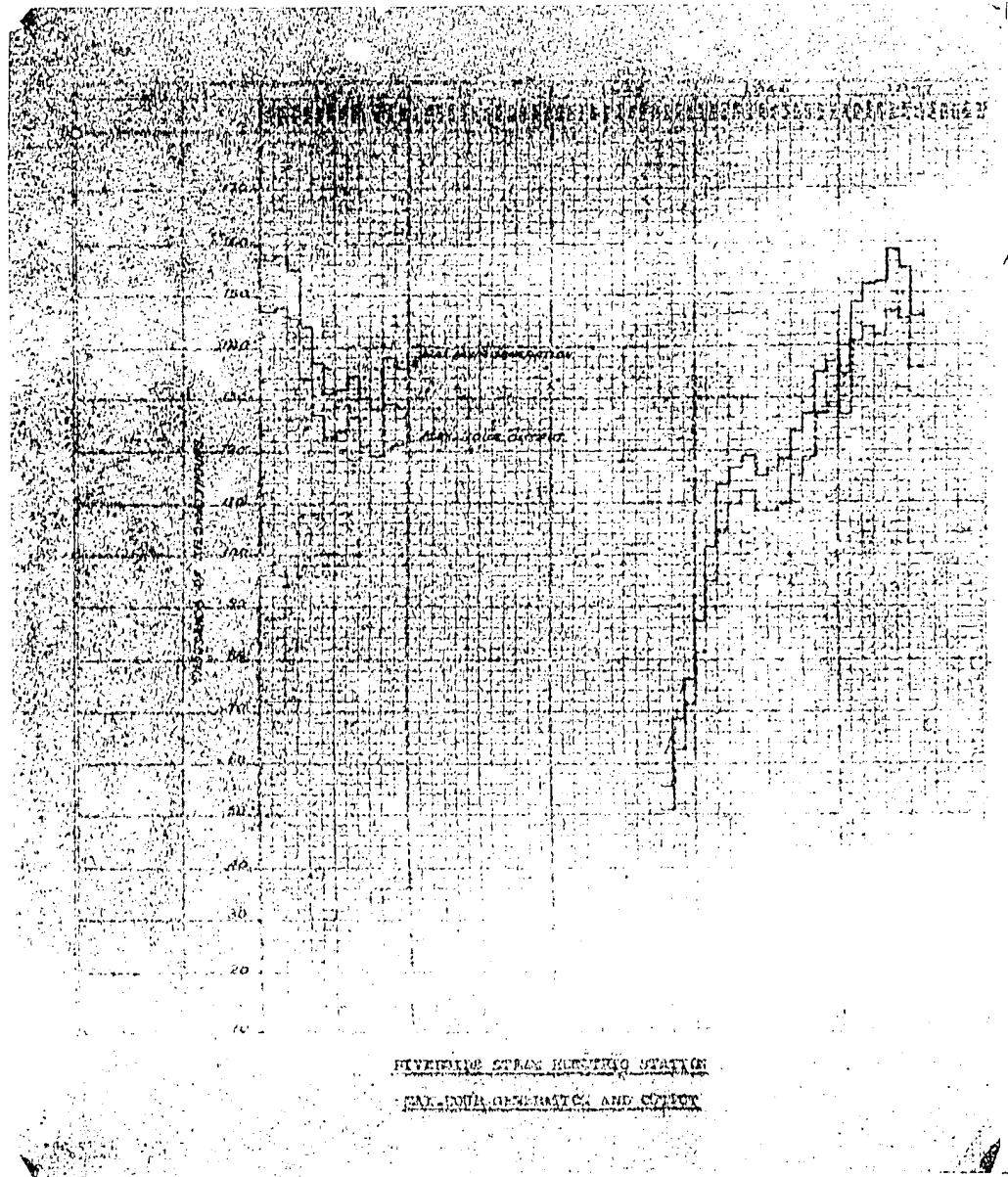
5. RIVERSIDE OPERATIONS:

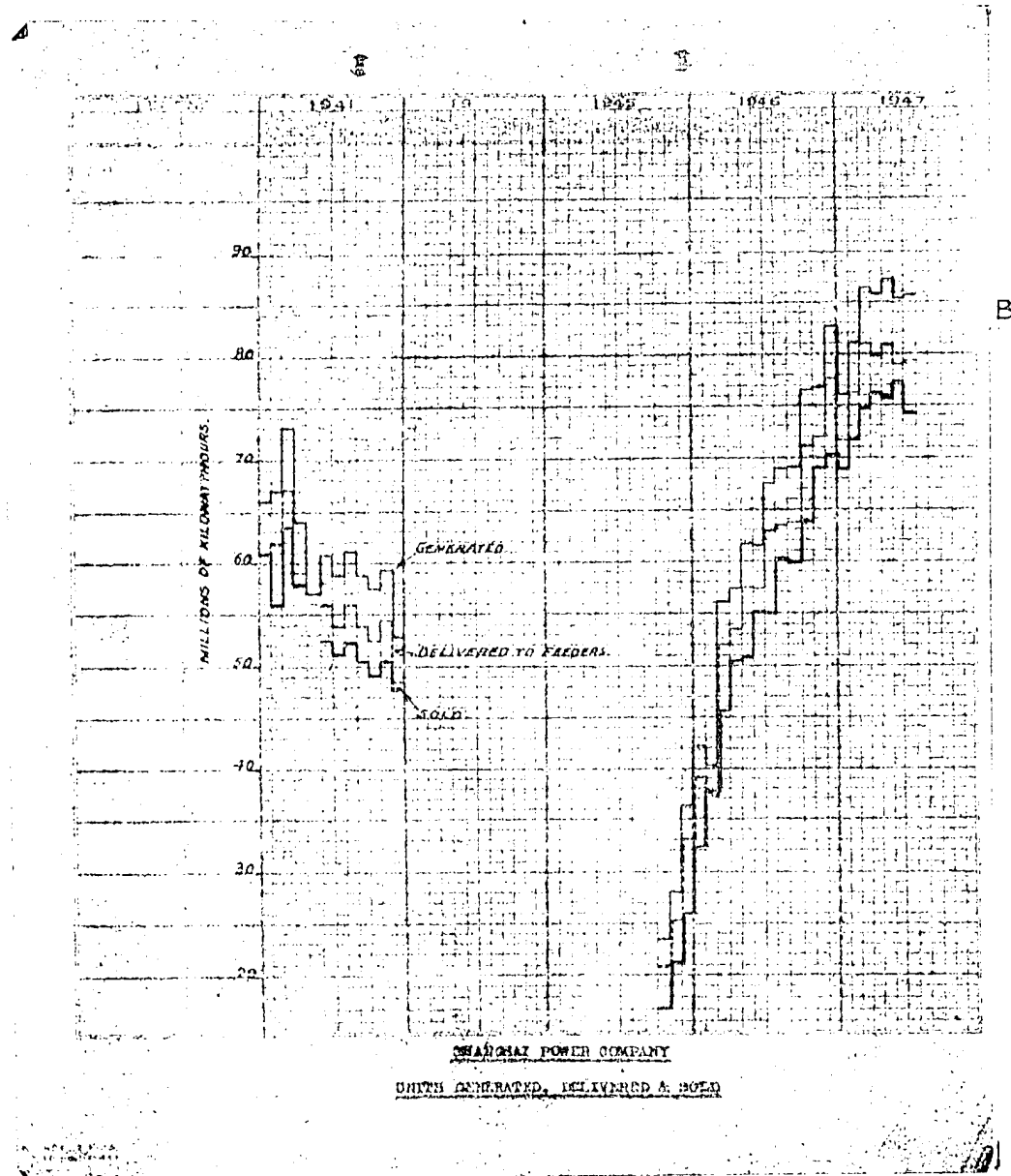
(1) <u>Generating Capacity</u>		1947	1946
Name plate rating	(KW)	173,500	158,500
Name plate rating	(KVA)	212,650	195,000
Working rating - Winter	(KVA)	218,027	198,370
Working rating - Summer	(KVA)	192,830	176,180

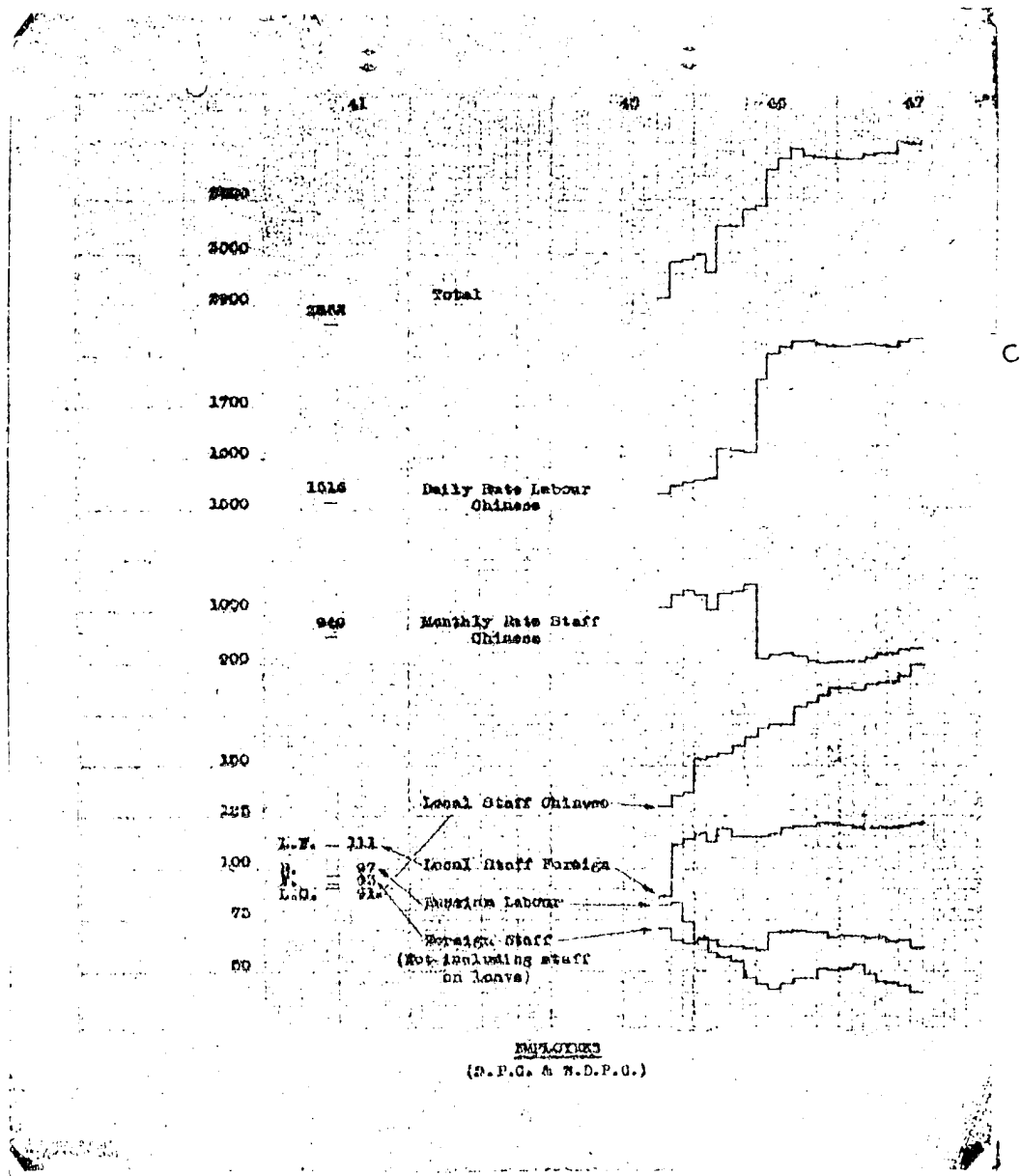
Ø Excludes TD-11 & TD-6.

(2) Instantaneous Peak Generation (KW)	149,314	118,540
(3) Efficiency (BTU per KWH Output)	20,631	21,788
(4) Load Factor (Based on Output & Max. Hr. Output)	78.47	78.05

(5) <u>Fuel in tons of 2240 lbs</u>	1947		1946	
	Coal	Oil	Coal	Oil
In stock at end of June	29,523	1,725	30,219	681
Received during month	20,202	30,122	26,347	21,900
Used during month (Including Sundries)	15,951	30,974	21,853	21,815
In stock at end of July	33,864	933	24,713	856









SHANGHAI POWER COMPANY

SECRETARY & ACCOUNTANCY  
JULY, 1947

SECRETARY & ACCOUNTANCY  
JULY, 1947  
SHANGHAI POWER COMPANY AND WESTERN DISTRICT POWER COMPANY

Cash on Hand and in Banks - Shanghai

The balance of cash on hand and in bank accounts in Shanghai on July 31, 1947 was as follows:

<u>Current Bank Accounts</u>	<u>S. P. C.</u> <u>GN\$</u>	<u>W. D. P. C.</u> <u>GN\$</u>
Secretary & Treasurer		193,094,409.34
Hongkong & Shanghai Banking Corporation:		
General Fund Account	109,108,379.55	-
Fixed Deposits Acct. (due 1.29.48)	5,523,692,000.00	-
National City Bank of New York	21,276,147.00	-
The Bank of China	10,779,386.00	-
Chekiang Industrial Bank Ltd.	22,201,204,965.55	2,986,223,437.46
Comradere Cash on Hand	3,405,077,377.24	734,074.04
<b>Total</b>	<b>31,271,138,255.34</b>	<b>3,180,051,921.64</b>

Remittances to and from New York

During July 1947 the following remittances were obtained by us at the official rate of exchange:

<u>Date</u>	<u>Amount</u>	<u>Remarks</u>
July 3	US\$18,730.00	for balance of the total cost of T.G. 11.
3	56.59	for one package of various silent slide films for technical educational purposes.
7	141.53	for 15,000 pieces wire snap type padlock seals for motors.
19	674.60	for 2 cases Alomite power lubricating fittings.
19	7,621.30	for one complete set high and low voltage coils for converting turbo-generator transformers from two winding units into auto transformers.
22	5,981.69	for purchase of various materials shipped via S/S "Willis Vickery".
23	4.09	for one parcel technical text books
<b>Total</b>	<b>US\$33,209.80</b>	

Remittances to London Agent

<u>Date</u>	<u>Amount</u>	<u>Remarks</u>
July 3	£ 39.16. 3	for one bale white felt.
4	9. 4. 3	for one drum double cotton covered copper wire.
7	1.10. 0	for 6 pieces spun glass brushes for commutator cleaning.
12	23. 3. 6	for one case paper charts.
12	5.11. 7	for one parcel switchboard indicator lamps.
12	2. 7. 9	for one packet technical textbooks
23	45. 6.10	for one case electric insulation varnished tubes & empire cloth.
24	104.12. 3	for one case ball bearings for Raymond 15 ton coal pulverizer.
<b>Total</b>	<b>£ 231.18. 5</b>	

SHANGHAI POWER COMPANY

- 2 -

SEP. 1947  
SP Form 12-47

The following statement shows the supervision fee payable to you with U.S. dollar equivalent at the official rate ruling at the end of each month to July 31, 1947.

	<u>C.H. Dollars</u>	<u>Exchange Rate</u>	<u>U.S. Dollars</u>
Period Sept. 17, 1945 to June 30, 1947	5,402,500,000	12,100	446,487.60
Month of July	242,000,000	12,100	20,000.00
Total	5,644,500,000		466,487.60

Accounts Payable

Unpaid fuel bills as at July 31, 1947 were as follows:-

Coal including freight

Unpaid bills for July CN\$ 5,028,400,000

Fuel Oil

Unpaid bills for July CN\$ 5,143,012,677 (equivalent to US\$ 425,042.37)

The price of coal per metric ton was increased from CN\$ 162,800 to CN\$ 20,000 from July 1, 1947.

Accounts Receivable & Collections

The total amount due from consumers, excluding Municipal, as at July 31, 1947 was CN\$ 84,219,054,000 and the amount due from the Municipal Government for both companies was CN\$ 2,213,018,000. It has been arranged with the Bureau of Public Utilities that the overdue accounts for any of the Municipal organs will be deducted from our royalty payments at the end of August and September, 1947. ✓

Customers' Deposits

Deposits collected during the month for both companies amounted to CN\$ 72,180,000 and refunds to CN\$ 914,000. The amount of additional deposits unpaid on July 31, 1947 was CN\$ 52,838,000. The balance of deposits held against service charges for both companies amounted to CN\$ 7,420,538,000 of which the amount of CN\$ 4,400,780 (nominal value) was in the form of securities segregated as follows:-

	<u>S. P. C.</u>	<u>W. D. P. C.</u>
	<u>CN\$</u>	<u>CN\$</u>
S.M.G. Debentures	12,620	-
Bank Guarantee	56,800	1,527,600
S.P.C. 7% Silver Preferred Stock	2,054,080	374,280
Shanghai Telephone Company	2,100	-
S.P.C. First Mortgage Debentures, 5%	131,300	42,000
Dollar Series, due 1973	2,256,900	2,143,800

SHANGHAI POWER COMPANY

- 3 -

Payroll

Our payroll for the month, with high cost of living index 28,700 times basic pay (scaled down in accordance with Municipal Government formula), totalled CN\$ 11,757,538,900 segregated as follows:-

Foreign and Executive	CN\$ 3,411,274,000
Local	2,416,261,000
Chinese	5,725,134,900
Leave Pay	204,869,000
	<u>CN\$ 11,757,538,900</u>

Dividend Equalization Reserve and General Reserve

During the month we set aside CN\$ 800,000,000 for Dividend Equalization Reserve and CN\$ 400,000,000 for General Reserve. Both amounts were 100% higher than the last month's figures and were charged to operating expenses for the month.

Employee Pension and Retirement Reserve

The provision for Employee Pension and Retirement Reserve was increased to CN\$ 2,500,000,000 and charged to current month operating expenses. The increase was intended to take care of the large potential liability of retirement gratuities for Regular Chinese Employees, Russian workmen and Local appointees. A study was made recently on this matter, and it was found that the estimated liability at May 31, 1947 with the high cost of living index at 28,700 times would amount to CN\$ 86,345,000,000 which, if accrued in a period of five years, would mean a monthly accrual of CN\$ 1,400,000,000. It was also found by this study that this liability would increase at the rate of CN\$ 500,000,000 per month, which meant that the monthly accrual figure should be increased to CN\$ 1,900,000,000. Since there was no reliable basis for making accruals for this reserve in June, the provision of CN\$ 600,000,000 for this reserve in the last month was inadequate. As the recent study revealed that the CN\$ 600,000,000 accrued in June was only enough to take care of the potential pension liability, it was decided to increase our provision for this reserve to CN\$ 2,500,000,000 per month as from July, 1947.

Casualty and Insurance Reserve

A total of CN\$ 224,019,000 was set aside for this reserve in July and charged to operating expenses. Prior to the current month, the provision for this reserve was accrued at US\$ 5,000.00 per month converted into Chinese dollars at the official rate of exchange. We decided to change this method of computation to US\$ 5,000.00 times the official rate of exchange (CN\$ 12,000) and again adjusted by the ratio between July and January high cost of living indices (viz. 28,700/7,946). The resultant figure being CN\$ 216,000,000 was rounded off to CN\$ 200,000,000. The additional provision of CN\$ 24,019,000 was intended to take care of the accidental death of an office coolie, bringing the monthly accrual figure for this reserve to CN\$ 224,019,000.

SHANGHAI POWER COMPANY

REV. 12 P.P.  
CP-428 (7-47)


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Material Replacement Reserve

The accrual for this reserve in July was CN\$ 927,220,000, being 200% of Stores Issues. The same percentage was also used in June for calculation of this reserve.

Chinese Government Profits Tax

Our current month provision for this tax was CN\$ 9,500,000,000 as compared with CN\$ 4,000,000,000 in June. This increase was, of course, due to rate increases effective from the beginning of the month. It should be stated that, being a newly introduced tax, the Shanghai Direct Tax Bureau is unable to give us any definite ruling governing the computation of this tax for the current year. We are making further studies into this matter, and hope that a more definite figure may be arrived at in the near future.

  
A. Kendall Ward  
Secretary & Treasurer

August 15, 1947.

SHANGHAI POWER COMPANY

August 21, 1947.

REF. 100.0  
NO. 100.100.1

CONSUMERS' MONTHLY REPORT FOR JULY

SHANGHAI POWER COMPANY

JULY STATISTICS

Analysis of K.W.H. Sales

	This Year	Last Year	Increase	Increase %
Residential Lighting)	8,963,747	5,155,791	3,806,956	73.8
Commercial Lighting )				
Residential Heating & Cooking)	1,650,580	1,142,834	506,746	44.3
Commercial Heating & Cooking; )				
Bulk Supply Industrial	27,021,191	19,851,275	7,169,916	36.1
Bulk Supply Commercial	1,523,737	1,181,632	342,105	29.0
Small Power (Incl. D.C. Lifts)	4,819,231	2,762,958	2,056,273	74.4
<u>Public Utility:</u>				
Shanghai Trams	1,041,090	813,123	227,967	28.0
French Trams	1,118,000	1,106,000	12,000	1.1
Shanghai Waterworks	1,357,500	850,680	506,820	59.5
Chapel Co.	8,303,242	9,707,305	-904,063	-9.3
Intercompany - W.D.P.C.	16,181,600	10,853,600	5,328,000	49.1
Private Street Lighting	77,697	77,836	-139	-0.2
Municipal Street Lighting	192,553	190,593	1,960	1.0
Municipal Others	406,908	344,550	62,358	18.1
Total	<u>73,157,076</u>	<u>54,040,177</u>	<u>19,116,899</u>	<u>35.4</u>
Total Units Sold (12 months ending July 1947)	<u>834,788,395</u>	<u>411,446,609</u>	<u>423,341,786</u>	<u>102.9</u>

Analysis of Large Industrial Sales in K.W.H.

	This Month	Last Month	Last Year	Increase % over Last Year
Chinese Cotton Mills	17,513,495	19,534,907	10,493,315	66.9
Other Cotton Mills	219,400	222,650	2,323,310	-90.6
Total Cotton Mills	17,732,895	19,757,557	12,816,625	38.4
Flour Mills	1,369,800	875,700	1,495,560	-8.4
Rubber Products	843,395	820,985	360,086	130.9
Paper Mills	1,105,064	1,177,870	791,458	39.6
Lumber Mills	27,610	27,985	8,080	241.7
Egg Produce	-	-	-	-
Oil Mills	108,600	104,600	53,400	103.4
Ice & Cold Storage Factories	1,684,870	1,362,545	1,484,026	13.5
Tobacco Factories	195,228	196,485	187,167	4.3
Silk Mills	49,780	48,840	37,760	31.8
Miscellaneous Textiles	1,982,345	2,099,861	1,484,117	33.6
Metal Working	804,027	636,395	546,686	47.1
Woolen Mills	308,150	312,200	126,080	144.4
Miscellaneous Other	807,427	720,610	454,230	77.8
Total	27,021,191	28,141,653	19,851,275	36.1

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SHANGHAI POWER COMPANY

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CONNECTIONS

No. of Customers		<u>This Month</u>	<u>Last Month</u>	<u>Last Year</u>	<u>Increase during Month</u>
		98,224	98,062	95,389	162
"	Refrigerators	8,514	8,495	8,349	19
"	Cookers (Hired)x	2,964	2,961	2,985	3
"	Radiators ( " )x	1,978	1,984	2,823	-6
"	Water Heaters ( " )x	72	70	64	2
"	Misc. Appliances ( " )x	169	169	167	-
H.P. of Motors	( " )x	13,833	13,698	14,484	135

Ø Includes Refrigerators installed in Western District Power Company Area.

x These figures include Appliances hired by Western District Power Co. of Shanghai.

CONNECTED LOAD

K.W. Lighting	102,215	102,164	99,000	51
" Heating: Comprising	(31,791)	(31,671)	(33,776)	(120)
" Cookers	18,251	18,195	18,308	56
" Radiators	9,974	9,986	12,256	-12
" Water Heaters	127	124	117	3
" Miscellaneous	3,439	3,366	3,095	73
" Motors	229,737	229,075	229,890	662
" Industrial Heating	4,325	4,274	3,607	51
" W.D.P.C.	54,600	54,600	54,600	-
" Total	422,668	421,784	421,073	884

MONTHLY MOVEMENT IN CUSTOMERS

	<u>Total All Classes</u>
Total Customers Reconnected	25
" " Disconnected	61
Loss	36
Total New Customers Connected	198
Total Increase During Month	162

SHANGHAI POWER COMPANY

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GENERAL COMMENTS

Two meetings of the Shanghai Power Supply Regulating Committee were held during July - on the 7th and 30th. An important resolution was passed at the meeting held on the 7th - namely that, in view of the prevailing shortage of generating capacity in the city, all privately-owned generating plants must be put into service as soon as possible. This question was brought up when it was learned that various units which had been supplied by SHGSA to certain cotton mills were lying idle. The following is a list of the units referred to:

<u>Name of Mill</u>	<u>Generating Plant installed</u>
C.T.I.L. No. 17	1,000 k. Turbo-generator set
" " 19	2,000 " " " "
" " 1	1,000 " " " "
" " 2	2,000 " " " "
Jung Hing " 1	1,000 " Diesel set

The matter now rests with the Bureau of Public Utilities who are bringing pressure to bear on the mills concerned to put plant into service as soon as possible.

It is anticipated that low conditions during the coming winter will create a serious problem, especially if space heating by electric radiators is not suppressed. Also, the cost of fuels is such that cooking by electricity is much cheaper than by gas, coal, briquettes, etc. Furthermore, with the present cost of electricity, there is much wasteful usage of lighting service. With these points in mind, we have discussed the problem with the Bureau of Public Utilities and have suggested that restrictive rates be applied to lighting, heating and cooking services for residential and commercial consumers. The question is now being studied and we are hopeful that a favourable decision will be reached in the near future.

Supply to Outside Areas - Additional generating capacity was made available to the Footung Company at the end of this month. This company had a part share in a 2,000 kw generating unit installed by a certain group of mills and 600 kw was their share in the output. As is known, supply to Footung is taken from the Chapel Company who in turn take supply direct from this company. As a consequence of this added capacity, the allotted demand to Chapel is reduced from 20,000 kw to 19,400 kw and the energy usage at special rate is reduced from 8,800,000 kWh to 8,560,000 kWh per month. ✓

Night operation - Applications for new or additional power connections have been refused for some time past and this condition is likely to remain in force for some time to come. However, it was decided that connection would be given to any consumer willing to restrict operation of his plant to set hours during the night when spare capacity is available. The following notice was published in the local press on July 11th, 1947, and has since been repeated:

## N O T I C E

During the present power shortage new power connections are refused because the capacity of generators is fully utilized.

If there be factories where it is practical to strictly confine operation between the hours of 11 p.m. and 7 a.m. it will be possible for supply of power to be given.

Any manufacturers interested in the use of such power, strictly confined within the hours of 11 p.m. to 7 a.m. should make application to Shanghai

SHANGHAI POWER COMPANY

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SEP 1955  
FORM 17-A

"Power Company or Western District Power Company of Shanghai who will take the application up with the Shanghai Power Supply Regulating Committee, Shanghai Municipal Government.

SHANGHAI POWER COMPANY  
and  
WESTERN DISTRICT POWER COMPANY OF SHANGHAI,  
Federal Inc. U.S.A.

Replies to the foregoing have been satisfactory and details of applications received are given in the Power Section report.

COMMENTS: TOTAL KILOWATT-HOUR SALES

The meter reading months were as follows:

	July	June	Difference
Schedule Rate Consumers	30.55	29.97	1.9%
Bulk Supply Consumers	30.20	30.70	-1.6%
Municipal Consumers	31.00	31.00	0.0%

Total Kilowatt-Hour Sales for July were 73,157,076 - a decrease of 3,300,000 units, or 4.3%, from May's total of 76,500,000 kWh. The decrease was mainly due to reduction in sales to Industrial Bulk Supply, Intercompany and Outside Areas. This decrease was due to lower output due to generating plant outages and not to slackened demand. Sales to other classes increased.

Residential & Commercial Lighting Sales were up from 8,600,000 kWh in June to 8,963,717 kWh in the current month. This increase of 360,000 kWh, or 4.6%, is slightly more than accounted for by the longer reading month and is a normal seasonal variation.

Residential & Commercial Heating & Cooking with a total of 1,650,580 kWh showed no change from last month.

Industrial Bulk Supply consumers took 27,021,191 kWh only against 28,140,000 kWh in June. Practically all of the loss was due to emergency load reductions of cotton and other mills with over 100 kW M.D. (This matter is recorded in detail in Power Section Report).

Commercial Bulk Supply usage was 1,523,737 kWh compared with only 1,280,000 kWh the previous month. The increase was, of course, due to air-conditioning usage and was rather less than normal as many consumers found it unprofitable to operate their installations to full capacity.

Small Power consumers' usage increased by 4.1% to 4,819,231 kWh as against 4,630,000 kWh last month.

Shanghai Trams total of 1,041,090 kWh was unchanged, while

French Trams took only 1,118,000 kWh, a 28.8% decline from the June total of 1,570,000 kWh. The decrease was partly due to enforcement of load reduction and partly to their own damaged unit being back in operation.

Shanghai Waterworks total was 14.4% up to 1,357,500 kWh compared with 1,200,000 kWh last month. The increase was normal and seasonal due to higher water usage during the hot summer months.



SHANGHAI POWER COMPANY

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Chapel Company took 8,803,242 kWh, or 6.4%, less than in June, corresponding to the reduced allotment.

Intercompany sales decreased in line with S.P.C. sales from 18,300,000 kWh in June to 16,181,600 kWh in the current month.

Private & Public Street Lighting sales remained unchanged at 77,697 kWh and 192,552 kWh respectively.

Municipal Others totalled 406,908 kWh compared with 377,097 kWh in June - an increase of 7.7%.

#### ANALYSIS OF LARGE INDUSTRIAL SALES

Cotton Mills sales were 17,732,895 kWh in July compared with 19,760,000 kWh in June. This is a 10% decrease and entirely due to the emergency load reduction, as demand for energy is, at least, firm. With two or three exceptions, all mills used less and by approximately the same percentage. In spite of enforced idleness during shutdowns, the Load Factor is still good generally, namely, 65-70%.

With respect to the market situation and prospects generally, there are practically no changes from last month.

Flour Mills took 1,369,800 kWh in July. This is a 56.4% increase over the June total of 876,000 kWh and is mainly due to increased supply of local grain generally harvested during the last week of May and during June. The local crop is reported well above normal.

Rubber Products - Sales to this industry recovered slightly, with a total of 845,395 kWh compared with 820,000 kWh the previous month. Real improvement is expected from the middle of August onwards.

Paper Mills - After several months steady increase of sales, a slight setback occurred this month, with a total of 1,105,064 kWh compared with 1,177,870 kWh in June. The decline was entirely due to enforced reduction, however, as demand continues brisk and profits fair. Contemplated changes of import regulations may affect this industry adversely in autumn, but immediate prospects are good.

Lumber Mills and Saw Produce both continued practically idle with no material change of outlook.

Oil Mills' usage remained at last month's level with a total of 108,600 kWh.

Sales to Ice & Cold Storage Factories improved seasonally from 1,360,000 kWh in June to 1,684,870 kWh in July, or by 23.7%. A further slight increase is probable next month. This is about prewar usage and 10% over last year's July usage of 1,500,000 kWh. Compared with last year, Cold Storage Plants use less and Ice Manufacture for the Fishery Fleet use more.

Before the war, Japanese dealers supplied a considerable proportion of Shanghai's fish. This of course is now stopped and a Chinese Fishery Fleet has been promoted by UNRRA. Unfortunately, the work has not been an unmitigated success but a certain progress from last year is nevertheless discernible, especially during the last few months. Fish supplies today are fair, although with respect to variety below prewar standards.

SHANGHAI POWER COMPANY

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JULY 1947  
1947

Tobacco Factories' sales remained at last month's level, with a total of 195,228 kWh. Activities are not likely to improve much until the autumn.

Silk Mills - The two weaving mills in this group showed a slight increase as July usage was 49,780 kWh compared with the June total of 48,800 kWh. There are practically no exports but local demand continues fair although price tendency has been weak. Prospects are not good and no material increase can be expected until drastic changes of the Government's exchange policies are effected.

Miscellaneous Textiles sales dropped mainly due to enforced load reduction, from 2,100,000 kWh in June to 1,982,345 kWh in July.

The piecegood market has been rather listless and the demand noticeably lower than in spring. This is, however, not an unusual summer feature and improvement may be expected. Generally, the mills are running to capacity and will probably continue to do so.

Metal Working took 634,027 kWh in July compared with 636,000 kWh last month. This is an increase of 26% and is almost entirely due to the Chinese Aluminium Rolling Mills Ltd. resuming operations after two months' idleness due to strike. The other concerns in this group showed only minor changes.

Spoolen Mills usage showed a slight decline from 314,000 kWh in June to 309,150 kWh in the current month. The market rate for yarn and piecegoods is seasonally dull. Spinning yarn has shown a slight movement. Seasonal improvement is expected in September/October.

Miscellaneous Others took 837,447 kWh - a 10% increase over the previous month's total of 760,000 kWh. Breweries and Aerated Water Companies were seasonally up; other groups remained unchanged.

#### LOADS SECTION

Due to the restrictions imposed, as from June 16th, 1947, the number of applications for power service accepted this month shows a decided decrease when compared with recent months.

With a view to utilizing the spare generating capacity available during night time, i.e. from 11.00 p.m. to 7.00 a.m., a notice was inserted in the local press inviting consumers to apply for power services for night operation only. The response so far has been quite good and we have to date received 14 applications totalling 352 kWh. in both S.S. and S.S.S. areas.

The following applications for power service were accepted during the month:

Reconnection:	1 Application for a load of	5 H.P.
New Load	: 13 Applications totalling	347 "
Total	: 14 Applications totalling	352 H.P.

Of the above total, 7 applications for loads of from 1 - 20 H.P. were for the manufacture of edible oil, beancurd and noodles and come under the heading of "Essential Services". The remaining 7 applications for loads of from 10 - 162 H.P. were accepted for night operation only and cover the following industries: rubber, metals, lumber, silk and match-making.

SHANGHAI POWER COMPANY

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During the month the volume of necessary load reduction showed a considerable increase as compared with previous months due to a reduction in T.G. capacity available. This was caused mainly by increased outages of generating plant for essential repairs and to a lesser extent because of the seasonal rise in river water temperature resulting in reduction of T.G. plant output.

T.G. plant outages during the month were as follows:-

T.G.'s 2 and 7 were out of commission all month.  
T.G. 18 was out of commission from 2nd - evening of 9th.  
T.G. 1 was out of commission from 1st - 5th (inclusive).

This meant a reduction in T.G. plant available of 29,000 kW for the first few days of the month and 12,000 kW for the remainder.

It was therefore necessary to extend the pre-arranged load reduction schedule and the following scheme was agreed to by the Cotton Mills Association and put into operation:-

The "Stand-by" group of Mills shut down each day during day shift, while an additional group, total demand about 5,000 kW, shut down each day from the finish of night shift until noon.

This arrangement helps to reduce the Mills' labour costs as it is only necessary to pay the workers for half the time of the pre-arranged shutdown period; in other words, the workers have a holiday with half pay. Whereas loss of production time due to enforced load reduction has to be paid for in full.

With the addition of the "Voluntary Shutdown Day" which has been referred to frequently in previous Reports, this meant that each Mill was shut down two and a half day shifts per week, but even so a certain amount of enforced load reduction was still necessary.

In the course of the month the large Textile Mills suffered an average loss per mill of approximately 80 production hours due to load reduction. This figure does not include the weekly "Voluntary Shutdown Day" and the time lost due to the present Sunday operating schedule.

The allotment to the Chapel and French Companies was also revised according to the amount of T.G. plant out of commission. The following tabulation gives details of the revised allotment schedule in operation during this month:

	Normal Allotment in kW	Allotment in kW with T.G.'s 1, 2, 7 & 18 O/C	Allotment in kW with T.G.'s 1 & 18 again I/C
French Co.	2,700	2,080	2,344
Chapel Co.	20,000	15,400	17,350

The voluntary load reduction scheme, applied to miscellaneous industrial plants with a maximum demand of 100 kW or more, has been in operation all month and a periodic check-up has shown that the consumers are fully co-operating. The re-introduction of this scheme was referred to in last month's Report and the load relief thus obtained is approximately 3,000 kW per day.

SHANGHAI POWER COMPANY

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1947

As the Cotton Mills Association had been receiving frequent complaints about some Mills working when they should have been shut down by previous arrangement, it was decided to form an Investigation Group. This Group consists of four representatives, one from each of the following: Private Cotton Mills, C.T.I.I. Mills, Bureau of Public Utilities and S.P.C. Consumers' Department. Every morning a list is prepared by this Section showing the Cotton Mills to be affected the following day by the pre-arranged load reduction schedule. A copy of this list is sent to the Cotton Mills Association, the System Control Engineer is informed, and this Section advises the individual mills by telephone. The Investigation Group checks up each day and so far a limited number of defaulters have been discovered. Up to the present no disciplinary action has been taken but this question will be settled entirely by the Cotton Mills Association.

The estimated loss of sales potentiality due to load reduction in July was as follows:

Cotton Mills	7,282,000 kWh
Miscellaneous Industries	578,000 "
Chapel & French Power Co.'s	1,524,000 "
Total	<u>9,384,000 "</u>

Allowing for the gain of approximately 1,830,000 kWh as a result of the Sunday working schedule, the total loss of sales potentiality due to insufficient generating capacity was approximately 7,554,000 kWh as compared with 3,210,000 kWh last month. The exceptional increase this month is due to the excessive outages of generating plant, details of which are given earlier in this Report. All voluntary load reduction is calculated as lost sales.

During the month the average potential load demand was about the same as in June, viz. 164,000 kW in the forenoon, 152,000 kW in the afternoon and 150,000 kW in the evening. However, at the beginning of the month, with so much generating plant out of commission, Riverside could only cope with a maximum sustained demand during daytime of approximately 124,000 kW, with instantaneous peak demands of about 137,000 kW in the evenings. Load conditions improved considerably with T.G.'s 1 and 18 back on load, when a maximum sustained daytime demand of about 135,000 kW could be negotiated with instantaneous peak demands as high as 149,000 kW in the evenings.

No new load prospects were recorded in July, but supply at 6.6 kV was given to the Yue Sing Dyeing & Weaving Factory - Ward/Tsitsihar Roads. This prospect was first referred to in our report for January 1947. A 325 kVA transformer has been installed temporarily on a hire basis until the arrival of the consumer's own 500 kVA unit. The estimated load demand of this consumer is approximately 250 kW and is expected to yield an annual revenue of CN\$1,100,000,000.-

(The revenue mentioned in this Report is based on the new net rates which became effective as from July 1st, 1947, viz:

CN\$1,130.- per kWh for consumption of electricity up to 50,000 kWh  
and CN\$1,170.- " " " " " " " " " " " " in excess of this amount

Power Installation Inspections

The following inspections were made during the month:

No. of Inspections in July	Unauthorized Additions
240	30

SHANGHAI POWER COMPANY

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FORM 10-7-54  
OF 1000 (1954)RESIDENTIAL SECTION

Domestic Cooking - There were no changes worthy of note in cooker movements during the month.

Home Service - Only routine activities of the section were carried out.

Showroom - During the month there was no change in the work of the showroom. Calls for cooker breakdowns were attended to, as usual. Very few consumers visited our showroom this month due probably to the hot weather. Consequently, enquiries regarding the hire of cookers, etc. were greatly reduced.

Radiators & Water Heaters - An increase in Water Heater figures was shown for the month while Radiators recorded a small decrease. The increase in Water Heaters was accounted for by transfers from one area to another.

Refrigerator Sales - A drop in sales was recorded this month as most of the local dealers have practically no stock of new refrigerators at present.

HIRED PLANT INSTALLATION & MAINTENANCE SECTION

Workshop output was as follows:

Motors repaired .....	10
Switches & Starters overhauled .....	4
Cookers repaired & tested .....	26
Water Heaters " " " .....	12
Hot Plates fabricated .....	335
Service Calls Attended .....	1,032

Hired Motors:

Connections: 5 motors aggregating 326 H.P. (= Replacement of consumers' own motors and for night operation).

Disconnections: 2 motors aggregating 67½ H.P.  
Three major breakdowns occurred: 1-120 H.P. with a broken shaft and 1-80 H.P. and 1-40 H.P. each with the stator coils partially burnt out.

Miscellaneous work and interdepartmental jobs accounted for 330 man-days; most of this was for work at Head Office and maintenance of other Company property and buildings. Several new cookers were installed but these were special cases for U.S. Consular officials and the Texas Oil Co. Staff quarters who have no other cooking facilities. Further delivery of 2,000 watt Chromalox Surface units was very welcome for cooker maintenance.

ADVERTISING SECTION

Newspapers - A notification entitled "Power Shortage Shanghai Area" was inserted in all local newspapers and the China Weekly Review on July 3rd, 1947. This notice gave a general outline of the prevailing power shortage and advised that a further restriction of supply was imperative during the present outage for essential repairs of generating plant at Riverside totalling 29,000 KW.

SHANGHAI POWER COMPANY

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REC. 20 22  
107 2000 (1947)

The second notice, "Revised Rates", was inserted in all newspapers on July 6th, 1947.

Another notice, "Power Connections For Night Operation" appeared in the English and Russian language newspapers and the China Weekly Review on July 11th, 1947. It was also inserted in the Chinese newspapers on July 11th, 14th, 17th and 21st, 1947. The object of the notice was to encourage manufacturers to operate factories between the hours of 11 p.m. and 7 a.m. during which period spare generating capacity is available.

A Debenture Notice appeared in the English, Russian and Chinese language newspapers on July 30th and 31st, 1947.

Two articles were published in the China Press headed, "Electricity Supply Cuts To Be On Rotating Basis, City Gov't Rules" and "Utility Rate Hike Explained".

General - New layouts for Power Record Cards were drawn for job printing.

Several charts were painted as requested and a pencil sketch of another large one was drawn. After the latter has been approved, the sketch will be painted in colour.

A request was made by the "Safety Committee" D.D.C. for poster designs. Work on this will be started sometime next month.



A. E. Colterjohn  
Assistant Consumers' Engineer

cpo

WESTERN DISTRICT POWER COMPANY OF SHANGHAI, FEDERAL INC. U.S.A.

August 21, 1947.

APR 22 1947

WESTERN DISTRICT POWER COMPANY OF SHANGHAI,  
FEDERAL INC. U.S.A.

JULY STATISTICS

Analysis of K.W.H. Sales

	<u>This Year</u>	<u>Last Year</u>	<u>Increase</u>	<u>Increase</u>
				<u>%</u>
Residential Lighting)	1,501,956	820,969	680,987	82.9
Commercial Lighting )				
Residential Heating & Cooking)	562,852	410,045	152,807	37.3
Commercial Heating & Cooking )				
Bulk Supply Industrial	9,482,491	6,102,592	3,379,899	55.4
Bulk Supply Commercial	40,148	8,366	31,782	379.9
Small Power	2,554,695	1,597,797	996,898	64.0
<u>Public Utility:</u>				
Chapel Co.	964,800	1,173,600	-208,800	-17.8
Private Street Lighting	11,337	10,482	855	8.2
Municipal Street Lighting	23,097	23,763	-666	-2.8
Municipal Others	228,351	188,511	39,840	21.1
<u>Total</u>	<u>15,169,727</u>	<u>10,296,125</u>	<u>5,073,602</u>	<u>49.3</u>
Total Units Sold (12 months ending July 1947)	177,494,651	74,984,716	101,808,097	135.8
Total Units Purchased (12 months ending July 1947)	183,060,510	84,573,062	103,487,448	122.4
Distribution Losses (12 months average)	6.0%	11.3%	-5.3%	-46.9
Maximum Demand for Purchased Power - KW	29,743	22,120		

Analysis of Large Industrial Sales in K.W.H.

	<u>This Month</u>	<u>Last Month</u>	<u>Last Year</u>	<u>Increase</u>
				<u>% over</u>
				<u>Last M.</u>
Chinese Cotton Mills	5,808,950	7,254,210	3,373,650	72.2
Other Cotton Mills	3,000	3,900	633,300	-99.5
Total Cotton Mills	5,811,950	7,258,110	4,006,950	45.0
Flour Mills	336,425	82,300	372,575	-9.7
Rubber Products	229,164	267,044	81,500	181.2
Paper Mills	424,447	434,083	147,460	187.8
Tobacco Factories	3,600	1,440	-	-
Ice & Cold Storage Factories	41,800	30,800	33,300	25.5
Silk Mills	205,210	247,235	101,870	101.4
Miscellaneous Textiles	1,691,990	1,856,807	1,063,513	59.1
Metal Working	104,080	113,075	51,724	101.2
Woolen Mills	328,395	384,375	194,970	68.4
Miscellaneous Others	305,430	339,160	48,730	526.8
<u>Total</u>	<u>9,482,491</u>	<u>11,014,129</u>	<u>6,162,592</u>	<u>55.4</u>

WESTERN ELECTRIC POWER COMPANY OF AMSTERDAM, N. Y., U.S.A.

PER. REP. CO. NY 200 101-203

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CONNECTIONS

	<u>This Month</u>	<u>Last Month</u>	<u>Last Year</u>	<u>Increase during Month:</u>
No. of Customers	21,241	21,144	19,879	97
" Refrigerators	2,287	2,284	2,216	3
" Cookers (Hired)x	783	784	775	-1
" Radiators ( " )x	270	272	390	-2
" Water Heaters ( " )x	27	27	25	-
" Misc. Appliances ( " )x	29	29	29	-
H.P. of Motors ( " )x	4,628	4,628	3,514	60

x Hired from S.P.C. and included in S.P.C. Statement.

CONNECTED LOAD

K.W. Lighting	15,110	15,060	14,359	50
" Heating: Comprising	(7,321)	(7,331)	(7,574)	-10
" Cookers	5,664	5,673	5,533	-9
" Radiators	1,270	1,276	1,690	-6
" Water Heaters	60	60	56	-
" Miscellaneous	327	322	295	5
" Motors	67,796	66,569	64,226	1,227
" Industrial Heating	1,050	1,051	916	-1
" Total	91,277	90,011	87,075	1,266

MONTHLY MOVEMENT IN CUSTOMERS

	<u>Total All Classes</u>
Total Customers Reconnected	11
" " Disconnected	28
Loss	17
Total New Customers Connected	114
Total Increase During Month	97



SHANGHAI POWER COMPANY

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COMMENTS: TOTAL KILOWATT-HOUR SALES

The reading month was as follows:

	<u>July</u>	<u>June</u>	<u>Difference</u>
Schedule Rate Consumers	28.96	30.91	-6.3%
Bulk Supply Consumers	29.20	31.80	-8.2%
Municipal Consumers	31.00	31.00	-

Total Kilowatt-Hour Sales for July were 15,369,727 kWh compared with 17,240,000 kWh in June. This is a 11% decrease, partly due to the shorter reading month and partly to emergency load reductions for mills of over 100 kW demand.

Residential & Commercial Lighting declined from 1,588,000 kWh in June to 1,501,956 kWh in the current month, or by 5.4%. As the reading month was 6.3% shorter, daily usage actually increased by 1%.

Residential & Commercial Heating & Cooking usage totalled 562,852 kWh compared with 607,005 kWh the preceding month - a loss of 7.3%, or close to the decrease of the reading month.

Industrial Bulk Supply consumers took 9,482,491 kWh only, or 13.9% less than last month. The shorter month and emergency load reduction accounted for the decrease. Flour Mills, Tobacco and Ice Factories gained; the other groups showed a decrease.

Commercial Bulk Supply (Country Hospital) used 40,148 kWh - a small increase from last month.

Small Power totalled 2,554,695 kWh against 2,870,000 kWh last month. The decrease equalled 10.9% which is rather more than the percentage decrease of the reading period.

Chapel Company gained 13.6%, to reach 964,800 kWh.

Neither Private nor Public Street Lighting showed any change.

Municipal Others' usage dropped by 3.1% to 228,351 kWh.

ANALYSIS OF LARGE INDUSTRIAL SALES

Cotton Mills - The consumption decreased by 19.9% to 5,811,950 kWh compared with 7,258,110 kWh last month. All mills showed a decrease in approximately the same proportion as that due to enforced load reduction and the shorter month.

Flour Mills took 336,425 kWh, or 310% over last month's total of 82,000 kWh. Both mills in this group gained in the same proportion.

Rubber Products sales dropped by 14.2%, from 267,000 kWh in June to 229,164 kWh in the current month.

Paper Mills maintained their activities. Sales were 424,447 kWh compared with 434,000 kWh last month.

Ice Factories usage increased seasonally by 36%, from 31,000 kWh in June to 41,800 kWh in July.

WESTERN DISTRICT POWER COMPANY OF BARNHURST, A. INC. U.S.A.

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Silk Mills' sales dropped by 17% to 205,210 kWh, partly due to the shorter month and emergency load reduction, and partly because of the slackened demand and low prices which have made operations unprofitable. Prospects are not good and a further decline may be experienced.

Miscellaneous Textiles took 8.9% less consumption than last month, with a total of 1,691,990 kWh. The emergency load reduction only affects mills with 100 kw demand or over. Many of the consumers in this group are of smaller capacity and are therefore able to operate continuously while the large cotton mills must shut down. It is a natural consequence therefore that the percentage reduction of usage is less for this group than for the spinning mills.

Total Working usage showed a drop of 8% to 104,080 kWh corresponding to the shorter reading period.

Woolen Mills - The hot weather influenced sales which dropped seasonally to 328,395 kWh from last month's total of 384,900 kWh.

Miscellaneous Others' sales dropped in line with the reduced reading period by 9.9% to 305,430 kWh.

POWER SECTION

The following applications for power service were accepted during the month:

Reconnections:	2 Applications	totaling	16 H.P.
New Load	: 12	"	" 394 "
<u>Total</u>	: 14 Applications	totaling	410 H.P.

The above total includes 2 applications for water pumping, one for 1 H.P. and the other for 3 H.P., also 3 H.P. for supply to a radio transmitter for China Merchants Navigation Co. The remaining applications, for night operation only, are for loads of from 3 - 120 H.P. and cover the following industries: metals, rubber, weaving, and soap.

No new load prospects were recorded and no new connections to major loads were made during the month.

Power Installation Inspections - Inspections made during July were as follows:

<u>No. of Inspections</u>	<u>Unauthorized</u>
<u>in July</u>	<u>Additions</u>
88	24

RESIDENTIAL SECTION

Domestic Cooking - A slight decrease in the total number of cookers rented was recorded for the month. The movement in cookers was slight as is to be expected during the slack summer months.

Home Service - Routine work was carried out in this section.

Radiators & Water Heaters - During the month both radiators and water heaters showed very little movement.

eno

*E. S. Galtersohn*  
E. S. Galtersohn

SHANGHAI POWER COMPANY

SHANGHAI POWER COMPANY  
 RIVERSIDE STEAM ELECTRIC STATION  
 MONTHLY GENERATION REPORT  
 JULY 1947

OUTPUT & PERFORMANCE DATA -

	A	B	C		D		E
	Total Station Net Output Kwh	Short Time Peak Demand Kw	St B Gross Generation Kwh	% of Total	St C Gross Generation Kwh	% of Total	Overall Heat Consumption Stu/net Kwh
July 1947	79,223,302	149,314	37,618,299	45.96	16,599,000	19.36	20,631
June 1947	78,971,874	161,567	39,246,009	46.00	16,617,000	19.48	19,828
July 1946	62,813,359	118,549	28,447,518	42.08	-	-	23,788
July 1941	53,896,072	132,631	34,757,169	59.07	-	-	20,202
% increase over							
June 1947	0.32	-	-	-	-	-	4.08
July 1946	26.12	26.95	32.24	-	-	-	-
July 1941	46.99	12.58	8.23	-	-	-	2.12
% decrease from							
June 1947	-	7.58	4.15	-	-	-	-
July 1946	-	-	-	-	-	-	5.31
July 1941	-	-	-	-	-	-	-

	Hourly Station Net Output Kwh	St B Hourly Gross Generation Kwh	St C Hourly Gross Generation Kwh
July 1947 (744 hr)	106,423	50,562	23,054
June 1947 (720 hr)	109,683	54,908	23,079
July 1946 (744 hr)	84,427	38,236	-
July 1941 (720 hr)	74,856	48,274	-
% increase over July 1946	26.12	32.24	-
% increase over July 1941	42.25	4.74	-
% decrease from June 1947	2.92	7.24	0.11

Remarks -

The higher heat rate compared with June 1947 due to (1) poorer vacuum with rising river water temperature; (2) lower St B production account of routine cleaning of 2 BH & SG.

The better economy compared with July 1946 attributable to i/o of St C.

The slightly higher heat rate (despite i/o of St C) compared with July 1941 due to the fact that a great part of the increased load demand has to be met by less efficient units in St A.

SHANGHAI POWER COMPANY

STEAM GENERATORS -

SG No	Date		Hours	Type of Inspection & Work Done	Hr not Avail-able	Total Hr Oper-ated	Operating Hr Since Last Overhaul
	o/c	1/c					
31	1	8	169	Faulty HP manifold joint renewal (IDU) - Steam isolating valve to TG 18 cover joint renewed, valve disc machined. Power SV removed, isolating valve flanges refaced, bottom pipe flange serration resmachined. Feeder gear examined, coal pipes lagged. Protection screen installed between control board and boiler front. Ashpit poking doors freed, main quenching line relocated, LP valve locked off. IDP impeller and casing examined. Soot blower piping arrangement front and back of boiler relocated, press tested, master valve overhauled. Drum air vent cock overhauled. Ph cleaned, soot blower valve eased. Quick closing FO valve relocated to facilitate operation. FO heater cleaned, flow meter installed. Ashpit hydraulic rams repacked. LP sweetening valve overhauled, spindle freed. 7 caps on Bailey wall tube headers tightened. Boiler soot cleaned, ashpit olinker removed, tertiary air ports cleaned. Breaching expansion joint cleaned. Ph gear boxes cleaned, oil removed. Water nozzles at ashpit door installed. One cover joint for Bailey water control valve remade.	169	549	2 311
30	12	19	174	Routine cleaning and IDP impeller renewal (IDU). Burnt Ph elements removed, air and gas passage blanked, motor driving gear removed. IDP impeller rearwed, damper section reconditioned, CI wearing plates renewed, motor examined. IDP impeller tested for truth, motor dismantled and cleaned, armature skimmed up, mica undercut. Sh inlet header and tubes checked, one overheated tube renewed. 3 water screen tubes renewed due to hogging. Is tested. Furnace brickwork, arch and ash pit, patched. Feeder gear checked, ash pit doors repaired. Unit press tested. All air dampers checked.	174	570	5 923
29	-	-	0	---	0	744	11 673
28	-	-	0	---	0	744	9 441

MANHATTAN POWER COMPANY

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SG No	Date		Hours o/c	Type of Inspection & Work Done	Hr not Avail- able	Total Hr Oper- ated	Operating Hr Since Last Overhaul
	o/c	1/c					
27	20	31	254	Routine cleaning (IMS) - 5h inlet box and tubes cleaned, approx 400 5h tubes re-expanded, 5h caps renewed. Main steam line NR valve, soot blower master valve and Copco valve overhauled. Fh washed, sealing renewed. IDF motor and OGD overhauled, slipping and ball bearing changed. Feeder gear checked. FDF bearings checked, oil changed. All air dampers checked. Unit press tested.	254	484	0 400
26	6	6	0	Ash door operating linkage and ash water service system overhauled. One thrust ball bearing in No 4 stoker gear box changed.			
	28	30	41	Leaky Eo repaired (IDU) - 6 Eo caps rejoined, one Eo tube and one nipple re-expanded. Grate washed, 16 ash pusher plates renewed. IDF casing patched. Eo press tested. Unit rough cleaned. Aux motors and starters routine cleaned.	41	523	6 985
25	21	21	0	One length blow down pipe renewed.	0	744	9 296
24	11	11	2	Fh washed (IMS).			
	24	26	41	Leaky Eo repaired (IDU) - 2 thinned Eo tubes renewed, 3 caps rejoined. 3 5h caps renewed. Grate washed, 2 dumping bars, 10 ash pusher plates, 4 superas, 1 connecting rod, 5 stroke adjuster bolts and 10 pairs adjusters renewed. Fh washed. Unit rough cleaned. Eo press tested. Aux motors and starters cleaned.	43	602	5 817
23	5	6	9	Leaky Eo repaired (IDA) - One handhole cover rejoined.	15	717	10 488
	9	9	6	Fh washed (IMS).			
22	20	20	2	Eo repair (IDA) - 1 dist tube and 1 nipple re-expanded. 6 caps rejoined. Eo press tested. Grate repaired. Aux motors and starters cleaned.			
	23	23	3	Leaky Eo repaired (IDU) - 3 caps rejoined. 5h drain pipe repaired. All valve gland packing added. Fh washed. Eo press tested.	5	628	4 803
21	8	8	2	Fh washed (IMS).			
	16	16	6	Fh washed (IMS) - Corroded, collapsed and burnt elements removed from top half.	8	736	11 621
20	14	14	3	Fh washed (IMS).			
	20	20	8	Grate repaired (IDA) - Grate washed, 8 ash pusher plates, 2 stroke adjuster bolts and 2 connecting rods renewed. Rear LH ash pit wall rebuilt. Aux motors and starters cleaned.	11	600	3 673

SHANGHAI POWER COMPANY

SG No	Date		HOURS o/c	Type of Inspection & Work Done	Hr not Avail- able	Total Hr Oper- ated	Operating Hr Since Last Overhaul
	o/c	1/o					
19	1	1	2	Ph washed (IMS).			
	3	5	42	Leaky Eo repair and soot cleaning (IDU) - Unit soot cleaned. 5 corroded Eo tubes removed. Soot blower master valve and Sh drain valve overhauled. Eo press tested. Aux motors and starters routine cleaned.			
	15	15	2	Ph washed (IMS).			
20	20		9	Leaky Eo repair (IDA) - 3 Eo caps rejoined, 1 nipple renewed.			
	29	29	2	IDF motor examination (IDU) - 2 brush holders renewed. Ph motor switch overhauled.	57	666	1 859
16	16	16	0	Blowdown pipe patched, FW isolating valve gland repacked. Aux motors and starters cleaned.	0	513	2 506
17	27	27	7	Leaky Eo repaired (IDA) - One nipple on Eo inlet header re-expanded. 8 Sh caps renewed. Eo press tested.			
		30	43	Leaky Eo repair progressing (IDU).	53	584	9 870
16	15	15	0	Broken damper wire renewed.	0	734	14 862
15	6/16		744	Partial overhaul after 2535 hr operation progressing (IMS).	744	0	0
14	6/27	28	651	Partial overhaul after 15,013 hr operation completed (IMS) - Total time o/c = 725 hr. Drum opened, examined, no active pittings or corrosion found, painted internally. Main tubes and headers examined, found in fair condition, 1 pitted tube renewed, 2 rows of tubes turbo-cleaned. Eo tubes examined, soft white deposit found at lower parts of tubes, tubes in fair condition. Sh tubes and headers examined, no scale deposit. All mountings overhauled. FO burners and piping repaired. Rear wall completely rebuilt, RH and LH walls partly rebuilt, all baffles sealed, brickwork repaired. Unit press tested, safety valves and water alarm checked.	651	93	93
13	-	-	0	---	0	741	1 786
12	1	1	0	LH blowdown pipe renewed.			
	13	13	7	Drum examination (IMS) - Drum in good condition. Fan motors and OGB cleaned.	7	141	2 915
11	23	23	0	RH grate jammed, link out out.			
	29	29	0	Ditto. Leaky drain cock overhauled.	0	744	763

SHANGHAI POWER COMPANY

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SG No	Date		Hours	Type of Inspection & Work Done	Hr net Avail-able	Total Hr Oper-ated	Operating Hr Since Last overhaul
	o/c	1/c					
10	7	7	0	One driving link on jammed grate cut out.			
	10	10	8	One leaky Es cap rejointed (IDU).			
	15	15	2	Fan motors and OCB cleaned (IMS).			
	18	18	2	One broken drag link on center grate cut out (IDU).			
	20	25	117	Center grate overhauled (IDA) - 4 pitted Sh tubes cut, plugged. Unit root cleaned, press tested.	129	150	1 663
9	30	30	4	Burnt center strickle door renewed (IDA).	4	690	5 795

Notes:- 1. Unscheduled Outages -

(a) Units taken out immediately (IDU)

SG No	31	28	24	22	19	17	10	Total
Times o/c	1	1	1	1	1	1	2	8
Hours o/c	169	41	41	3	2	46	28	(330)

(b) Repairs done on a deferred date (IDA)

SG No	25	22	20	19	17	10	9	Total
Times o/c	1	1	1	1	1	1	1	7
Hours o/c	9	2	8	9	7	117	4	(156)

2. Tube Renewals -

SG No	30	24	19	14	Total
Boiler Tubes	-	-	-	1	1
Es "	-	2	5	-	7
Sh "	1	-	-	-	1
WD "	3	-	-	-	3

BOILER HOUSE AUXILIARIES -

1 - Feed Water Pumps (FWP) -

- FWP 1 - Discharge end gland sleeve renewed. All bearings cleaned, oil renewed.
- FWP 1 & 2 - Starters overhauled, oil changed. Motors cleaned, OCB examined.
- FWP 3 - Pump glands repaired. Motor bearings cleaned, oil renewed.
- FWP 12-13-15 - Governors cleaned, pump glands repacked.
- FWP 15 - Steam gauge pipe brazed up, bearing oil renewed.
- FWP 15 - General overhaul after 4,414 hr operation progressing.
- FWP 17 - Motor inner bearing repaired, oil renewed.

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FMP 21 - Renewal of turbine shaft progressing.  
 FMP 22 - Bearings examined, OK.  
 FMP 25-26-27 - Balance discs and seats examined, no wear found, clearances checked, stuffing boxes repacked.  
 FMP 27 - Recording ammeter installed for load tests.

2 - Gas (Flue) Washer Pumps (GWP) -

GWP 1 - Stator winding resistances checked, found OK, insulation tested, OK. Motor removed for overhaul.  
 GWP 2 - Pump centered, balance disc clearance adjusted.

3 - Auxiliary Fans in BH 2 -

IDF 13-15 - Steam engine outer bearing renewed.  
 IDF & FDF 10-12 - Motors and OCB routine cleaned.

RAW COAL HANDLING PLANT -

Tr 1 - Travelling scoops adjusted and overhauled. Weighing machine tested twice. One tool steel stopper and hoisting wires renewed. Burnt interpole winding on hoisting motor reinstalled. Traverse solenoid brake burnt out due to defective cast iron frame, frame repaired. Coil rewinding progressing.  
 Tr 2 - Hoisting resistance overhauled. 2 Grab stop wires renewed.  
 Tr 3 - Coal chute plates renewed. Weighing machine clutch rollers renewed.  
 HT 2 - General overhaul completed.  
 HT 3 - Motors and switches cleaned, examined. Limit switch insulator replaced.  
 BC 1-19-44 - Motors and switches cleaned, examined.  
 IC 24 - 24 ft belt renewed.  
 IC 25 - Coal hopper part renewed.  
 IC 26 - One tail drum and 2 pieces 2" ball bearings renewed.  
 BC 43 - 115 ft belt renewed.  
 BE 1 - 4 buckets and shafts renewed.

FUEL OIL HANDLING PLANT -

1 - FO supply line to SG 18, 19 & 20 installed.  
 2 - FO piping and valves for conversion of SG 10-12 to oil burning prepared.  
 3 - FO piping for installation of new Quimby FOP prepared.  
 4 - Clarkes steam traps installed to BH 3 oil heaters.  
 5 - FOP 11 - New oil and piston rod and ring installed. Steam slide valves refaced. New steam throttle valve fitted.



SHANGHAI POWER COMPANY

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6 - FO Heaters in BH 3 cleaned.

PULVERIZED FUEL HANDLING PLANT -

PM 2 & 4 - Motors and OCB routine cleaned.  
 PM 5 & KF 5-6-7 - OCB overhaul.  
 PM 3 - General overhaul progressing.

ASH HANDLING EQUIPMENT -

1 - Electric Locomotives (LE) -  
 LE 1-2-3 - Routine cleaned. One set large wheels and shaft,  
 one motor pinion and one MS gear guard renewed  
 for LE 3.  
 LE 4 - General overhaul progressing.  
 2 - Trucks & Tracks - Routine repairs progressing.

TURBO-GENERATORS -

TG No	Date		Hours o/o	Type of Inspection & Work Done	Hr not Avail- able	Total Hr Oper- ated	Operating Hr Since Last Overhaul																																															
	o/c	1/c																																																				
13	1	9	189	Unit taken out on account of o/c of SG 31 (IDA). Routine cleaning (IMS) - Governor gear, oil and air coolers cleaned; No 1 control valve ball crank lever ball bearing found broken at outer race, same renewed.	199	542	2 146																																															
	26	27	10					16	10	10	3	Oil and air coolers cleaned (IMS). Oil and air coolers cleaned (IMS).	6	734	4 056	24	24	3	15	14	14	1½	Oil and air cooler cleaned (IMS) - TP oil cooler cleaned; CP 'B' glands repacked. Brushgear cleaned (IMS) - One slipping brush changed.	2	742	14 153	25	25	½	14	12	13	11	Routine cleaning (IMS) - Overspeed gear examined, cleaned and tested to 3500 rpm. Governor examined (IDA) - Governor casing inspection door leaky joint remade; relay piston rod and bush renewed; Cn tested, 8 tubes plugged. Oil cooler cleaned (IMS) - CP 'B' condensate sampling points cock renewed.	20½	705	14 425	19	20	15	25	25	4½	15			16	Routine cleaning 3 times (on Aug 7, 17 & 23) during the month (IMS) - Water and air valves repacked.	16	721	1 824	12		
16	10	10	3	Oil and air coolers cleaned (IMS). Oil and air coolers cleaned (IMS).	6	734	4 056																																															
	24	24	3					15	14	14	1½	Oil and air cooler cleaned (IMS) - TP oil cooler cleaned; CP 'B' glands repacked. Brushgear cleaned (IMS) - One slipping brush changed.	2	742	14 153	25	25	½	14	12	13	11	Routine cleaning (IMS) - Overspeed gear examined, cleaned and tested to 3500 rpm. Governor examined (IDA) - Governor casing inspection door leaky joint remade; relay piston rod and bush renewed; Cn tested, 8 tubes plugged. Oil cooler cleaned (IMS) - CP 'B' condensate sampling points cock renewed.	20½	705	14 425	19	20	15		25	25	4½					15			16	Routine cleaning 3 times (on Aug 7, 17 & 23) during the month (IMS) - Water and air valves repacked.	16	721	1 824	12			15	Routine cleaning 3 times (on Aug 3, 16 & 22) during the month (IMS) - Water and air valves repacked.	15	723	12 364	
15	14	14	1½	Oil and air cooler cleaned (IMS) - TP oil cooler cleaned; CP 'B' glands repacked. Brushgear cleaned (IMS) - One slipping brush changed.	2	742	14 153																																															
	25	25	½					14	12	13	11	Routine cleaning (IMS) - Overspeed gear examined, cleaned and tested to 3500 rpm. Governor examined (IDA) - Governor casing inspection door leaky joint remade; relay piston rod and bush renewed; Cn tested, 8 tubes plugged. Oil cooler cleaned (IMS) - CP 'B' condensate sampling points cock renewed.	20½	705	14 425	19	20	15		25	25	4½					15			16	Routine cleaning 3 times (on Aug 7, 17 & 23) during the month (IMS) - Water and air valves repacked.	16	721	1 824	12			15	Routine cleaning 3 times (on Aug 3, 16 & 22) during the month (IMS) - Water and air valves repacked.	15	723	12 364												
14	12	13	11	Routine cleaning (IMS) - Overspeed gear examined, cleaned and tested to 3500 rpm. Governor examined (IDA) - Governor casing inspection door leaky joint remade; relay piston rod and bush renewed; Cn tested, 8 tubes plugged. Oil cooler cleaned (IMS) - CP 'B' condensate sampling points cock renewed.	20½	705	14 425																																															
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12			15	Routine cleaning 3 times (on Aug 3, 16 & 22) during the month (IMS) - Water and air valves repacked.	15	723	12 364																																															

TG No	Date		Hours o/c	Type of Inspection & Work Done	Hr not Avail-able	Total Hr Oper-ated	Operating Hr Since Last Overhaul
	o/c	1/o					
10	5	6	10	Routine cleaning (IMS) - Oil strainers cleaned.	10	720	12 057
9	3	3	3	Bearing cooling water pipes cleaned (IMS).	3	711	13 637
8	2	2	3½	Condenser tested (IDA) - One leaky plug renewed.			
	4	4	3½	Condenser tested (IDA) - No leak; bearing water jacket cleaned.			
	22	22	5	Condenser tested (IMS) - No leak.	10	712	11 171
7	6/17	-	744	General overhaul progressing (IMS).	744	0	0
5	15	13	1	Oil cooler cleaned (IMS).	1	722	8 397
4	12	13	11	Routine cleaning (IMS) - Oil strainers cleaned.	11	704	9 047
2	5/18	-	744	Generator removed, used for TG 1.	744	0	1 366
1	6/1	3	55	Burnt out generator replaced by that of TG 2 (IDU) - Unit o/c since June 1, 1947, total time o/c = 753 hr.	55	519	5 842

Notes:- Unscheduled TG Outages -

(a) Units taken out immediately (IDU) - Nil

(b) Repairs done on a deferred date (IDA) -

TG No	18	14	8	Total
Times o/c	1	1	2	4
Hours o/c	169	13	7	(209)

TURBINE HOUSE AUXILIARIES -

1 - Circulating Water Pumps (CWP) -

- CWP 24-26-27 - Gland repacked.
- CWP 25 - Pump opened up twice. 10 lb of wood and straw mat removed. Gland repacked.
- CWP 25 - General overhaul progressing.
- CWP 17 - Pump opened up, wood obstacles removed; pump top bearing cleaned, grease renewed and gland repacked.
- CWP 12 - NR valve examined and repaired.

2 - Service Water Pumps (SWP) -

- SWP 3 - General overhaul completed. Impellers (damaged beyond repair) all renewed, wearing and boss rings, balance disc and seat all renewed; Guide passage all, except No 5, renewed; shaft good, truth tested, keys and gland sleeves renewed, No 2 & 3 shaft rings changed; valves examined, coupling OK, bolts and washers renewed.

CHANGHAI POWER CO. COMPANY

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3 - Air Compressor (Cp) -  
Cp 1 - Routine cleaned.

4 - Sump Pumps (SP) -  
SP 1 & 2 - Suction valve strainers cleaned twice.

FLOATING EQUIPMENT -

Coal Lighters - Routine repaired.  
Tow Boats - 'Rectifier' engine bearings adjusted.

MISCELLANEOUS MECHANICAL EQUIPMENT -

1 - Sample water cooler for SG 9-10-11-12 overhauled, internal coil tested to 350 psi.  
2 - CW pipe connection to TG 7 oil cooler installed.

ELECTRICAL EQUIPMENT -

1 - 23 kv BH Equipment -  
AD 57 - Feeder transferred from Cell 42, Sect 4 to Cell 19, Sect 2.  
AD 7/8, AC 6/31, AG 19 - OCB overhauled after cable faults.  
AD 7 - Faulty B phase coil reactor replaced.  
Chaped Bulk Supply - Transfer to Sect 1 progressing.  
ES 6-7 - Finger contact repaired.

2 - 6.6 kv BH Equipment -  
A 5/6 - Feeders now separated, A 6 re-insulated in Cell 13.

3 - Transformers -  
ST 2-3-4 - LT OCB overhauled.  
ST 13-15-16 - LT OCB overhauled.  
IT 2 - R phase transformer changed for overhaul.

4 - Rotary Converters -  
RC 2 - Commutator cleaned, examined.

5 - Miscellaneous -  
(a) Separate main isolating switch installed for W3 motors in FH 1.  
(b) Main supply cable for foundry installed.  
(c) Ceiling fans installed in BH 5.  
(d) Coal briquette office lighting installed.  
(e) Battery room MG sets routine cleaned.  
(f) Starting switch for coal briquette motor overhauled. Motor cleaned. Coal briquette blower motor relocated and wired up.

RIVERMIDE WORKSHOP -

- 1 - Overhauled 15 motors, 12 transformers, 1 exciter armature, 7 desk fans; made 4 LT link boxes, 120 grid type link fuses, 72 live link connectors, 2 link and fuse boxes, 268 tubular cable sockets, 8 carbon contacts, 30 fixed sparking contacts, 6 moving sparking contacts, 1 lead joint sleeve, 6 terminal boards; modified 66 fixed sparking contacts; reconditioned 100 MS cross arms; repaired 1 set pole transformer link and bar, 2 copper joint sleeves, 1 insulating link.
- 2 - Machined 15 brass worm wheels, 6 brass trolley wheels, 118 brass bushes, 7 brass impellers, 4 MS flanges, 920 bolts, studs and screws, 76 pins and screw pins, 30 MS shafts, 15 MS and brass spindles, 39 MS nipples, 620 miscellaneous articles of different materials for various purposes; made 1 oil tank, 52 dust pans, 12 lift door contacts, 10 MS steam pipe guards, 6 MS funnels, 5 MS drip pans, 1 MS box, 1 copper expansion, 20 MS spanners, 5 sets MS oil rings, 24 steel links, 21 MS and copper strainers, 1 steel locker; repaired 4 LE wheels, 1 MS shaft and worm wheel, 1 steel ball bearing, 28 copper tubes, 3 fire hydrants, 1 coal briquette machine; overhauled 1 soot blower valve; renewed 1 CWP shaft and impeller, 8 LE bushes; remounted 7 sets CI bearings, 12 thrust bearings.
- 3 - Made 8 MS flanges, 1 MS oil tray, 2 window guards, 6 coal hoppers, 10 FOB platforms, 10 MS side baffles; repaired 2 ash chutes, 1 coal chute, 1 riddling chute, 1 IDF casing; renewed 2 MS LE plates, 1 IDF impeller, 1 grit chute; bent 16 MS oil pipes, 12 boiler tubes, 8 MS plates; forged 570 lb MS cable clamps, 920 lb MS spanners, brackets, levers, bolts and nuts, 24 MS chains; annealed 36 MS bolts and studs.
- 4 - Gas and electric welded 36 pipe flanges, 14 pipes, 9 'T' pieces, 1 ash trunk, 1 coal pipe, 2 ash chutes, 1 coal hopper, 1 CI bearing bracket, 20 valves and seats, 3 transformer tanks; electric built up 2 pump shafts, 2 rotor shafts, 1 valve spindle, 1 cab wheel, 1 ash car wheel, 1 belt drum shaft, 16 SH tube caps, 8 Ec tube caps; gas brazed 180 grid type fuses, 8 transformer tails, 14 brass glands, 2 rotor conductor rings, 15 brass glands, 2 rotor conductor rings, 15 brass trolley wheels, 4 copper expansions, 22 copper tubes, 1 balance disc, 2 pipe flanges; refaced with stoddite 1 set stay bolts.
- 5 - Galvanized 100 resistance grids; tinned 100 tubular cable sockets; silver plated 24 grid fuses, 120 grid type link fuses.
- 6 - Foundry Produced:
 

34,341	lb	CI castings.
1,134	lb	HD brass.
124	lb	GP brass.
1,728	lb	brass ingots.
450	lb	copper ingots.

7 - Building & Wharf Maintenance:-

- (a) Repaired windows in SH basement and Station 'C'.
- (b) Maintenance work to all plumbing and pipe work in Station and renovation of Staff Quarters progressing.
- (c) Repairs to roofs and gutters of Stores 9 and 10 and foundry, steel window sashes of Station 'B' TH progressing.
- (d) Painting of coal transporters progressing.

MISCELLANEOUS NOTES

The labour roll at Riverside totals 1323 including 19 Foreign and 86 Local Agreement, 55 Russians, 9 Subsidiary Staff (Foreign Watchmen), 19 Chinese Apprentice Engineers and 1 Student Engineer and 1134 Chinese Staff.

The labour situation generally speaking has considerably improved over the previous month, disputes being confined to the question of overtime.

In each case the workmen were trying to insist upon regular overtime, however all efforts to establish scheduled overtime for various jobs were successfully resisted.

Difficulty was experienced in transferring workmen from "B" Station to "C" Station when the latter was taken off load, however after protracted negotiations the matter was amicably settled.

The sickness racket continues, the average % of absenteeism due to sickness and/or other causes of the Regular Chinese Staff amounted to 9.27% for the monthly rate, and 13.32% for the daily rate; the sickness % being 2.35% and 5.14% respectively.

General -

The plant continued to be operated at maximum output of available equipment.

Our total station net output increased slightly from 78,971,874 kwh in June, to 79,223,302 kwh in July not withstanding lower permissible maximum loading of TG units, due to increased ambient temperatures, however there were 744 operating hours as against 720 hours for previous month.

The hourly station net output decreased by 2.92% over June, namely 106,483 kwh as against 109,683 kwh.

The load factor (based on Gross Generation) increased from 76.36% in June to 79.35% for July.

There was a 4.15% decrease in Station 'B' generation this month, owing to overhaul of SG units in EH 4.

SG 31 - TG 18 -

After 2311 hours satisfactory operation it was found necessary to take SG 31 and TG 18 off load on July 1, owing to a severe leak on TG 18 isolating valve cover joint.

After various jobs, eleven in number, had been attended to, the unit was recommissioned on July 9 and has remained in operation since that date.

The main work carried out on the boiler unit is enumerated below:

Remaking of leaky joints, HP service water supply fitted to quenching nozzles in ash hoppers, soot blower piping revamped in accordance with latest dwg received from Babcock & Wilcox, Foxboro Oil Meter fitted, quick closing oil fuel supply valves relocated to more accessible position, erection of a partition wall on operating floor level between benchboard and boiler in order to protect operators from excessive radiant heat.

A leaky valve No. V-103 cover joint developed on main boiler feed water line, however it was found possible to remove this joint without shutting down the unit by operating on auxiliary feed supply line.

This job was however only accomplished after considerable trouble experienced with the auxiliary regulating valve. The gland packing on auxiliary regulating valve failed and flooded the basement, fortunately without damage to operating or maintenance personnel. Next after repacking the coupling (C. Iron) on some auxiliary regulating valve broke thereby necessitating regulation by the check valves.

Just as repairs were completed on main feed valve No. V-103, the gland packing on auxiliary valve again blew, however the job was finally completed without mishap to personnel.

Difficulties were experienced with the electrically driven feed pump which tripped out on overload - p.m. on July 13 - necessitating an immediate drop in output; after reduction of load Governor trouble developed on TG 18 necessitating operation at reduced output overnight.

The question of parallel operation of electrically driven and steam driven feed pumps is now receiving close attention in accordance with New York letter dated July 7.

Difficulties are still being experienced due to slagging and ashing problems, however these points are receiving continual attention.

Governor troubles are still being experienced with TG 18 unit, the main difficulty being in connection with the lubrication of ball bearings carrying cam shaft for valve gear. Considerable wear has taken

plase in these bearings and the lubrication system appears far from satisfactory, expansion difficulties are also present and this particular problem is receiving our close attention.

The exciter main bearing nearest alternator is still running warmer than normal, close watch is being kept on this particular bearing and same will be dismantled for inspection at the first opportunity.

Painting -

Painting of coal handling equipment proceeding satisfactorily although slowly on account of inclement weather during the month.

Caltex Construction -

Erection of FO Tank 4 completed and same strapped as a preliminary to the preparation of calibration tables. A second water test has been called for as a few leaks developed during first test.

Conference of interested parties held during the month, final layout of FO Pump installation approved as also our requirements as to pump capacities, New York informed accordingly.

TG Units -

The major overhaul of TG 1 unit, including transfer of stator from TG 2 was completed on July 3. The major work on this unit being the complete removal and repacking of condenser ferrules and replacement of 131 tubes, thereby improving the condenser performance immeasurably.

The unit is now performing very satisfactorily.

Major overhaul of TG 7 progressing satisfactorily, condenser relining, repacking and renewal of ferrules, replacement of defective tubes now completed. Balancing holes drilled as recommended by Parsons, LP wheels replaced, etc, and turbine boxed up, it is hoped to have a trial run in the near future.

As in previous month, practically all maintenance work and routine inspection has been carried out at week-ends and other off peak periods necessitating considerable overtime payments.

No unscheduled outages occurred during the month and only four deferred outages were necessary.

Apart from TG 1B which was o/c due primarily to SG 31 repairs, the total hours turbo-generator units were o/c for all causes, amounted to 137 1/2 hours only.

Major maintenance work for the month consisted of the following:

TG 1B - o/c 199 hours mainly on account of SG 31 being o/c.  
Governor gear overhauled, etc.

- 14 -

TO 14 - o/c 80 1/2 hours. Routine cleaning, examination and testing of overspeed gear

TO 9 - o/c 744 hours for major overhaul.

SG Units -

The unscheduled outages show a decrease over previous month, namely 8 as against 10, the deferred outages show a considerable decrease, namely 7 as against 12 for previous month.

The total hours SG were out of commission for unscheduled and deferred outages show a slight increase, namely 486 hours as against 387 for previous month, and were made up as follows:

Unscheduled Outages	-	330	as against	377.
Deferred Outages	-	156	as against	110.

Tube renewals registered a decrease, namely 12 as against 24 for previous month.

Major maintenance work for the month consisted of the following:

SG 31 - o/c 169 hours due mainly to faulty HP manifold joint on TO 18 isolating valve. Joints also renewed on power safety valve, minor maintenance work also carried out.

SG 30 - o/c 174 hours. Routine cleaning, renewal IDF impeller, etc.

SG 87 - o/c 254 hours. Routine cleaning, approximately 450 Sh tubes re-expanded.

SG 15 - o/c 744 hours for partial overhaul after 3553 hours operation.

SG 14 - o/c 651 hours for partial overhaul after 15013 hours operation.

SG 10 - o/c 189 hours. Miscellaneous items mainly grate repairs.

Electrical -

Work mainly of a routine nature.

Chapel Feeder now being transferred to Sect 1, 33 kv Switch House.

A 6/6 - 6.6 kv feeders previously connected in parallel to one OCB, were separated and are now controlled by individual OCB.

Fuel Oil Supply -

Fuel oil consumption for the month totalled 30,974 long tons, the maximum daily consumption being 1,076 tons, and the average daily consumption 999.16 tons.



INTERNATIONAL POWER COMPANY

Workshops -

The Workshops continue to be loaded with work, however considerable progress has been made in regard to manufacture of spare parts for Riverside stock.

The Winding Shop is inundated with work and progress is very slow in that particular section.

Buildings -

Repairs to roofs and gutters of Stores 9 and 10 proceeding.

Repairs and renewals to window sashes for Turbine House now well advanced.

Enquiries now out for tenders for repair to Turbine House walls, etc.

Construction of brick boundary walls on North side of Texaco Compound now completed.

Fuel -

Coal receipts were 20,292 tons during July, made up of 2 kinds of coal. 15,825 tons were burned and 125 tons issued by Stores and 1 ton issued for US Navy use, making a total of 15,951 tons. Total stocks on August 1, 1947 (8.00 am) were 33,864 tons, consisting of 27,140 tons on mechanical storage, 3,689 tons on dead storage and 3,035 tons in bunkers. Coal deliveries during the period were 4,341 tons more than burned plus issued, and stocks were increased a like amount.

Oil receipts during July were 30,122.46 tons, and 30,974 tons were burned, thus decreasing stock on August 1, 1947 (8.00 am) to 232.77 tons.

Mud Dredging -

During the month 4,640 cubic yards of mud (29 lighters of 160 cubic yards per lighter) dredged from in front of our wharves and pump houses.

Coke & Briquettes -

During the month 46,380 lb of coarse coke were recovered from ashes, of which 11,595 lb of coarse coke were issued to the coke recovery contractor and 46,480 lb of coarse coke were issued for Company use, leaving 645,358 lb in Stores on August 1, 1947.

During the month no anthracite coal was received from the Fuel Control Commission, and 104.4 metric tons of anthracite issued from Stock for the manufacture of briquettes for sale to employees, leaving a balance of anthracite coal (113.7 metric tons on Aug 1, 1947 (8.00am)). Total amount of briquettes issued was 325.6 metric tons.

Shanghai, August 23, 1947.

C J Pleace

Encls: 58 Water Report  
18 Oil Report  
Characteristic Curves

REPORT NO. 1  
 OPERATIONAL SUMMARY  
 OPERATIONAL SUMMARY  
 OPERATIONAL SUMMARY  
 OPERATIONAL SUMMARY  
 TO DIRECTOR  
 OPERATIONAL SUMMARY

RIVERSIDE STEAM ELECTRIC STATION  
 TURBINE OIL SERVICE DATA

July 1947

DATE August 12, 47

TG No	OPERATING HR	MAKE-UP		CENTRIFUGE OPERATION				LABORATORY REPORT			REMARKS
		GAL	DESCRIPTION	HR	DIRY SOLIDS GR	SOLIDS GR PER 1000 HR	WATER LB	VISCOSITY 150° F/50% ST	ACIDITY NO GR/100	DESMULCITY MIN	
16	642	55	DIRY Lt					0.200	2		
16	736	29	"	139			170	0.061	2		
16	742		"	208			392	1.10	2		
14	705	40	DIRY Lt	30			62	1.14	2		
12	722	10	"					0.09	2		
12	723	15	"					1.12	2		
11											
10	720	18	T. Cool Lt	60			61	0.18	2		
9	714		"					0.102	2		
8	711		"	1	1	14		0.16	2		
7								0.12	2		
6											
5	713	10	T. Cool Lt	70			30	0.178	2		
4	706	12	"	62	3	61	614	0.14	2		
2											
1	512	34	DIRY Lt					0.94	0		

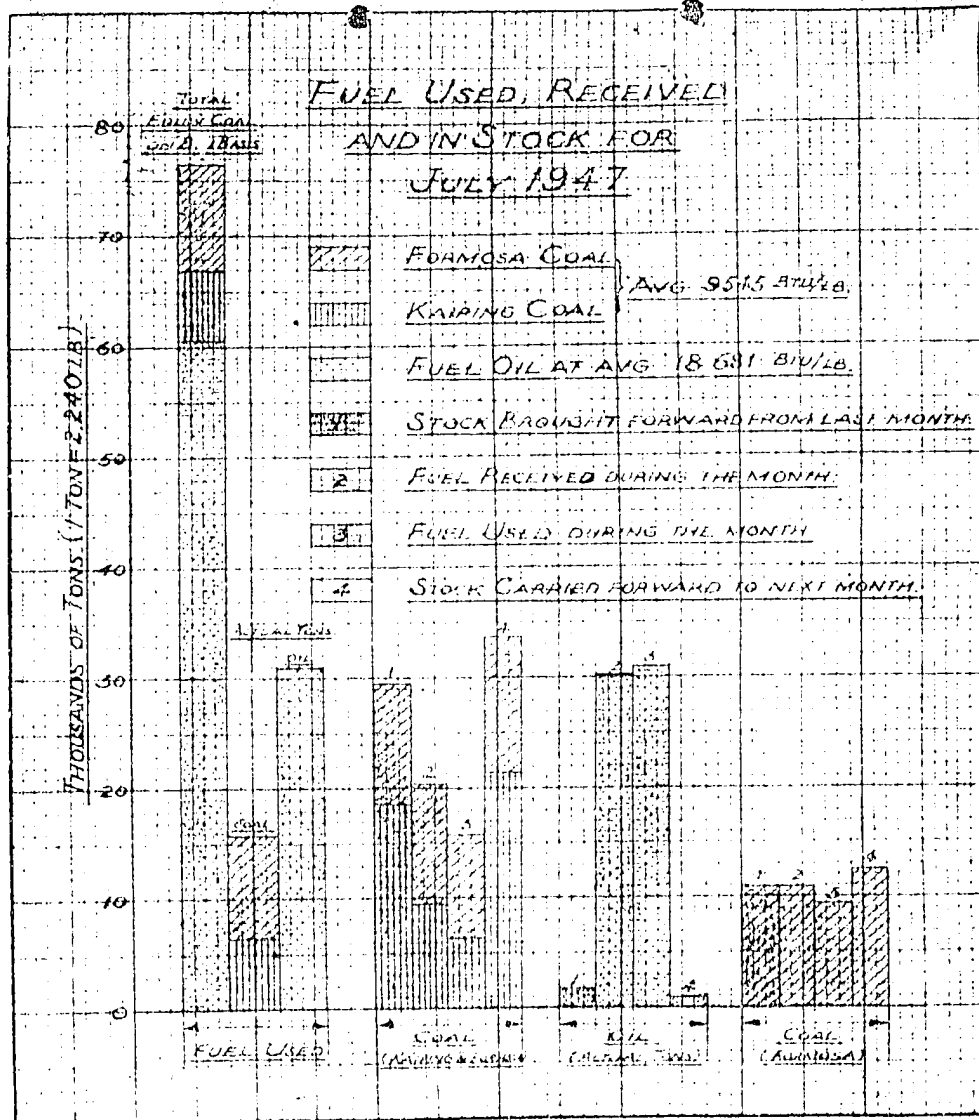
HISTORY OF OIL BATCHES

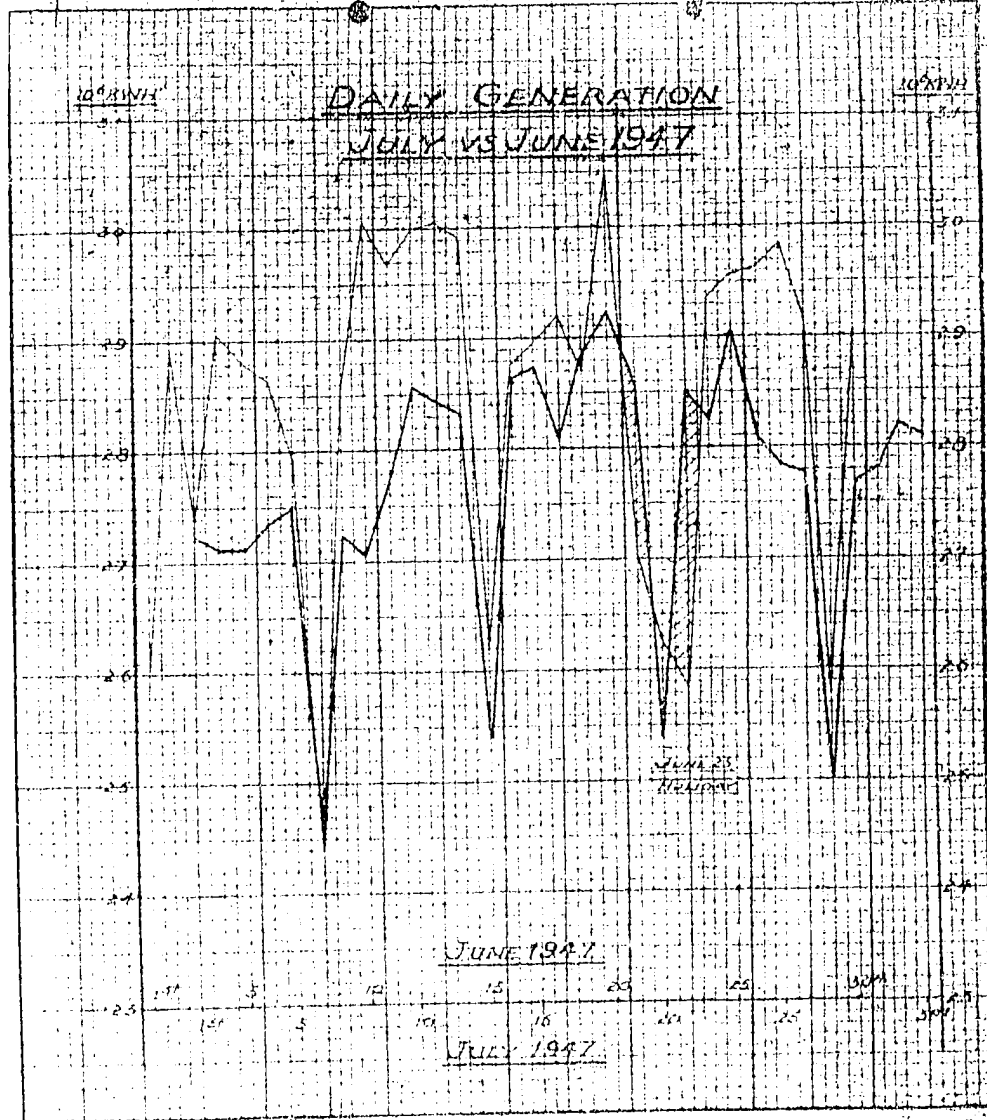
TG No	LAST FULL CHARGE			TOTALS TO DATE				MAKE-UP DATA			OPERATING HRS & NEE LAST OIL CHG.	
	DATE	GAL	DESCRIPTION	OPERATING HR	SOLIDS GR/1000 HR	SOLIDS GR/1000 HR	WATER LB	WATER LB/1000 HR	TOTAL GALLONS	GAL PER 1000 HR		DIRY GR PER GAL
16	Nov 46	378	Rio T. Cool Lt	2137					75	55	77	2047
16	Nov 46	548	DIRY Lt 777	4303	3.6	9	7	127	150	41	74	2057
15	Dec 34	540	DIRY Lt	62441	2122	34	574	23	1215	36	77	1917
14	Jan 37	927	Shoal Bay	65471	3771	41	3350	203	2645	35	26	2134
13	Feb 47	103	DIRY Lt 717	1185			4	2	5	14	75	1819
12	Mar 39	111	DIRY Lt	59833	22	1	6	-	522	10	103	18021
11												
10	June 36	1880	Tyool Lt	66761	305	10	1146	17	2569	31	32	12009
9	May 36	390	Rio Tyool Lt	2809	107	21	344	21	237	24	41	2809
8	Sept 36	800	Tyool Lt	87338	3113	46	3230	77	2162	32	31	6302
7	July 47	339	DIRY Lt 797									
6												
5	July 46	250	Rio Tyool Lt	652	76	11	61	7	119	14	70	6390
4	June 46	850	"	9103	265	40	2640	2270	121	12	71	7105
2												
1	Jan 36	126	Old Shell	5150					222	3	12	1566

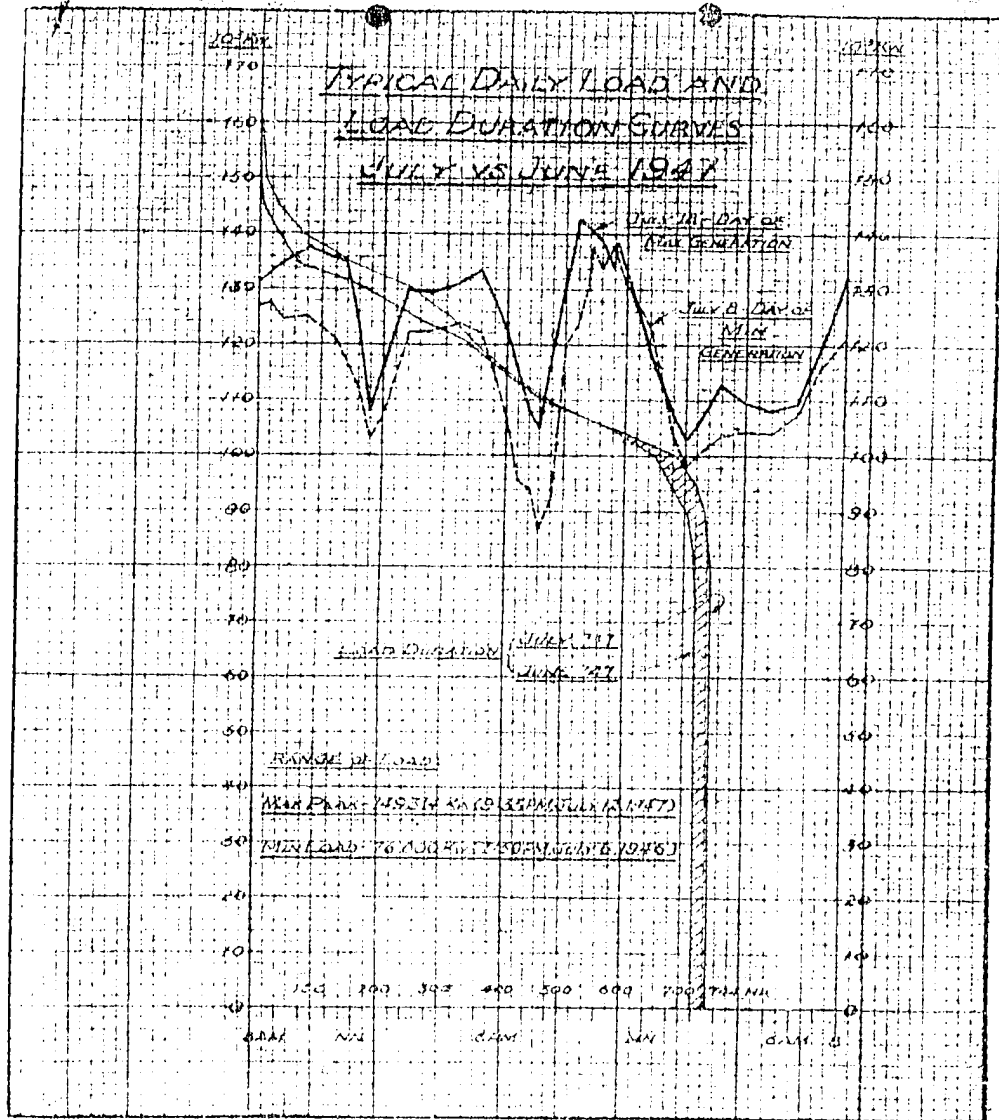
Old oil batch discarded due to suspended brass deriving from failed worm wheel (oil pump drive). Three original oil coolers replaced by one, from TG 11. All oil piping dismantled. Piping, bearing pumps and oil tank cleaned. 1000 lbs of 200 Lt TSP charged into system flushed, oil drained and gross-filtered, oil into system as per batch. Operating solids 0.1000 Density 5.4 sp. Gravity 8.9 US. at 10 F.

*John A. Riven*

NO.	TIME	ALKALINITY (mg/l)		SODIUM SULPHATE (mg/l)	NaCl (mg/l)	Ca, Mg (mg/l)	SiO <sub>2</sub> (mg/l)	MgSO <sub>4</sub> (mg/l)	pH	K (mg/l)	CHEMICALS ADDED (lb)	REMARKS					
		Ca	Mg														
1	23	138	575	3.4	1360	6	6	10.9	4361	25	115	438 & 24 LT					
2	15	118	139	1.4	728	6	6	10.8	2155	23	134	472 & 43 LT					
3	23	79	133	2.9	2322	6	6	11.0	4415	23							
4	21	123	144	4.4	1325	8	8	10.8	3385	23							
5	28	54	88	2.4	705	7	7	10.8	2313	23							
6	19	61	68					17	10.6	430	4	5					
7	15	63	68	1.6	41	13	13	10.6	401	21	10	50					
8	10	20	40	1.4	89	7	7	10.6	244	50	15	50					
9	19	67	87	2.8	65	24	23	10.7	631	4	8	6					
10	18	37	75	1.9	84	11	11	10.8	680	6	14	14					
11	29	77	129	1.8	78	24	24	10.8	729	15	10	18					
12	17	77	124	2.0	107	21	21	10.8	687	5	8	8					
13	15	43	62	2.3	85	24	23	10.6	503	7	10	10					
14	13	64	79	2.9	88	23	24	10.8	724	6	10	10					
15	18	63	84	2.6	74	21	21	10.7	712	3	6	6					
16	17	64	85	2.3	89	13	13	10.8	711	6	10	10					
17	26	67	155	2.3	53	19	20	10.6	658	6	9	10					
18	27	68	111	2.4	79	24	24	10.6	615	14	16	18					
19	25	68	88	2.6	137	23	23	10.7	863	18	10	23					
20	30	63	97	2.1	101	22	24	10.6	637	17	20	24					
21	29	63	95	3.0	123	27	26	10.6	784	16	26	21					
22	15	58	75	0.3	59	19	19	10.7	538	29	43	43					
AVG.												400	115	234	119	540	644







SHANGHAI POWER COMPANY

SHANGHAI POWER COMPANY AND  
WESTERN DISTRICT POWER COMPANY OF SHANGHAI  
FEDERAL INC., U.S.A.

July 31, 1947

DISTRIBUTION OPERATING DEPARTMENT  
MONTHLY LETTER FOR JULY 1947I N D E X

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PHOENIX POWER COMPANY

- 2 -

The following outlines the activities in connection with operation, maintenance and construction work in this Department.

I OPERATION

(A) SERVICE FAILURES AND TROUBLE CALLS

(1) Major Service Failures

(a) Load Reduction due to insufficient electrical generating capacity at Riverside

Date	July 1	July 2	July 3	July 4	July 5	
Area affected	SPC WDPC Chapei French	SPC WDPC Chapei French	SPC WDPC Chapei French	SPC WDPC	SPC WDPC	
Supply from substation	5 sub-stations	5 sub-stations	5 sub-stations	Riverside Yangchow Tonquin Robison	Riverside Yangchow Tonquin Robison	
Feeder	26 feeders	31 feeders	29 feeders	17 feeders	23 feeders	
Customer	66 customers & LV networks	35 customers & LV networks	34 customers & LV networks	18 customers & LV networks	23 customers & LV networks	
Duration of supply interruption	29 mins to 3 hrs 23 mins	5 mins to 4 hrs 52 mins	56 mins to 4 hrs 46 mins	1 hr 15 mins to 3 hrs 29 mins	34 mins to 4 hrs 14 mins	
Estimated kVA-hrs lost	Company's area	AM 2,160 Ev 71,240	AM 110,932 PM 97,360 Ev 18,150	AM 12,535 PM 73,820 Ev 24,950	AM 44,920 PM 50,050	AM 47,290 PM 44,230
	Chapei	AM 1,810 Ev 12,050	AM 25,490 PM 13,570 Ev 3,450			
	French	AM 456 Ev 13,500	AM 3,170 PM 4,635	AM 3,196		
	Total	101,216	266,757	213,501	94,970	91,520
	Remarks	AM - refers to morning peak load period (8 am to 12 noon) PM - " " afternoon " " " (12 noon to 7 pm) Ev - " " evening " " " (after 7 pm)				



SHANGHAI POWER COMPANY

(a) Load Reduction due to insufficient electrical generating capacity at Riverside(cont.)

Date	July 6	July 7	July 8	July 9	July 10	
Area affected	SPC WDPC	SPC WDPC	SPC WDPC	SPC WDPC	SPC WDPC Chapei	
Supply from substation	Riverside Yangchow Tonquin Robison	Riverside Yangchow Tonquin Robison	Riverside Yangchow Tonquin Robison	5 sub-stations	5 sub-stations	
Feeder	10 feeders	21 feeders	21 feeders	12 feeders	23 feeders	
Customer	12 customers & LV networks	22 customers & LV networks	19 customers & LV networks	15 customers & LV networks	27 customers & LV networks	
Duration of supply interruption	21 mins to 1 hr 19 mins	37 mins to 4 hrs 9 mins	42 mins to 3 hrs 40 mins	55 mins to 4 hrs 4 mins	33 mins to 4 hrs 11 mins	
Esti- mated kVA-hrs lost	Company's area	AM 20,550 Ev 4,810	AM 74,290 PM 29,530 Ev 14,550	AM 48,820 PM 34,730 Ev 13,000	AM 39,930 PM 32,690	AM 51,970 PM 60,150 Ev 15,780
	Chapei					PM 4,130
	French					
	Total	25,360	118,370	96,550	72,620	140,030
Remarks	AM - refers to morning peak load period (8 am to 12 noon) PM - " " afternoon " " " (12 noon to 7 pm) Ev - " " evening " " " (after 7 pm)					

SEASIDE POWER COMPANY

(a) Load Reduction due to insufficient electrical generating capacity at Riverside(cont.)

Date	July 11	July 12	July 13	July 14	July 15	
Area affected	SPC WDPC French	SPC French	SPC WDPC	SPC WDPC Chapel French	SPC WDPC French	
Supply from substation	Riverside Yangchow Tonquin Robison	Yangchow	Tonquin Connaught Robison	5 sub-stations	Riverside Yangchow Tonquin Robison	
Feeder	11 feeders	3 feeders	4 feeders	16 feeders	11 feeders	
Customer	12 customers & LV net-works	3 customers	6 customers & LV net-works	16 customers & LV net-works	12 customers & LV net-works	
Duration of supply interruption	55 mins to 3 hrs 22 mins	7 mins to 42 mins	1 hr 16 mins to 1 hr 22 mins	30 mins to 4 hrs 38 mins	21 mins to 3 hrs 34 mins	
Estimated kVA-hrs lost	Company's area	AM 11,490 PM 14,550 Ev 9,530	AM 4,783	AM 8,690	AM 58,435 Ev 10,100	AM 16,870 PM 12,300 Ev 9,471
	Chapel			AM 4,950		
	French	Ev 7,150	Ev 1,150		Ev 4,520	Ev 5,340
	Total	42,720	5,933	8,580	78,085	44,061
Remarks	AM - refers to morning peak load period (8 am to 12 noon) PM - " " afternoon " " " (12 noon to 7 pm) Ev - " " evening " " " (after 7 pm)					

INDUSTRIAL POWER COMPANY

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(a) Load Reduction due to insufficient electrical generating capacity at Riverside(cont.)

Date	July 16	July 17	July 18	July 19	July 20
Area affected	SPC French	SPC WDFC French	SPC WDFC	SPC WDFC Chapel French	SPC WDFC
Supply from substation	Riverside Yangchow Tonquin	5 substations	Riverside Yangchow Tonquin Robison	Riverside Yangchow Tonquin Connaught	Riverside Yangchow Tonquin Robison
Feeder	7 feeders	9 feeders	18 feeders	15 feeders	9 feeders
Customer	7 customers	12 customers & LV networks	17 customers & LV networks	18 customers & LV networks	10 customers & LV networks
Duration of supply interruption	5 mins to 1 hr 30 mins	38 mins to 2 hrs 54 mins	14 mins to 2 hrs 42 mins	46 mins to 2 hrs 48 mins	27 mins to 4 hrs 11 mins
Estimated kVA-hrs lost	Company's area		AM 36,990 PM 2,800 Ev 3,490	AM 13,300 PM 13,126 Ev 29,850	AM 33,860 Ev 5,530
	Chapel			Ev 1,100	
	French	Ev 3,800	Ev 2,360	Ev 5,260	
	Total	3,953	39,350	42,603	62,636
Remarks	AM - refers to morning peak load period (8 am to 12 noon) PM - " " afternoon " " " (12 noon to 7 pm) Ev - " " evening " " " (after 7 pm)				

SHANGHAI POWER COMPANY

- 6 -

(a) Load Reduction due to insufficient electrical generating capacity at Riverside(cont.)

Date	July 21	July 22	July 23	July 24	July 25	
Area affected	SFC WDPC French	SFC WDPC French	SFC WDPC French	SFC WDPC French	SFC WDPC French	
Supply from substation	Riverside Yangchow Tonquin Robison	5 sub-stations	5 sub-stations	5 sub-stations	5 sub-stations	
Feeder	13 feeders	11 feeders	15 feeders	13 feeders	13 feeders	
Customer	11 customers & LV net-works	12 customers & LV net-works	18 customers & LV net-works	22 customers & LV net-works	14 customers & LV net-works	
Duration of supply interruption	14 mins to 3 hrs 29 mins	28 mins to 2 hrs 16 mins	23 mins to 3 hrs 17 mins	57 mins to 3 hrs 35 mins	40 mins to 2 hrs 55 mins	
Estimated kVA-hrs lost	Company's area	AM 12,630 PM 14,670 Ev 21,995	AM 5,210 PM 5,450 Ev 24,110	AM 13,710 PM 34,550 Ev 16,110	AM 18,190 PM 48,870 Ev 9,120	AM 2,400 PM 12,390 Ev 21,810
	Chapei					
	French	Ev 6,600	Ev 4,480	Ev 4,400	Ev 6,270	Ev 6,500
	Total	55,895	39,250	68,770	82,450	43,400
Remarks	AM - refers to morning peak load period (8 am to 12 noon) PM - " " afternoon " " " (12 noon to 7 pm) Ev - " " evening " " " (after 7 pm)					

GENERAL POWER COMPANY

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(a) Load Reduction due to insufficient electrical generating capacity at Riverside(cont.)

Date	July 26	July 27	July 28	July 29	July 30	
Area affected	SPC WDFC Chapel French	WDFC French	SPC WDFC French	SPC WDFC French	SPC WDFC French	
Supply from substation	5 sub-stations	Robison	Riverside Yangchow Tonquin Connaught	Riverside Yangchow Tonquin Robison	5 sub-stations	
Feeder	8 feeders	Japan China	12 feeders	9 feeders	15 feeders	
Customer	7 customers	Japan China	15 customers & LV networks	8 customers & LV networks	19 customers & LV networks	
Duration of supply interruption	52 mins to 3 hrs 31 mins	1 hr 22 to 1 hr 33 mins	9 mins to 3 hrs 31 mins	7 mins to 3 hrs 16 mins	35 mins to 3 hrs 46 mins	
Estimated kVA-hrs lost	Company's area	AM 2,192 PM 9,850 Ev 13,400	Ev 8,200	AM 6,542 PM 19,310 Ev 9,980	AM 13,598 PM 9,580	AM 9,760 PM 46,366 Ev 5,340
	Chapel	AM 1,630				
	French	Ev 4,400	Ev 4,140	Ev 4,320	Ev 3,870	Ev 3,660
	Total	31,522	12,340	40,152	27,048	65, 126
Remarks	AM - refers to morning peak load period (8 am to 12 noon) PM - " " afternoon " " " (12 noon to 7 pm) Ev - " " evening " " " (after 7 pm)					

GENERAL POWER COMPANY

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(a) Load Reduction due to insufficient electrical generating capacity at Riverside(cont.)

Date	July 31	
Area affected	SFC WDPC French	
Supply from substation	5 sub-stations	
Feeder	11 feeders	
Customer	14 customers & LV networks	
Duration of supply interruption	40 mins to 2 hrs 45 mins	
Estimated kVA-hrs lost	Company's area	AM 23,970 PM 11,870 Ev 4,350
	Chapel	
	French	Ev 3,500
	Total	44,190
Remarks	AM - refers to morning peak load period (8 am to 12 noon) PM - " " afternoon " " " (12 noon to 7 pm) Ev - " " evening " " " (after 7 pm)	

GENERAL POWER COMPANY

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(b) Other Causes

Date	July 2	July 10	July 12	July 16	July 17	
Area affected	WDPC	SPC WDPC	SPC	SPC	WDPC	
Supply from substation	Kung Yih	Connaught	Kwangse	Yangchow	Dal Wai Textile PT	
Feeder	L 4 O/H line	C 3 & E 8 O/H lines	Kwangse-Kiukiang PT Kiukiang-Hoopenh PT	CG 101	Dal Wai Textile PT	
Customer	2 customers & LV networks	16 customers & LV networks	Kwangse-Kiukiang PT Kiukiang-Hoopenh PT	Shanghai C/M 5	Dal Wai Textile PT	
Cause of failure	Line shorted by pigeons	Lightning	Transformer pothead of Kwangse-Kiukiang PT	Switchman failed to operate remote control correctly	HV spur line fouled by CNRRA crane	
Fault cleared by	L 4 OCB	C 3 & E 8 OCBs	Kwangse-Kiukiang PT & Kiukiang-Hoopenh PT OCB	Reclosing after load reduction	D/O fuses	
Damage to equipment	None	None	One transformer pothead	None	HV mains broken	
Duration of supply interruption	23 mins	2 mins	1 hr 29 mins to 1 hr 59 mins	1 hr 2 mins	1 hr to 2 hrs 33 mins	
Load affected kVA	Company's area	300	3,600	300	2,000	350
	Chapel					
	French					
Remarks						

SHANGHAI POWER COMPANY

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(b) Other Causes (cont.)

Date	July 18	July 23	July 23	July 25	July 29
Area affected	SPC	SPC	SPC	SPC	SPC
Supply from substation	China Textile Machinery (Ward) Shanghai Iron & Steel	Riverside	Riverside	Shanghai Iron & Steel	Fearon
Feeder	- do -	A 8	Chapel Bulk Supply	Shanghai Iron & Steel	B 11/18
Customer	- do -	7 customers & LV networks	Chapel Bulk Supply	Shanghai Iron & Steel	Chapel Pao-Tung
Cause of failure	Rat on consumer's PT and resulting surge	Misoperation (Generation Department staff)	Fault on Chapel system	Consumer's misoperation	Fault on Chapel system
Fault cleared by	China Textile Machinery OCB D/O fuses	A 8 OCB	Chapel Bulk Supply OCB	D/O fuses	B 11/18 OCB
Damage to equipment	SPC None	None	None	SPC None	None
Duration of supply interruption	1 hr 19 mins to 2hrs 9 mins	1 min.	2 hrs 18 mins	1 hr 2 mins	7 mins
Load affected kVA	Company's area	17,000	1,000	1,000	
	Chapel			13,000	3,500
	French				
Remarks					



SHANGHAI POWER COMPANY

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(b) Other Causes (cont.)

Date	July 30	July 30	July 31	July 31	July 31
Area affected	SPC	SPC	SPC	SPC	SPC
Supply from substation	Pearon	Riverside Delhi	Riverside	Kashing	Kwenming
Feeder	B 11/18	A 8/13 O/H line A 9 O/H line	Chapei Bulk Supply	Chapei Tiendoong	Ward Road O/H line
Customer	Chapei Pao-Tung	16 customers & LV networks	Chapei Bulk Supply	Chapei Tiendoong	3 customers & LV networks
Cause of failure	Fault on Chapei system	Lightning	Fault on Chapei system	Fault on Chapei system	Lightning
Fault cleared by	B 11/18 OCB	A 8/13 OCB A 9 OCB	Chapei Bulk Supply OCB	Chapei Tiendoong OCB	Ward Road line OCB
Damage to equipment	None	None	None	None	None
Duration of supply interruption	13 mins	37 mins to 4 hrs 20 mins	2 hrs 1 min	1 hr 15 mins	46 mins to 1 hr 28 mins
Lead affected kVA	Company's area		2,520		1,800
	Chapei	1,100	12,500	600	
	French				
Remarks					

PHANH HAI POWER COMPANY

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(a) Other Causes (cont.)

Date	July 31	
Area affected	SFC	
Supply from substation	Kashing	
Feeder	Chapel Tiendoong	
Customer	Chapel Tiendoong	
Cause of failure	Fault on Chapel system	
Fault cleared by	Chapel Tiendoong OCB	
Damage to equipment	None	
Duration of supply interruption	25 mins	
Load affected kVA	Company's area	
	Chapel	600
	French	
Remarks		

MANHATTAN POWER COMPANY

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(2) Classified Service Failures (including Item 1)(a) Caused by Defective Equipment

Equipment	Number of Failures	
	This Month	Last Month
Overhead Lines: HV	-	1
LV	1	3
Underground Lines: Cables	-	-
Joints	-	1
Potheads	1	1
Transformers and voltage regulators	-	2
Switchgear	-	1
Power fuses	2	2
Protective equipment	-	1
Traction equipment	-	-
Metering equipment	-	-
Current and potential transformers	-	-
Street lighting: Series	-	-
Multiple	2	7
Other Company's equipment	-	-
Total (a)	6	19

(b) Other Causes

Cause of Failure	Number of Failures	
	This Month	Last Month
Foreign agencies: Overhead lines	6	9
Street lighting	2	2
Underground lines	-	-
Tram trolleys: Overhead lines	2	-
Street lighting	4	3
Theft of equipment	-	-
Typhoons and storms	1	7
Lightning	6	-
Flood	-	-
Fire	-	-
Vermin and birds	2	1
Overload	2	1
Customers' equipment failures:		
Company's area	2	5
Ex franchise area	6	3
Company's staff: Misoperation	2	-
Fouled by workmen	1	1
Generating station trouble	32	28
Undetermined	2	4
Total (b)	70	64
Total (a & b)	76	83

SHANSHAI POWER COMPANY

(3) Trouble Calls attended to by System Trouble Section

	Number of Calls					
	This Month			Last Month		
	SFC	WDPC	Total	SFC	WDPC	Total
<u>Company's installation</u>						
23 kV overhead and underground lines	1	-	1	-	2	2
6.6 kV overhead and underground lines	17	4	21	12	4	16
300 volt overhead and underground lines	15	13	28	32	15	47
Street lighting lines and equipment	55	6	32	31	11	42
Traffic signals	121	10	131	130	8	138
House service connections and wires	101	33	134	149	63	212
Substation equipment	5	1	6	5	-	5
DC Traction equipment and lifts	1	-	1	2	-	2
Fire calls	38	3	41	35	6	41
False alarms	-	-	-	5	1	6
Miscellaneous	7	2	9	20	5	25
<u>Customers' premises</u>						
Lighting	1149	295	1444	936	212	1148
Power	124	79	203	113	60	173
Heating	68	16	84	41	14	55
<b>Total Trouble Calls attended to</b>	<b>1673</b>	<b>462</b>	<b>2135</b>	<b>1511</b>	<b>401</b>	<b>1912</b>
<b>Average per day</b>	<b>54</b>	<b>14.9</b>	<b>69.0</b>	<b>50.3</b>	<b>13.4</b>	<b>63.7</b>

(B) TRANSFORMERS AND REGULATORS

(1) Connected and/or Disconnected from Service

Location	Capacity in kVA		Remarks
	Connected	Disconnected	
Chase Bank	225		Load increase.
Yue Ming C/M	940		New installation.
Wing On Stores Extension		225	Removal of standby transf.
Chuka Dyeing Works		225	Removal of standby transf.
Gordon-Wating PT	325		Load increase.
Chekiang		225	Removal of standby transf.
ShanhaiKwan		260	(Interchanging of regulators
Kwangso		520	( at ShanhaiKwan & Kwangso.
Rifle Range PT		35	June 18, 1947 Sold to
Northern Sewage		100	Chapai Electricity Company.

SHANGHAI POWER COMPANY

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## WDPC

Location	Capacity in kVA		Remarks
	Connected	Disconnected	
Hung Joo-Warren PT	35	20	Load increase.
Van Pao Silk Factory		625	Substation dismantled.
Columbia Club PT	225	125	Load increase.
Chen Ku Jao "B" PT	7 $\frac{1}{2}$		New installation.
Tunsin House 146 PT	225	125	Load increase.

UNITS

SPC      WDPC

- (2) Taps changed for Network Voltage Regulation      2      -
- (3) Switched on or off Load for Operational purposes      ?      -
- (4) Under Observation due to Overload or Overheating

## SPC

Location	Capacity kVA	Type	Max Load		Max oil top temp	Ambient temp	Temp Rise	Remarks
			%	Hours duration				
Avenue-Rodhurst PT	325	Outdoor	100	1	62 $\frac{1}{2}$	29	33 $\frac{1}{2}$	
Wuting PT	225	"	112	1	57	27	30	
Seymour-Changping PT	225	"	117	1	66	35	31	
Robison-Gordon PT	325	"	103	1	68	27	40	
Ferry-Connaught PT	325	"	108	1	68	29	36	
Burkill-Tatung PT	325	"	106	1	77	30	47	
Jossfield-Yu Yuon PT	125	"	118	1	61	27	34	
Yu Yuon-Hart PT	125	"	102	1	50	29	21	
Moulmein(Ind. Voltage Regulator)	260	Indoor	116	1	60	37	28	
Puton & Baldwin W/M	625	"	120	1	70	38	32	
Thorne-E Kanhing PT	125	Outdoor	116	1	46	29	17	
Yangchow-Wetmore PT	225	"	115	1	55	32	23	
Widow's Monument PT	225	"	105	1	50	29	21	
Szechow PT	225	"	103	1	45	27	18	
Da An Rubber Factory OT	225	"	128.8	1	63	36	27	
Market Street	325	Indoor	100	1	76	37	39	W O in hand
Moichow-Chaochang PT	225	Outdoor	117	1	62	34	28	W O in hand
Hailar-Tungchow PT	62	"	121	1	41	30	11	

SHANGHAI POWER COMPANY

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WDPC

Location	Capacity kVA	Type	Max Load		Max oil top temp	Ambi- ent temp	Temp Rise	Remarks
			%	Hours dura- tion				
Yu Yuen "A" PT	225	Outdoor	118	1	51	25	26	Informed Eng. Department. W/O in hand.
E Tse An Pang "B" PT	50	"	145	1	58	34	24	
Columbia Club PT	125	"	150	1	81	33	49	W/O in hand.
Dollar Radio Station	372	Indoor	132	1	62	32	30	
Fah Wah-Hsing Hwa Jao PT	225	Outdoor	106	1	52	32	20	W/O in hand.
Poh Sing Kyung Village PT	35	"	114	1	47	30	17	
Tse Chong Hsing Glue Factory PT	622	"	106	1	55	36	19	Load relieved by a new PT.
Chen Ka Jao "A" PT	20	"	132	1	40	30	10	
Hubertus Apartment PT	35	"	123	1	42	29	13	Informed Eng. Department.
Great Western-Lincoln Avenue PT	35	"	124	1	40	29	11	
Great Western Riding School PT	325	"	126	1	61	34	28	Load will be relieved by Van Poong Yang.
Ming Sung PT	225	"	123	1	54	34	20	
Dah Yuen W/M PT	325	"	106	1	60	32	28	Load will be relieved by Van Poong Yang.
Robison-Kieochow PT	225	"	107	1	55	30	25	

(C) MISCELLANEOUS TESTS

Units	Equipment	Voltage	Nature of test	Reason for test
1	Transformer, 1,200 kVA, 3 Ø made by Shibaura Property of Shanghai C/M No. 2 & 3	22,000 415	Insulation Resistance, Ratio, Pressure and Phasing	New installation
1	Transformer, 150 kVA, 3 Ø made by Chung Jen Request by Consumers' Engineer's Department	6,600 400	Insulation Resistance, Pressure, Ratio, Phasing & Impedance	New installation
3	Exhaust fans Type AC Induction	-	Insulation, Continuity, Running speed mea- surements and heat run	Acceptance
-	Consumer's installations at Shanghai Iron and Steel Works	6,600	Overvoltage, IR, Con- tinuity, polarity & CT connections	After CTs changed

SHANGHAI POWER COMPANY

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Units	Equipment	Voltage	Nature of test	Reason for test
-	Arc Furnace Equipment Property of Chunichi Heavy Industry	6,600	Overvoltage, IR Sen- tivity, Impedance, V/R, overload, and oil breakdown	Recommissioning
1	Transformer 225 kVA 3 $\phi$ made by SSM	$\frac{6,600}{375}$	Ratio, Continuity and Phasing	Suspected faulty
2	PL transformer 62 $\frac{1}{2}$ kVA made by GE	$\frac{6,000}{2,000}$	Insulation Resistance, Pressure and Ratio test	After overhaul
3	Pin Insulators	6,600	Overvoltage and flash- over	Routine
1	Induction motor 3 $\phi$ 220 HP, property of Shanghai Water Works	380	IR Continuity, open circuit test, coil Z drop	Investigation
-	Mercury Arc Rectifier Equipment at Clock Tower Substation	-	Continuity, Insulation Resistance, operation and overload	After two month service
1	Transformer 225 kVA 3 $\phi$ made by SSM	$\frac{6,600}{375}$	Continuity, Ratio and short circuit	After overhaul
3	Transformer oil, consumer's property	-	Breakdown voltage	Check condition of oil
3	Traction Rectifier Equip- ment at Clock Tower Substation	-	Load sharing among 3 bulbs	Investigation
3	Current transformer, 200/5, property of Tien Yuan Electro Chemical	6,600	Pressure, Ratio and heat run	After repair
-	Impregnated paper from cable AB 9	-	Dielectric strength	Effect of black spots (treeing) on the paper upon dielectric strength

MANUAL POWER COMPANY

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Units	Equipment	Voltage	Nature of test	Reason for test
1	Relay Type HG made by GE	-	Impedance operating current and voltage	Interest
2	Insulators, Butterfly Type	360	Flashover and over-voltage	Acceptance
1	Auto tripping links Two phase blades with 360 V trip coil	-	Performance	To find out the capability of load breaking
1	Transformer 625 kVA 3 $\phi$ made by IGE	$\frac{6,600}{350}$	Insulation Resistance, Pressure, ratio and Phasing	After overhaul
-	Paper tape from AB 8 cable	-	Breakdown voltage	Effect of treeing on the insulation of the paper
-	Fuse wire electrotin No.18 made by Sam Yue Elec. Industry	-	Minimum fusing current and characteristic curve	Acceptance
60	Rubber gloves made by Dunlop Rubber Company	1,100	High voltage (10 kV)	Acceptance
-	Paper tape from AG 19 cable	-	Breakdown voltage	Effect of treeing on the insulation of the paper
1	Transformer, 225 kVA 3 $\phi$ made by SEM	$\frac{6,600}{375}$	Ratio, Continuity and Phasing	Suspected faulty



SHANGHAI POWER COMPANY

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II MAINTENANCE

Routine inspection, maintenance and testing of plant on the transmission and distribution system have proceeded according to programme.

(A) TRANSFORMERS AND REGULATORS

- (1) Overhauled (Core lifted, windings and connections examined, IR tested, and oil changed)

SFC

Location	Capacity in kVA	Workshop	Reason for overhaul
Chekliang	625	Fearon S/S	Over 10 years in service without overhaul.
Chekliang (PL Regulator)	625 625	" "	" "
Chuka Dyeing Works	225	"	Over 10 years in service without overhaul.

MDPC

Location	Capacity in kVA	Workshop	Reason for overhaul
Vun Pao Silk Factory	625	Fearon S/S	Over 10 years in service without overhaul.

U N I T S

	<u>SFC</u>	<u>MDPC</u>
(2) <u>Inspected on site</u> .....	26	1
(3) <u>Oil-Dielectric tested</u> .....	14	4

SWANSEA POWER COMPANY

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(B) OIL CIRCUIT BREAKERS

(1) Overhauled and Tripping Mechanism Tested

Reason for test	Number of OCBs tested			
	SPC		WDPC	
	Company's property	Customer's property	Company's property	Customer's property
Routine and special maintenance	29	35	-	3
Oil circuit breakers tripped	12	5	-	-
New installation or operation resumed	-	5	-	9
Total	41	45	-	12

U N I T S

SPC      WDPC

(2) <u>Oil-Dielectric strength tested</u> .....	3	-
(3) <u>Oil changed</u> .....	36	-

(C) OIL TREATMENT PLANT

Location	Transformer Oil				Switch Oil			
	Issued	Returned	Filtered	Stock	Issued	Returned	Filtered	Stock
	US gallons							
Feuron Oil Depot	2,306	1,218	3,577	1,759	1,151	933	1,289	356
On Site - SPC	-	-	-	-	-	-	-	-
WDPC	-	-	-	-	-	-	-	-
Total	2,306	1,218	3,577	1,759	1,151	933	1,289	356

Samples of Oil Tested for Breakdown ..... 166

INDIAN POWER COMPANY

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(D) PROTECTION, BATTERIES AND TELEPHONES

(1) Protection Tests

Type of Protection	Number of Panels where tests carried out	
	SPC	NDPC
Overload and/or Earth Leakage	41	-
Feeder or Transformer Balance	10	-
Total	51	-

(2) Relays

Type of Relay	Number of Relay Elements			
	SPC		NDPC	
	Circuit tests	Changed	Circuit tests	Changed
Inverse Time	-	1	-	-
Instantaneous	-	-	-	-
Total	-	1	-	-

(3) Batteries

Work done	Lead-Acid & Edison Types 110V in Primary Substations		Ni-Fe Type 30 V in Secondary Substations	
	SPC	Telephone Exchange	SPC	NDPC
	Inspected, cleaned and topped up	25	8	29
Equalising charges conducted	7	1	-	-
Charged and discharged	-	-	5	-
Electrolyte changed	-	-	-	-

SHANGHAI POWER COMPANY

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(4) Auto-Telephone Equipment and Lines

Instruments installed .....	7
" disconnected .....	3
" changed .....	19
" moved .....	1
" overhauled .....	25
" faults repaired .....	4
Line faults located and repaired .....	2
Switches overhauled .....	6
Exchange equipment faults repaired .....	-
Miscellaneous equipment overhauled .....	-

(E) PRIMARY SUBSTATIONS

Regular and Special Maintenance

Substation	Company	Equipment	Work done	% completed
Primary Sub-stations	SPC	Switchgear	Overhaul and overload test all DC circuit breakers	90
	SPC & WDPC		Inspection of all metalclad switchgear for oil and compound leaks	20
	SPC		Install lighting at KDR 5 switchgear	100
Fearon	SPC	Rotary Plant	Repair of 3,600 kVA synchronous motor of MG 3	95
Fearon and Park			Inspection and cleandown of DC traction boards and test insulation resistance	100
Fearon and Yangchow			Overhaul of negative boosters motor generators and starting gears	100
Fearon			Overhaul of 3,600 kVA synchronous motor generators and starting gears	40
Park			Overhaul rotary converters and starting gears	20
Primary Sub-stations			Inspection and cleandown all battery motor generators	50
Fearon			Inspection and cleandown of test room motor generator	100
Fearon			Inspection and cleandown of Oscillograph motor generator	100

SHANGHAI POWER COMPANY

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Substation	Company	Equipment	Work done	% completed
Primary Sub-stations	SFC & WPC	Instrument transformers	Inspection of all current transformers for oil and compound leaking	20
Primary Sub-stations	SFC & WPC	Various sub-station equipment	Inspection of all gas masks Testing of all rubber gloves Checking of all tools Inspection of all fire extinguishers Overhaul of substation fans	40 100 100 20 100
Primary Sub-stations	SFC & WPC	Batteries	Routine maintenance	To programme
Safety devices inspection and check on artificial respiration practice carried out according to programme.				

(F) SECONDARY SUBSTATIONSRegular and special maintenance

Location	Company	Work done	% completed
Chusan	SFC		95
Delhi	"		70
Dah Kong No. 1	"		70
China Fibre Container Company	"	<u>Biannual Regular Maintenance</u>	100
Yu Fong No. 1	"		100
Hwa Shing Worsted	"	Overhaul of switchgear, testing of automatic protective equipment,	100
M B K Lumber Mill	"	inspection of transformers and regulators, inspection of all electrical equipment and cleaning.	100
Anderson Meyer	"		100
Chokiang	"		100
Wing On Stores	"		100
Kwangse	"		97
Rhanso	"		95
Eastern District		Inspection of lightning arresters indicators	100
Eastern District		Overhaul of six power transformers at Pearson Substation	100
All districts		Overhaul of overload testing gears	95

EVANGHAL POWER COMPANY

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Location	Com-pany	Work done	% completed
All districts		Checking of standard auxiliary equipment in substations	70
All districts		Inspection of wrought iron substations	60
All districts		Inspection of pole transformers	To programme
All districts		Inspection of safety devices and check on artificial respiration practice	To programme

(G) OVERHEAD LINES AND STREET LIGHTING

(1) Inspection and Overhaul of Overhead Lines (All Districts)

System voltage	Locations where maintenance of overhead lines has been carried out to programme
6.6 kV	Gordon and Main Roads, between Ferry S/S and Majestic Theatre
"	Hart Road, between Simza Road and Lane No. 545 Hart Road
"	Ferry-Bubbling Well Tie Line, between Ferry S/S and Bubbling Well S/S

(2) Repairs and Replacements of Overhead Line Equipment (All Districts)

Equipment	Inspected	Repaired	Renewed
Stays	23	-	-
Brackets	95	4	-
Line switches	1	-	-
Lightning arresters	-	-	-
Insulators	312	7	5
Poles	12	-	-
Series transformers	-	-	-
Lamp fittings	-	-	-
Lamp brackets	-	-	-
Connections	-	-	-

SWANSHOF POWER COMPANY

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	<u>SPC</u>	<u>WDPC</u>
<u>(3) Poles and Pole Bases - Routine and Special Maintenance</u>		
Poles inspected .....	88	-
Wood poles painted .....	-	-
Iron poles painted .....	-	-
Concrete poles repaired .....	-	-
Decayed wood poles renewed: Main .....	-	3
Suspension .....	-	1
Stay .....	3	1
Concrete bases inspected .....	70	-
Concrete bases repaired .....	-	-
Concrete bases renewed .....	2	8
Cast iron sleeves renewed .....	3	2
Cast iron sleeves replaced by concrete bases .....	-	-
Obsolete concrete sleeves replaced by concrete bases .....	-	-
	<u>SPC</u>	<u>WDPC</u>
<u>(4) Street Lamps burnt and renewed</u>		
Municipal street lighting .....	850	107
Private street lighting .....	622	100
Total .....	1472	207

(5) Traffic Signal Switches

Location	Installed	Removed	Replaced	Overhauled
Eastern District	-	-	-	1
Central District	-	-	5	54
Western District	-	-	2	3

MANUAL POWER COMPANY

(H) UNDERGROUND LINES

	<u>% completed</u>	
	SPC	WDPC
<u>(1) Inspection and Maintenance</u>		
Idle cable risers .....	100	100
Road condition along cables in Eastern District .....	100	-
Central District duct line and manholes .....	100	-
	<u>Units</u>	
	SPC	WDPC
Cable potheads and joints: 23 kV .....	-	-
(including standardization) 6.6 kV .....	28	-
330 V .....	4	-
Feeder pillars: .....	1	-
Underground cables slung and protected: .....	-	Robison Rd W of Kin- chow Rd
<u>(2) 23 kV Underground Cable Failure located and repaired .....</u>		3

SPC

feeder name	Location of failure	Faulty cores	Cause of failure	Repairs
AB 8	Cable	R,W,B	Deterioration of insulation	Length of 27 feet replaced by new cable and two new joints.
AC 31	Joint 33	R,W,B	Obsolete design	Length of 22 feet replaced by new cable and two new joints.
AG 19	Cable	W	Deterioration of insulation	Length of 108 feet replaced by new cable and two new joints.

WDPC

Nil.



SHANGHAI POWER COMPANY

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(3) 6.6 kV Underground Cable Failure located and repaired ..... 2

SPC

Feeder name	Location of failure	Faulty cores	Cause of failure	Repairs
Race Club Substation- FP 32	Pothead in Feeder Pillar	R,B	Inferior design of FP casing	Damaged section replaced by 15 feet new cable and one new joint, and one pothead remade.
Kwangse-Kiukiang PT	Transformer pothead	W	Inferior design	Remade in position.

WDPC Nil.

(4) 380 V Underground Cable Failure located and repaired ..... Nil

(5) Pilot and Telephone Underground Cable Failure located and repaired .... Nil

(6) 23 kV Underground Cable Preventive repairs ..... Nil

(7) 6.6 kV Underground Cable Preventive repairs ..... 1

SPC Nil.

WDPC

Feeder name	Location of weakness	Cause of weakness	Repairs
Columbia Club PT	Wipe of transformer pothead	Defective workmanship during install.	Moisture penetrated cable of 7 feet cut and pothead remade.

(8) 380 V Underground Cable Preventive repairs ..... Nil

(I) BUILDINGS

	<u>Location</u>	<u>Work done</u>	<u>% completed</u>
SPC	1. Fearon Underground trench gear shed	Repairs of roof	85
	2. Underground Workshop	Build up store-room for coke and sundries	80
	3. Fearon Yard	Erecting tin hut for substation and garage blacksmith shop	90
	4. Bubbling Well Substation	Modification of Traction Rectifier building	75
	5. Construction Substation Workshop	Alterations to building	15

MANUAL POWER COMPANY

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	<u>Location</u>	<u>work done</u>	<u>% completed</u>
SPC	6. Fearon Store	Repairs to roof	100
	7. Garage Workshop	Raise the lintel	50
	8. DOD office	Repairs to lavatory	100
WDPC	Nil.		

III CONSTRUCTION

(A) SERVICES

	<u>SPC</u>	<u>WDPC</u>
(1) <u>House Services</u>		
Connections .....	444	187
Disconnections .....	72	36
Net increase .....	372	157
(2) <u>Municipal Street Lighting</u>		
Connections .....	53	-
Disconnections .....	15	-
Net increase .....	38	-
(3) <u>Private Lighting</u>		
Connections .....	132	4
Disconnections .....	135	1
Net increase .....	-3	3

(B) GENERAL LINES

(1) <u>Erection</u>	<u>Area</u>	<u>Location</u>	<u>Route length yards</u>	<u>Number of poles</u>
6.6 kV 3-wire	SPC	Kiu Lung M.A.D. Factory, Fasting Rd	392	1
6.6 kV 2-wire	WDPC	St. Shen Ho Dao, off Hungpo Road	330	5
440/220 V 4-wire	SPC	Shanping Road E of Samsar Road	96	2
"	"	Tanchoo IV Feeder	19	-
"	WDPC	Hungpo Road W of Warren Road	207	-
"	"	Great Western Road W of Columbia Rd	51	-

SHANGHAI POWER COMPANY

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(2) Salvage

Nil.

(3) Poles

	SPC	WDPC
Erected .....	11	13
Removed .....	3	4
Moved at the request and expense of the Municipality .....	-	-

(C) UNDERGROUND LINES

(1) Installation

Cable -	SPC	1. 1b nos. 1.4 sq. in. 4-core, 600 V cable for LV network supply from Lung Foon Dyeing and Weaving Factory, Taitsihar Road.
	WDPC	Nil.
Joints and potheads -	SPC	1. One 380 V pole pothead and one 380 V joint for LV network supply from Lung Foon Dyeing and Weaving Factory.
	WDPC	Nil.

(2) Salvage

Nil.

(3) Deviation

SPC	1. Due to change of consumer's building, cable moved to front wall at Shanghai City Ferries Office, The Bund.
	2. Due to change of voltage regulator, cable pothead moved to new position in Shanhaiwan Substation.
	3. Due to change of transformer, transformer pothead replaced by indoor type on wall, at Yee Tsong Tobacco Company, Yulin Road.
WDPC	Nil.

SHANGHAI POWER COMPANY

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(D) SUBSTATIONS

	<u>Substation</u>	<u>Work done</u>	<u>% completed</u>
SPC	1. Chase Bank, Szechuen Road	Replacement of a 325 kVA transformer with a 225 kVA unit.	100
	2. Yue Ming Cotton Weaving Factory, Ward Road	Installation of metering cubicle for 6.6 kV supply	100
	3. Zung Foong D & W, Tsitsihar Road	Reinstall LV bus bar and links for network supply	75
	4. China Fibre Container Company, Haichow Road	Installation of LV network feeder	100
	5. Yee Tsong Tobacco Co, Thorburn Road	Change of distribution transformers	100
	6. Dah Chung Dyeing, Penang Road	Replacement of a 325 kVA transformer with a 940 kVA unit	75
	7. Tungchow	Installation of one additional 940 kVA transformer	75
	8. Wing On Stores, Extension Nanking Road	Removal of a 225 kVA spare transformer	100
	9. Dent	Installation of a 125 kVA transformer	70
	10. Woo Sing C/M, Pingliang Road	Installation of metering cubicle for 6.6 kV supply	25
	11. Ta Yu Yue, Soochow Road	Replacement of a 940 kVA transformer by a 625 kVA unit	10
	12. Wing On B, Pingliang Road	Installation of temporary 6.6 kV supply	20
	13. Shanghai Club	Removal of one 940 kVA spare transformer	100
	14. National Research(East), Hochien Road	Installation of a 225 kVA OT	100

WDPC Nil.

(E) BULK SUPPLY METERING

<u>Work Done</u>	<u>SPC</u>	<u>WDPC</u>	<u>Total</u>
Metering equipment installed	2	3	5
" " removed	-	-	-
" " changed	-	3	3

SHANGHAI POWER COMPANY

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(F) VARIOUS WORK

	<u>Nature of work</u>	<u>Location</u>	<u>% completed</u>
SPC	1. Redrugging of cables from rotten to good reels and repairs to cable reels	Haiphong and Yangchow Depots	30
	2. Scrapping cable from AD 57 fault	Fearon Workshop	100
	3. Repair and paint danger stands for trench work	Fearon Workshop	80
	4. Repair barbed wire barricade	Fearon Workshop	100
	5. Building up kerosene tank base	Fearon Yard	100
	6. Inspection and cleaning of gasoline tanks	Haiphong Depot	60
	7. Lay a concrete pipe duct for cable road crossing	Dah Chung Dyeing Factory, Penang Road	90
	8. Filling compound and install potheads on transformers	Fearon Substation	100
	9. Shifting Underground Emergency stock to new store-room	Fearon Underground Emergency store	40
	10. Relocation of Chapel 22 kV B/S and AD 57 on the station bus bar	Riverside Generating Station	60
	11. Alternation to A 6 feeder	Riverside - Dah Kong 1	100
WDPC	Nil.		

IV WORK DONE FOR CONSUMERS

	<u>Location</u>	<u>Nature of work</u>	<u>% completed</u>
1.	Bubbling Well Substation	Reconstruction and extension of 400 kW rectifier equipment (property of Tramway Company)	70
2.	Toyoda Cotton Mill, Jessfield Road	Removal of one 1,200 kVA transformer to CTII Shanghai C/M No. 14	100
3.	Wayside Substation	Transport one 1,000 kVA transformer to Sung Sing B for hire	80
4.	Yue Ming C A W Factory, Ward Road	Installation of a 325 kVA transformer on hire	100
5.	Tonquin Substation	Removal of temporary traction supply	2
6.	King Kong Rubber Factory, Kenwick Road	Installation of consumer's 150 kVA transformer	70
7.	CTII Shanghai C/M No. 14, Yangtzeppoo Road	Erect 23 kV cable connection between bus bars and consumer's transformers	40

SHANGHAI POWER COMPANY

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†

V STAFF

(A) CHANGES

Engineering and Office Staff

SPC

Fomin, N.G. Substation Attendant Transferred to Secretary and Treasurer's Department.

Ching, Molly M.L. Stenographer Engaged.

WDPC None

Monthly Rate Staff

SPC

Kyoong Sze Poh Overhead foreman Discharged.

Chen Yun Sheng Typist (Temporary) Engaged.

WDPC None

Daily Rate Staff

SPC

CUQ. 11 Improver Invalidated.

CMF. 6 Fitter Invalidated.

CSQ. 17 Improver Died.

COXZ. 1 Labourer (Temporary) Engaged.

COXZ. 2 " " "

EOXZ. 1 " " "

EOXZ. 2 " " "

CUXZ. 1 " " "

CUXZ. 2 " " "

CUXZ. 3 " " "

CUXZ. 4 " " "

COLZ. 1 Lineman " "

EOZL. 1 " " "

EOZL. 2 " " "

CSFZ. 4 Fitter " "

WDPC

WOLZ. 1 Labourer (Temporary) Engaged.

WOLZ. 1 Lineman " "

WOLZ. 2 " " "

WOLZ. 3 " " "

WOLZ. 4 " " "

WOLZ. 5 " " "

SINGAPORE POWER COMPANY

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(B) ACCIDENTS

Date	Employee injured	Location of accident	Description of accident	Fatal or permanent injured	Disabled for the period of
July 4	TSG-3	747 Yangtzeppoo Road	When renewing power fuses a flash over occurred and his right hand was burnt.	No	6 days
July 14	CUJ.18	Dalny Road, corner of Baikal Road	Cutting AB 8 cable in the trench, the earth on one side of the trench fell down and caused contusion of right leg.	No	20 days
July 30	WOL.17	65 Yao An Ln, Columbia Road	Fell down to ground from a collapsing ladder, which was loaned from a consumer and suffered contusion of back.	No	6 days

VI MISCELLANEOUS

(A) Theft of Materials  
(In SPC and WDPC Areas).

Nil.

PROSRIAL POWER COMPANY

VII APPENDIX: TRANSPORT DIVISION

The following outlines the activities of the Transport Division during the month.

(A) MOTOR VEHICLES

Vehicles	Passenger cars	Pick-ups	Station wagons	Vans	Trucks	Special vehicles*	Trailers
In Operation	50	10	2	5	14	3	4
In Storage	-	-	-	-	-	-	-

\* Oil tanker and 20-ton lorries

(1) Operating Data on Motor Vehicles

Type	No. in service		GASOLINE							
			Issue (gallons)		Usage (gallons)		Mileage run		Average m.p.g.	
	July	June	July	June	July	June	July	June	July	June
Passenger cars	50*	51	5,834	5,928	5,818	5,942	69,764	70,130	12.0	11.8
Station wagons	2	2	144	189	144	189	1,972	2,542	13.0	13.5
Pick-ups	10	10	1,012	949	1,003	956	13,315	12,277	13.3	12.8
Trucks (1½-ton)	2	2	220	210	226	210	2,247	2,081	10.2	9.9
Trucks (3½-ton)	9	9	1,168	1,157	1,168	1,157	8,702	8,318	7.4	7.1
Lorries (5-ton)	2	2	271	244	271	256	1,216	1,171	4.5	4.6
Lorries (20-ton)	2	2	106	132	106	132	151	230	1.4	1.7
Oil tanker truck	1	1	-	-	-	-	-	-	-	-
Motor vans	2	2	163	153	163	153	1,326	1,326	8.1	8.7
Trouble Section van	1	1	179	202	179	202	1,170	1,301	6.5	6.9
Cooker vans	2	2	368	305	368	305	3,558	3,732	9.6	7.4
Bus	1	1	385	502	385	502	3,310	3,012	6.0	6.0
Trailers	8	8	-	-	-	-	-	-	-	-
Total	92	93	9,850	10,171	9,825	10,206	105,631	106,207	10.7	10.4

\* One passenger car on loan to Bureau of Public Utilities since July 1, 1947.



(2) Maintenance work on Motor Vehicles

Type	General Overhaul completed		Emergency Overhaul completed		Minor adjustments and repairs		Repairs after			
							Accident		Breakdown	
	July	June	July	June	July	June	July	June	July	June
Passenger cars	-	-	57	52	43	39	7	9	19	10
Station wagons	-	-	6	1	2	1	-	-	-	1
Pick-ups	-	-	25	23	7	9	2	1	3	3
Trucks (1-ton)	-	-	2	4	4	2	-	1	3	3
Trucks (3-ton)	-	-	15	9	3	7	-	1	4	4
Lorries (6-ton)	-	-	1	2	-	1	1	-	2	-
Lorries (20-ton)	-	-	1	-	-	-	-	-	-	-
Oil tanker	-	-	-	-	-	-	-	-	-	-
Meter vans	-	-	7	11	2	1	-	-	-	-
Trouble Section van	-	-	1	-	1	-	-	-	-	-
Cooker van	-	-	-	-	-	-	-	-	-	-
Bus	-	-	2	3	-	1	-	-	-	-
Trailers	-	-	-	-	-	-	-	-	-	-
Total	-	-	117	110	67	61	10	12	31	21

(3) MOTOR CAR ENGINE LUBRICATING OIL

Description	Issue (US gallons)		
	July	June	
Cars	153	151	Fearon stock at the end of this month: 453 US gallons
Trucks	170	177	
Other purposes	8	10	
Total	331	338	

SHANGHAI POWER COMPANY

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(C) MAJOR HAULAGE JOBS

Units	Equipment			Moved		Size of truck	Man-days
	Capacity kVA	Weight lbs	Description	From	To		
1	325	5,620	Transformer	Fearon Stores	Gordon-Wuting PT	20	24
1	225	5,130	"	Gordon-Wuting PT	Fearon Stores	20,6	20
1	225	4,750	"	Wing On Stores	Fearon S/S	20,6	40
1	940	16,300	"	Fearon S/S	Ferry S/S	20,6	20
1	225	4,750	"	Fearon S/S	Chase Bank	-	20
1	4,200	17,400	"	Riverside S H	Riverside Workshop	6	20
1	225	4,750	"	Chuka Dyeing Works	Fearon S/S	6	16
1	200 HP	4,430	Motor	Riverside Workshop	Chun Woo Paper	6	12
1	120 HP	3,360	"	Tien Chang Paper	Riverside Workshop	6	12
1	225	4,750	Transformer	Chase Bank	Fearon S/S	6	12
1	225	4,750	"	Fearon S/S	Chase Bank	20,6	40
1	260	15,400	"	Shannaiquan S/S	Kwangse S/S	20,6	20
1	520	23,300	"	Kwangse S/S	Shannaiquan S/S	20	20
1	4,200	17,400	"	Riverside Workshop	23 kv Switch House	-	10
1	62 $\frac{1}{2}$	1,800	"	Fearon S/S	Fearon Stores	-	20
1	32 $\frac{1}{2}$	1,800	"	Fearon S/S	Fearon Stores	-	20
1	4,200	17,400	"	Riverside Bay	S H Basement	-	20
1	225	4,750	"	Fearon Stores	Fearon S/S	-	24
1	325	6,075	"	Fearon Stores	Fearon S/S	20,6	40
1	625	16,800	"	Chekiang S/S	Fearon S/S	-	20
1	4,200	17,400	"	Riverside Bay	S H Basement	-	40
1	1,000	16,300	"	Riverside Workshop	Tonquin S/S	20	40
1	20	755	"	Haiphong Depot	Fearon S/S	6	10
1	62 $\frac{1}{2}$	2,115	"	Hobison S/S	Fearon S/S	-	20
1	4,200	17,400	"	Riverside Bay	S H Basement	6	12
1	60 HP	2,240	Motor	Fearon Stores	Aluminum Rolling Mill	20,6	40
1	625	8,950	Transformer	Van Pho Silk Factory	Fearon S/S	20	14
1	225	4,750	"	Fearon Stores	Tunsin(H 146) PT	6	8
1	125	3,530	"	Tunsin(H 146) PT	Fearon Stores	6	8
-	-	4,000	Rice	Nantao	Fearon Stores	6	8
-	-	4,000	"	Nantao	Fearon Stores	6	8
Total		263,295					514

MANUALS COMPANY

(D) BICYCLES

(1) Taxi Bicycle and Tricycle Service

Department	Type	No. in service	Issued for temp use	Issued as taxi	Remarks
Transport Division	Bicycles	48	18	12	-
	Tricycles	7	7	-	-
Motor Department	Bicycles	24	-	-	-
	Tricycles	-	-	-	-

(2) Bicycle and Tricycle Maintenance

Type	No. in service	General overhaul		Minor adjustments and repairs		Routine inspection		Repairs after accident	
		July	June	July	June	July	June	July	June
Company's bicycles	258	1	2	34	35	10	9	1	-
Employees' bicycles	46	-	-	5	8	3	4	-	-
Tricycles	10	-	-	3	5	-	-	-	-
Pedicabs	3	-	-	2	5	-	-	-	-
Trailers	2	-	-	1	-	-	-	-	-
Total	314	1	2	98	93	13	13	1	-

(E) HANDCARTS

Type	No. in Service	No. in Storage	No. in Construction	Number in repair	
				Maintenance	After Accident
Large 2-ton	2	1	-	-	-
Standard 1-ton	15	7	-	-	-
House Service	2	2	-	-	-
Balancing	3	3	-	-	-
Total	22	11	-	-	-

SHAW-WALKER COMPANY

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(F) TRANSPORT WORKSHOP

Shop	WORK DONE		
	Transport Division	Other divisions	
		Manhours	% of total
Vulcanizing	Repaired for - Motor cars: 20 tires; 205 tubes Bicycles: 37 tires; 6 tubes	-	-
Tailor	Repairs to                      Manufacture of 32 seat covers                  6 seat covers 29 upholstery 20 uniforms	78	7.1
Paint	Repainted: 1 bicycle Touched up: 115 motor car jobs; 60 bicycle jobs	350	31.8
Welding	Repaired by welding 45 motor vehicle bodies 23 engine parts 21 chassis parts	95	7.7
Battery	Replated: 3 batteries Repaired: 21                      " Charged: 143                      "	-	-
Blacksmith	Forged: 34 new parts Repaired: 131 damaged parts	-	-
Whitemith	Repaired - 28 vehicle radiators 16 bumpers 13 bodies 21 doors 26 windows 56 various small parts	-	-
Electrical	Repaired or overhauled - 14 starters 12 dynamos 56 horns	-	-
Carpenter	Repairs to 12 vehicle bodies  Manufacture of 1 vehicle body	Repairs to 11 chairs 1 revolving chair 3 desks 4 extension ladders  Total:  526	47.9

SHANGHAI POWER COMPANY

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Shop	WORK DONE		
	Transport Division	Other divisions	
		Manhours	% of total
Machine	Repairs to 68 engine parts 223 other parts  Manufacture of 79 engine parts 549 other parts	60	9.5
Lubrication Centre	Motor vehicles: Oil changed: 63 General inspection: 69 General Lubrication: 69	-	-

(7) ACCIDENTS

(1) Motor Vehicles

Date	Vehicle		Location of accident	Description of accident	Damage to SPC vehicle			SPC driver to blame?	Persons injured	
	Type	No.			Major	Minor	None		Staff	Out-siders
July 3	Pass. car	10632	Avenue Joffre	Knocked down a cyclist	-	-	x	No	No	Yes
July 3	Pass. car	10647	Yates Road	Damaged by a bicycle	-	x	-	No	No	No
July 6	Pass. car	17519	Kweichow Road	Smashed by a car	-	x	-	No	No	No
July 6	Pass. car	10655	Sian Road	Collided with bicycle	-	-	x	No	No	No
July 6	Pass. car	17520	Yangtazopoc Rd	Hit against a street pole	-	x	-	Yes	No	No
July 7	Pass. car	14613	Ward Road	Collided with pedicab	-	-	x	No	No	No
July 8	Pass. car	10657	N Chekiang Road	Hit against a street name sign board	-	x	-	Yes	No	No
July 11	Pass. car	10551	Nanking Road	Bumped by a tramcar	-	x	-	No	No	No
July 14	Pass. car	10659	Nanking Road	Smashed by a car	-	x	-	No	No	No
July 16	Pass. car	17800	E Seward Road	Knocked down a cyclist	-	x	-	No	No	Yes
July 17	Pass. car	14619	The Bund	Smashed by a car	-	x	-	No	No	No
July 21	20-ton white lorry	30040	Nanking Road	Collided with car	-	-	x	Yes	No	No
July 22	Pass. car	52434	Yates Road	Collided with truck	-	x	-	No	No	No

SHANGHAI RIVER COMPANY

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(1) Motor Vehicles (cont.)

Date	Vehicle		Location of accident	Description of accident	Damage to SPC vehicle			SPC Driver to blame?	Persons injured	
	Type	No.			Major	Minor	None		Staff	Car-riders
July 26	Pass. car	14618	Gordon Road	Collided with truck	-	x	-	Yes	No	No
July 28	Pick-up	30049	Honan Road	Collided with car	-	x	-	No	No	No
July 31	3 1/2-ton truck	30032	Tongshan Rd	Collided with bus	-	x	-	Yes	No	No

Frequency: 6,602 miles per accident.

(2) Bicycles and Tricycles

Date	Bicycle No.	User	Location of accident	Description of accident	Damage to SPC bicycle		
					Major	Minor	None
July 4	192	WPI.3	Jessfield Road	Hit by a truck	-	x	-

(3) Details of Accidents involving general public

Date	Location of accident	Damage to outside vehicle			Injury to outsiders			Remarks
		Major	Minor	None	Major	Minor	None	
July 3	Avenue Joffre	-	x	-	-	x	-	
July 3	Yates Road	-	-	x	-	x	-	
July 6	Kweichow Road	-	-	x	-	-	x	
July 6	Sian Road	-	x	-	-	-	x	
July 7	Ward Road	-	x	-	-	-	x	
July 11	Nanking Road	-	-	x	-	-	x	
July 14	Nanking Road	-	-	x	-	-	x	
July 16	Seward Road	-	x	-	-	-	x	
July 17	The Bund	-	-	x	-	-	x	
July 21	Nanzing Road	-	x	-	-	-	x	
July 22	Yates Road	-	-	x	-	-	x	
July 26	Gordon Road	-	-	x	-	-	x	
July 28	Honan Road	-	-	x	-	-	x	
July 31	Tongshan Road	-	x	-	-	-	x	

GENERALIST COMPANY

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(4) Staff

None.

(H) STAFF

(1) Supervisory Staff

No change.

(2) Clerical Staff

No change.

(3) Monthly Rate Staff

Cleaner  
Truck Driver  
Car Driver

TDC.11  
TDC.28  
TDC.100

Promoted to Car Driver TDC.99.  
Engaged.  
Engaged.

(4) Daily Rate Labour

No change.

*S. L. Dong*

S. L. Dong  
Acting Distribution Operating Engineer

SHANGHAI POWER COMPANY

Shanghai, August 6th, 1947

The General Manager :

METER & TESTING DEPARTMENT  
LARCENY OF ELECTRICITY  
MONTHLY REPORT FOR JULY, 1947.

Accounts Office Queries :

Three cases of damaged meters were found. The cost of repairs, etc., amounting to CN.\$526,000 has been paid by the consumers.

Meter Readers' Reports :

One case of larceny was detected, and revenue amounting to CN.\$1,000,000 has been recovered.

Six cases of damaged meters were found when following up these reports. The cost of repairs, etc., amounting to CN.\$1,320,700 has been paid by the consumers.

Route Meter Investigation :

One case of larceny was detected, and revenue amounting to CN.\$1,293,000 has been recovered.

Four cases of damaged meters were found. The cost of repairs, etc., amounting to CN.\$606,800 has been paid by the consumers.

Power Meter Investigation :

One case of larceny was detected, and revenue amounting to CN.\$400,000 has been recovered.

Informers' Letters :

One case of larceny was detected, and revenue amounting to CN.\$2,253,000 has been recovered.

Miscellaneous :

One case of larceny was detected when following up a report from Installation Section's staff, but no revenue could be recovered due to premises occupied by Chinese Army.

Twenty-one cases of damaged meters were reported by Installation Section's staff. The cost of repairs, etc., amounting to CN.\$5,548,800 has been paid by the consumers.



SHANGHAI POWER COMPANY

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Damaged or Missing Main Fuse Box Lead Seals :

Thirty-six cases of above infringement of Company's Regulations have been handled by the Installation Section. Fees paid by consumers total CN. \$1,080,000.

S u m m a r y :

Five cases of larceny have been detected and settled during the month together with thirty-four cases of damaged meters and/or associated equipment.

Revenue amounting to CN. \$24,028,300 has been recovered, of which :-

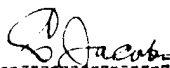
- a. CN. \$ 4,946,000 represent recovered revenue.
- b. CN. \$ 8,002,300 represent an estimated cost of repairs to damaged meters and associated equipment.
- c. CN. \$10,000,000 represent payments on cases settled in June, 1947.
- d. CN. \$ 1,080,000 represent fees paid for damaged or missing main fuse box lead seals.

Estimated Unmetered Consumption :

Fifty-eight cases of unmetered consumption due to defective or damaged meters were estimated on Consumers' Accounts Inspect Orders during the month. The estimated consumption represents 8,161 kWhrs., amounting to CN. \$9,221,930 of recovered revenue.

NOTE:-

Six cases of unmetered supply taken by various units of the Chinese Armed Forces have been reported by the Installation and Investigation Sections' staff and Meter Readers during the month. These have been passed to the Installation Section for action in concert with Consumers' Engineer's Department.



E. Jacobs,  
Meter & Testing Engineer

AVG/zkc

CHARSHAL POWER COMPANY

JULY, 1947.

S.P.C. + W.D.P.C.

NATURE OF INVESTIGATION	PREMISES INSPECTED	METERS INSPECTED	IRREGULARITIES FOUND	LARGELY CASES		Decased and/or Missing Plant.	TOTAL CASES
				Jumpers	Compared Meters		
Accounts Office Queries	745	781	178	-	-	3	3
Meter Readers' Reports	5	8	9	1	-	6	7
Route Meter Investigation	2979	3936	1397	1	-	4	5
Power Meter Investigations	303	782	91	1	-	-	1
Small Area Investigations	37	41	13	-	-	-	-
Casual Visits - Day	17	29	6	-	-	-	-
Casual Visits - Evening	3	6	1	-	-	-	-
Informers' Letters	1	1	1	1	-	-	1
Miscellaneous	41	47	26	1	-	21	22
Total	4135	5630	1722	5	-	34	39

W.D.P.C. (Included in above figures) :

Accounts Office Queries	159	166	49	-	-	-	-
Meter Readers' Reports	2	2	2	-	-	1	1
Route Meter Investigation	1	1	1	-	-	1	1
Small Area Investigations	19	20	13	-	-	-	-
Casual Visits - Day	3	4	1	-	-	-	-
Casual Visits - Evening	3	6	1	-	-	-	-
Informers' Letters	1	1	1	1	-	-	1
Miscellaneous	6	8	5	-	-	5	5
Total	194	208	73	1	-	7	8

Month ending July 31, 1947	S.P.C. + W.D.P.C.		W.D.P.C. (only)	
	Premises	Meters	Premises	Meters
Month ending July 31, 1947	4,135	5,630	1,722	59
12 Months ending July 31, 1947	45,950	64,931	20,454	558
			12,971	16,354
			6,011	129

SHANGHAI POWER COMPANY

JULY, 1947

ANALYSIS OF CASES REVIEWED FOR ESTIMATED LOSS OF REVENUE FROM CONSUMERS INVOLVED IN LACK OF ELECTRICITY AND FOR DAMAGES OF MISSING METERS AND BROKEN MAIN FUSE SEALS.

S.P.C. + W.D.P.C.

NATURE OF INVESTIGATION	Jumpers Ct\$	Tempered Meters Ct\$	Damaged Meters Ct\$	Missing Meters Ct\$	Part Payant Ct\$	Broken Main Fuse Seals Ct\$	TOTAL Ct\$
Accounts Office Queries	-	-	526,000	-	10,000,000	-	10,526,000
Meter Readers' Reports	1,000,000	-	1,522,700	-	-	-	2,522,700
Route Meter Investigation	1,295,000	-	606,800	-	-	-	1,899,800
Power Meter Investigation	400,000	-	-	-	-	-	400,000
Informers' Letters	2,253,000	-	-	-	-	-	2,253,000
Miscellaneous	-	-	5,334,300	214,500	-	1,020,000	6,568,800
<b>Total</b>	<b>4,946,000</b>	<b>-</b>	<b>7,387,800</b>	<b>214,500</b>	<b>10,000,000</b>	<b>1,060,000</b>	<b>24,062,300</b>

W.D.P.C. (Included in above Figures):

Accounts Office Queries	-	-	-	-	10,000,000	-	10,000,000
Meter Readers' Reports	-	-	145,000	-	-	-	145,000
Route Meter Investigation	-	-	133,000	-	-	-	133,000
Informers' Letters	2,253,000	-	-	-	-	-	2,253,000
Miscellaneous	-	-	1,556,000	-	-	240,000	1,776,000
<b>Total</b>	<b>2,253,000</b>	<b>-</b>	<b>1,814,000</b>	<b>-</b>	<b>10,000,000</b>	<b>240,000</b>	<b>14,307,000</b>

	S.P.C. + W.D.P.C.	W.D.P.C. (only)
Month ending July 31st, 1947.....	C.N. \$ 24,028,300.-	C.N. \$ 14,307,000.-
12 Months ending July 31st, 1947.....	C.N. \$ 105,949,770.-	C.N. \$ 45,245,130.-

SHANGHAI POWER COMPANY

JULY, 1947

ANALYSIS OF CASES REPORTED FOR ESTIMATED LOSS OF REVENUE FROM CONSUMERS INVOLVED IN LARCENY OF ELECTRICITY AND FOR DAMAGED OR MISSING METERS AND BROKEN MAIN FUSE SEALS.

S.P.C. + W.D.P.C.

NAME OF INVESTIGATION	Jumpers Ct.	Tempered Meters Ct.	Damaged Meters Ct.	Missing Meters Ct.	Part Payment Ct.	Broken Main Fuse Seals Ct.	TOTAL Ct.
Accounts Office Queries	-	-	566,000	-	10,000,000	-	10,526,000
Meter Readers' Reports	1,500,000	-	1,322,700	-	-	-	2,822,700
Route Meter Investigation	1,293,000	-	656,800	-	-	-	1,999,800
Power Meter Investigation	400,000	-	-	-	-	-	400,000
Informers' Letters	2,253,000	-	5,334,300	214,500	-	1,030,000	2,253,000
Miscellaneous	-	-	7,787,800	214,500	10,000,000	1,080,000	6,625,800
<b>Total</b>	<b>4,946,000</b>	<b>-</b>	<b>7,787,800</b>	<b>214,500</b>	<b>10,000,000</b>	<b>1,080,000</b>	<b>24,026,300</b>

W.D.P.C. (Included in above Figures):

Accounts Office Queries	-	-	-	-	10,000,000	-	10,000,000
Meter Readers' Reports	-	-	145,000	-	-	-	145,000
Route Meter Investigation	-	-	133,000	-	-	-	133,000
Informers' Letters	2,253,000	-	-	-	-	-	2,253,000
Miscellaneous	-	-	1,536,000	-	-	240,000	1,776,000
<b>Total</b>	<b>2,253,000</b>	<b>-</b>	<b>1,814,000</b>	<b>-</b>	<b>10,000,000</b>	<b>240,000</b>	<b>14,307,000</b>

	S.P.C. + W.D.P.C.	W.D.P.C. (only)
Month ending July 31st, 1947.....	C.N. \$ 24,026,300.-	C.N. \$14,307,000.-
12 Months ending July 31st, 1947.....	C.N. \$106,949,770.-	C.N. \$45,245,130.-



25X1A

SHANGHAI POWER COMPANY  
AND  
WESTERN DISTRICT POWER COMPANY OF SHANGHAI  
FEDERAL INC., U.S.A.

MONTHLY REPORT

FOR

AUGUST 1947

25X1A

REP. 12-12 BR 500 9-47

25X1A

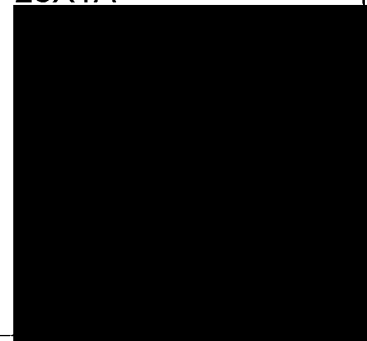


SHANGHAI POWER COMPANY  
AND  
WESTERN DISTRICT POWER COMPANY OF SHANGHAI  
FEDERAL INC., U.S.A.

MONTHLY REPORT  
FOR

AUGUST 1947

25X1A



REF ID: A66664

SHANGHAI POWER COMPANY

MONTHLY REPORT  
FOR  
AUGUST 1947

I N D E X

REPORT:

	<u>Section</u>	<u>Page</u>
Letter of Transmittal		
Revenue & Expenses (Compared with 1946)	1	1
Electric Demand, Output, Sales & Losses	2	1
Maximum Hour in KWH	2A	1
Net Output or Purchase in MKWH	2B	1
Units Sold & Accounted for in MKWH	2C	1
Transmission & Distribution Losses in % of Net Output or Purchase	2D	1
Customers, Service Inspections	3	1
Customers	3A	1
Service Inspections	3B	2
Employees	4	2
Riverside Operations	5	2

CHARTS:

Max. Hour Generation & Output	A
Units Generated, Delivered & Sold	B
Employees	C

APPENDIX:

Reports

Secretarial & Accountancy - S.P.C. & W.D.P.C.	I
Consumers' Monthly Report - S.P.C.	II
Consumers' Monthly Report - W.D.P.C.	III
Generation Report	IV
Distribution Operation Division - S.P.C. & W.D.P.C.	V
Larceny of Electricity	VI



SHANGHAI POWER COMPANY

S U M M A R Y

1. REVENUES & EXPENSES COMPARED WITH 1946 (C\$):

<u>Operating Revenues</u> (C\$ Figures in Thousands)	<u>Month of August</u>	
	<u>1947</u>	<u>1946</u>
S.P.C.	C\$ 71,159,519	C\$ 4,098,759
W.D.P.C.	" 16,619,321	" 911,347
Combined **	<u>C\$ 74,382,359</u>	<u>C\$ 4,289,934</u>
 <u>Operating Expenses</u>		
S.P.C.	C\$ 51,007,536	C\$ 5,120,316
W.D.P.C.	" 15,782,714	" 806,800
Combined **	<u>C\$ 53,363,768</u>	<u>C\$ 5,299,944</u>
 <u>Net from Operation</u>		
S.P.C.	C\$ 20,151,983	C\$-10 34,557
W.D.P.C.	" 836,607	" 24,547
Combined **	<u>C\$ 20,988,590</u>	<u>C\$-1,010,010</u>

\*\* Inter-Company Items Eliminated.

2. ELECTRIC DEMAND, OUTPUT, SALES & LOSSES:

2A Maximum Hour in KWH

S.P.C. Riverside Max.Hr.Generation	146,739	118,312
W.D.P.C. Max.Hr.Demand in KW	29,160	23,272

2B Net Output or Purchase in MCKWH (M=1000)

S.P.C. Net Output	77,999	63,460
W.D.P.C. Purchase from S.P.C.	16,214	12,197

2C Units Sold & Accounted for in MCKWH

S.P.C. (Including sales to W.D.P.C.)	74,637	60,281
W.D.P.C.	15,836	11,511

2D Transmission & Distribution Losses in Percent of Net Output or Purchase

S.P.C. (W.D.P.C. considered as one customer)	4.3	5.0
W.D.P.C.	3.6	5.6

3. CUSTOMERS, SERVICE INSPECTIONS:

3A Customers

S.P.C.	98,501	95,949
W.D.P.C.	81,382	80,000
Combined **	<u>119,882</u>	<u>116,008</u>

\*\* Inter-Company Items Eliminated.

SHANGHAI POWER COMPANY

- 2 -

<u>3B Service Inspections</u>		<u>Month of August</u>	
<u>Number</u>	<u>(C\$ Figures in Thousands)</u>	<u>1947</u>	<u>1946</u>
	S.P.C.	5,352	7,027
	W.D.P.C.	1,129	1,838
	Total	<u>6,481</u>	<u>8,865</u>
<u>Irrregularities</u>	S.P.C.	1,036	1,447
	W.D.P.C.	227	470
	Total	<u>1,263</u>	<u>1,917</u>
<u>Cash Recovered (C\$)</u>	S.P.C.	7,419	1,924
	W.D.P.C.	2,138	406
	Total	<u>9,557</u>	<u>2,330</u>
<u>No. of Recoveries</u>	S.P.C.	34	50
	W.D.P.C.	7	10
	Total	<u>41</u>	<u>60</u>

4. EMPLOYEES:

<u>Number</u>			
	S.P.C.	3,063	3,043
	W.D.P.C.	153	188
	Total + (Including staff on leave)	<u>3,198 +</u>	<u>3,171</u>

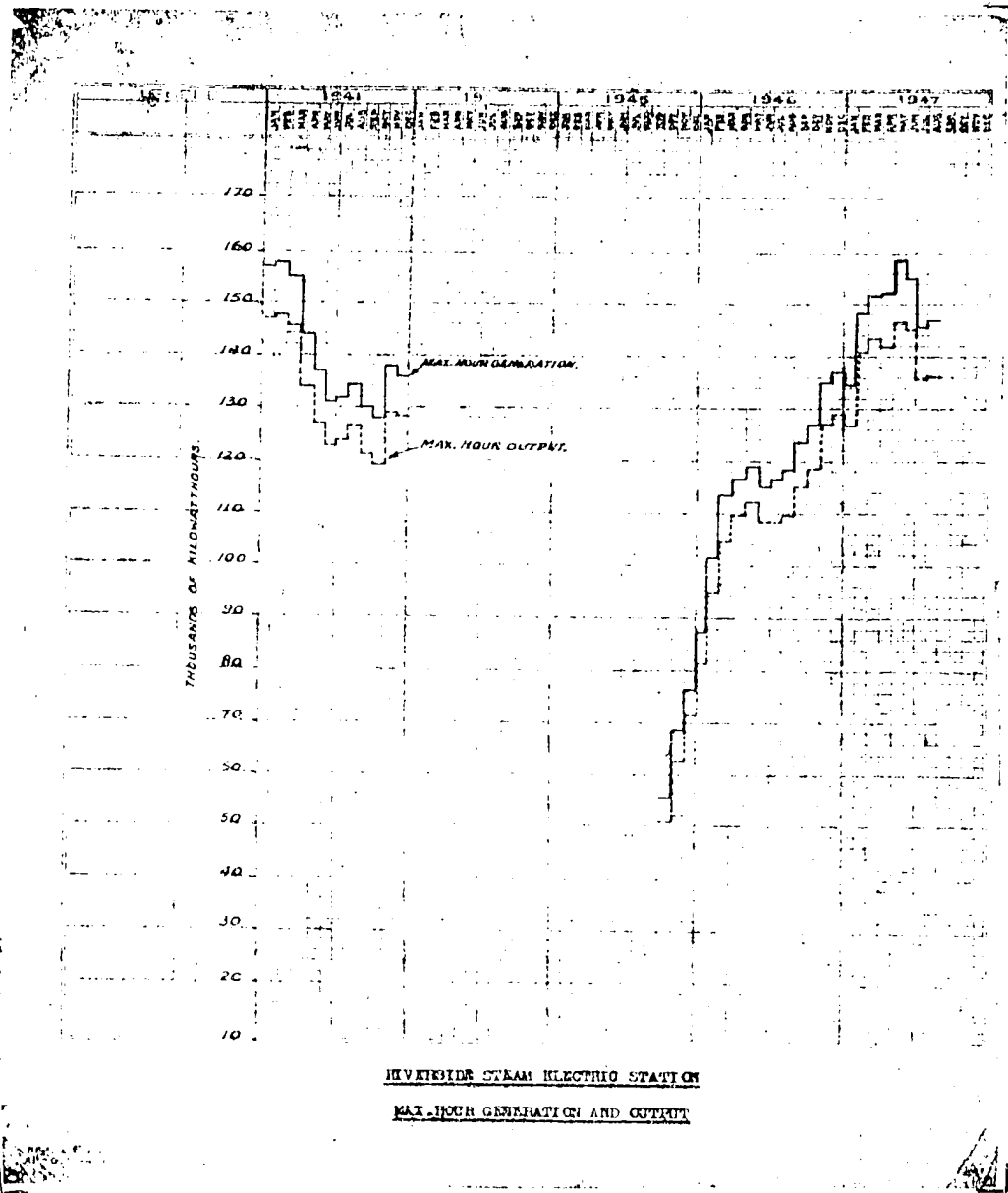
5. HIVERSIDE OPERATIONS:

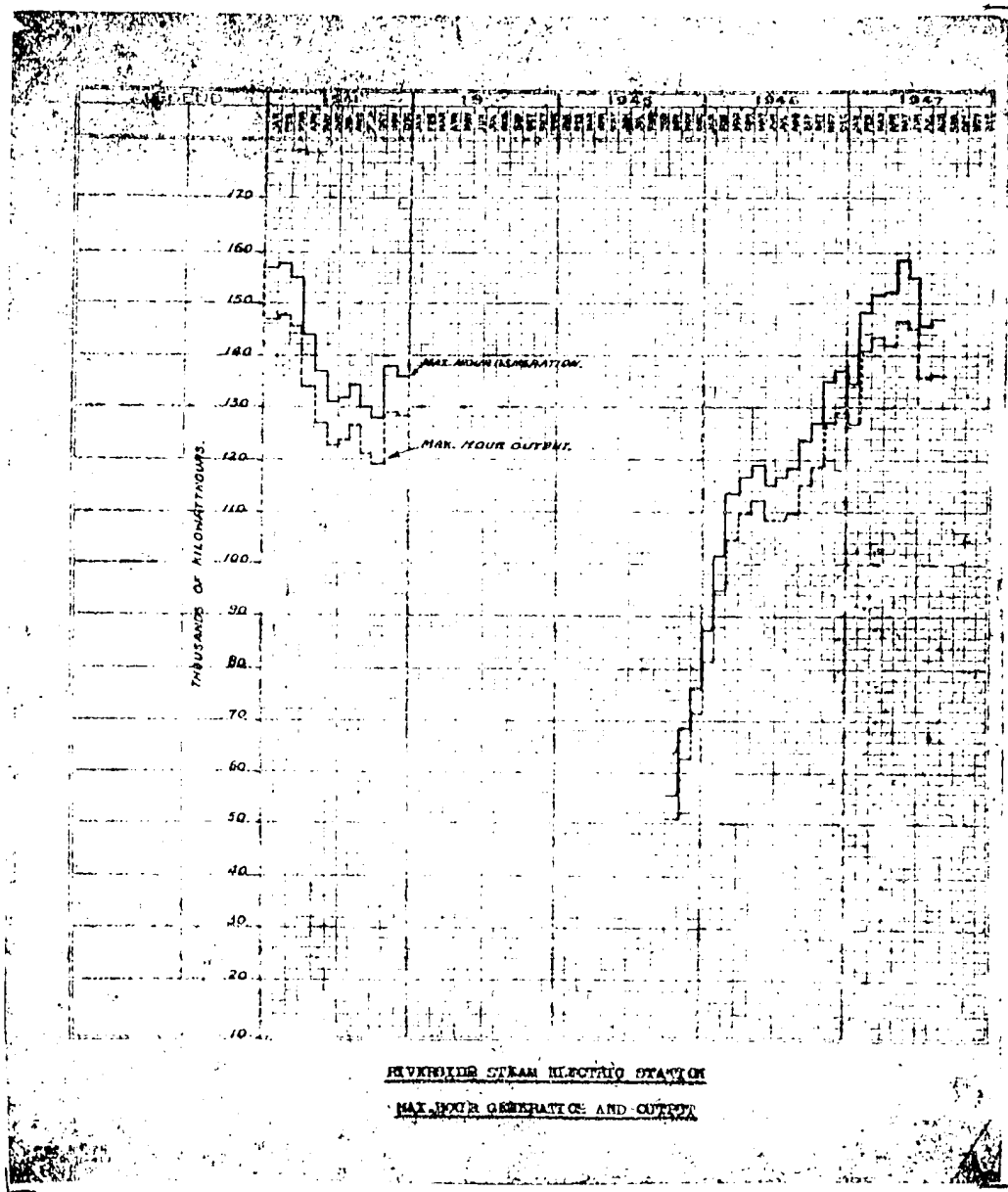
<u>(1) Generating Capacity</u>		<u>1947</u>	<u>1946</u>
Name plate rating (KW)		173,500	133,500
Name plate rating (KVA)		212,650	195,000
Working rating - Winter (KVA)		210,020	198,370
Working rating - Summer (KVA)		193,820	176,280

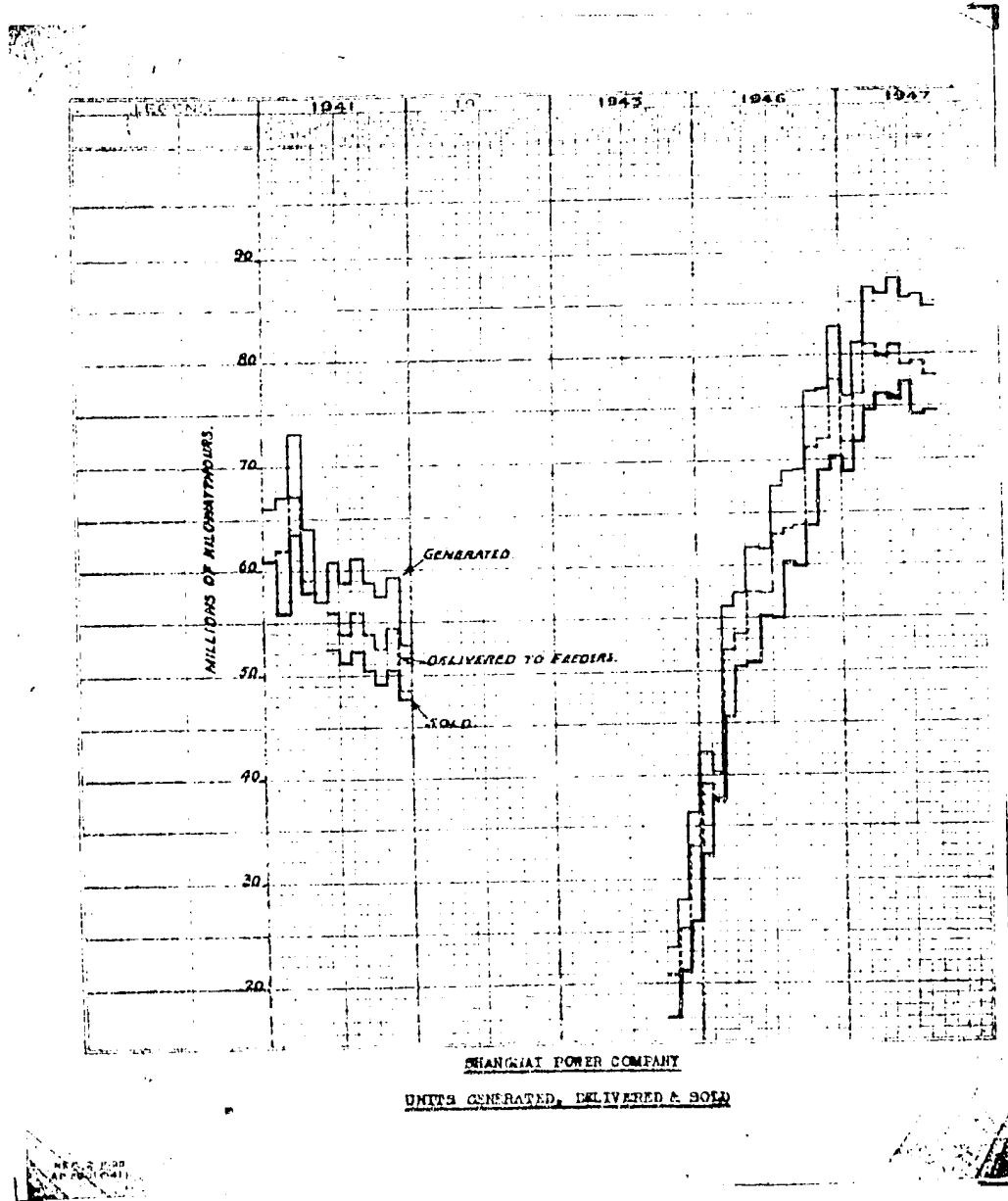
† Excludes TG-6 & TG-11.

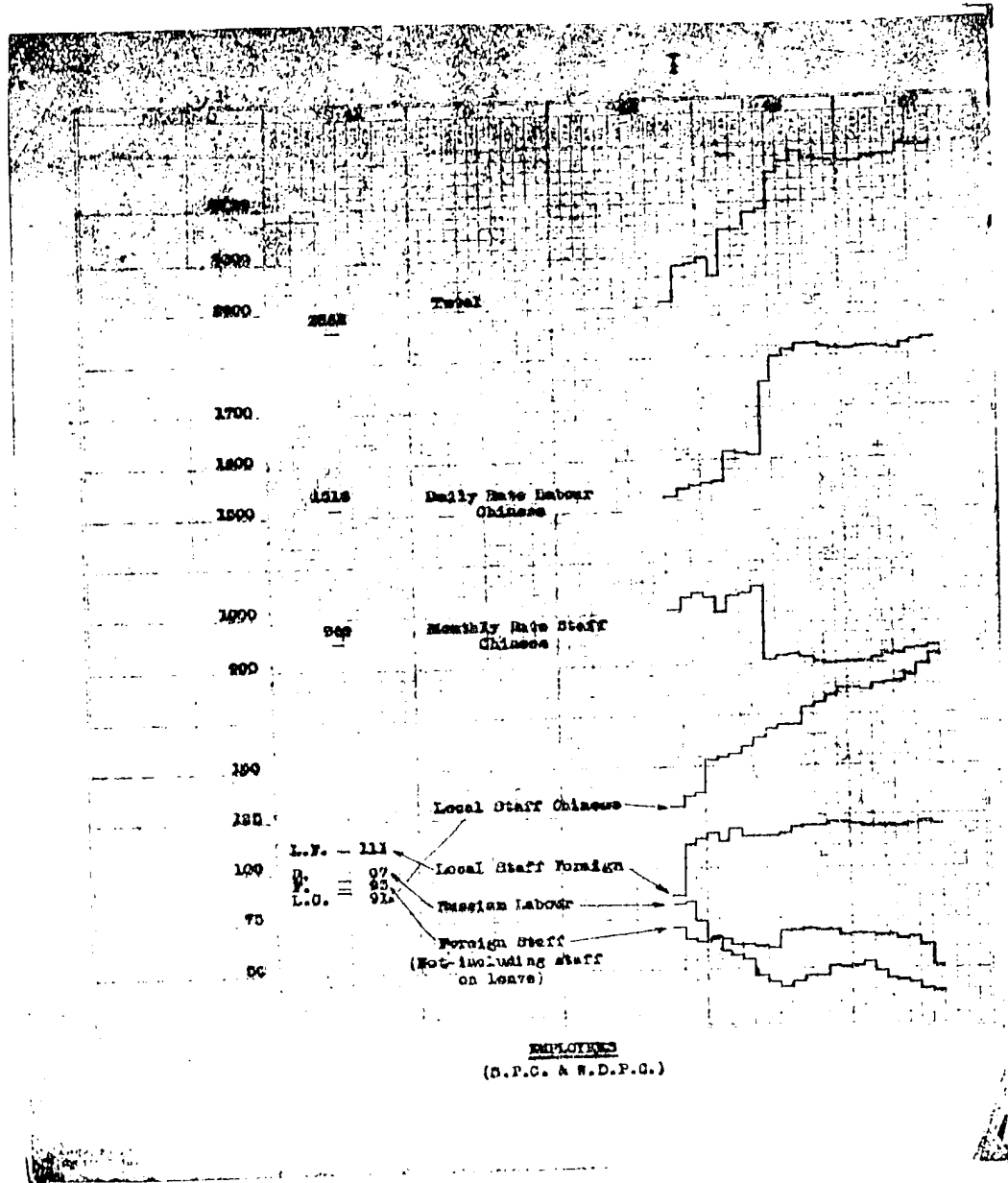
<u>(2) Instantaneous Peak Generation (KW)</u>	151,443	121,262
<u>(3) Efficiency (BTU per KWH Output)</u>	21,109	22,644
<u>(4) Load Factor (Based on Output &amp; Max. Hr. Output)</u>	77.14	77.07

<u>(5) Fuel in tons of 2240 lbs</u>	<u>1947</u>		<u>1946</u>	
	<u>Coal</u>	<u>Oil</u>	<u>Coal</u>	<u>Oil</u>
In stock at end of July	33,864	933	24,713	856
Received during month	18,718	30,813	20,567	18,554
Used during month (Including Sundries)	16,810	30,790	31,286	18,596
In stock at end of August	36,369	956	19,995	794









SHANGHAI POWER COMPANY

SECRETARY & ACCOUNTANT  
AUGUST, 1947  
SHANGHAI POWER COMPANY AND NORTHERN DISTRICT POWER COMPANY

Cash on Hand and in Banks - Shanghai

The balance of cash on hand and in bank accounts in Shanghai on August 31, 1947 was as follows:

<u>Current Bank Account</u>	<u>S. P. C.</u>	<u>W. D. P. C.</u>
Secretary & Treasurer Hongkong & Shanghai Banking Corporation:		193,094,409.34
General Fund Account	127,808,379.55	
Fixed Deposit Account	3,523,692,000.00	
US\$4,523,692,000 due 1/29/48		
US\$1,000,000 due 1/31/48		
National City Bank of New York	21,276,147.00	
The Bank of China	10,779,366.00	
Chekiang Industrial Bank Ltd.	48,287,943,935.65	3,472,294,376.46
Comptadore cash on hand	2,087,231,682.24	3,578,283.84
Total	56,086,731,480.34	5,668,967,071.64

Remittances to and from New York

During August, 1947, the following remittances were obtained by us at the official rate of exchange:

Remittances to New York Office

<u>Date</u>	<u>Amount</u>	<u>Remarks</u>
Aug. 1	US\$ 22.20	for one parcel corporation reports.
6	1,529.70	for purchase of various materials shipped via S/S "President Polk" and S/S "Willie Wickery".
7	6.95	for one set high speed steel hand reamer.
7	372.80	for one box electric coil winding tools.
7	706.06	for one box chemical feeding pump for steam power station water treatment.
8	24.85	for one carton pressure gauge for valve control.
8	10.43	for 2 doz. box-wood rules 2 feet, 4 fold.
8	2,530.82	for 3,000 ft. 3-conductor insulated copper cable.
8	168.00	for 4 cases electric insulation varnish.
8	24.15	for 24 pcs. tempered steel rules.
8	63.64	for one box flexible self-aligning couplings.
8	70.23	for one crate Texasteel sheaves, for ash handling equipment.
8	2,191.25	for purchase of various materials shipped via S/S "Marine Snapper"
13	23.76	for one carton electric soldering gun and parts.
13	89.90	for 4 bundles large steel shovels for handling coal.
13	994.87	for one set turbo-generator (for repairing exciter armature).
13	41.34	for one package steam packing for steam boiler water gauges.
13	25,142.43	for ordering various materials from Ebasco International Corpn.
18	30,657.69	for rewinding electric rotor for turbo-generator No. 16.

SHANGHAI POWER COMPANY

SECRETARY & ACCOUNTANCY  
AUGUST, 1947

SHANGHAI POWER COMPANY AND WESTERN DISTRICT POWER COMPANY

Cash on Hand and in Banks - Shanghai

The balance of cash on hand and in bank accounts in Shanghai on August 31, 1947 was as follows:

<u>Current Bank Account</u>	<u>S. P. C.</u>	<u>W. D. P. C.</u>
Secretary & Treasurer		193,094,409.56
Hongkong & Shanghai Banking Corporation:		
General Fund Account	127,808,579.55	
Fixed Deposit Account	5,523,692,000.00	
US\$4,523,692,000 due 1/29/48		
US\$1,000,000,000 due 1/31/48		
National City Bank of New York	21,276,147.00	
The Bank of China	10,779,386.00	
Chekiang Industrial Bank Ltd.	48,287,943,885.55	3,478,294,376.46
Comptadore cash on hand	2,007,231,682.24	3,078,285.04
Total	56,068,751,480.34	3,668,967,071.64

Remittances to and from New York

During August, 1947, the following remittances were obtained by us at the official rate of exchange:

Remittances to New York Office

<u>Date</u>	<u>Amount</u>	<u>Remarks</u>
Aug. 1	US\$ 22.20	for one parcel corporation reports.
6	1,529.70	for purchase of various materials shipped via S/S "President Folk" and S/S "Willis Vickery".
7	6.95	for one set high speed steel hand reamer.
7	372.80	for one box electric coil winding tools.
7	705.06	for one box chemical feeding pump for steam power station water treatment.
8	24.83	for one carton pressure gauge for valve control.
8	10.43	for 2 doz. box-wood rules 2 feet, 4 fold.
8	2,530.82	for 3,000 ft. 3-conductor insulated copper cable.
8	168.50	for 4 cases electric insulation varnish.
8	26.15	for 24 pos. tempered steel rules.
8	65.64	for one box flexible self-aligning couplings.
8	79.23	for one crate Texsteel sheaves, for ash handling equipment.
8	2,191.25	for purchase of various materials shipped via S/S "Marino Snapper".
13	23.76	for one carton electric soldering gun and parts.
13	89.78	for 4 bundles large steel shovels for handling coal.
13	994.07	for one set turbo-generator (for repairing exciter armature).
13	41.34	for one package stem pecking for steam boiler water gauges.
13	23,142.43	for ordering various materials from Ebasco International Corp.
18	30,657.89	for rewinding electric rotor for turbo-generator No. 16.



SHANGHAI TOWERS COMPANY

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Remittances to New York Office (Cont'd)

<u>Date</u>	<u>Amount</u>	<u>Remarks</u>
Aug. 18	US\$11,098.16	for purchase of miscellaneous materials.
20	25,000.00	for first instalment on 960 pcs. 12.5 Kva outdoor type capacitors and control gears for power factor correction at US\$135.417 per piece and 39 pcs. 300-400 amp. indoor type disconnecting switches for wall mounting at US\$33.847 per piece.
20	5,323.27	for ordering various materials from Kbasco International Corpn.
21	267.34	for 3 iron flasks mercury.
21	165.43	for 10 bags Quebraco extract.
25	7,490.11	for ordering various materials from Kbasco International Corpn.
28	7,860.51	for ordering various materials from Kbasco International Corpn.
<u>Total US\$17,898.99</u>		

Remittances to London Agent

<u>Date</u>	<u>Amount</u>	<u>Remarks</u>
Aug. 11	£ 153. 4. 5	for one complete set automatic coil winding machine with accessories.
13	282.16. 4	for purchase of various materials shipped via S/S "Shansi"
13	75. 3.11	for 3 bales rubber tires and tubes.
15	155.11. 4	for purchase of various materials shipped via S/S "Medon".
20	30. 0. 4	for 16 bundles steel bars.
25	510.10. 8	for 2 cases electric wattmeters.
25	167.15. 9	for 2 cases spare parts for wattmeters.
<u>Total £1,978. 2. 9</u>		

The following statement shows the supervision fee payable to you with U.S. dollar equivalent at the open market rate of the Central Bank of China:

	<u>C.N. Dollars</u>	<u>Exchange Rate</u>	<u>U.S. Dollars</u>
Period Sept.17, 1946 to Dec.31, 1946	12,753,016,000	39,000	326,487.60
January to July, 1947	5,460,000,000	39,000	140,000.00
Month of August	780,000,000	39,000	20,000.00
	<u>18,993,016,000</u>		<u>486,487.60</u>

As a result of the change in the Exchange Regulations on August 18, 1947, whereby, except for certain specified commodities, exchange would be on an Open Market Exchange Rate, the Chinese dollar equivalent of the accrued consultation fee payable to you was adjusted to the rate at August 31, 1947 of CR\$39,000. The exchange difference of CR\$0,788,516,000 on the accrued consultation fee in respect of the period of Sept. 17, 1946 to Dec. 31, 1946 (CR\$12,753,016,000 - CR\$3,950,500,000) was charged to surplus. The exchange difference of CR\$3,766,000,000 on the accrued consultation fee in respect of the period of Jan. to July, 1947 (CR\$5,460,000,000 - CR\$1,694,000,000) was first charged to Miscellaneous Suspense Exchange Adjustment Account, and will be prorated over 5 months to Operating Expenses. The proration for the current month was CR\$753,200,000 or 1/5 of CR\$3,766,000,000.

SHANGHAI POWER COMPANY

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Accounts Payable

Unpaid fuel bills as at August 31, 1947 were as follows:-

Fuel Oil

Unpaid bills for August CN\$3,239,713,924 (equivalent to US\$437,166.44)

Accounts Receivable and Collections

The total amount due from consumers, excluding Municipal, as at August 31, 1947 was CN\$74,332,236,000, which excludes intercompany receivables due from Western District Power Company of Shanghai, amounting to CN\$14,436,461,000. The amount due from the Municipal Government for both companies was CN\$2,327,374,000. Municipal overdue accounts as at August 25, 1947, amounting to CN\$550,266,566 (which represented consumption by the Municipal organs located in the Western Area during the period Jan. 1 to June 30, 1947) were arranged to be deducted from Western District Power Company's payment of royalty made on August 31, 1947. It was also agreed by the Bureau of Public Utilities that the overdue accounts for all of the Municipal organs located in the Shanghai Power Company franchise area will be deducted from the royalty payment due on September 30, 1947.

Customers' Deposits

Deposits collected during the month for both companies amounted to CN\$40,457,000 and refunds to CN\$6,395,000. The amount of additional deposits unpaid on August 31, 1947 was CN\$33,974,000. The balance of deposits held against service charges for both companies amounted to CN\$7,454,600,000 of which the amount of CN\$2,900,360 (nominal value) was in the form of securities segregated as follows:

	<u>S. P. C.</u> CN\$	<u>W. D. P. C.</u> CN\$
S.M.C. Debentures	12,620	-
Bank Guarantee	56,800	27,600
S.P.C. 10 Silver Preferred Stock	2,054,000	575,860
Shanghai Telephone Co. shares	2,100	-
S.P.C. First Mortgage Debentures, 5 1/2%	131,300	42,000
Dollar Series, due 1973	<u>2,256,900</u>	<u>643,460</u>

Payroll

On August 1, the Index Application Committee notified us that, effective July 1, 1947, the scaling-down formula for computation of payroll was revised as follows:

	No discount
Up to CN\$250	60%
CN\$251 to CN\$350	50%
CN\$351 to CN\$750	40%
CN\$751 to CN\$350	30%
Above CN\$350	30%

Our payroll for the month with high cost of living index 31,000 times basic pay (scaled down in accordance with the above formula) totalled CN\$13,829,614,500 segregated as follows:

SHANGHAI POWER COMPANY

- 4 -

Foreign and Executive	CN\$ 2,924,316,000
Local	4,058,314,000
Chinese	6,536,913,600
Leave Pay	308,071,000
Total	CN\$ 13,829,614,600

Coal Cost

At the end of the current month, it was decided to set aside 16,000 long tons of coal as reserve stock to meet any future requirements. This reserve stock was priced at CN\$392,592,777 per long ton which was the average book price of coal at August 31, 1947.

On August 30, we received a letter from the Shanghai Fuel Control Commission of the Ministry of Economic Affairs advising us that, due to increased production costs, the price of coal supplied by the Commission will be increased from CN\$520,000 to CN\$720,000 per ton, ex-ship Shanghai, effective from Sept. 1, 1947. We have it from a reliable source that around the middle of October the coal price again will be increased.

Dividend Equalization Reserve and General Reserve

During the month we set aside CN\$3,500,000,000 for Dividend Equalization Reserve, and CN\$1,750,000,000 for General Reserve which amounts were CN\$2,700,000,000 and CN\$1,350,000,000 respectively higher than the last month's figures. The figures were derived from the following computations:

Estimated Capital Invested in Business at 12/31/41 was	
US\$50,000,000 @ 39,000 = CN\$1,950,000,000,000	
1% p.a. allowed in the franchise for Dividend Equalization Reserve	CN\$19,500,000,000
Less accrued up to July 31, 1947	2,000,000,000
Balance to be accrued in five months	CN\$17,500,000,000
Accrued for August, 1947	CN\$ 3,500,000,000
1/2% p.a. of Capital Invested in Business allowed in the franchise for General Reserve	CN\$ 9,750,000,000
Less accrued up to July 31, 1947	1,000,000,000
Balance to be accrued in five months	CN\$ 8,750,000,000
Accrued for August, 1947	CN\$ 1,750,000,000

Chinese Government Profits Tax

The monthly accrual for Government Income Tax was again considered in the light of the revision of the exchange rate. As a result of the new exchange rate, the Chinese dollar equivalent of the US\$7 Second Preferred Stock was greatly increased, and thus reduced the tax rate applied to our current month net profit from 30% to 16%. The accrual for this year at the end of July was adequate, including cover for the month of August, and no accrual was therefore necessary.

Material Replacement Reserve

The percentage added to stores issued for this reserve in August was the same as in July, i.e. 200% and the amount accrued in the current month was CN\$1,366,678,000.

SHANGHAI POWER COMPANY

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Provision for Contingency Reserve Exchange

The exchange adjustment for Contingency Reserve in the current month was CN\$8,483,924,000. The increase was due to revision of the exchange rate. Our superannuation liabilities amounting to US\$1,229,970.64 at CN\$59,000 would amount to CN\$47,968,855,000. After deducting the balance in Contingency Reserve Account which was CN\$11,218,462,000, the difference of CN\$36,750,393,000 was debited to Miscellaneous Suspense - Exchange Adjustment and included with the July 31 balance of CN\$5,669,227,000. The total amount, therefore, to be charged out in the current year was CN\$42,419,620,000, one-fifth of which, CN\$8,483,924,000, was amortized in the current month.

Employee Pension and Retirement Reserve

A total of CN\$3,000,000,000 was set aside as provision for this reserve in the current month and was all charged to operating expenses. This represented an increase of CN\$300,000,000 over the July figure, in accordance with the calculations as follows:

Provision for Pensions

Total potential liability to be accrued within 5 years,		
US\$1,500,000 @ 39,000	=	CN\$58,500,000,000
		-----
August proportion = 1/60 of total	=	CN\$ 975,000,000

Provision for Retirement Gratuities

Total potential liability at present @ H.C.L. 31,000		
to be accrued within 5 years	CN\$93,265,000,000	
	-----	
August proportion = 1/60 of total	=	1,554,000,000

Additional provision for the monthly increase of the		
potential liability for Retirement Gratuities		547,000,000
		-----
		CN\$5,076,000,000

Less provided by W.D.P.C. for August		60,000,000
		-----
		CN\$5,016,000,000

Provision for Employee Pension & Retirement Reserve		
on S.P.C. books for August	say	CN\$3,000,000,000
		-----

Casualty and Insurance Reserve

The current month provision for this reserve was same as last month, viz. CN\$200,000,000. The additional sum of CN\$40,255,000 was due to the reaccred of the payment of death gratuity to the beneficiaries of a boiler cleaner who died as a result of an accident at Riverside.

*A. Kendal Ward*  
A. Kendal Ward  
Secretary & Treasurer

September 18, 1947

SHANGHAI POWER COMPANY

September 23, 1947.

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CONSUMERS' MONTHLY REPORT FOR AUGUST

SHANGHAI POWER COMPANY

AUGUST STATISTICS

Analysis of K.W.H. Sales

	This Year	Last Year	Increase	Increase %
Residential Lighting)	8,996,445	6,157,911	2,838,534	46.1
Commercial Lighting )				
Residential Heating & Cooking)	1,545,925	1,411,474	134,451	9.5
Commercial Heating & Cooking )				
Bulk Supply Industrial	26,950,684	21,793,522	5,157,162	23.7
Bulk Supply Commercial	1,046,361	1,410,408	435,953	30.9
Small Power (Incl. D.C. Lifts)	5,083,497	3,550,139	1,533,358	43.2
<u>Public Utility:</u>				
Shanghai Trams	1,044,785	801,871	242,914	30.3
French Trams	1,016,500	1,123,900	-107,400	-9.6
Shanghai Waterworks	1,360,650	874,260	482,390	56.3
Chapel Co.	8,848,151	9,403,103	-554,952	-5.9
Intercompany - W.D.P.C.	16,213,600	1,196,800	4,016,800	32.9
Private Street Lighting	78,000	70,820	7,180	10.1
Municipal Street Lighting	193,233	190,674	2,559	1.3
Municipal Others	405,351	372,687	32,664	8.8
<u>Total</u>	<u>73,589,182</u>	<u>59,327,569</u>	<u>14,231,613</u>	<u>24.0</u>
Total Units Sold (12 months ending August 1947)	849,020,008	458,053,636	390,966,372	85.4

Analysis of Large Industrial Sales in K.W.H.

	This Month	Last Month	Last Year	Increase % over Last Year
Chinese Cotton Mills	17,343,605	17,513,495	11,549,910	50.1
Other Cotton Mills	259,600	219,400	2,611,490	-90.0
Total Cotton Mills	17,603,205	17,732,895	14,161,400	24.3
Flour Mills	1,326,600	1,369,800	1,613,580	-17.8
Rubber Products	838,210	845,395	428,270	95.7
Paper Mills	873,432	1,105,064	874,899	-0.2
Lumber Mills	24,070	27,610	10,570	127.7
Egg Produce	-	-	-	-
Oil Mills	116,250	108,600	51,550	125.5
Ice & Cold Storage Factories	2,038,030	1,684,870	1,647,150	23.7
Tobacco Factories	214,159	195,228	200,582	6.9
Silk Mills	49,560	49,780	45,120	9.8
Miscellaneous Textiles	1,893,452	1,982,345	1,553,713	21.9
Metal Working	962,948	804,027	550,788	74.8
Woolen Mills	300,000	308,150	180,190	66.5
Miscellaneous Others	710,568	807,427	475,710	49.4
<u>Total</u>	<u>26,950,684</u>	<u>27,021,191</u>	<u>21,793,522</u>	<u>23.7</u>

SHANGHAI POWER COMPANY

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SEP. 1955  
BY 2000/11/20

CONNECTIONS

		<u>This Month</u>	<u>Last Month</u>	<u>Last Year</u>	<u>Increase during Month</u>
No. of Customers		98,501	98,234	95,949	277
"	Refrigerators	8,536	8,511	8,378	22
"	Cookers (hired) x	2,966	2,964	2,989	2
"	Radiators ( " ) x	1,986	1,978	2,830	-12
"	Water Heaters ( " ) x	75	72	66	3
"	Misc. Appliances ( " ) x	167	169	167	-2
H.P. of Motors	( " ) x	13,845	13,833	11,484	12

∅ Includes Refrigerators installed in Western District Power Company area.  
x These figures include Appliances hired by Western District Power Co. of Shanghai.

CONNECTED LOAD

K.W. Lighting	102,613	102,215	99,545	398
" Heating: Comprising:	(31,845)	(31,791)	(34,168)	(54)
" Cookers	18,293	18,251	18,385	42
" Radiators	9,930	9,974	12,511	-44
" Water Heaters	131	127	121	4
" Miscellaneous	3,491	3,439	3,151	52
" Motors	230,488	229,737	229,890	751
" Industrial Heating	4,359	4,325	4,032	34
" W.D.F.C.	54,600	54,600	54,600	-
" Total	423,905	422,668	422,235	1,237

MONTHLY MOVEMENT IN CUSTOMERS

	<u>Total All Classes</u>
Total Customers Reconnected	103
Total Customers Disconnected	<u>84</u>
Gain	19
Total New Customers Connected	<u>258</u>
Total Increase During Month	<u>277</u>

SHANGHAI POWER COMPANY

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REF. 31.7.2  
OF 20.11.47

GENERAL COMMENTS

Restrictive Plan

At the present time, with frequent plant outages, a considerable volume of industrial load is being "shed" daily to keep load on the system within the available capacity of the station. Strong complaints have been lodged by the Cotton Mills who have been losing at least three day shifts weekly. Consequently, strong action has now to be decided upon with the view to suppressing all load that is not directly allied to industry. As is known, approximately 10,000 kw of cotton mill load shuts down voluntarily each day on a rotating schedule and with all plant operating at Riverside it is estimated that on an average 8,000 kw of industrial load will have to be "shed" daily during heavy load periods. It can be imagined how industry will suffer if heating load, estimated at over 20,000 kw, were allowed to operate freely this winter.

Mention was made in last month's Report on negotiations with the Bureau of Public Utilities relative to the introduction of a restrictive plan which would have the effect of suppressing the use of, mainly, heating services during the coming winter. Our original idea was to formulate progressive rates which would be applicable to all non-industrial services, thereby curbing wasteful usage and at the same time making space heating prohibitive and also eliminating a considerable volume of electric cooking load. Cooking by electricity due to its comparative cheapness has developed into a load of considerable magnitude. Practically every home in Shanghai has a hot plate and with fuel costs as they will be this winter the tendency will certainly be to use electricity if no action is taken now to make it more or less prohibitive in cost. It is known that the total potential load due to space heating is close on 20,000 kw and that unrestricted cooking load would also be close to this figure.

After discussions with the Bureau of Public Utilities, the entire question was laid before the City Government who appreciate the importance of making available to industry the maximum possible supply. We were not in favour of resorting to the giving of allotment, but the local authorities were of the opinion that it was the only equitable way to cope with the situation. Consequently, after considerable deliberations the following scheme was devised:-

RESIDENTIAL - Total usage of all services

Allotment = 100% of established usage - April/May/June 1947

	<u>Rate</u>
1 - 30 kWh .....	Prevailing Rate
31 kWh - Allotment .....	Prevailing Rate x 3
Over Allotment .....	Prevailing Rate x 5 - 1st Offence
	Prevailing Rate x 10 - 2nd "
	Prevailing Rate x 10 - 3rd " *

COMMERCIAL

Total Usage - All services excluding Power

Allotment = 100% of established usage - April/May/June 1947

Minimum Allotment = 30 kWh

SHANGHAI POWER COMPANY

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SHANGHAI POWER COMPANY  
1947

	<u>Rate</u>
Up to 70% of Allotment .....	Prevailing Rate
From 70% of Allotment to Allotment ...	Prevailing Rate x 3
Over Allotment .....	Prevailing Rate x 5 - 1st Offence
	Prevailing Rate x 10 - 2nd " "
	Prevailing Rate x 10 - 3rd " "

Power

Allotment = 100% of established usage - April/May/June 1947  
Rate = Prevailing Rate

COMMERCIAL BULK SUPPLY - Total Usage

Allotment = 100% of established usage - April/May/June 1947

	<u>Rate</u>
Up to 80% of Allotment .....	Prevailing Rate
From 80% of Allotment to Allotment ...	Prevailing Rate x 3
Over Allotment .....	Prevailing Rate x 5 - 1st Offence
	Prevailing Rate x 10 - 2nd " "
	Prevailing Rate x 10 - 3rd " "

INDUSTRIAL - Lighting & Heating services

Same formula as applied to Commercial Consumers

\* Supply may be disconnected after 3rd Offence.

Although the foregoing has been authorized by the Bureau of Public Utilities, the plan has yet to be laid before a City Council meeting to be held from September 22nd onwards, for final approval.

French Power Company

On August 30th, a new Diesel electric set of 3,600 kW capacity was commissioned at the French Company's power station. When this unit is put permanently on load in the very near future, the emergency additional allotment of 3,000 kW given to this Company will be cancelled. It will be recalled that in May of this year a 3,300 kW set was put out of service due to crankshaft breakage and this company agreed to supply 3,000 kW, when available, in addition to the normal allotment of 2,700 kW, until such time as lost capacity was restored.

Rates

There has been no change in rates during August but considerable amount of negotiation has taken place with the Bureau of Public Utilities with a view to arriving at fair and equitable automatic formulae to cover all variable factors which influence rates. At the moment, there is nothing concrete to report, but



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REF. NO. P. 80  
OF 4000 17.257

We are hopeful that decisions will be reached in the near future. Our suggestion is to have a formula to cover each of the three variables - oil, coal and H.C.I. Index.

COMMENTS: TOTAL KILOWATT-HOUR SALES

The meter reading months were as follows:

	<u>August</u>	<u>July</u>	<u>Difference</u>
Schedule Rate Consumers	31.41	30.55	+2.8%
Bulk Supply Consumers	30.70	30.20	+1.6%
Municipal Consumers	30.90	31.00	-3.2%

Total Kilowatt-Hour Sales for August were 73,589,182 kWh, which is an increase of 400,000 kWh, or 0.5%, over the previous month's sales of 73,160,000 kWh. The increase was due to the longer meter reading month for Schedule and Bulk Supply Consumers. Sales to Commercial Bulk Supply show an increase due to air-conditioning usage, while sales to the French Company and Residential and Commercial Heating & Cooking decreased. Small Power Sales increased, while sales to the other classes showed no changes.

Residential & Commercial Lighting Sales were 8,996,445 kWh, or 0.4% over the July total. Considering the 2.8% longer meter reading month, this is actually a 2.4% decline while a slight seasonal increase is normal.

Residential & Commercial Heating & Cooking Sales were down to 1,545,925 kWh, from 1,650,580 kWh last month. For both these classes, the increased energy rates may have affected the volume of sales.

Industrial Bulk Supply Consumers, with a total of 26,950,684 kWh, took only 0.3% less than last month. The demand for energy exceeds the available supply by a wide margin, which was aggravated in August by frequent outages of generating plant, details of which are given in the Power Section Report. Sales to Ice & Cold Storage and Tobacco Factories were seasonally up. Metal Works gained and sales to the other classes dropped.

Commercial Bulk Supply Consumers took 1,846,361 kWh, or 21.2% over last month's total of 1,523,737 kWh due to increased air-conditioning usage.

Small Power Consumers' usage increased by 5.5% to 5,083,497 kWh compared with 4,820,000 kWh last month, mainly due to the longer meter reading month and an increasing number of factories operating during the off peak load period under the "Night Operation" scheme.

Sales to Shanghai Tramway Company increased by 0.4% to 1,044,785 kWh. We learn from this Company that 100% of the tram cars and 80% of the railless trolleys are new in constant operation. The fleet of both types of vehicles is being augmented and a gradual increase of sales may be expected. Many accidents occur due to reckless truckdrivers and breakdowns due to the bad state of the roads and this of course influences sales.

French Company Sales dropped by 9.1% to 1,016,500 kWh.

while sales to the Chapai Company remained more or less unchanged at 8,848,157 kWh.

SHANGHAI POWER COMPANY

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Sales to Shanghai Waterworks were also steady at 1,366,650 kWh;

so also were Intercompany returns with a total of 16,213,600 kWh.

Private & Public Street Lighting Sales were both 0.4% up, to 78,000 kWh and 193,233 kWh respectively.

Municipal Others totalled 405,351 kWh compared with 406,900 kWh last month.

#### ANALYSIS OF LARGE INDUSTRIAL SALES

Cotton Mill Sales remained unchanged, with a total of 17,605,205 kWh. This class of industry suffers most from enforced load reduction in view of the magnitude of the individual loads and the ease with which the majority can be switched immediately reduction in load is necessary. All mills report steady demand for their products which at this time of the year is principally from the Southern ports. Profits and prospects are good.

The Chinese cotton crop, which is harvested in September, is reputed to be satisfactory, so there should be no shortage of raw material for at least several months.

Yarn prices have been steadily mounting during the latter half of the month and official efforts to check them have proved quite ineffective.

Flour Mills took 1,326,600 kWh in August. This is a 3.2% decline from last month's total of 1,369,800 kWh but more than 50% above the June level. Local grain is still available while imports have been rather small. The price of flour has increased steadily without any reduction of demand; consequently, profits are good. Scarcity of grain, however, may force operators to reduce activities.

Rubber Products - Sales to this industry remained unchanged at 838,210 kWh. This figure would no doubt have been greatly exceeded if energy had been available, as demand is steady in spite of greatly increased prices. Mills generally advise that they can sell all they can produce and thus the only limit to activities is the supply of energy and to some extent, raw material, which is now rationed. The shortage must be made up by "black market" purchases, partly from jobbers and partly from factories which find it more profitable to operate as jobbers than producers. It is safe to assume that the present operating level will be maintained or exceeded to an extent that available electricity supply permits.

Paper Mills - The partial shutdown of China Fibre Container Co. accounted for a drop in sales by 21.0%, from 1,100,000 kWh in July to 838,210 kWh in the current month. Most of the other mills maintained activities except the Chung Hwa Paper Mill Co. which suspended operations after operating at reduced load for several weeks.

While imports of paper are small and the retail demand fair, local stocks are considerable. The tight money market during the last few months has discouraged jobbers and the mills have had difficulty in disposing of their production. It appears extremely doubtful that this industry will recover in the near future.

Lumber Mills and Egg Produce plants both remained practically idle with no prospects of improvement in sight.

SHANGHAI POWER COMPANY

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REF. TO P.P.  
OF 2000 17.213

Oil Mills - Sales improved by 7% to 116,250 kWh compared with 108,600 kWh last month. Further improvement may be expected with seasonal increased demand for cakes for fuel and fertilizer for autumn sowing.

Sales to Ice & Cold Storage Factories showed a normal seasonal gain. The total for August was 2,038,030 kWh - 21% over the July figure of 1,680,000 kWh.

Tobacco Factories - Sales to this group increased slightly from 195,000 units in July to 214,359 units in the current month. With the wet season past, speculators were again active and prices spiralled. Further seasonal increases may be expected during the autumn months.

Silk Mills showed no change, with a total of 49,560 kWh compared with 49,780 kWh last month. The new Exchange Regulations designed to stimulate exports seem to have shown no favourable results, at least with respect to this industry. Any advantage derived from the higher exchange rate has been more than counteracted by the high costs of rayon, cocoons and labour.

While the spinning mills (in the Western District) may experience some improvement, the two weaving mills in the Shanghai Power Company area must continue to rely mostly on local demand, and no increase of activities is foreseen.

Miscellaneous Textile Sales dropped from 1,980,000 kWh in July to 1,893,452 kWh in August mainly due to enforced load reduction. The individual consumers showed practically no changes in their usage as they are all generally running to full capacity and may be expected to do so in the future.

Metal Working took 962,948 kWh, a 19.3% increase over the July total of 804,000 kWh as the Chinese Aluminium Rolling Mills Ltd. resumed full operation with a usage of 336,000 kWh compared with only 136,800 kWh last month. The other mills showed small changes only.

Woolen Mills usage showed a slight decline from 308,000 kWh in July to 300,000 kWh in the current month. Appreciable seasonal improvement should be expected next month.

Miscellaneous Others took 710,568 kWh, a 1.5% decline from the July total of 807,000 kWh mainly due to the partial shutting down of the Tsing Hwa Glass Co. Ltd. which reduced usage by 80,000 kWh. The other consumers in this class maintained their operating levels.

#### POWER SECTION

In last month's Report it was mentioned that, with a view to utilizing the spare generating capacity available during night time, we were accepting applications for power services for night operation only. During August, 68 applications totalling 818 H.P. were accepted and added to those accepted last month brought the total up to 80 applications for an aggregate load of 1,453 H.P. in both S.P.C. and W.D.P.C. areas.

It has been decided that we will not insist on individual consumers installing a time switch to control supply before connection is given. Periodic inspections will be made to ensure that consumers are keeping strictly to the proscribed operating time, viz: 11.00 p.m. - 7.00 a.m. However, a circuit breaker

SHANGHAI POWER COMPANY

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with time control device incorporated is being developed for installation in circuits where the load applied for is about 150 H.P. or more.

Applications for power service accepted during the month were as follows:-

Reconnections:	5	applications	totalling	30 H.P.
New Load	: 48	"	"	525 "
Total	: 53	"	"	555 "

Of the above applications, one was for a load of 30 H.P. for rice grinding, 9 for noodle shops (loads ranging from 1 1/2 - 2 H.P.) and a temporary supply for 17 H.P. for building construction work. The remaining applications, for loads of from 3 - 50 H.P., were accepted for night operation only and cover the following industries: metals, rubber, printing, paint chemicals, coal briquettes and tobacco.

During the month, load conditions at Riverside showed only a very slight improvement as compared with July, owing to the continued outages of generating plant. Excluding T.G. 2, which will not be in commission again until December 1947 at the earliest, all T.G. plant was available only on five days throughout August, the net result of this being that considerable load reduction was necessary.

Details of T.G. plant outages during the month were as follows:-

August 1st - 31st (incl.)	T.G. 2 (2,000 kw) out of commission.
August 1st - 8th (a.m.)	T.G. 7 (10,000 kw) " " "
August 9th	T.G. 3 (18,000 kw) out of commission, suspected electrical fault.
	T.G. 8 on load at 11.00 a.m. but tripped out at 3.40 p.m. and off load for the rest of the day.
August 10th (p.m.)	T.G. 8 on load again.
August 15th	T.G. 18 (15,000 kw) output reduced to 2,000 kw due to trouble in S.G. 31.
August 16th (a.m.)	T.G. 18 output further reduced to 4,500 kw.
August 16th (p.m.)	T.G. 18 out of commission - repairs to S.G. 31.
August 29th (p.m.)	T.G. 18 on load again - output 7,500 kw.
August 30th (p.m.)	T.G. 18 output increased to 15,000 kw.

From August 18th - 28th the situation was aggravated by an increase in the number of outages of Steam Generating plant. In order to reduce to a minimum load reduction as applied to Cotton Mills over the evening peak period, the Chapoi Company was requested to reduce load by 4,000 kw and the Flour Mills (3,500 kw) shut down between 8.30 p.m. and 11.00 p.m., but notwithstanding this arrangement an average enforced load reduction of 10,000 kw each evening was still necessary.

During the month, the Large Textile Mills suffered an average loss per mill of approximately 70 production hours due to load reduction. This is a slight improvement as compared with July when the average loss was 80 hours. The pre-arranged load reduction schedule, outlined in last month's Report, was in operation throughout August. However, it is expected that with improved generating conditions and the advent of cooler weather, we will be able to revert to the load reduction scheme previously in operation.

The estimated loss of sales potentiality due to load reduction in August was as follows:-

SHANGHAI POWER COMPANY

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Cotton Mills	6,285,000 kWh
Miscellaneous Industries	738,000 "
Chapei & French Power Companies	998,000 "
T o t a l	8,021,000 "

When allowance is made for the gain of approximately 1,830,000 kWh as a result of the Sunday working schedule, the total loss of sales potentiality due to insufficient generating capacity was approximately 6,191,000 kWh as compared with 7,554,000 kWh last month. All voluntary load reduction is calculated as lost sales.

In the course of the month, the average potential demand was approximately the same as during June and July, viz: 165,000 kW in the forenoon, 153,000 kW in the afternoon, 150,000 kW in the evening. The maximum sustained load that could be negotiated by Riverside varied according to generating plant available, from 127,000 - 139,000 kW during daytime with instantaneous peak demands in the evenings of 134,000 - 148,000 kW.

The following load prospect was recorded during August:

ADDITIONAL LOAD:

Name: Ewo Cotton Mills, Ltd. - Yangtszepoo Mill.  
 Address: 24, Wetmore Road.  
 Additional Load: 2,200 H.P.  
 Estimated Additional Maximum Demand: 1,400 kW.  
 Estimated Additional Annual Revenue: CN\$8,410,000,000.

This prospect was referred to in our Report for December 1946, but information recently received regarding further extensions necessitates a revision of estimates made at that time.

As explained in our December Report, this consumer expected to put in operation 30,000 reconditioned spindles for cotton spinning and had ordered from abroad new machinery totalling 20,000 spindles, the latter being considered as new load. Further extensions now planned consist of the installation of 1,000 looms and a bleaching and dyeing department, which will bring the total estimated load demand of the mill up to 2,700 kW.

At present, there are only in operation 12,000 spindles and the jute mill, but load development is expected to take place as follows:-

By September 1948 - 50,000 spindles, 500 looms and the Jute Mill -	
estimated maximum demand.....	2,000 kW
By 1950	
- Additional 500 looms and bleaching and dyeing	
department - estimated additional maximum	
demand .....	700 kW
Total maximum demand by 1950 .....	2,700 kW

Supply, at present given at 6.6 kV, will be changed to 23 kV and consumer has been advised regarding the purchase of suitable equipment.

During the month, supply was given to the following additional loads:

1) Woo Sing Cotton Mill - 823 Pingliang Road

This prospect was referred to in our Report for April 1947. Supply is given at 6.6 kV to consumer's own high voltage oil circuit breaker and 315 kVA transformer.

The estimated increase in load demand is approximately 90 kW and is expected to yield an annual revenue of CN\$453,000,000.

2) Chinese Industrial Gas Company - 537 LiaoYang Road

This consumer has installed additional machinery since the prospect was first referred to in our February report. It is now estimated that the increase in load demand will be 150 kW, yielding an annual revenue of CN\$517,000,000. Supply is given at low voltage from a 325 kVA transformer installed in consumer's sub-station.

All revenues mentioned in this Report are based on current net rates,

vis:-

CN\$1,130 per kWh for consumption of electricity up to 50,000 kWh

and CN\$1,170 per kWh for consumption in excess of this amount.

Power Installation Inspections:

The following inspections were made during August:

<u>No. of Inspections</u> <u>In August</u>	<u>Unauthorized</u> <u>Additions</u>
345	30

RESIDENTIAL SECTION

Domestic Cooking - An increase of two cookers was recorded for the month.

Home Services - Many "high consumption" complaints were attended to during the month and other routine work in this section was carried out as usual.

Showroom Enquiry Desk - Many enquiries were received concerning the proposed restrictive plan. Although the plan has not yet been approved, details had been given to the local press by the Bureau of Public Utilities for publication.

Radiators & Water Heaters - A further decrease in the number of radiators rented was recorded for the month. Water heaters in service showed a slight increase due to transfers.

Refrigerator Sales - There is little to report on refrigerator sales as local manufacturers' agents have no stock in hand at present.

HIRED PLANT INSTALLATION & MAINTENANCE SECTION

Summary of Workshop output:

Motors repaired ..... 11 pieces  
Switches & Starters overhauled ..... 12 "

SHANGHAI POWER COMPANY

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Cookers overhauled & tested ..... 21 pieces  
 Water Heaters " " " " ..... 5 "  
 Hot Plates fabricated ..... 329 "  
 Service Calls attended ..... 1,028

Miscellaneous work and interdepartmental jobs accounted for 290 man-days, majority for Head Office maintenance and alterations.

Hired Motors:

Connections - 5 motors aggregating 146 H.P. were connected, all of which were for night operation only.

Disconnections - 2 motors totalling 20 H.P.

Breakdowns - Three major breakdowns occurred during August, namely, 2 - 60 H.P. and 1 - 30 H.P. The shaft of one motor had broken, while the others had electrical faults necessitating the rewinding of stator coils.

ADVERTISING SECTION

Newspapers - The notice "Power Connections for Night Operation" was again published in the Chinese language newspapers only on August 1st, 4th, 15th and 18th, 1947. It will be recalled that the same notice was inserted in the English, Russian and Chinese language newspapers last month.

Debuture notices appeared in the Russian, English and Chinese language newspapers on August 1st and 2nd, 1947.

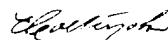
Notices were published in all local newspapers advising that certain districts in the Western Area would be without supply on the 22nd and 29th at specified times. This action was necessary to enable us to carry out major accrued maintenance work and overhaul of supply lines.

The following articles appeared in the Sin Wan Pao and China Press, headlined: "Supply And Demand Of Power Cannot Meet - Authorities Consider Power Economy Plan"; "See Winter Shortage In Electricity".

General - A number of stencils were made for the Workshop to be used for painting of equipment tags.

Signs were painted for use on the office building.

Black and white "power cards" were set up.



A. E. Colterjohn  
Assistant Consumers' Engineer

WESTERN DISTRICT POWER COMPANY OF SHANGHAI, FEDERAL INC. U.S.A.

September 23rd, 1947

SEP. 23, 1947  
AP 11-11-47

WESTERN DISTRICT POWER COMPANY OF SHANGHAI,  
FEDERAL INC. U.S.A.

AUGUST STATISTICS

Analysis of K.W.H. Sales

	<u>This Year</u>	<u>Last Year</u>	<u>Increase</u>	<u>Increase</u>
				<u>%</u>
Residential Lighting)	1,547,529	971,600	575,929	59.3
Commercial Lighting )				
Residential Heating & Cooking)	585,241	483,406	101,835	21.1
Commercial Heating & Cooking )				
Bulk Supply Industrial	9,764,427	7,214,085	2,550,342	35.4
Bulk Supply Commercial	40,683	10,898	29,785	273.3
Small Power	2,540,824	1,650,720	890,104	53.9
<u>Public Utility:</u>				
Chapei Company	901,540	937,800	-36,260	-3.9
Private Street Lighting	11,958	10,320	1,638	15.9
Municipal Street Lighting	23,143	23,763	-620	-2.6
Municipal Others	218,453	205,877	12,576	0.1
<u>Total</u>	<u>15,633,798</u>	<u>11,508,469</u>	<u>4,125,329</u>	<u>35.8</u>
Total Units Sold (12 months ending August 1947)	181,619,980	84,395,788	96,960,120	114.9
Total Units Purchased (12 months ending August 1947)	192,077,310	92,778,662	99,298,648	107.0
Distribution Losses (12 Months Average)	5.4%	9.0%	-3.4%	-37.8
Maximum Demand for Purchased Power - kW	29,160	23,272		

Analysis of Large Industrial Sales in K.W.H.

	<u>This Month</u>	<u>Last Month</u>	<u>Last Year</u>	<u>Increase</u>
				<u>% over</u>
				<u>Last Year</u>
Chinese Cotton Mills	5,957,000	5,808,950	3,965,300	50.2
Other Cotton Mills	3,600	3,000	771,150	-99.5
Total Cotton Mills	5,960,600	5,811,950	4,736,450	25.8
Flour Mills	426,250	336,425	476,675	-10.6
Rubber Products	189,670	229,164	100,075	89.5
Paper Mills	522,560	424,447	149,625	249.2
Tobacco Factories	1,500	3,600	-	-
Ice & Cold Storage Factories	41,600	41,800	43,100	-3.5
Silk Mills	208,765	205,210	126,550	65.0
Miscellaneous Textiles	1,648,717	1,691,990	1,175,298	9.3
Metal Working	102,395	104,080	63,025	62.5
Woolen Mills	338,460	328,395	293,090	15.5
Miscellaneous Others	323,910	305,430	50,197	54.5
<u>Total</u>	<u>9,764,427</u>	<u>9,482,491</u>	<u>7,214,085</u>	<u>35.4</u>



Metropolitan District Power Company of Shanghai, Inc. U.S.A.

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REV. 3-2-59  
AP 40 (11-64)

CONNECTIONS

	<u>This Month</u>	<u>Last Month</u>	<u>1954 Year</u>	<u>Increase During Month</u>
No. of Customers	21,382	21,241	20,083	141
" Refrigerators	2,291	2,227	2,217	6
" Cookers (Hired) x	784	783	775	10
" Radiators " x	268	270	391	-2
" Water Heaters " x	29	27	25	2
" Misc. Appliances " x	29	29	29	-
H.P. of Motors	4,680	4,688	3,514	-8

x Hired from S.P.C. and included in S.P.C. Statement

CONNECTED LOAD

K.W. Lighting	15,214	15,110	14,430	104
" Heating: Comprising	(7,335)	(7,321)	(7,505)	(14)
" Cookers	5,677	5,664	5,540	13
" Radiators	1,264	1,270	1,694	-6
" Water Heaters	64	60	56	4
" Miscellaneous	330	327	295	3
" Motors	66,425	67,796	64,226	629
" Industrial Heating	1,050	1,050	958	-
" Total	92,024	91,277	87,199	767

MONTHLY MOVEMENT IN CUSTOMERS

	<u>Total All Classes</u>
Total Customers Reconnected	20
Total Customers Disconnected	18
Gain	2
Total New Customers Connected	132
Total Increase During Month	144

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COMMENTS: TOTAL KILOWATT-HOUR SALES

The reading month was as follows:

	<u>August</u>	<u>July</u>	<u>Difference</u>
Schedule Rate Consumers	31.06	28.96	+7.3%
Bulk Supply Consumers	30.10	29.20	+3.1%
Municipal Consumers	30.00	31.00	-3.2%

Total Kilowatt-Hour Sales for August were 15,633,798 kWh compared with 15,370,000 kWh in July. This is a 1.7% increase while the meter reading month was about 5% longer. Average daily sales were therefore actually down by about 3%; this is mainly due to enforced load reduction. Sales to Small Power, Chapel Company and Municipal Others show a decrease. Sales to all other classes increased.

Residential & Commercial Lighting Sales increased by 3% to 1,547,529 kWh.

Residential & Commercial Heating & Cooking Sales increased by 4% to 585,241 kWh but as the reading month was 7.3% longer than July, the total sales represent a decrease.

Industrial Bulk Supply Consumers consumed 9,764,427 kWh, which is 3% over last month's total of 9,480,000 kWh, or exactly the same percentage increase as the reading month period.

Commercial Bulk Supply used 40,683 kWh, which is practically the same as last month. There is only one consumer in this class with no air-conditioning installations.

Small Power Sales totalled 2,540,824 kWh in August, showing no change from the July usage.

Chapel Company used 901,540 kWh in August compared with 965,000 kWh last month - a decrease of 6.6%.

Private Street Lighting Sales gained 5.5% to reach 11,958 kWh, while

Public Street Lighting usage remained unchanged.

Sales to Municipal Others were down by 4.3% to 218,453 kWh. The reading month was 3.2% shorter, so the absolute change was small.

ANALYSIS OF LARGE INDUSTRIAL SALES

Cotton Mills - Consumption increased by 2.6%, which is 5% less than the difference of the reading periods. The total was 5,960,600 kWh. The individual consumers' usage varied little, with all mills operating to the fullest extent possible under present conditions.

Flour Mills took 426,250 kWh compared with only 336,000 kWh last month, which is a gain of 26.7%.

Rubber Product Sales dropped by 17.2%, to 189,670 kWh compared with 230,000 kWh in July and 270,000 kWh in June.

Paper Mills, on the other hand, took 522,560 kWh in the current month compared with 424,000 kWh in July, an increase of 23.1%. Practically all the gain, however, was due to the transfer from the Small Power class of the Hwa Chung Yih Kee Paper Mill with a usage of 86,450 kWh. If this usage were disregarded, the increase was very small.

Ice Factories showed no change.

Silk Mills - Sales increased from 205,000 kWh in July to 208,765 kWh in the current month, or by 1.7%. Considering the longer reading month the usage dropped slightly.

Miscellaneous Textiles took 2.6% less than the previous month; the total was 1,648,717 kWh.

Metal Working used 102,395 kWh, or 1.6% less than last month.

Woolen Mills gained by the same percentage as the reading month and usage reached 338,460 kWh.

Miscellaneous Other Sales gained 6.1% and reached 323,910 kWh. Stone Pulverizing Works showed the highest increase in this class of industries.

POWER SECTION

During the month the following applications for connection of power supply were accepted:

Reconnections:	2	Applications totalling	32	H.P.
New Load	32	"	483	"
Total	34	"	515	"

These applications include 60 H.P. for S.M.G. Sewage Department in connection with their flood prevention scheme, 10 H.P. for water pumping, and three applications for temporary supply for loads of 15, 20 and 25 H.P. for building construction work. The remainder, for loads of from 1 - 85 H.P., are for night operation only and cover the following industries: paint, metals, bobbin manufacture, rubber, lumber and cotton weaving.

There were no new load prospects recorded during August but supply for additional load was given to:

King Kong Rubber Factory - 960 Keswick Road

This prospect was mentioned in our Report for May 1947. Supply for the additional load is given at 6.6 kV to consumer's own locally manufactured 150 kVA transformer. There is also a 100 kVA transformer on hire, which will later be replaced by consumer's 200 kVA unit ordered from abroad.

The estimated increase in load demand is approximately 100 kW and is expected to yield an annual revenue of CN\$205,000,000.

Power Installation Inspections:

Inspections made during the month were as follows:

<u>No. of Inspections in August</u>	<u>Unauthorized Additions</u>
55	15

SHANGHAI INDUSTRIAL POWER COMPANY OF SHANGHAI, CHINA, INC. U.S.A. - 5 -

RESIDENTIAL SECTION

Domestic Cooking - There was very little movement of cookers in the Western Area during the month. The increase of only one cooker recorded was due to a transfer from Shanghai Power Company Area.

Home Service - Only routine work was attended to by this section.

*A. E. Colterjohn*

A. E. Colterjohn

SHANGHAI POWER COMPANY

SHANGHAI POWER COMPANY  
RIVERSIDE STREAM ELECTRIC STATION  
MONTHLY GENERATING REPORT  
AUGUST 1947

OUTPUT & PERFORMANCE DATA -

	A	B	C		D	E	
	Total Station Net Output Kwh	Short Time Peak Demand Kw	St B Gross Generation Kwh	% of Total	St C Gross Generation Kwh	% of Total	Overall Heat Consumption Btu/net Kwh
Aug. 1947	77,998,570	151,442	33,158,173	45.08	13,145,000	15.65	21,109
July 1947	79,223,302	149,314	37,618,299	43.86	16,599,000	19.36	20,651
Aug. 1946	65,409,768	121,232	26,840,028	38.87	-	-	22,644
Aug. 1941	56,012,996	138,575	34,658,091	56.60	-	-	19,925
<u>% increase over</u>							
July 1947	-	1.43	1.44	-	-	-	2.32
Aug. 1946	22.91	24.87	42.17	-	-	-	-
Aug. 1941	39.25	9.29	10.10	-	-	-	5.94
<u>% decrease from</u>							
July 1947	1.55	-	-	-	20.81	-	6.78
Aug. 1946	-	-	-	-	-	-	-
Aug. 1941	-	-	-	-	-	-	-

Remarks:-

The higher heat rate compared with July 1947 due to (1) lower St C production account of outage of SG 31 for longer period; (2) poorer vacuum with rising river water temperature.

The better economy compared with August 1946 due to (1) higher percentage of St B Generation; (2) 1/c of St C.

The higher heat rate (despite 1/c of St C) compared with August 1941 due to the fact that a great part of the increased load demand has to be met by less efficient units in St A.

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SHANGHAI POWER COMPANY

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STEAM-GENERATORS -

SG No	Date		Hours o/c	Type of Inspection & Work Done	Hr not Avail- able	Total Hr Oper- ated	Operating Hr Since Last Overhaul
	o/c	1/c					
31	17	28	270	Removal of clinker and general repairs (IDA) - 5 fractured (due to fall of heavy clinker) CI casing plates (north wall) replaced with MS plates, angles and channels, etc, straightened; 4 new type ash doors fitted; north ash pit wall rebuilt, burnt sprayer nozzles renewed, water pipes and drains cleaned and main flushing water pipe relocated, to facilitate good inspection of ash pit and better operation of slicing bars. Unit thoroughly soot cleaned, all large heavy clinkers removed, front, side and rear walls cleaned. Baffles and brick- work checked and sealed; steam header valves repacked; Ph blown through, mud deposits in runway piping removed and pipes cleaned, cooling water pipes changed, FD dust cleaned and FD dampers checked. All soot blowers cleaned, checked and adjusted, new type multihead blower heads fitted to rear soot blowers above section headers. Water flushing tanks fitted to grit hoppers to facilitate grit removal. Oil and coal burners and PF feeders cleaned, examined and adjusted. Casing doors were out, hinged and flanged to enable section headers to be steam lanced during operation. Cross-over heater outlet valve (body holed during operation) welded up, and vent pipe to deaerator (holed and secured) renewed. PF bunker cleaned and dust catcher tanks fitted at roof to each bunker.	270	458	2 763
30	-	-	0	---	0	744	6 667
29	2	13	266	Routine cleaning and general repairs (IDA) - Superheater about 600 tubes re-expanded, inlet tubes freed of hard scale, all cap joints renewed. Sh safety valve over- hauled and tested. Brickwork and baffles examined, patched and sealed. IDF inspected, secondary air dampers examined and adjusted, Ph cleaned and tested. Copes valve examined, safety valve over- hauled, tested; unit soot cleaned and press tested.	266	473	12 146
28	30	-	32	Routine cleaning and general repairs (IMS) - Work progressing.	32	712	10 153

SHANGHAI POWER COMPANY

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SG No	Date		Hours o/c	Type of Inspection & Work Done	Hr not Avail- able	Total Hr Oper- ated	Operating Hr Since Last Overhaul
	o/a	1/c					
27	-	-	0	---	0	744	9 144
26	24	29	60	Leaky Eo repaired (IDU) - One corroded Eo tube and 1 front vertical nipple changed, 2 distributors welded into vertical headers, 1 tube re-expanded and 14 caps rejointed, 2 Sh drains and 1 soot blower master valve overhauled, all valves repacked and LH blow down pipe patched. Stoker main drive shaft bearings cleaned and adjusted, 3 connecting rods, 8 stroke adjuster bolts, 20 tuyeres, 10 ash pusher plates and 2 dump bars renewed. Brickwork made good. Unit press tested.	60	331	7 316
25	20	20	1 5	LH blow down pipe joint remake (IDA). Motors and starters cleaned and inspected (IMS).	6	734	10 030
24	4	4	4	Defective stoker repaired (IDU) - No. 3 stoker gear box overhauled, 1 worm shaft, 1 thrust bearing and 1 ball bearing changed.			
	24	26	40	Eo and grate repaired (IDU) - One Eo distributor tube and 1 rear nipple renewed, 1 Eo tube re-expanded, 12 Eo caps rejointed. One connecting rod and 12 ash pusher plates renewed. Two gauge glasses changed. Ph elements washed. Eo press tested.	44	588	6 405
23	7 12	7 16	4 87	Ph elements washed (IDU). Ph burnt out (IDU) - All Ph elements removed, FD and ID sections blanked off, FD damper operating mechanism modified to quick closing operating gear, brickwork made good. Unit spot cleaned.	91	566	11 064
22	23	24	32	Eo and grate repaired (IDU) - Three Eo nipples renewed, 16 caps rejointed. 2 Sh drains overhauled. One side bar, 50 tuyeres, 20 ash pusher plates and 1 set dump bar brackets renewed. Eo press tested.	32	527	5 330
21	6 31	6 -	4 14	Ph washed and examined (IDU). Leaky Eo repaired (IDU) - Work progressing.	18	720	12 341
20	-	-	0	---	0	624	4 299
19	5 26	5 27	4 5	Ph washed and examined (IDU). Ph washed and examined (IDU).	9	729	2 588
18	1	3	36	Eo repaired (IDU) - Two Eo distributor tubes renewed, 9 Eo caps rejointed. 7 Sh caps renewed. Grate washed and inspected, 27 ash pusher plates, 5 ash water nozzles and one set ash door levers renewed. Furnace brickwork made good. Eo press tested.			
			29 51	Routine cleaning progressing (IMS).	87	460	2 966

SHANGHAI POWER COMPANY

EG No	Hours		Hours o/c	Type of Inspection & Work Done	Hr not Avail- able	Total Hr Oper- ated	Operating Hr Since Last Overhaul
	o/s	l/o					
17	7/30	1	8	Repairing of leaky No completed (IDU) - Center horizontal nipple in inlet header renewed, 1 tube cap rejoined, No press tested. Total time o/c = 54 hr.			
	10	11	14	No inlet header center nipple re-expanded (IDU).			
	11	13	37	One pitted main tube renewed (IDU) - 48 Sh tubes re-expanded and 16 Sh caps rejoined. 11 main tube caps re-joined and 4 return tubes re-expanded. Unit press tested.			
	30	31	16	No inlet header center nipple changed (IDU).	75	248	10 118
16	3	3	5	T-piece fitted to steam pipe to IDF engine (IMS)			
	21	25	96	One corroded main tube renewed (IDU) - Several leaky Sh caps rejoined, small hole in rear No header No. 11 grooved and welded up.			
	31	31	8	IDF engine adjusted (IMS).	109	626	15 508
15	6/16	7	151	Partial overhaul completed (IMS) - Drum examined internally, no active pitting or corrosion observed. All boiler tubes turbo-cleaned and examined, in fairly good condition. Every End. row caps in front headers removed and headers cleaned internally. Mud box cleaned. No tubes turbo-cleaned, 80 tubes (incl. pitting) renewed. Several Sh caps removed, no scale deposit found, mixing valves overhauled. Mountings overhauled and tested. Grates drawn out and overhauled. Deaspers examined and adjusted. Baffles sealed, brickwork fairly good. New continuous blow down pipe installed. Unit press tested. Total time o/c = 1253 hr.	151	564	564
14	3	3	5	T-piece fitted to steam pipe to IDF engine (IMS).			
	31	31	8	IDF engine adjusted (IMS).	13	723	816
13	3	3	6	Routine cleaning of aux motors, switches and starters (IMS).			
	23	24	15	Drum examined, no mud deposits found (IMS) - LH strickle door renewed.			
	26	27	18	One holed No tube renewed (IDU).	39	508	2 354
12	2	2	3	Cleaning of aux motors, switches and starters (IMS).	3	496	3 341
11	12	12	0	Riddling pit choked (IDU) - Riddlings cleaned out of grate links and pits, unit banked.			
	31	31	0	One broken drag link out (IDU) - Unit not o/c.	0	662	1 425



SHANGHAI POWER COMPANY

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SG No	Date		Hours o/c	Type of Inspection & Work Done	Hr not Avail-	Total Hr Oper-ated	Operating Hr Since Last Overhaul
	o/o	1/o					
10	2	2	3	Cleaning of aux motors, switches and starters (IMS).			
	6	13	127	RH Grate repaired (IDU).			
	25	26	0	LH Grate jammed (IDU) - Riddlings inside grate links cleaned out and one broken link cut out.			
	31	31	0	Center Grate jammed (IDA) - 2nd. motion thrust ball bearing changed. Unit banked.	150	340	2 005
9	4	-	672	Partial overhaul after 2740 hr operation (IMS) - Work progressing.	672	63	5 856

Notes:- 1. Unscheduled Outages -

(a) Units taken out immediately (IDU)

SG No	EG	R4	R3	2P	R1	19	18	17	16	15	11	10	Total
Times o/c	1	2	2	1	2	2	1	3	1	1	2	2	20
Hours o/c	60	44	91	32	18	9	36	67	96	18	0	127	(598)

(b) Repairs done on a deferred date (IDA)

SG No	31	09	25	10	Total
Times o/c	1	1	1	1	4
Hours o/c	270	256	1	0	(527)

2. Tube Renewals -

SG No	26	17	16	15	15	Total
Boiler Tubes	-	1	1	0	-	2
Ba "	1	-	-	20	1	22
Bh "	-	-	-	-	-	0

BOILER HOUSE AUXILIARIES -

1 - Feed Water Pumps (FWP) -

- FWP 27 - Cleaned oil cooler on speed increaser.
- FWP 26 - Adjusted discharge and bearing oil baffle.
- FWP 22 - Remade joint on steam trap by-pass valve, examined middle bearing and cut oil groove as instructed by the makers, fitted turbine packing rings and altered packing drain, cleaned cooling water channel in bearing housing.
- FWP 21 - Reinstalled center bearing, straightened shaft and reinstalled feed pipe, removed valve from gland drain.
- FWP 11,14,17,18 & 19 - OCB overhauled, motor cleaned
- FWP 11 & 13 - Repacked glands.

SHANGHAI POWER COMPANY

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1 - Feed Water Pumps (FWP) - (continued)

- FWP 2 - Wiped pump coupling bearing, renewed 2 oil rings and repacked suction glands.
- FWP 1 - Made and fitted new oil ring in suction and bearing, scraped bearing.

2 - BH Auxiliaries -

- BH 2 - New T-piece fitted to steam pipe of IDF 14-16 engine.
- BH 4 - Valve motor cable renewed. Lift routine examined.
- BH 5 - All aux motors and starters cleaned and examined.

RAW COAL HANDLING PLANT -

- Tr 1 - Coal feed table gearing overhauled, pinions renewed, traversing wire shackles reinstalled, coal grab chain repaired, 18 link pins renewed, operating wire rope changed. Grounded main cable repaired.
- Tr 2 - Hoisting motor (armature fault) changed and operating motor resistor overhauled.
- Tr 3 - Renewed operating wire ropes and weighing machine clutch spring, cleaned and adjusted main contactor.
- ET 2 - Renewed 1 sprocket wheel for coal agitator, changed weighing machine motor and repaired main cable (grounded).
- BC - Magnetic separators cleaned and examined.
- BC 1, 2, 13, 14, 19, 20, 21, 22, 24, 25, 41 & 42 - Motors and switches cleaned and examined.
- BC 14 - Renewed 3 joints.
- BC 24 - Renewed 24 ft. belting.
- Riddling belt - Changed 10 ft. belting, 3 pulleys and 3 idler rollers.

FUEL OIL HANDLING PLANT -

- 1 - Installation of steam line to FOT-4 progressing.
- 2 - EH 4 oil heater cleaned twice.
- 3 - Preparation for installation of new Quimby FOP in BH 3 progressing.
- 4 - Installation of duplicate steam line in BH 3 NO system.
- 5 - BH 3 oil heater cleaned twice.

PULVERIZED FUEL HANDLING PLANT -

- FM 1 - Motor cleaned and examined.
- FM 3 - General overhaul progressing.
- FM 6 - Motor brushes inspected, resistance cleaned.
- FM 7 - Vent fan bearings - air seals on shaft renewed.
- BH 5 - All PF mills opened up, cleaned and all wearing parts checked; gas dampers eased, greased and checked; screw conveyors opened up, screws and bearings checked and examined.

SHANGHAI POWER COMPANY

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ASH HANDLING PLANT -

- 1 - Electric Locomotives (LE) -  
 LE 1 & 2 - General overhaul progressing.  
 LE 3 - Routine cleaned.  
 LE 4 - Overhaul completed.
- 2 - Ash Trucks -  
 Easton ash truck: ball bearing cleaned, and distance piece fitted between bearings and thrust.
- 3 - Track - Overhead equipment minor repaired.

TURBO-GENERATORS -

TG No	Date		Hours o/c	Type of Inspection & Work Done	Hr not Avail-able	Total Hr Oper-ated	Operating Hr Since Last Overhaul
	o/c	1/c					
18	15	29	303	Unit taken out on account of o/c of SG 31 (IDA) - Main governor, governor control valve and servo motor dismantled, found all good. All main and thrust bearings examined, all OK. Oil cooler cleaned. All ball bearings (easily seized up due to heat) removed from bell crank levers and rollers replaced. Main oil pump LH opened up, scored mark on casing scraped off. The LH oil pump drive wheel was resting on the bottom of the pump casing with the weight of the main governor spring making this wheel press on pump casing bottom. To prevent this a thrust ball bearing has been installed which takes the weight of main governor from pump, and pump is now slung from this bearing and clear of casing bottom.	303	440	2 526
16	1	1	2½	Air and oil coolers cleaned (IMS) - Condenser tested, 4 tubes plugged.			
	26	27	12	Routine cleaning (IMS) - Runaway governor examined, cleaned and tested.	16½	719	4 775
15	4	4	4½	Air cooler cleaned (IMS) - TP oil cooler cleaned.			
	30	31	11½	Routine cleaning (IMS) - TP oil cooler cleaned.	16	717	14 870
14	5	5	3	Oil and air coolers cleaned (IMS).	3	756	15 161
13			16½	Routine cleaning twice (IMS).	16½	723	2 547
12			16½	Routine cleaning three times (IMS). CP re-aligned.			
			6	Re-aligned governor speeder gear (IDA).	22½	707	13 071

SHANGHAI POWER COMPANY

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TG No	Date		Hours	Type of Inspection & Work Done	Er not Avail-able	Total Hr Oper-ated	Operating Hr Since Last Overhaul
	e/c	i/c	o/e				
10	3	3	2	Air and oil coolers cleaned (IMS).	2	720	12 777
9	16	17	11	Routine cleaning (IMS) - Overspeed trip gear cleaned, adjusted and tested, operated at 1640 rpm.			
	23	24	13½	Runaway governor cleaned, adjusted and tested (IDA).	24½	712	14 349
8	8	10	36	Unit tripped out on B/L while on load (IDU) - TG disconnected from main transformers, windings meggered and found OK. Resistances checked, transformer oil tested, B/B connections cleaned and examined, O/L and B/L CT and PT pressure tested. Generator run up with a short circuit on 25 kv side, operation of B/L protection checked OK. Short circuit removed, TG excited to 25 kv to earth for 2 minutes OK. Unit routine cleaned and put back on load.	36	662	11 853
7	6/17	7	149	General overhaul completed (IMS) - Turbine cylinder cover opened, blade and dummy packing examined, bottom half lifted, joints between turbine exhaust and condenser remade, sliding feet thoroughly cleaned and checked, all bolts annealed. Spindle removed, 4 - 1½" x 3" holes were drilled in shaft according to makers' instruction, coupling claw removed and discs of 19th to 23th expansion (removed on January 1947) were replaced two per day and while cooling off held firmly in place axially by strongbacks, holding studs renewed with ASTM A/96 steel, badly worn worm and worm wheel changed. Main bearings, thrust bearing, HP and LP glands all in good condition, No 3 bearing found to have rubbed on generator side so all main bearings scraped on sides to give a minimum clearance of 0.007". Pedestal machined, shaft alignment set to 0.001", pedestal insulation checked (1.02 megohms). Heavy marking noted on centering ring and claw tops of main coupling, the driving sides of which badly pitted, the claws machined at the periphery and new centering rings fitted. Exciter coupling sleeve drive faces (ridged 1/16") filed and coupling checked for eccentricity, OK. Emergency and relay valves, chest removed and valve grounded, other parts all good; relay valve opened up, double beat valve ground in and screws renewed, valve spindle skimmed up, guide bush bored out and			

SHANGHAI POWER COMPANY

TG No	Date o/c l/c	Hours o/c	Type of Inspection & Work Done	Hr not Avail-able	Total Hr Oper-ated	Operating Hr Since Last Overhaul
7	(continued)		<p>GI bush fitted; steam chest studs changed, strainers good, valve re-assembled and alignment set. New rollers fitted to Main and Emergency Governors, sleeves skimmed and adjusted, Governor arm pins removed, main Governor worn wheel removed, wheel bearing bush reinstalled, overspeed set at 2650 rpm. The keyway of the relay wheel drive in Main Oil and Relay Pump found again fractured, shaft and relay wheels were renewed. This pump is the main cause of the vibration at the steam end of this unit, as the oil pipes are too rigid and do not allow free expansion of the pump body which is tied to the turbine cylinder. Aux oil pump valve faces skimmed up, valve mech pins renewed, pump now OK. Lubricating oil system pipe cleaned, oil coolers replaced by that from ex TG 11, cooler OH valve is now re-located to a position before On CS inlet valve, this proves to be a betterment and was suggested by one of our Chinese engineers. Condenser tubes all cleaned, ferrule packing all renewed, 200 tubes changed, relinking completed as per makers' drawing, On tested for air and water leaks and found tight. Atm valve test, OK. Generator stator end windings cleaned, lead cable boxes cleaned and examined; main transformer water cooling coils lifted and examined; O/L on CP and fan motor tested; exciter field coils cleaned and varnished; generator dried out. Unit on load since August 7, 1947.</p>			
	20	20	4			
	30	31	14		167	549
						549
5	2	3	12			
	16	17	12		24	683
						9 080
4	9	10	18			
	23	24	11		29	672
						9 719
2	5/18		744		744	0
						1 366
1	15	15	4		4	542
						1 061

SHANGHAI POWER COMPANY

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Notes:- Unscheduled TG Outages -(a) Units taken out immediately (IDU) - TG 8 o/c for 35 hours.(b) Repairs done on a deferred date (IDA) -

TG No	18	13	9	7	Total
Times o/c	1	1	1	1	4
Hours o/c	303	6	15½	4	(328½ hr)

TURBINE HOUSE AUXILIARIES -1 - Circulating Water Pumps (CWP) -

CWP 20-21-15 - Glands repacked.  
 CWP 23 - General overhaul after 7807 hr operation completed. Pump on trial running.  
 CWP 21 & 22 - OCB routine cleaned and trip tested.  
 CWP 12 - Gland repacked, bearing oil changed.  
 Booster Pump - Burnt short circuit contact repaired. One rotor lead re-soldered.

2 - Service Water Pumps (SWP) -

SWP 1 & 2 - Spindle and nut in valve on suction strainer renewed.  
 SWP 5 - OCB overhauled, motor cleaned externally.

3 - Sewage All Pumps -

Pump "A" - Glands repacked.  
 Pump "B" - Motor changed.

4 - Air Compressors (Cp) -

Cp 1 - Routine cleaned twice.  
 Cp 3 - Routine cleaned. Bearings tightened.

5 - Condensate Transfer Pumps (CTP) -

CTP 3 - Bearing water jackets and cooling water pipes cleaned.

FLOATING EQUIPMENT -1 - Coal and Ash Lighters (CL & AL) -

AL 3 & 4 - Lifting chains repaired.  
 AL 3, CL 7 & 9 - Capstans repaired.

2 - Tow Boats (TB) -

TB "Reactor" - Made and fitted 2 MS ventilators and 100 ft MS rubbing strakes.  
 TB "Rectifier" - 2 check, 2 blowdown and 2 steam valves overhauled. Safety valves tested. Condenser tested, leaky tube packings renewed. Air pump cleaned. Main feed

SHANGHAI POWER COMPANY

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## TB "Rectifier" (continued)

- pump valves ground. Reversing engine overhauled, slide valve adjusted, stop valve cover renewed. LP piston ring examined. Main engine slide valve adjusted. General service pump overhauled, 4 piston rings renewed. All bearings adjusted.

MISCELLANEOUS MECHANICAL EQUIPMENT -

- 1 - Main Stores Heating - Steam pipe re-routed at north end of Service Building.
- 2 - St B FW Ring - Joint after FWP 21 remade.
- 3 - De-aerator - Elements removed and chipped clean. TW float valve liner bored out, new valve made and fitted. Float and float drain hose renewed. Additional connection made from de-aerator bottom to pump suction pipe to prevent chemicals from settling and solidifying in bottom. Preparation of new spring to steam relief valve progressing.

ELECTRICAL EQUIPMENT -

- 1 - 33 kv SH Equipment -
  - Re 1 - Routine cleaning and trip test.
  - AB 7/8, AG 15/18, AM 30 - OCB overhauled after cable fault operation.
  - He 7 - OCB overhauled.
  - Chapel - Feeder OCB relocated in Sect 1 and supply taken from Re B/B (ex Re 1A).
- 2 - 6.6 kv SH Equipment -
  - EP (6.6 kv HS) - Routine cleaning and trip test.
  - BT 11/12 - Construction of trench and relocation of LT cables completed. Transformer overhauled, connected up and phasing checked. Making checker plate covers progressing.
- 3 - Transformers -
  - IT 2 - White phase transformer changed for overhaul, OCB cleaned and trip tested.
  - BT 4 - LT OCB (operating hot) overhauled.
- 4 - Converters -
  - EC 1, 2 & MC 4 - Routine cleaning.

SHANGHAI POWER COMPANY

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5 - Miscellaneous -

- (a) Reide battery given complete cycle of discharging and charging, battery found good.
- (b) Wiring of foundry office lighting completed.
- (c) Making smoke signalling lamp boxes and relays progressing.
- (d) Rewiring of BH 5 ash room lighting progressing. Recessed lighting installed.
- (e) BH 5 lift routine cleaned.

RIVERBIDE WORKSHOP -

- 1 - Overhauled 8 motors, 1 transformer, 1 exciter armature; machined 50 copper fuse holders, 14 copper moving contacts, 24 copper fixed contacts, 2 brass sockets, 40 sets brass terminals, 11 fibre handles; made 12 brass moving sparking contacts, 50 concrete pole base frames, 6 copper moving sparking contacts, 10 CI pothead cable boxes, 3 brass handles, 8 carbon brushes, 7 sets cable pothead, 50 copper sockets, 100 copper tubular cable sockets; converted 62 S/S brushes; repaired 2 LT fuses, 2 main contacts and 6 sparking contacts, 1 FK-12 OCB.
- 2 - Machined 1 HD brass impeller, 1 MS globe stop valve, 20 HD brass bushes, 10 HD brass power worm shaft bushes, 200 MS CS/H M/C bolts, 100 MS hand hole boiler fittings, 10 MS flanges, 4 CI driving clutches, 4 sets CI wearing plates, 645 MS and steel bolts, studs and screws, 168 MS rollers, 126 MS Ec tube caps and nuts, 8 brass impellers, 642 miscellaneous articles for various purposes; ground 24 steel cross cut chisels, 2 piston gates, 2 sets ball bearings; made 30 MS stroke adjusters, 1 700-gal. MS tank, 6 MS fire clay boxes, 2 copper expansions, 8 stainless steel valves, 15 sets burner pipes, 5 MS "T" pieces, 20 sets steel links, 12 sets CI fire doors, 6 MS oil strainers, 1 MS box, 1 copper tube coil; repaired 1 blow lamp, 4 bolt cutters, 1 draw device, 1 rolling machine, 7 wheel barrows, 1 heating boiler, 24 copper tubes, 1 brass RW strainer, 1 Gate valve, 1 coal briquette machine; remetalled 6 brass bushes, 1 CI bearing, 1 brass bearing; overhauled 1 water cooling coil; balanced 2 PAF impellers, 1 IDF impeller.
- 3 - Bent 2 MS plates, 1 copper joint sleeve, 32 lengths MS oil pipes, 10 lengths boiler tubes; made 12 MS floating tanks, 6 MS baffles; forged 200 MS Ec tube caps, 150 MS rag bolts, 50 MS wing nuts, 20 MS agitators, 1740 lb. MS flanges and clamps, 884 lb. MS tips, spanners, levers, bars and nails.
- 4 - Electric welded 22 pipe flanges, 6 MS pipes, 3 pipe "T" pieces, 3 coal pipes, 2 back plates, 1 IDF casing, 2 MS ladders, 1 ash truck, 8 base liner plates, 2 MS shafts, 1 valve body, 1 man hole cover, 47 Sh tube caps, 10 Ec tube caps; gas welded 12 MS floats, 20 MS flanges, 1 cyclone coal chute, 3 MS tanks, 3 MS ash buckets; gas brazed 2 gate valves, 1 valve spindle, 18 copper tube ends, 3 transformer oil cooling coils, 8 transformer tails, 2 brass strainers.



SHANGHAI POWER COMPANY

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5 - Foundry produced following castings:-

33,722 lb cast iron.  
945 lb HD brass.  
80 lb GP brass.  
454 lb copper ingots.

6 - Galvanized 160 back clamps, 120 cross arms, 30 rag type eye bolts, 50 turn buckles, 28 stritchers, 26 single cable clamps, 50 pole clamps, 20 studs, 48 ball washers, 30 timbles, 50 plate washers, 10 earth pipes.

7 - Building & Wharf Maintenance:-

- (a) Maintenance work to all plumbing and pipe work in Station progressing.
- (b) Renovation of Staff Quarters progressing.
- (c) Repaired roof and installed post for Foundry building.
- (d) Repaired roof and guttering of Stores No. 9 & 10, and Foundry building.
- (e) Built brick boundary walls between Company's property and land leased to Texas Company.

MISCELLANEOUS NOTES

The labour roll at Riverside totals 1320 including 19 Foreign and 92 Local Agreement, 46 Russians, 9 Subsidiary Staff (Foreign Watchmen), 18 Chinese Apprentice Engineers, 1 Student Engineer, 1 Engineer-Trainee and 1134 Chinese Staff.

The labour situation deteriorated somewhat over the previous month, disputes in the main were over the question of overtime for various sections, culminating finally in the threat of a sit-down strike if certain demands in connection with hospitalization of an employee and additional Workmen's Mess equipment were not met by the Company. After considerable discussion and arbitration, etc, including intervention of the Social Affairs Bureau the strike was finally called off.

Difficulties still continue in regard to the transference of staff from one section to another, and it appears quite impossible to obtain much needed operation staff from the existing maintenance staff, this latter difficulty being solely due to loss of overtime pay by employees transferring to operation.

The average % of absenteeism due to sickness and/or other causes of the Regular Chinese Staff amounted to 5.69% for the monthly rate, and 12.33% for the daily rate; the sickness % being 2.11% and 5.12% respectively.

SHANGHAI POWER COMPANY

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GENERAL -

Staff:

The anticipated loss due to repatriation to the U.S.S.R. of many of our Russian Operation Staff in the near future is unquestionably going to cause quite a grave situation in regard to the safe and efficient operation of the plant.

By the middle of October we expect to lose the following number of engineers and operators from our existing staff:-

- 1 Senior Charge Engineer.
- 3 Charge Engineers.
- 3 Assistant Charge Engineers.
- 1 Junior Charge Engineer.
- 1 Fuel Plant Operator.
- 1 Lubrication Supervisor.
- 2 Junior Maintenance Engineers.
- 1 Chemical Assistant.
- 1 Stenographer.
- 1 Transporter Driver.
- 6 Senior Firemen.
- 10 Junior Firemen.
- 2 Intary Operators.

We are now tackling the problem of replacements and are preparing to train Boiler House Attendants to replace the loss of Russian Firemen.

It will be appreciated that operating the plant to full capacity with a depleted experienced operation staff is going to constitute a major problem until such time as we can develop a trained staff.

Operation:

The plant continued to be operated at maximum output of available equipment.

Our total station net output decreased by 1.55% as compared with July, namely 77,998,570 kwh as against 79,223,302 kwh, this decrease being due to 20.81% decreased output of Station 'C'.

The Load Factor based on Gross Generation, decreased from 79.35% in July to 77.54% in August.

SG UNIT -

SG 31:

After 515 hours operation it was found necessary to take SG 31 and TG 1B off load on August 17, owing to damage, etc, caused by fall of heavy clinker from inclined rear Bailey Furnace wall which

SHANGHAI POWER COMPANY

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occurred on August 15. We have also to record that when the above mentioned clinker carried away, it caused a momentary sheet of flame to exit from the furnace bottom inspection doors at elevation 33' which caused injuries to five of the cleaner workmen, one of whom finally succumbed to 3rd degree burns.

The furnace had been inspected daily and a close check kept upon clinker accumulation which was considered satisfactory up until August 13 when the clinker formation was observed to increase rapidly and attained such dimensions as to hinder the normal furnace flame travel.

It was therefore decided to reduce the boiler output with the idea, that reduction in furnace heat would cause a slight contraction of the furnace walls with consequent loosening of clinker and thereby precipitate same to the ash pits.

The boiler output was finally reduced to approximately 240,000 lb/hr and efforts were made to lever the clinker free from the rear wall by the boiler cleaning gang through the inspection doors at elevation 33', these efforts met with but slight success however.

Later, whilst workmen were inspecting the clinker formation through inspection door at elevation 33' on east side of unit, the clinker formation carried away and caused injuries as described above.

The clinker in its descent caused considerable damage to the ash pit wall and its outside cast-iron casing; after finally coming to rest it also blocked the inspection door at elevation 33' on east side of unit and completely filled the ash pit.

It was found impossible to clear the ash pit (workmen were also scared to do any work on same) and taking into account various factors such as fouling of generating tubes by bird-nesting, etc, it was decided to take the unit off load on Sunday, August 17, to allow of cleaning and other repairs and e.g.:-

Ash pit wall and casing, installation of additional poking doors on south side of ash pit - relocation of main flushing water pipes - repair by welding of main feed line valve body No. V-102 - changing of soot blower tips, etc. See inspection report for this unit.

After thorough cleaning, etc, the unit was recommissioned on August 28 and has remained in operation since that date.

Experiments are now being made in regard to percentages of Oil Fuel and Coal to be burned; it is thought that possibly the furnace temperature might be high at certain points with the amount of Fuel Oil now burned. We therefore propose to increase the amount of coal burned and will keep close watch on slag formation.

The unscheduled outages show an increase over previous month, namely 20 as against 8, the deferred outages show a considerable decrease namely 4 as against 7 for previous month.

SHANGHAI POWER COMPANY

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The total hours SG were o/c for unscheduled and deferred outages show a considerable increase over previous month, namely 1135 hours as against 486 hours, due principally to outage of SG 31 (270 hours) and overhaul of SG 29 (266 hours), and were made up as follows:-

Unscheduled outages - 598 hours as against 330 hours.  
Deferred outages - 537 hours as against 156 hours.

Tube renewals registered an increase, namely 24 as against 12 for previous month.

Major maintenance work for the month consisted of the following:-

SG 31 - o/c 270 hours; see separate comment.  
SG 29 - o/c 266 hours; routine cleaning and general repairs, approximately 600 Superheater tubes re-expanded, etc.  
SG 16 - o/c 109 hours; renewal of one main tube and rejoining of Superheater caps and welding repairs to Economiser header.  
SG 15 - o/c 151 hours this month, completion of partial overhaul, total time o/c = 1255 hours.  
SG 10 - o/c 130 hours; repairs to RH grate.  
SG 9 - o/c 672 hours for Partial Overhaul.

TC UNIT 8 -

TC 18:

During the outage of SG 31 the opportunity was taken to overhaul the Governor Gear of this unit. Difficulty was again experienced in reducing load when taking unit o/c. The main governor, governor control valve and servo motor were completely dismantled for examination and cleaning.

Ball bearings were found seized up on cranks of cam shaft valve gear, it was therefore decided to change these ball bearings to roller bearings.

A major alteration was carried out on main oil pump; it was found that the LH oil pump drive wheel was rubbing on bottom of pump casing under downward thrust of main governor spring. In order to overcome this, a thrust ball bearing was installed and so arranged to absorb thrust of main Governor Spring and carry weight of oil pump mechanism.

TC 7:

Major overhaul of TC 7 unit completed. All work in connection with correction of bent shaft carried out successfully in accordance with Messrs Parsons' instructions. The LP wheels were replaced, unit lined up, etc. (see notes in Inspection section of report) and unit successfully placed in commission and on full load with reasonably good balance.

SHANGHAI POWER COMPANY

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General:

Apart from TG 7, TG 8 and TG 18 all work on TG units was of a routine nature.

As in previous months, practically all maintenance work has been carried out at week-ends and other off peak periods necessitating considerable overtime payments to workmen.

Apart from TG 7 o/c for major overhaul and TG 18 o/c due to outage of SG 31, the total hours TG units were o/c for all causes, amounted to 192 hours only.

Unscheduled Outages - 1 - totalling 36 hours.  
Deferred Outages - 4 - totalling 326 1/2 hours.

CALTEX CONSTRUCTION -

Leaks discovered during first water test now repaired. Pipe work on supply side of FOT 4 erected, and tank now awaiting further water test before acceptance.

Some additional equipment received for Oil Fuel pumping equipment, but several items are still outstanding.

ELECTRICAL -

Chapel 23 kv Feeder transfer to Section 1 and supply from Re B/B (ex Re 1A) completed.

BT 11 & 12 transformer overhaul completed, as also re-location of LT<sup>3</sup> cables.

IT 2 - W $\phi$  transformer changed and original despatched to Workshop for overhaul.

Work otherwise of a routine nature.

FUEL OIL SUPPLY -

Fuel Oil consumption for the month totalled 30,790 long tons, the maximum daily consumption being 1,101 tons and average daily consumption 993.22 tons.

Incidentally our Fuel Oil supply is now limited to a maximum of 30,129 long tons per month due to Customs and/or exchange regulations, this consumption figure must be strictly adhered to and arrangements have been made to limit consumption accordingly.

WORKSHOPS -

The Workshops continue to be loaded with work, however the manufacture of spare parts for Riverside Stock is well in hand, and we are now proceeding with the manufacture of considerable spares for Fearon Road Stores.

ILLEGIB

SHANGHAI POWER COMPANY

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The Winding Shop continues to be overloaded, progress still remains slow mainly on account of inertia of workman.

REHABILITATION & CONSTRUCTION -

Repairs to Stores 9-10 roofs completed.

Repairs to window sashes and glazing of TH wall advanced. 950 new window panes have been set.

Painting of outside structures Station 'C' and Coal Handling equipment now approximately 75% completed, question of aluminium paint on SG 51 ID Fan ducts now satisfactorily settled.

Repairs to Station 'B' TH walls progressing satisfactorily.

Erection of additional room at north end of Service Building 40% completed.

Roofing over space at north end of Time Office (entrance to Turnstiles) progressing.

FUEL -

Coal receipts were 18,715 tons during August, made up of 2 kinds of coal. 16,117 tons were burned and 21 tons issued by Stores and 2 tons issued for US Navy use, making a total of 16,210 tons. Total stocks on September 1, 1947 (8.00 am) were 36,369 tons, consisting of 29,889 tons on mechanical storage, 3,689 tons on dead storage and 2,791 tons in bunkers. Coal deliveries during the period were 2,508 tons more than burned plus issued, and stocks were increased a like amount.

Oil receipts were 30,813.29 tons and 30,790 tons were burned during August, thus increasing stock on September 1, 1947 (8.00 am) to 956.06 tons.

MUD DREDGING -

During the month 4,960 cubic yards of mud (51 lighters of 160 cubic yards per lighter) dredged from in front of our wharves and pump houses.

COKE & BRIQUETTES -

During the month no coarse coke was recovered from ashes, and 3,000 lb of coarse coke were issued for Company use, leaving 616,323 lb in Stores on September 1, 1947.

During the month no anthracite coal was received from the Fuel Control Commission and 109.2 metric tons of anthracite issued from Stock for the manufacture of briquettes for sale to employees. Total stock of anthracite coal on September 1, 1947 (8.00 am) was 4.5 metric tons. Total amount of briquettes made was 364 metric tons and briquettes issued was 307.3 metric tons.

Shanghai, September 30, 1947.

*J. Ploace*  
C J Ploace

SC Water Report  
TC Oil Report  
Characteristic Curves

Encls:

SHANGHAI POWER COMPANY  
BOILER WATER ANALYSIS  
FOR THE YEAR OF 1954

DATE 194

NO	DATE	TEMPERATURE	PRESSURE	PH	ALKALINITY	CALCULATED	REMARKS	
23	29	121	82	1.3	620	6	12 1/2"	
24	30	115	81.2	2.3	1020	6	24"	
25	31	165	81.1	2.9	825	8	CS 4 1/2"	
26	1	81	81.1	2.1	940	8	CS 4 1/2"	
27	2	115	82.3	2.5	75	13	CS 4 1/2"	
28	3	98	131	2.1	870	7	CS 4 1/2"	
29	4	88	128	2.3	23	9	CS 4 1/2"	
30	5	28	109	1.9	12	8	CS 4 1/2"	
31	6	88	110	2.2	40	12	CS 4 1/2"	
32	7	79	82.7	2.9	60	10	CS 4 1/2"	
33	8	74	104	2.4	20	10	CS 4 1/2"	
34	9	88	124	2.1	93	19	CS 4 1/2"	
35	10	82	120	1.8	28	23	CS 4 1/2"	
36	11	80	125	2.0	77	29	CS 4 1/2"	
37	12	60	129	2.0	68	15	CS 4 1/2"	
38	13	82	161	2.3	68	16	CS 4 1/2"	
39	14	89	122	2.3	60	21	CS 4 1/2"	
40	15	45	144	2.5	20	19	CS 4 1/2"	
41	16	83	87	2.4	28	21	CS 4 1/2"	
42	17	88	171	2.7	23	21	CS 4 1/2"	
43	18	85	70	2.9	20	24	CS 4 1/2"	
44	19	81	156	2.9	20	15	CS 4 1/2"	
45	20	81	28	0.4	23	14	CS 4 1/2"	
TOTAL							216	CS 4 1/2"
AVERAGE							118	CS 4 1/2"

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 IN OFFICE  
 LUBRICATION BUREAU

RIVERSIDE STEAM ELECTRIC STATION  
 TURBINE OIL SERVICE DATA

AUGUST 1947

DATE Sept 12, 1947

TG No.	OPER. TIME HR	MAKE-UP		CENTRIFUGE OPERATION				LABORATORY REPORT			REMARKS
		GAL	DESCRIPTION	HR	WATER LB PER 1000 LB OIL	SOLIDS LB PER 1000 LB OIL	WATER LB	VISCOSITY LB/100 LB OIL AT 70°F	ACIDITY MG KOH/100 MG OIL	DEWATERING PER CENT	
18	440							90	0.081	24	No. increase 0.70 (in 2 months)
16	719			180			85	91	0.085	24	
15	710	88	DTE Lt 797	88	15	21	80	102	1.23	32	
14	798	26	DTE Lt 797	18	5	7		91	1.31	32	
13	782	5	DTE Lt 797					92	0.037	62	
12	707	10	DTE Lt 797					92	0.45	5	
11											
10	780							92	0.15	24	
9	712	27	Tycol Lt	55	11	15	72	92	0.10	52	
8	682	27	Tycol Lt	2			10	92	1.94	32	
7	849							92	0.037	32	
6											
5	443	80	Tycol Lt	125	41	60	67	92	0.12	5	
4	672			225	11	16	2298	92	0.065	24	
3											
2											
1	842	10	DTE Lt 797					101	1.10	8	

HISTORY OF OIL BATCHES

TG No.	LAST FULL CHARGE			TOTALS TO DATE				MAKE-UP DATA			OPERATING HRS SINCE LAST OVERHAUL	
	DATE	GAL	DESCRIPTION	OPERATING HRS	SOLIDS LB/1000 LB OIL	SOLIDS LB PER 1000 LB OIL	WATER LB	WATER LB/1000 LB OIL	TOTAL GALLONS	GAL PER 1000 HRS		TG HRS PER GAL
18	Nov 44	875	Rio Tycol Lt	2 085					88	22	43	2 028
16	Nov 45	240	DTE Lt 797	4 772	396	34	1430	222	123	59	28	4 772
15	Aug 56	944	DTE Lt	63 189	2127	24	2674	123	2246	26	23	14 070
14	June 27	927	Shell 20A	26 206	2775	37	12320	202	2271	29	26	12 161
13	Mar 47	102	DTE Lt 797	2 247			4	0	70	14	73	2 247
12	Apr 27	111	DTE Lt	60 227	22	1	6		590	10	102	12 071
11												
10	June 26	1200	Tycol Lt	67 272	625	10	1142	17	2002	21	28	12 772
9	May 46	690	Rio Tycol Lt	10 222	210	21	426	40	224	25	40	14 250
8	Sept 50	520	Tycol Lt	62 672	2112	47	2240	72	2129	22	20	11 252
7	July 47	229	DTE Lt 797	242								242
6												
5	July 46	220	Rio Tycol Lt	9 020	127	15	172	14	129	15	26	9 020
4	June 46	220	Rio Tycol Lt	2 712	277	29	2926	2021	121	12	20	2 712
3												
2												
1	Aug 26	292	OLA Shell	2 222					202	22	21	1 222

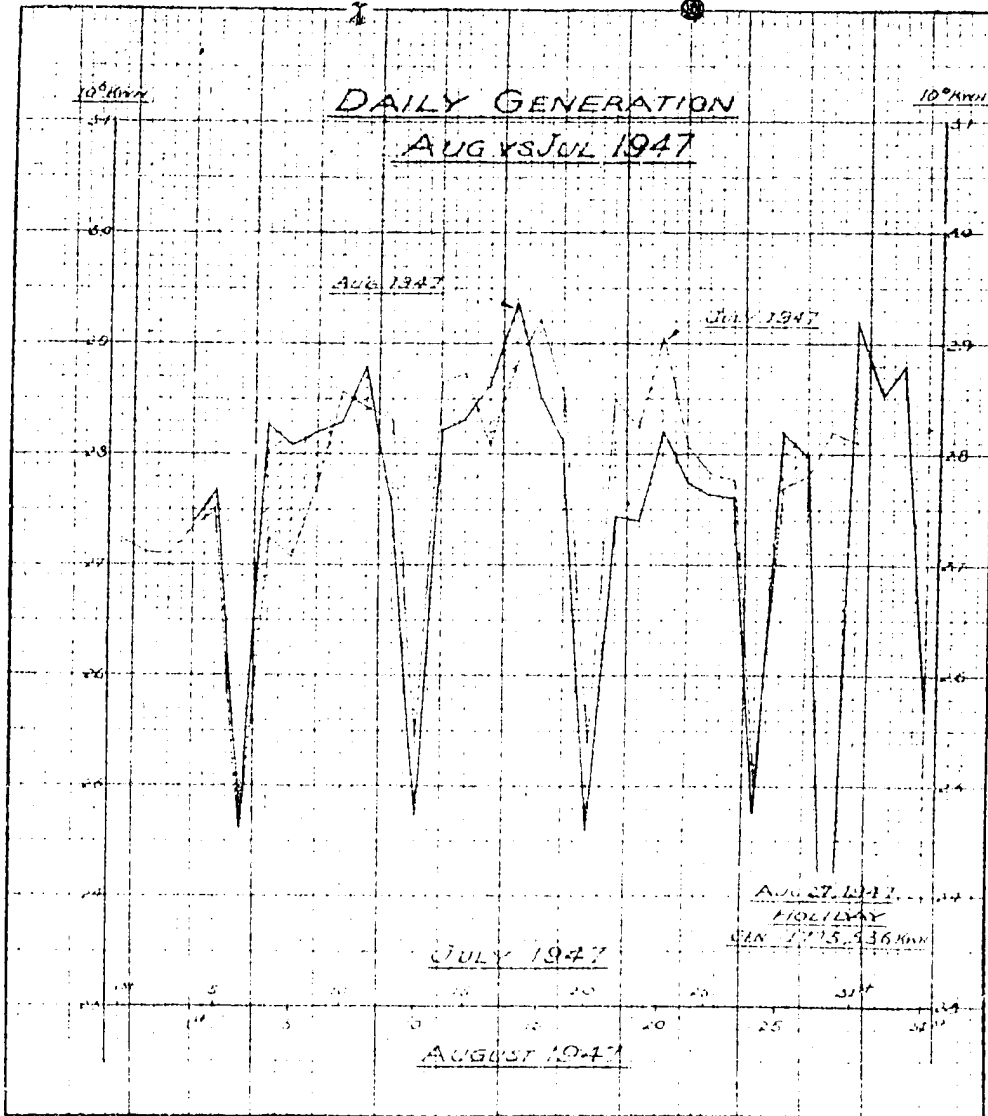
TG 12: Two oil cooler tube nests boiled in washing soda, later washed with condensate.

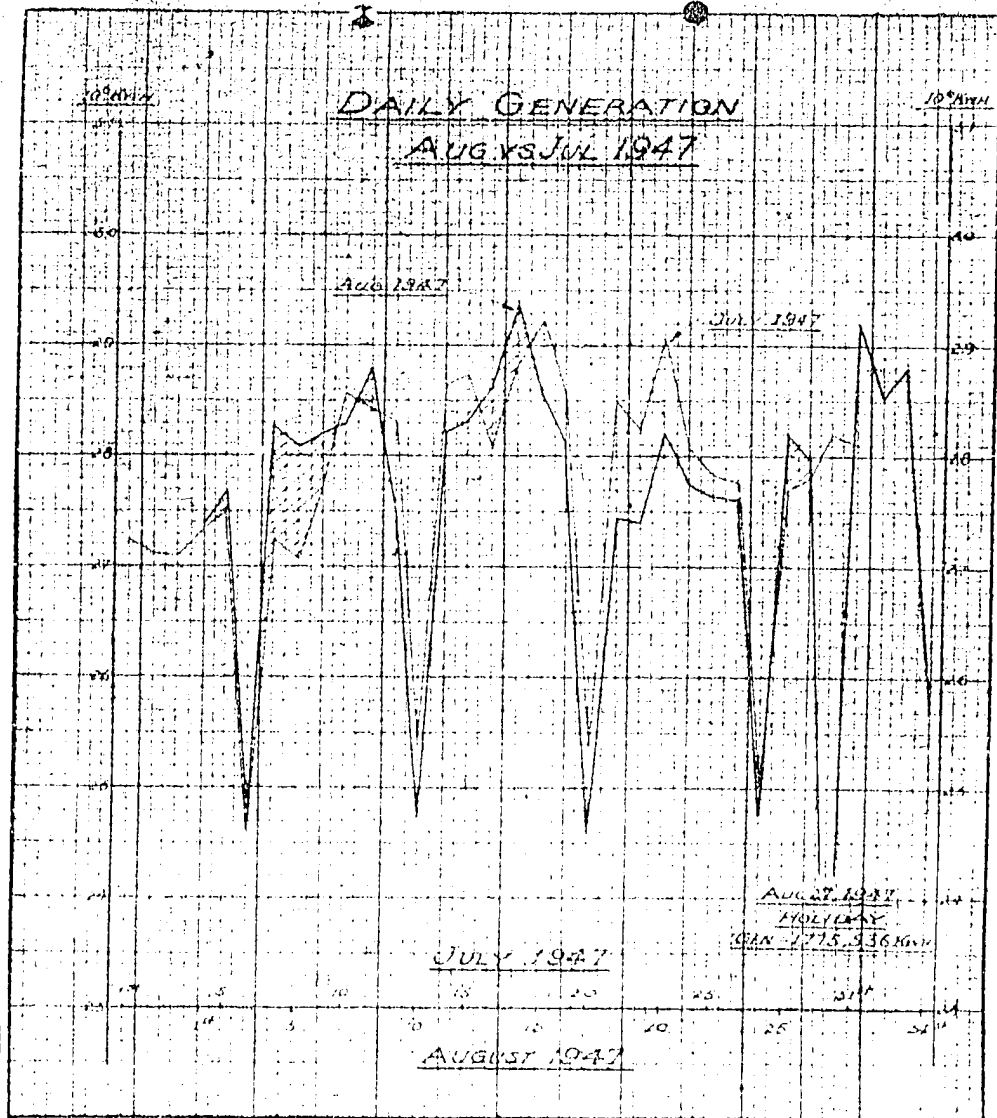
Note: All data has been corrected for errors made during past years.

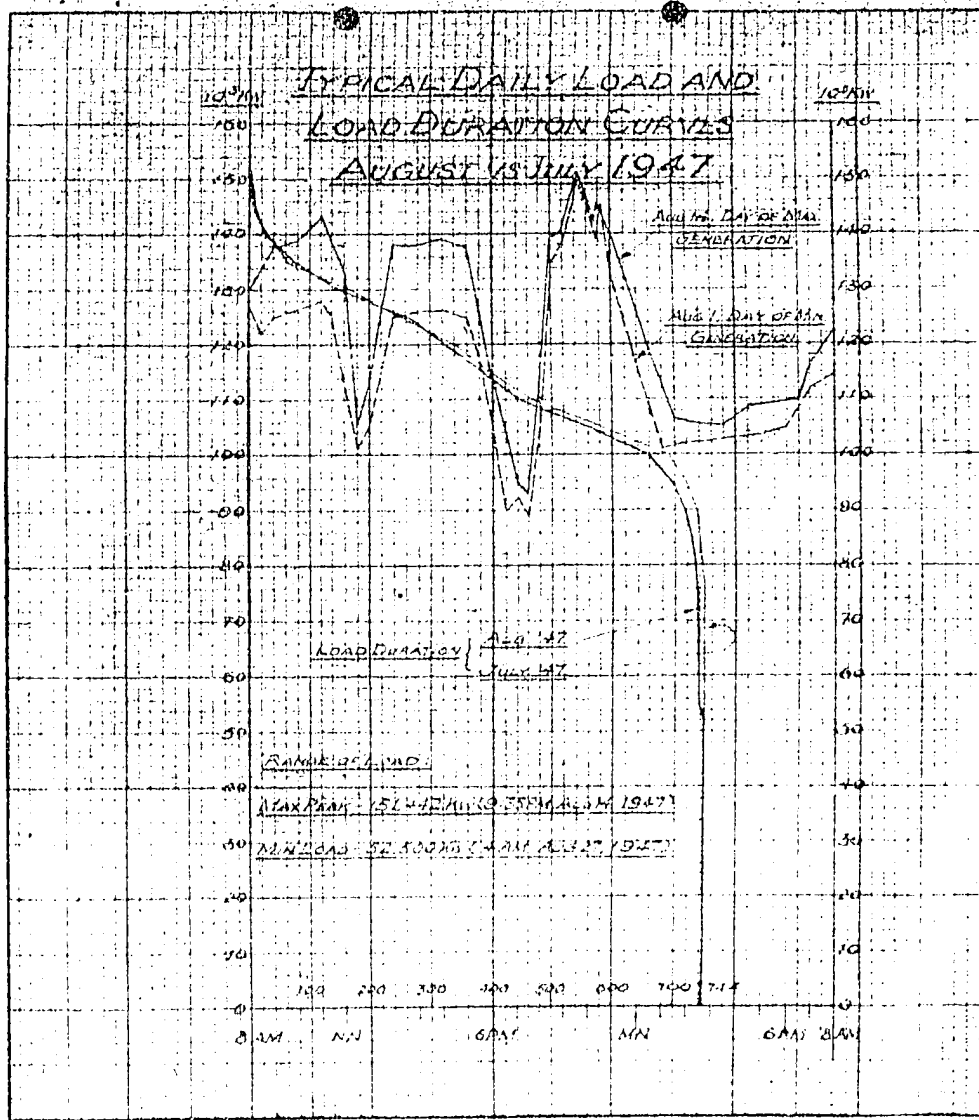
AP 220 (2-4-47)

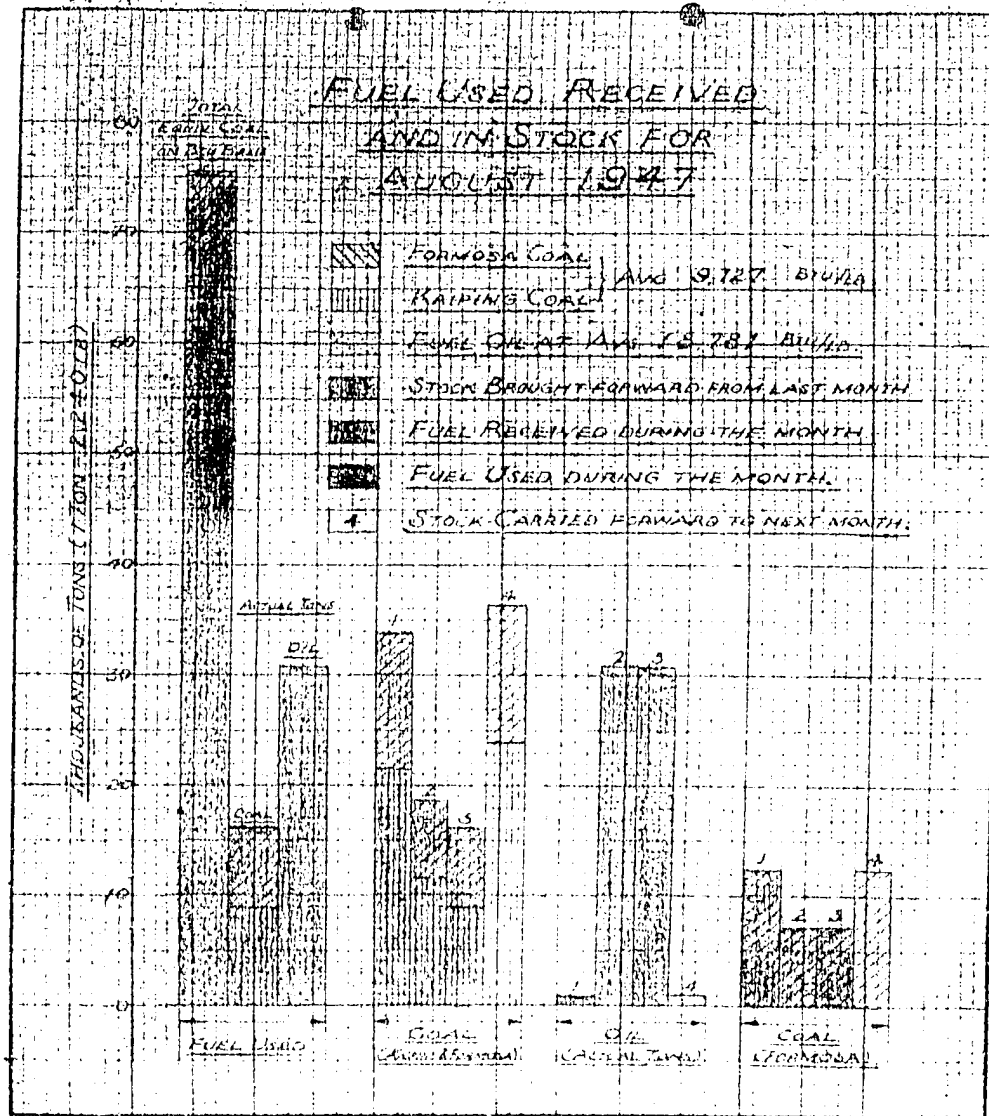
A. LITON











August 31, 1947

SHANGHAI POWER COMPANYSHANGHAI POWER COMPANY AND  
WESTERN DISTRICT POWER COMPANY OF SHANGHAI  
FEDERAL INC., U.S.A.DISTRIBUTION OPERATING DEPARTMENT  
MONTHLY LETTER FOR AUGUST 1947I N D E X

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The following outlines the activities in connection with operation, maintenance and construction work in this Department.

I OPERATION

(A) SERVICE FAILURES AND TROUBLE CALLS

(1) Major Service Failures

(a) Load Reduction due to insufficient electrical(E) and/or steam(S) generating capacity at Riverside

Date	Aug 1	Aug 2	Aug 4	Aug 5	Aug 6
Area affected	SPC French	SPC	SPC WDFC French	SPC French	SPC WDFC French
Supply from substation	Riverside	Riverside Yangchow Tonquin	5 sub-stations	Riverside Tonquin	Riverside Yangchow Tonquin Robinson
Feeder	A 1/2 A 3/4	A 6 GG 101 CC 101	14 feeders	4 feeders	6 feeders
Customer	Dah Kong 1	Dong Shing 2 Shanghai C/M5 Sung Sing 9	18 customers & LV networks	2 customers	5 customers & LV networks
Duration of supply interruption	41 mins to 1 hr 10 mins	53 mins to 2 hrs 36 mins	26 mins to 3 hrs 52 mins	30 mins to 1 hr 38 mins	32 mins to 3 hrs 2 mins
Estimated kVA-hrs lost	Company's area	AM 2,970 PM 11,100 Ev 2,920	AM 11,300 PM 33,870 Ev 4,750	AM 2,135 PM 1,600	AM 2,500 PM 13,580
	Chapai				
	French	Ev 3,120		Ev 4,700	Ev 4,110
	Total	6,040	14,070	54,620	8,065
Insufficient electrical and/or steam generating capacity	E	E	E	E	E
Remarks	AM - refers to morning peak load period (8 am to 12 noon) PM - " " afternoon " " " (12 noon to 7 pm) Ev - " " evening " " " (after 7 pm)				

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(a) Load Reduction due to insufficient electrical(E) and/or steam(S) generating capacity at Riverside (cont)

Date	Aug 7	Aug 9	Aug 10	Aug 11	Aug 12	
Area affected	SPC WDFC Chapel French	SPC WDFC French	SPC Chapel French	SPC French	SPC WDFC French	
Supply from substation	5 sub-stations	5 sub-stations	Tonquin	Riverside	Riverside Tonquin Connaught Robison	
Feeder	17 feeders	25 feeders	CC 101	A 1/2 A 3/4	9 feeders	
Customer	27 customers & LV networks	28 customers & LV networks	Sung Sing 9	Dah Kong 1	11 customers & LV networks	
Duration of supply interruption	3 mins to 2 hrs 32 mins	2 mins to 3 hrs 16 mins	5 mins to 2 hrs 27 mins	12 mins to 2 hrs 9 mins	1 hr 6 mins to 2 hrs 37 mins	
Estimated kVA-hrs lost	Company's area	AM 15,176 PM 5,000 Ev 23,247	AM 33,985 PM 25,608 Ev 37,940	Ev 370	Kv 854	Ev 31,040
	Chapel	Ev 2,400		Ev 9,800		
	French	Ev 6,720	Ev 9,700	Ev 6,400	Ev 5,540	Ev 6,970
	Total	52,543	106,233	16,570	6,394	38,010
Insufficient electrical and/or steam generating capacity	E	E	E	S	S	
Remarks	AM - refers to morning peak load period (8 am to 12 noon) PM - " " afternoon " " " (12 noon to 7 pm) Kv - " " evening " " " (after 7 pm)					

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(a) Load Reduction due to insufficient electrical(E) and/or steam(S) generating capacity at Riverside (cont)

Date	Aug 13	Aug 14	Aug 15	Aug 16	Aug 17
Area affected	SPC WDPC	WDPC	SPC WDPC	SPC WDPC	SPC WDPC
Supply from substation	Riverside Tonquin Robison	Robison	Riverside Yangchow Tonquin Connaught	Riverside Tonquin Robison	5 sub-stations
Feeder	6 feeders	NWK 1 & 2	12 feeders	8 feeders	19 feeders
Customer	8 customers & LV networks	NWK 1 & 2	14 customers & LV networks	6 customers	20 customers & LV networks
Duration of supply interruption	27 mins to 1 hr 45 mins	1 hr 15 mins	4 mins to 3 hrs 28 mins	1 hr 6 mins to 1 hr 50 mins	12 mins to 2 hrs 15 mins
Estimated kVA-hrs lost	Company's area	AM 16,310 PM 3,660	AM 4,770 PM 32,187 Ev 4,460	AM 9,910 Ev 8,230	AM 24,341 Ev 41,650
	Chapai				
	French				
	Total	16,310	3,660	42,417	18,140
Insufficient electrical and/or steam generating capacity	S	E	S	S	S & E
Remarks	AM - refers to morning peak load period (8 am to 12 noon) PM - " " afternoon " " " (12 noon to 7 pm) Ev - " " evening " " " (after 7 pm)				



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(a) Load Reduction due to insufficient electrical(E) and/or steam(S) generating capacity at Riverside (cont)

Date	AUG 18	AUG 19	AUG 20	AUG 21	AUG 22	
Area affected	SPC WDPC	SPC WDPC	SPC WDPC	SPC WDPC Chapei	SPC WDPC	
Supply from substation	5 sub-stations	Riverside Yangchow Tonquin Robison	Riverside Yangchow Tonquin Cannaught	5 sub-stations	Riverside Yangchow Tonquin Robison	
Feeder	28 feeders	10 feeders	14 feeders	13 feeders	8 feeders	
Customer	32 customers & LV networks	9 customers	16 customers & LV networks	16 customers & LV networks	9 customers & LV networks	
Duration of supply interruption	4 mins to 4 hrs 4 mins	28 mins to 2 hrs 57 mins	1 hr 12 mins to 4 hrs 22 mins	15 mins to 4 hrs 11 mins	44 mins to 1 hr 46 mins	
Estimated kVA-hrs lost	Company's area	AM 56,252 PM 63,540 Ev 36,190	AM 10,520 PM 10,880 Ev 9,460	AM 11,880 PM 63,650 Ev 6,460	AM 14,347 PM 72,400 Ev 16,560	AM 6,560 Ev 19,790
	Chapei				PM 2,840	
	French					
	Total	155,982	30,860	81,990	106,147	26,350
Insufficient electrical and/or steam generating capacity	S	S	S	S	S	
Remarks	AM - refers to morning peak load period (8 am to 12 noon) PM - " " afternoon " " " (12 noon to 7 pm) Ev - " " evening " " " (after 7 pm)					

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(a) Load Reduction due to insufficient electrical(E) and/or steam(S) generating capacity at Riverside (cont)

Date	Aug 23	Aug 24	Aug 25	Aug 26	Aug 28
Area affected	SPC WDPC	SPC WDPC	SPC WDPC	SPC WDPC	SPC WDPC Chapel
Supply from substation	Riverside Yangchow Tonquin Robison	Tonquin Connaught Robison	5 sub- stations	Riverside Yangchow Tonquin Robison	5 sub- stations
Feeder	16 feeders	5 feeders	26 feeders	23 feeders	26 feeders
Customer	16 customers & LV net- works	9 customers & LV net- works	29 customers & LV net- works	24 customers & LV net- works	29 customers & LV net- works
Duration of supply inter- ruption	41 mins to 3 hrs 45 mins	25 mins to 1 hr 37 mins	16 mins to 4 hrs 15 mins	2 mins to 3 hrs 50 mins	2 mins to 4 hrs 33 mins
Esti- mated kVA-hrs lost	Company's area	AM 5,300 FM 31,700 Ev 37,345	AM 24,415 PM 66,460 Ev 34,520	AM 37,100 PM 41,570 Ev 8,560	AM 42,300 PM 24,140 Ev 43,915
	Chapel				FM 6,530
	French				
	Total	82,795	16,175	125,415	87,230
Insufficient electri- cal and/or steam generating capacity	S	E	S	S	S
Remarks	AM - refers to morning peak load period (8 am to 12 noon) PM - " " afternoon " " " (12 noon to 7 pm) Ev - " " evening " " " (after 7 pm)				

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(a) Load Reduction due to insufficient electrical(E) and/or steam(S) generating capacity at Riverside (cont)

Date	Aug 29	Aug 30	Aug 31	
Area affected	SFC WDPC Chapei	SFC Chapei	SFC WDPC	
Supply from substation	5 sub-stations	Yangchow Tonquin Connaught	Riverside Yangchow Tonquin Robinson	
Feeder	24 feeders	5 feeders	7 feeders	
Customer	24 customers & LV networks	5 customers	6 customers	
Duration of supply interruption	5 mins to 3 hrs 42 mins	31 mins to 1 hr 47 mins	47 mins to 2 hrs 20 mins	
Estimated kVA-hrs lost	Company's area	AM 43,190 PM 36,450 Ev 10,980	AM 3,140 PM 4,370	Ev 23,140
	Chapei	AM 11,450 PM 6,900	AM 1,170 PM 3,730	
	French			
	Total	108,970	12,410	23,140
Insufficient electrical and/or steam generating capacity	S & E	E	S	
Remarks	AM - refers to morning load period (8 am to 12 noon) PM - " " afternoon " " (12 noon to 7 pm) Ev - " " evening " " (after 7 pm)			

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(b) Other Causes

Date	Aug 1	Aug 1	Aug 3	Aug 4	Aug 5
Area affected	WDPC	WDPC	SPC	SPC Chapoi	SPC
Supply from substation	Tse Chong Hsing Glue Hai Loong P/M	Dah Doong C/M	Chunichi Heavy Industry	Connaught	Funing
Feeder	- do -	- do -	- do -	E 4	Pioneer Knitting
Customer	- do - & LV network	- do - & LV network	- do -	Chapoi Kwang Foh	Pioneer Knitting
Cause of failure	Lightning	Lightning	Consumer's equipment faulty	Fault on Chapoi system	Lightning
Fault cleared by	D/O fuses	D/O fuses	D/O fuses	E 4 CCB	Pioneer Knitting OCB
Damage to equipment	None	None	None	None	6.6 kV metering potential transformer
Duration of supply interruption	27 mins	28 mins	54 mins	1 hr 38 mins	1 hr 25 mins
Load affected kVA	Company's area	350	600	200	400
	Chapoi				2,000
	French				
Remarks					

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(b) Other Causes (cont)

Date	AUG 6	AUG 6	AUG 7	AUG 7	AUG 9	
Area affected	WDPC	WDPC	WDPC	WDPC	SFC WDPC	
Supply from substation	Edinburgh	Edinburgh & Tion Yuen Electro-Chem.	Hungjao-Siccawei PT	Edinburgh	Riverside Robison Chaoyang	
Feeder	M 2 O/H line	F 8 & M 3 O/H lines	- do -	M 2 O/H line	A 10, A 11/12, A 6, A 5, AK 30 Japan China	
Customer	7 customers & LV networks	16 customers & LV networks	Hungjao-Siccawei PT IV network	7 customers & LV networks	13 customers & LV networks	
Cause of failure	Lightning	Lightning	Lightning	Lightning	TG 8 tripped out, cause undetermined	
Fault cleared by	M2 OCB	PT D/O fuses	D/O fuses	M2 OCB	TG 8 OCB	
Damage to equipment	None	Two transformers	One transformer	None	None	
Duration of supply interruption	58 mins	5 mins to 4 hrs 30 mins	14 hrs 40 mins	24 mins	5 mins to 49 mins	
Load affected kVA	Company's area	1,700	395	225	1,500	8,900
	Chapei					
	French					
Remarks						

SIANGHAI POWER COMPANY

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(b) Other Causes (cont)

Date	Aug 10	Aug 10	Aug 12	Aug 13	Aug 25
Area affected	SPC WDPC	SPC Chapei	WDPC	SPC	SPC
Supply from substation	Robison	Fearon	Riverside	Peking	Sung Sing 5 and Sung Sing 6
Feeder	D 4, D 5	E 11/18	AM 80	All regulated feeders	G 12 O/H line and Sung Sing 5 O/H line
Customer	6 customers & LV networks	Chapei Paotung	33 customers & LV networks	9 customers & LV networks	5 customers & LV networks
Cause of failure	Flash over on the aux B/B links of L 3 feeder at Kung Yih	Fault on Chapei system	Cable fault	Overload	Lightning
Fault cleared by	Robison D 4 & Kung Yih D 5 OCBs	B 11/18 OCB	AM 80 OCB	VR incoming OCB	G 12 OCB & Sung Sing 6 O/H line OCB
Damage to equipment	Insulator for L 3 aux B/B links	None	AM 80 cable faulty	None	None
Duration of supply interruption	18 mins to 1 hr 3 mins	42 mins	22 mins to 52 mins	16 mins to 21 mins	1 hour to 1 hr 10 mins
Load affected kVA	Company's area	1,000		3,150	3,460
	Chapei		3,000		
	French				
Remarks					

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(b) Other Causes (cont)

Date	Aug 30	Aug 30
Area affected	SFC & WDFC	SFC
Supply from substation	Connaught	Clock Tower
Feeder	K 8 & C 3 O/H lines	D 2 O/H line
Customer	16 customers & LV networks	6 customers & LV networks
Cause of failure	Undetermined	Undetermined
Fault cleared by	K 8 OCB and C 3 OCB	Lai Foong SING D & W & D 2 OCB
Damage of equipment	None	None
Duration of supply interruption	3 mins to 11 mins	44 mins
Load affected kVA	Company's area	3,710
	Chapel	
	French	770
Remarks		

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(2) Classified Service Failures (including Item 1)(a) Caused by Defective Equipment

Equipment		Number of Failures	
		This Month	Last Month
Overhead Lines:	HV	-	-
	LV	-	1
Underground Lines:	Cables	1	-
	Joints	-	-
	Potheads	-	1
Transformers and voltage regulators		-	-
Switchgear		-	-
Power fuses		2	2
Protective equipment		-	-
Traction equipment		-	-
Metering equipment		-	-
Current and potential transformers		-	-
Street lighting:	Series	1	-
	Multiple	2	2
Other Company's equipment		-	-
Total (a)		6	6

(b) Other Causes

Cause of Failure		Number of Failures	
		This Month	Last Month
Foreign agencies:	Overhead Lines	3	6
	Street lighting	1	2
	Underground lines	-	-
Tram trolley:	Overhead lines	2	2
	Street lighting	5	4
Theft of equipment		-	-
Typhoons and storms		-	1
Lightning		8	6
Flood		-	-
Fire		1	-
Vermin and birds		2	2
Overload		1	2
Customers' equipment failures:			
	Company's area	2	2
	Ex franchise area	2	6
Company's staff:	Misoperation	-	2
	Fouled by workmen	-	1
Generating station trouble		29	32
Undetermined		3	2
Total (b)		59	70
Total (a & b)		65	76



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(3) Trouble Calls attended to by System Trouble Section

Company's Installation	Number of Calls					
	This Month			Last Month		
	SPC	WDPC	Total	SPC	WDPC	Total
23 kV overhead and underground lines	-	-	-	1	-	1
6,600 volt overhead and underground lines	6	11	17	17	4	21
380 volt overhead and underground lines	9	20	29	15	13	28
Street lighting lines and equipment	29	8	37	26	6	32
Traffic signals	96	2	98	121	10	131
House service connections and wires	55	15	70	101	33	134
Substation equipment	3	-	3	5	1	6
DC Traction equipment and lifts	-	-	-	1	-	1
Fire calls	34	4	38	38	3	41
False alarms	-	-	-	-	-	-
Miscellaneous	8	7	15	7	2	9
<u>Customers' premises</u>						
Lighting	818	208	1026	1149	295	1444
Power	96	71	167	124	79	203
Heating	44	9	53	68	16	84
Total Trouble Calls attended to	1198	355	1553	1673	462	2135
Average per day	38.6	11.5	50.1	54	14.9	68.9

(B) TRANSFORMERS AND REGULATORS

(1) Connected and/or Disconnected from Service

SPC

Location	Capacity in kVA		Remarks
	Connected	Disconnected	
Cheng Tai Rubber Company	625	325	Load increase.
Ta Yu Yue	625	940	Load decrease.
Dah Chung Dyeing	940	325	Load increase.
Chinese Industrial Gas Co	325		New installation.
Penang-Tonquin PT		325	PT dismantled.
Fearon	15	15	Burnt out (Street Lighting Regulator).
Wing On 5	2 x 625	625	Load increase.
China Rolling Steel Works OT	325		Reinstallation.
Shanhaikwan	520		Interchanging of regulators at Shanhaikwan and Kwangso.

SHANGHAI POWER COMPANY

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WDPC

Location	Capacity in kVA		Remarks
	Connected	Disconnected	
Sung Sing 8 MacLeod H. 11 1/2 PT	1,000 20	10	Load increase. Transformer failed in service.
Blume's PT	20	20	Transformer failed in service.
Hungjao-Siccawei PT	225	225	Transformer failed in service.
Yih Chong R/F OT	325		New installation.

UNITS

SPC      WDPC

- (2) Taps changed for network voltage regulation
- (3) Switched on or off load for operational purposes
- (4) Under observation due to overload or overheating

5      -  
1      -

SPC

Location	Capacity kVA	Type	Max Load		Max oil top temp	Ambient temp	Temp rise	Remarks
			%	Hours duration				
Robison-Gordon PT	325	Outdoor	103	1 1/2	75	33	42	Transformer will be enlarged to 225 kVA.
Ferry-Connaught PT	325	"	110	1 1/2	63	33	30	
Eubbling Well	200	Indoor	114	1	56	32	24	
Wuchow PT	225	Outdoor	112 1/2	1	46	27 1/2	10 1/2	
Da An Rubber Factory OT	225	"	108	1 1/2	65 1/2	33 1/2	32	
Sung Sing C/M No. 6	940	Indoor	111	1 1/2	70	32 1/2	37 1/2	
" " " " "	940	"	102	1 1/2	66	32	34	
" " " " "	940	"	102	1 1/2	71	36	35	
E Yuhang-Chusan PT	325	Outdoor	107	1 1/2	58 1/2	30	28 1/2	
Patons & Baldwins W/M	625	Indoor	126	1 1/2	56	37 1/2	10 1/2	
Hailar-Tungchow PT	62 1/2	Outdoor	121	1 1/2	38	27	11	
Burkill-Tatung PT	325	"	112	1 1/2	75	28	47	
Carlton Apartment	125	"	103	1 1/2	53	32	21	
Fish Cold Storage No.1	325	"	101	3	74	37	37	Ventilation needs improving.

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## WDFC

Location	Capacity kVA	Type	Max Load		Max oil top temp	Ambi- ent temp	Temp rise	Remarks
			%	Hours dura- tion				
Wah Foong Rubber Factory OT	225	Outdoor	106	$\frac{1}{2}$	52	29	23	Informed E D
Connaught PT	225	"	106	$\frac{1}{2}$	58	36	22	
E Tse An Pang "B" PT	50	"	138	1	57	33	24	

## (C) MISCELLANEOUS TESTS

Units	Equipment	Voltage	Nature of test	Reason for test
1	Transformer, 625 kVA, 3 $\phi$ , make Johnson & Phillips	$\frac{6,300}{370}$	Insulation resistance, pressure, ratio and phasing	After overhaul
4	Flourescent lamp ballasts made by Union Engineering Works	220	Heat run	Check performance
1	Transformer, 250 kVA, 3 $\phi$ , make Chung Jen	$\frac{6,600}{400}$	Insulation resistance, pressure, ratio, phasing, copper re- sistance, impedance and regulation	Consumer's request
1	Transformer, 125 kVA, 3 $\phi$ , make Ferranti	$\frac{6,300}{370}$	Insulation resistance, pressure, ratio and phasing	After overhaul
1	Primary pump motor 115 HP No.22, make Crompton Parkinson, property of Shanghai Waterworks	350	AC impedance and insu- lation resistance of rotor coils	Suspected faulty.
1	Tropical compound, speci- fication RH .101 made by British Insulation Cables, Ltd	-	Dielectric strength	Sample from Scott Harding & Co, Ltd, Shanghai
1	Synchronous motor, 1,200 HP, make ASMA, property of Foh Shing Flour Mill No.7	6,000	Insulation resistance, continuity, AC im- pedance, pressure and test run	Suspected faulty
5	Porcelain insulators	Various	Flashover and over- voltage	Acceptance

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Units	Equipment	Voltage	Nature of test	Reason for test
1	Induction voltage regulator 520 kVA Shanhaikwan Substation	6,300	Pressure and insulation resistance	After a long period of idleness
1	Transformer, 315 kVA, 3 $\phi$ , make Wing On, property of Woo Sing Cotton Mill	$\frac{6,600}{395}$	Insulation resistance, pressure, continuity and oil breakdown	New installation
10	Lightning arrester indicators, SPC make	-	Operation of indicator	Routine
1	Potential transformer make Reyrolle	$\frac{22,000}{110}$	Insulation resistance, and pressure	Meter Department's request
1	Transformer, 225 kVA, 3 $\phi$ , make Wua Tung	$\frac{6,600}{395}$	Continuity, insulation resistance, and ratio	After lightning struck the unit
1	Transformer, 325 kVA, 3 $\phi$ , make NV	$\frac{6,600}{370}$	Insulation resistance, pressure, ratio and phasing	After overhaul
4	Current transformer, 100/5 amperes, dry type, make BTH	6,600	Insulation resistance and pressure	New installation
-	Consumer's installation at CTII No.14(Shanghai C/M 2 & 3)	23,000	Overvoltage and insu- lation resistance	New installation
1	Transformer, 225 kVA, 3 $\phi$ , make Wua Tung	$\frac{6,600}{395}$	Continuity, insulation resistance, ratio and phasing	After overhaul
1	Oil circuit breaker, 200 amperes, make Reyrolle	6,600	Pressure and overload	Prior to commission- ing
-	Arc furnace instal- lation equipment, pro- perty of Chunichi Heavy Industry	6,600	Insulation resistance, continuity, impedance and voltage ratio	Installation office request
2	Cable joint compound, make Sumitomo	-	Dielectric strength	Old stock

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II MAINTENANCE

Routine inspection, maintenance and testing of plant on the transmission and distribution system have proceeded according to programme.

(A) TRANSFORMERS AND REGULATORS

- (1) Overhauled (Core lifted, windings and connections examined, IR tested, and oil changed)

SFC

Location	Capacity in kVA	Workshop	Reason for overhaul
Dah Chung Dyeing Company	325	Fearon Substation	Defects to be rectified.

WDPC

Location	Capacity in kVA	Workshop	Reason for overhaul
Columbia Club PT	125	Fearon Substation	Over 10 years in service.
Hungjao-Siccawei PT	225	Fearon Substation	Suspected faulty after being struck by lightning.

U N I T S

	<u>SFC</u>	<u>WDPC</u>
(2) <u>Inspected on site</u> .....	120	-
(3) <u>Oil-Dielectric tested</u> .....	20	31

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(B) OIL CIRCUIT BREAKERS

(1) Overhauled and Tripping Mechanism Tested

Reason for test	Number of OCBs tested			
	SPC		WDPC	
	Company's property	Customer's property	Company's property	Customer's property
Routine and special maintenance	18	17	3	6
Oil circuit breakers tripped	10	3	8	1
New installation or operation resumed	5	21	-	1
<b>Total</b>	<b>33</b>	<b>41</b>	<b>11</b>	<b>8</b>

U N I T S

	<u>SPC</u>	<u>WDPC</u>
(2) <u>Oil-Dielectric strength tested</u> .....	5	2
(3) <u>Oil changed</u> .....	18	2

(C) OIL TREATMENT PLANT

Location	Transformer Oil				Switch Oil			
	Issued	Returned	Filtered	Stock	Issued	Returned	Filtered	Stock
	US gallons							
Fearon Oil Depot	1,794	1,641	2,919	1,278	641	778	1,650	852
On Site - SPC	-	-	-	-	-	-	-	-
WDPC	-	-	-	-	-	-	-	-
<b>Total</b>	<b>1,794</b>	<b>1,641</b>	<b>2,919</b>	<b>1,278</b>	<b>641</b>	<b>778</b>	<b>1,650</b>	<b>852</b>

Samples of Oil Tested for Breakdown ..... 147

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(D) PROTECTION, BATTERIES AND TELEPHONES

(1) Protection Tests

Type of Protection	Number of Panels where tests carried out	
	SPC	WDPC
Overload and/or Earth Leakage	8	4
Feeder or Transformer Balance	-	4
Total	8	8

(2) Relays

Type of Relay	Number of Relay Elements			
	SPC		WDPC	
	Circuit tests	Changed	Circuit tests	Changed
Inverse Time	9	-	6	10
Instantaneous	-	-	-	-
Total	9	-	6	10

(3) Batteries

Work done	Lead-Acid & Edison Types		Ni-Fe Type	
	110V in Primary Substations	Telephone Exchange	30 V in Secondary Substations	
	SPC		SPC	WDPC
Inspected, cleaned and topped up	33	9	55	3
Equalizing charges conducted	5	2	-	-
Charged and discharged	-	-	-	-
Electrolyte changed	-	1	2	-

(4) Auto-Telephone Equipment and Lines

Instruments installed	3
" disconnected	-
" changed	1
" moved	12
" overhauled	-
" faults repaired	22
Line faults located and repaired	-
Switches overhauled	3
Exchange equipment faults repaired	6
Miscellaneous equipment overhauled	-

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(E) PRIMARY SUBSTATIONSRegular and Special Maintenance

Substation	Company	Equipment	Work done	% completed
Primary Sub-stations	SPC	Switchgear	Overhaul and overload test all DC circuit breakers	100
			Inspection of all metalclad switchgear for oil and compound leaks	50
Fearon	SPC	Rotary Plant	Repair of 3,600 kVA synchronous motor of MG 3	95
Park			Overhaul of rotary converters and starting gears	100
Park			Overhaul of negative booster motor generators and starting gears	100
Primary Sub-stations			Inspection and cleandown all battery motor generators	100
Tonquin			Inspection of synchronous condenser starting gears	100
Fearon			Overhaul of 3,600 kVA synchronous motor generators and starting gears	40
Primary Sub-stations	SPC & WDFC	Instrument transformers	Inspection of all current transformers for oil and compound leaks	50
			Overhaul of pressure testing transformers	50
Primary Sub-stations	SPC & WDFC	Various sub-station equipment	Inspection of all gas masks	100
			Overhaul of all lifting gears	100
			Checking of all portable earth wire	100
			Inspection of fire extinguishers	50
Primary Sub-stations	SPC & WDFC	Batteries	Routine maintenance	To programme
Safety devices inspection and check on artificial respiration practice carried out according to programme.				



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(F) SECONDARY SUBSTATIONSRegular and Special Maintenance

Location	Com- pany	Work done	% completed
Chuzan	SPC		95
Delhi	"		90
Dah Kong No. 1	"		100
China Lumber Company	"		100
China Soap	"		100
Dong Shing No. 2	"		100
China Textile Machinery Work (Ward)	"		100
Shanghai Gas Company (Yangtzepoo)	"	<u>Biannual Regular Maintenance</u>	100
Shanghai Gas Company(Soochow)	"	Overhaul of switchgear, testing of automatic protective equipment,	100
Foo Foong	"	inspection of transformers and regulators, inspection of all	30
Rango	"	electrical equipment and cleaning.	100
Tai Foong	"		97
Kwangs	"		95
Shanse	"		100
Chun Kuang Fong	WDPC		100
Hai Loong F/M	"		100
Wah Foong R/F	"		100
International Dispensary	"		100
CRB Printing Works	"		100
Hwa Chong P/M	"		100
Eastern District		Overhaul of six power transformers at Fearon Substation	100
All districts		Overhaul of overload testing gears	100
All districts		Inspection of wrought iron substations	100
All districts		Checking of standard auxiliary equipment in substations	75
All districts		Inspection of all metalclad switchgear and current transformers for oil and compound leaks	50
All districts		Overhaul of oil pumps	60
Central District		Overhaul of exhaust fans	25
All districts		Inspection of pole transformers	To programme
All districts		Inspection of safety devices and check on artificial respiration practice	To programme

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(G) OVERHEAD LINES AND STREET LIGHTING

(1) Inspection and Overhaul of Overhead Lines (All Districts)

System voltage	Locations where maintenance of overhead lines has been carried out to programs
6.6 kV	C 29, section between line switch Tonquin S of Robison and line switch Penang W of Seymour

(2) Repairs and Replacements of Overhead Line Equipment (All Districts)

Equipment	Inspected	Repaired	Renewed
Stays	-	-	-
Brackets	46	-	-
Line switches	1	-	-
Lightning arresters	-	-	-
Insulators	165	-	-
Fuses	16	-	-
Series transformers	-	-	-
Lamp fittings	-	-	-
Lamp brackets	-	-	-
Connections	-	-	-

(3) Poles and Pole Bases - Routine and Special Maintenance

	SFC	WDPC
Poles inspected .....	35	-
Wood poles painted .....	-	-
Iron poles painted .....	-	-
Concrete poles repaired .....	-	-
Decayed wood poles renewed: Main .....	1	2
Suspension .....	4	1
Stay .....	?	2
Concrete bases inspected .....	32	-
Concrete bases repaired .....	-	-
Concrete bases renewed .....	-	1
Cast iron sleeves renewed .....	1	2
Cast iron sleeves replaced by concrete bases .....	-	-
Obsolete concrete sleeves replaced by concrete bases .....	-	-

(4) Street Lamps faulty and renewed

	SFC	WDPC
Municipal street lighting .....	840	122
Private street lighting .....	504	03
Total .....	1324	210

(5) Traffic Signal Switches

Location	Installed	Removed	Replaced	Overhauled
Eastern District	-	-	-	1
Central District	-	-	2	50
Western District	-	-	2	2

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(H) UNDERGROUND LINES

	<u>% completed</u>	
	<u>SPC</u>	<u>WDPC</u>
(1) <u>Inspection and Maintenance</u>		
Idle cable risers .....	100	100
Road condition along cables in Eastern District .....	100	-
Central District duct line and manholes .....	100	-
	<u>Units</u>	
	<u>SPC</u>	<u>WDPC</u>
Cable potheads and joints: 23 kV .....	-	-
(including standardization) 6.6 kV .....	40	73
380 V .....	4	-
Feeder pillars: .....	32	2
	<u>Locations</u>	
	<u>SPC</u>	<u>WDPC</u>
Underground cables along and protected: .....	-	Robinson Road W of Kiao- chow Road
(2) <u>23 kV Underground Cable Failure Located and Repaired</u> .....		4

SPC

Feeder name	Location of failure	Faulty cores	Cause of failure	Repairs
AB 8	Cable (E Yuhang Rd, W of Kungping Road)	R,W,B	Deterioration of insulation	Length of 13 feet replaced by new cable, one new joint and one remade joint
AG 15	Cable (Pingliang Rd, E of Moichow Road)	R,W,B	Deterioration of insulation	Length of 21 feet replaced by new cable and two new joints
AM 80	Cable (4 feet below pothead terminal in Yangchow Substation)	W	Undetermined (Probably a weak spot during process of manufacturing)	Length of 5 feet cut and pothead remade in position

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SPC (cont)

Feeder name	Location of failure	Faulty cores	Cause of failure	Repairs
AB 8	Joint 8 (Pingliang Rd, corner of Thorburn Rd)	R,W,B	Obsolete design	Length of 16 feet replaced by new cable and two new joints

WDPC Nil.

(3) 6.6 kV Underground Cable Failure Located and Repaired ..... 1

SPC Nil.

WDPC

Feeder name	Location of failure	Faulty cores	Cause of failure	Repairs
Hungjao-Siccawei PT	Transformer Foothead	W	Lightning	Length of 35 feet replaced by new cable and two new potheads

(4) 380 V Underground Cable Failure Located and Repaired ..... Nil

(5) Pilot and Telephone Cable Failure Located and Repaired ..... Nil

(6) 23 kV Underground Cable Preventive Repairs ..... 1

SPC

Feeder name	Location of weakness	Cause of weakness	Repairs
AB 8	Joint 45	Inferior design of jointing sleeve	Length of 10 feet replaced by new cable and two new joints

WDPC Nil.

(7) 6.6 kV Underground Cable Preventive Repairs ..... Nil

(8) 380 V Underground Cable Preventive Repairs ..... Nil

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(I) BUILDINGS

	<u>Location</u>	<u>Work done</u>	<u>% completed</u>
SFC	1. Fearon Underground trench gear shed	Repairs to roof and building	90
	2. Underground Workshop	Building up store-room for coke and sundries	100
	3. Fearon Yard	Erecting tin hut for sub-station and garage blacksmith shop	100
	4. Bubbling Well Substation	Modification of Traction Rectifier building	100
	5. Construction Substation workshop	Alterations to building	20
	6. Garage workshop	Raising the lintel	80
	7. Fearon Transport Material Store	Repairs of doors and frames	100
	8. DOD Office	Repairing leaking roof	100
	9. Dent Substation	Raising concrete floor	50
	10. Fearon Transport Workshop	Repairing tin hut	50
	11. Fearon Substation	Installation of louvres	75
WDPC	Nil.		

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III CONSTRUCTION

(A) SERVICES

	<u>SFC</u>	<u>WDPC</u>
(1) <u>House Services</u>		
Connections .....	504	138
Disconnections .....	68	37
Net increase .....	436	101
(2) <u>Municipal Street Lighting</u>		
Connections .....	20	3
Disconnections .....	-	-
Net increase .....	20	3
(3) <u>Private Lighting</u>		
Connections .....	21	-
Disconnections .....	12	-
Net increase .....	9	-

(B) OVERHEAD LINES

(1) <u>Erection</u>	<u>Area</u>	<u>Location</u>	<u>Route length yards</u>	<u>Number of poles</u>
380/220 V	SFC	Changping Road W of Seymour Road	14	-
4-wire	"	Market Street	59	-
"	WDPC	Hungjao Road E of Hungjao-Fraser FT	95	-
"	"	Hungjao Road and Warren Road	162	-
(2) <u>Salvage</u>	Nil.			
(3) <u>Poles</u>			<u>SFC</u>	<u>WDPC</u>
Erected .....			13	10
Removed .....			6	2
Moved at the request and expense of the Municipality .....			-	-

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(c) UNDERGROUND LINES

(1) Installation

- |         |      |    |   |
|---------|------|----|---|
| Cable - | SPC  | 1. | 29 yds, .025 sq in, 3-core, 6.6 kV cable for supply to Chinese Industrial Gas Company, Liaoyang Road.   |
|         |      | 2. | 33 yds, .025 sq in, 3-core, 6.6 kV cable for supply to Woo Sing Cotton Mill, Pingliang Road.  |
|         |      | 3. | 126 yds, .4 sq in, 4-core, 660 V cable for LV network supply from Dah Chung Dyeing Factory, Penang Road.  |
|         |      | 4. | 263 yds, .2 sq in, 3-core, 23 kV cable for relocation of Chapel Bulk Supply on the Station Bus Bars at Riverside Generation Station.                                |
|         |      | 5. | 26 yds, .2 sq in, 3-core, 23 kV cable for relocation of AD 57 on the Station Bus Bars at Riverside Generation Station.  |
|         |      | 6. | 32 yds, .0084 sq in, 3-core, 660 V cable for relocation of AD 57 pilot cable at Riverside Generation Station.   |
|         | WDFC | 1. | 20 yds, .025 sq in, 3-core, 6.6 kV cable for supply to Yih Chong Rubber Factory, Tunxin Road.   |
|         |      | 2. | 22 yds, .2 sq in, 3-core, 6.6 kV cable for replacement of existing .05 sq in cable for supply to additional 1,000 kVA transformer at Sung Sing No. 8, Brennan Road. |

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Joints and  
potheads -

- SFC
1. One 6.6 kV pole pothead and one 6.6 kV indoor pothead in substation for supply to Chinese Industrial Gas Company, Liaoyang Road.
  2. One 6.6 kV pole pothead and one 6.6 kV indoor pothead in metering cubicle for supply to Woo Sing Cotton Mill, Pingliang Road.
  3. One 660 V pole pothead, one 660 V indoor pothead in substation and two 660 V joints for LV network supply from Dah Chung Dyeing Factory, Penang Road.
  4. Two 23 kV indoor potheads and three 23 kV joints for relocation of Chapel Bulk Supply on the Station Bus Bars at Riverside Generation Station.
  5. Three 23 kV indoor potheads for relocation of AD 57 on the Station Bus Bars at Riverside Generation Station.
  6. One 660 V indoor pothead and one 660 V joint for relocation of AD 57 pilot cable at Riverside Generation Station.
- WDPC
1. One 6.6 kV pole pothead and one 6.6 kV transformer pothead for supply to Yih Chong Rubber Factory, Tunain Road.
  2. One 6.6 kV pole pothead and one 6.6 kV indoor pothead in metering cubicle replacing existing cable for supply to additional 1,000 kVA transformer at Sung Sing No. 8, Brennan Road.



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(3) Salvage

Cable -

SPC 1. 12 yds, .06 sq in, 3-core, 6.6 kV cable salvaged from Penang-Tonquin PT.

WDPC 1. 22 yds, .05 sq in, 3-core, 6.6 kV cable salvaged from replacement by .2 sq in cable at Sung Sing No. 8, Brennan Road.

Joints and potheads -

SPC 1. One 6.6 kV pole pothead and one 6.6 kV transformer pothead salvaged from Penang-Tonquin PT.  
 2. Two 23 kV indoor potheads salvaged from relocation of Chapel Bulk Supply on the Station Bus Bars at Riverside Generation Station.  
 3. Three 23 kV indoor potheads salvaged from relocation of AD 57 on the Station Bus Bars at Riverside Generation Station.  
 4. One 660 V indoor pothead salvaged from relocation of AD 57 pilot cable at Riverside Generation Station.

WDPC 1. One 6.6 kV pole pothead and one indoor pothead in metering cubicle salvaged from replacement of .2 sq in cable at Sung Sing No. 8, Brennan Road.

(4) Deviation

SPC 1. Due to change of transformer, cable pothead moved to new position in Duh Chung Dyeing substation, Penang Road.  
 2. Due to removal of drop-out fuses, pole pothead lifted up 3 feet at Cheng Tai Rubber Factory, Ward Road.

WDPC Nil.

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(D) SUBSTATIONS

	<u>Substation</u>	<u>Work done</u>	<u>% completed</u>
SIPC	1. Zung Foong D & W, Taitsihar Road	Reinstall LV bus bar and links for network supply	100
	2. Dah Chung Dyeing, Penang Road	Replacement of a 325 kVA transformer with a 940 kVA unit	100
	3. Tungchow	Installation of one additional 940 kVA transformer	80
	4. Dent	Installation of a 125 kVA transformer	50
	5. Woo Sing C/M, Pingliang Road	Installation of metering cubicle for 6.6 kV supply	100
	6. Ta Yu Yue, Soochow Road	Replacement of a 940 kVA transformer by a 625 kVA unit	100
	7. Wing On 5, Pingliang Road	Installation of temporary 6.6 kV supply	75
	8. Chong Tai Rubber Factory, Dalny Road	Change transformer from 325 kVA to 625 kVA	100
	9. Chinese Industrial Gas Company, Liaoyang Road	Installation of a 325 kVA transformer	100
	10. Tonquin	Change of station transformer from 2-825 kVA to 1-1,000 kVA	50
	11. Sing Yue No. 1, West Soochow Road	Installation of 6.6 kV bus couple gang operated links	20
	12. Kiu Lung W & D Fac- tory, Paoting Road	Installation of a 225 kVA transformer	5
WDPC	1. Sung Sing No. 8, Brenan Road	Supply to additional 1,000 kVA transformer	100

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(E) BULK SUPPLY METERING

<u>Work done</u>	<u>SFC</u>	<u>WDPC</u>	<u>Total</u>
Metering equipment installed	-	4	4
" " removed	2	-	2
" " changed	6	-	6

(F) VARIOUS WORK

	<u>Nature of work</u>	<u>Location</u>	<u>% completed</u>
SFC	1. Installing lamps and wiring	Fearon Custodian's living quarters	100
	2. Reconditioning old MG set	Fearon Road	100
	3. Installing an electric clock	Fearon Labour Union Office	100
	4. Redruming of cables from rotten to good reels and repairs to cable reels	Haiphong and Yangchow Depots	40
	5. Inspection and cleaning of gasoline tanks	Haiphong Depot	100
	6. Laying a concrete pipe duct for cable road crossing	Dah Chung Dyeing Factory, Penang Road	100
	7. Shifting Underground Emergency stock to new store room	Fearon Underground Emergency Store	90
	8. Relocation of Chapoi 23 kV B/S and AD 57 on the station bus bars	Riverside Generation Station	100
	9. Making reinforcing clamps for 4'-0" copper sleeves	Fearon Workshop	60
	10. Dismantling TG 11 fan motor cable	Riverside Generation Station	100
	11. Making sample joint .4 sq in, H type, 23 kV cable	Fearon Workshop	100
	12. Change new tails for Tenquin LV No. 2 pole pothead	Macuo Road	100
WDPC	Nil.		

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IV WORK DONE FOR CONSUMERS

<u>Location</u>	<u>Nature of work</u>	<u>% completed</u>
1. Bubbling Well Substation	Reconstruction and extension of 400 KW rectifier equipment (Property of Tramway Company)	100
2. Wayside Substation	Transport one 1,000 kVA transformer to Sung Sing No. 8 for hire	100
3. Tonquin Substation	Removal of temporary traction supply	10
4. King Kong Rubber Factory, Kerwick Road	Installation of Consumer's 150 kVA transformer	100
5. CTHI Shanghai C/M No. 14, Yangtzepoo Road	Erect 23 kv cable connection between bus bars and consumer's transformers	100
6. Wing On No. 5, Pingliang Road	Installation of 2-625 kVA transformers on hire	75
7. Standard Shirts Factory, Tongshan Road	Deviation of cable for new building	100

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V STAFF

(A) CHANGES

Engineering and Office Staff

SPC

Wang, Y.M. Assistant Engineer engaged

WDPC None

Monthly Rate Staff

SPC None

WDPC None

Daily Rate Staff

SPC

CGM.1	Mason	engaged
CGX.5	Labourer	"
KOLZ.2	Lineman (Temporary)	discharged
KOLZ.2	Labourer ( " )	"
CUKZ.5	" ( " )	resigned
CSXZ.3	" ( " )	transferred to regular staff

WDPC

WOLZ.8	Lineman (Temporary)	engaged
WOLZ.9	" ( " )	"
WOLZ.2	Labourer ( " )	"
WOLZ.5	Lineman ( " )	discharged
WOLZ.6	" ( " )	"

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(B) ACCIDENTS

Date	Employee injured	Location of accident	Description of accident	Fatal or permanent injured	Disabled for the period of
Aug 16	WOLZ.4	Opposite Lane No. 1262 Great Western Road	When making jumper connection to W-phase road mains his abdomen incidentally touched the E-phase wire of alleyway mains. Thus he received an electric shock	No	5 days
Aug 19	CUX.16	Pingliang Road corner of Thorburn Road	Holding asphalt cutting chisel with tongs, when sledge hammer employed by another man slipped off its handle. It landed and hurt his finger	No	2 days
Aug 21	EMF.8	E Yuhang Road in front of E Yuhang-Chusan PT	After taking temperature reading on top of PT he descended by holding B-phase VIR cable below the fuse box with his right hand. His weight caused the brittle insulation on the cable to be torn off, his right hand came in touch with the bare copper, so receiving an electric shock	No	2 days
Aug 21	IMQ.4	Z Yuhang Road in front of E Yuhang-Chusan PT	He heard EMF.8 call for help, he rushed up and tried to pull him off the live wire. Unfortunately he also received a shock. Both fell down to ground from a height of 9 feet	No	14 days

VI MISCELLANEOUS

(A) Theft of Materials Nil.  
(In SPC and WDPC Areas)

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VII APPENDIX: TRANSPORT DIVISION

The following outlines the activities of the Transport Division during the month.

(A) MOTOR VEHICLES

(1) Summary

Vehicles	Passenger cars	Pick-ups	Station wagons	Vans	Trucks	Special vehicles*	Trailers
In Operation	53	10	2	5	14	3	4
In Storage	-	-	-	-	-	-	4

\* Oil tanker and 20-ton lorries

(2) Operating Data of Motor Vehicles

Type	No. in service		GASOLINE							
			Issue (gallons)		Usage (gallons)		Mileage run		Average m.p.g.	
	Aug	July	Aug	July	Aug	July	Aug	July	Aug	July
Passenger cars	53*	50	5,805	5,834	5,782	5,818	70,785	69,764	12.2	12.0
Station wagons	2	2	165	144	165	144	1,918	1,872	11.6	13.0
Pick-ups	10	10	1,020	1,012	1,020	1,003	13,365	13,315	13.1	13.3
Trucks (1½-ton)	2	2	230	220	230	220	2,276	2,247	9.9	10.2
Trucks (3½-ton)	9	9	1,205	1,168	1,205	1,168	9,349	8,702	7.8	7.4
Lorries (6-ton)	2	2	227	271	227	271	1,020	1,216	4.5	4.5
Lorries (20-ton)	2	2	100	106	100	106	151	151	1.5	1.4
Oil tanker truck	1	1	-	-	10	-	20	-	2.0	-
Motor vans	2	2	156	163	156	163	1,248	1,326	8.0	8.1
Trouble Section van	1	1	162	179	162	179	1,061	1,170	6.5	6.5
Cooker vans	2	2	364	368	364	368	3,430	3,558	9.4	9.6
Bus	1	1	242	385	242	385	1,452	2,310	6.0	6.0
Trailers	8	8	-	-	-	-	-	-	-	-
Total	95	92	9,676	9,850	9,663	9,825	106,075	105,631	11.0	10.7

\* Three new passenger cars in operation from August 15, 1947.

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(3) Maintenance Work on Motor Vehicles

Type	General Overhaul completed		Emergency Overhaul completed		Minor adjustments and repairs		Repairs after			
							Accident		Breakdown	
	Aug	July	Aug	July	Aug	July	Aug	July	Aug	July
Passenger cars	-	-	49	52	35	43	2	7	8	19
Station wagons	-	-	3	6	1	2	-	-	-	-
Pick-ups	-	-	24	25	8	7	-	2	-	3
Trucks (1 1/2-ton)	-	-	4	2	4	4	-	-	-	3
Trucks (5 1/2-ton)	-	-	17	15	7	8	1	-	1	4
Lorries (6-ton)	-	-	1	1	1	-	-	1	-	2
Lorries (20-ton)	-	-	1	1	-	-	-	-	1	-
Oil tanker	-	-	-	-	-	-	-	-	-	-
Motor vans	-	-	10	7	1	2	-	-	2	-
Trouble Section van	-	-	-	1	-	1	-	-	-	-
Cooker van	-	-	-	-	-	-	-	-	-	-
Bus	-	-	2	2	1	-	-	-	-	-
Trailers	-	-	-	-	-	-	-	-	-	-
<b>Total</b>	-	-	<b>111</b>	<b>117</b>	<b>58</b>	<b>67</b>	<b>3</b>	<b>10</b>	<b>16</b>	<b>31</b>

(4) Motor Vehicle Engine Lubricating Oil

Description	Issue (US gallons)		
	Aug	July	
Cars	153	153	Fearon stock at the end of this month: 140 US gallons of SAE 40
Trucks	185	170	
Other purposes	5	8	
<b>Total</b>	<b>343</b>	<b>331</b>	

(5) Motor Vehicle Breakdowns

Classification	Cases	%
Electrical equipment	6	22.2
Engine	-	-
Chassis	6	22.2
Fuel system	4	14.8
Tire and tubes	11	40.8
<b>Total</b>	<b>27</b>	<b>100.0</b>



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(B) MAJOR HAULAGE JOBS

Units	Equipment			Moved		Size of truck	Man-days
	Capacity kVA	Weight lbs	Description	From	To		
1	4,200	17,400	Transformer	Riverside Workshop	R'side Switch House	-	20
-	-	5,000	Rice	Nantao	Riverside Stores	3 $\frac{1}{2}$	8
-	-	24,000	"	Nantao	Riverside Stores	2x6	24
6	325	614,665	Transformer	Wha Tung Factory	Riverside Workshop	6	10
6	325	614,665	"	Riverside Workshop	Wha Tung Factory	6	10
1	625	16,800	"	Fearon Substation	Ta Yu Yue S/S	20	40
1	940	16,800	"	Ferry Substation	Dah Chung Dyeing	) 20	40
1	325	5,690	"	Dah Chung Dyeing	Fearon Substation		
1	225	3,970	"	Hungjao-Siccawei PT	Fearon Substation	( 6	20
1	225	5,180	"	Fearon Substation	Hungjao-Siccawei PT	( -	
1	325	5,620	"	Penang-Tonquin FT	Yih Chong OT	20	24
1	940	16,800	"	Ta Yu Yue S/S	Fearon Substation	) 20	
1	125	3,530	"	Fearon Substation	Fearon Stores	) -	40
1	10	400	"	Haiphong Stores	Fearon Substation	( 6	8
1	10	400	"	Haiphong Stores	Fearon Substation	( -	
1	625	8,950	"	Fearon Substation	Cheng Tai Rubber	) 20	30
1	325	8,160	"	Cheng Tai Rubber	Chinese Ind Gas Co		
1	125	3,530	"	Tunain Road near Pan Ka Soo	Fearon Substation	20	-
8	325	614,665	"	Wha Tung Factory	Riverside Workshop	2x6	14
3	325	314,665	"	Wha Tung Factory	Riverside Workshop	2x6	14
1	4,200	17,400	"	Riverside bay	S H Basement	20	10
1	325	5,690	"	Fearon Substation	China Steel Rolling	20	6
-	-	1,000	Rice	N Thibet Road	Haiphong Stores	5 $\frac{1}{2}$	6
-	-	4,000	"	N Thibet Road	Fearon Stores	2x6	12
-	-	29,000	"	N Thibet Road	Fearon and Haiphong Stores	2x6	10
1	625	13,000	Transformer	Tonquin Substation	Fearon Stores	6	20
Total		319,615					366

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(C) BICYCLES

(1) Taxi Bicycle and Tricycle Service

Department	Type	No. in service	Issued for temp use	Issued as taxi	Remarks
Transport Division	Bicycles	54	21	12	-
	Tricycles	7	7	-	-
Meter Department	Bicycles	25	-	-	-
	Tricycles	-	-	-	-

(2) Bicycle and Tricycle Maintenance

Type	No. in service	General overhaul		Minor adjustments and repairs		Routine inspection		Repairs after accident	
		Aug	July	Aug	July	Aug	July	Aug	July
Company's bicycles	251	-	1	113	84	12	10	-	1
Employees' bicycles	46	-	-	8	5	5	3	-	-
Tricycles	10	-	-	5	3	-	-	-	-
Pedicabs	3	-	-	6	2	-	-	-	-
Trailers	2	-	-	-	1	-	-	-	-
<b>Total</b>	<b>312</b>	<b>-</b>	<b>1</b>	<b>132</b>	<b>95</b>	<b>17</b>	<b>13</b>	<b>-</b>	<b>1</b>

(D) HANDCARTS

Type	No. in Service	No. in Storage	No. in Construction	Number in repair	
				Maintenance	After Accident
Large 2-ton	2	1	-	-	-
Standard 1-ton	15	7	-	-	-
House Service	2	2	-	-	-
Balancing	3	3	-	-	-
<b>Total</b>	<b>22</b>	<b>11</b>	<b>-</b>	<b>-</b>	<b>-</b>

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(B) TRANSPORT WORKSHOP

Shop	WORK DONE		
	Transport Division	Other divisions	
		Manhours	% of total
Vulcanizing	Repaired for - Motor cars: 19 tires; 176 tubes Bicycles: 42 tires; 12 tubes	-	-
Tailor	Repairs to 34 seat covers 23 Upholstery 25 uniforms	Manufacture of 4 seat covers	18 7.7
Paint	Repainted: 1 motor car; 1 bicycle Touched up: 103 motor car jobs; 56 bicycle jobs	24	10.3
Welding	Repaired by welding 43 motor vehicle bodies 22 engine parts 28 chassis parts	42	18.0
Battery	Replaced: 6 batteries Repaired: 23 " Charged: 146 "	-	-
Blacksmith	Forged: 29 new parts Repaired: 98 damaged parts	42	18.0
White Smith	Repaired - 35 vehicle radiators 15 bumpers 14 bodies 20 doors 24 windows 52 various small parts	-	-
Electrical	Repaired or overhauled - 13 starters 14 dynamos 53 horns	-	-
Carpenter	Repairs to 13 vehicle bodies  Manufacture of 1 vehicle body	Repairs to: 7 chairs 2 revolving chairs 4 desks 2 extension ladders  Minor repairs:	24 10.3

SHANGHAI POWER COMPANY

- 40 -

Shop	WORK DONE		
	Transport Division	Other divisions	
		Manhours	% of total
Machine	Repairs to 73 engine parts 205 other parts  Manufacture of 54 engine parts 472 other parts	83	35.7
Lubrication Centre	Motor vehicles: Oil changed; 57 General inspection: 58 General lubrication: 58	-	-

(F) ACCIDENTS

(1) Motor Vehicles

Date	Vehicle		Location of accident	Description of accident	Damage to SPC vehicle			SPC driver to blame?	Persons injured	
	Type	No.			Major	Minor	None		Staff	Out-riders
Aug 1	Pass. car	17346	Kiangso Road	Collided with rickshaw	-	x	-	No	No	No
Aug 2	Pass. car	14618	Av du Roi Albert	Collided with car	-	-	x	Yes	No	No
Aug 2	Pass. car	10647	Avenue Road	Collided with handcart	-	x	-	No	No	No
Aug 5	Pass. car	17800	Ward Road	Damaged by rickshaw	-	x	-	No	No	No
Aug 6	Pass. car	17800	Avenue Edward VII	Collided with truck	-	x	-	No	No	No
Aug 6	Pass. car	52783	The Bund	Collided with car	-	x	-	No	No	No
Aug 7	Pass. car	13309	Fearon yard	Hit against SPC car No. 17520	-	-	x	Yes	-	-
Aug 7	Pass. car	10658	Avenue Joffre	Smashed against traffic island	-	x	-	Yes	No	No
Aug 9	Pass. car	17520	Fearon yard	Hit against SPC van No. 30030	-	-	x	-	-	-
Aug 11	Pass. car	17800	Yangtzepoo	Dog killed by car	-	-	x	No	No	Yes
Aug 13	Pass. car	17802	Tifeng Road	Touched fence	-	x	-	Yes	No	No
Aug 16	3 1/2-ton van	30068	Bubbling Well Road	Collided with car	-	x	-	Yes	No	No
Aug 28	Pass. car	13309	Tangku Road	Collided with pedicab	-	-	x	No	No	No
Aug 31	Pass. car	10659	Rue Lafayette	Collided with pedicab	-	-	x	No	No	No
Aug 31	Pass. car	52441	Avenue Petain	Hit against a tree	-	x	-	Yes	No	No

Frequency: 7,071 miles per accident.

SHANGHAI POWER COMPANY

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(2) Bicycles and Tricycles

None.

(3) Details of Accidents involving general public

Date	Location of accident	Damage to outside vehicle			Injury to outsiders			Remarks
		Major	Minor	None	Major	Minor	None	
Aug 1	Kiangao Road	-	-	x	-	-	x	
Aug 2	Av du Roi Albert	-	x	-	-	-	x	
Aug 2	Avenue Road	-	-	x	-	-	x	
Aug 5	Ward Road	-	-	x	-	-	x	
Aug 6	Avenue Edward VII	-	-	x	-	-	x	
Aug 6	The Bund	-	-	x	-	-	x	
Aug 11	Yangtzepoo Road	-	-	-	x	-	-	Dog killed by car
Aug 16	Bubbling Well Road	-	x	-	-	-	x	
Aug 28	Tangku Road	-	x	-	-	-	x	
Aug 31	Rue Lafayette	-	x	-	-	-	x	

(4) Staff

None.

(5) STAFF

(1) Supervisory Staff

No change.

(2) Clerical Staff

No change.

(3) Monthly Rate Staff

Truck Driver TDT.24 engaged.

(4) Daily Rate Labour

No change.

*S. L. Dong*  
S. L. Dong

Acting Distribution Operating Engineer

SHANGHAI POWER COMPANY

Shanghai, September 6th, 1947.

The General Manager :

METER & TESTING DEPARTMENT  
LARCENY OF ELECTRICITY  
MONTHLY REPORT FOR AUGUST, 1947.

Accounts Office Queries :

One case of larceny was detected, and revenue amounting to CN. \$1,594,000 has been recovered.

One case of damaged meter was found. The cost of repairs, etc. amounting to CN. \$301,000 has been paid by the consumer.

Meter Readers' Reports :

Four cases of damaged meters were found when following up these reports. The cost of repairs, etc., amounting to CN. \$402,000 has been paid by the consumer.

Route Meter Investigation :

Five cases of damaged meters were found. The cost of repairs, etc., amounting to CN. \$53,500 has been paid by the consumers.

Power Meter Investigation :

One case of damaged meter was found. The cost of repairs, etc., amounting to CN. \$162,000 has been paid by the consumer.

Small Area Investigation :

One case of damaged meter was found. The cost of repairs, etc., amounting to CN. \$202,000 has been paid by the consumer.

Miscellaneous :

Twenty-eight cases of damaged meters were reported by Installation Section's staff. The cost of repairs, etc., amounting to CN. \$3,292,300 has been paid by the consumers.

Damaged or Missing Main Fuse Box Lead Seals :

Thirty-four cases of above infringement of Company's Regulations have been handled by the Installation Section. Fees paid by consumers total CN. \$1,050,000.

S u m m a r y :

One case of larceny has been detected and settled during the month together with forty cases of damaged meters and/or associated equipment.

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SHANGHAI POWER COMPANY

- 2 -

Summary (Continued) :

Revenue amounting to CN. 40,556,800 has been recovered, of which :

- a. CN. 41,594,000 represent recovered revenue.
- b. CN. 43,912,800 represent an estimated cost of repairs to damaged meters and associated equipment.
- c. CN. 41,050,000 represent fees paid for damaged or missing main fuse box lead seals.

Estimated Unmetered Consumption :

Fifty-eight cases of unmetered consumption due to defective or damaged meters were estimated on Consumers' Accounts Inspect Orders during the month. The estimated consumption represents 5,788 kWhrs., amounting to CN. 46,540,440 of recovered revenue.

NOTE :-

Five cases of unmetered supply taken by various units of the Chinese Armed Forces have been reported by the Installation and Investigation Sections' staff and Meter Readers during the month. These have been passed to the Installation Section for action in concert with Consumers' Engineer's Department.

*A. Bennett*  
for E. Jacobs,  
Meter & Testing Engineer

AVG/zko

SHANGHAI POWER COMPANY

AUGUST, 1947.

S.P.C. + W.D.P.C.

NATURE OF INVESTIGATION	PREMISES INSPECTED	METERS INSPECTED	IRREGULARITIES FOUND.	LAPSE CASES		Damaged and/or Missing Plant.	TOTAL CASES
				Jumpers	Tempered Meters		
Accounts Office Queries	721	758	259	1	-	1	2
Meter Readers' Reports	11	12	4	-	-	4	4
Route Meter Investigation	1629	8505	682	-	-	5	5
Power Meter Investigation	94	211	37	-	-	1	1
Small Area Investigation	205	247	50	-	-	1	1
Casual Visits - Day	5	5	3	-	-	-	-
Informers' Letters	2	2	2	-	-	-	-
Miscellaneous	36	41	36	-	-	28	28
<b>Total</b>	<b>2703</b>	<b>5776</b>	<b>1283</b>	<b>1</b>	<b>-</b>	<b>40</b>	<b>41</b>

W.D.P.C. (Included in above figures):

Accounts Office Queries	128	154	72	-	-	1	1
Meter Readers' Reports	5	5	1	-	-	1	1
Route Meter Investigation	158	241	98	-	-	-	-
Small Area Investigation	205	247	50	-	-	1	1
Informers' Letters	1	1	1	-	-	-	-
Miscellaneous	5	5	5	-	-	4	4
<b>Total</b>	<b>499</b>	<b>631</b>	<b>227</b>	<b>-</b>	<b>-</b>	<b>7</b>	<b>7</b>

Month ending Aug. 31, 1947	S.P.C. + W.D.P.C.		W.D.P.C. (only)	
	Premises Meters	Irregularities Cases	Premises Meters	Irregularities Cases
12 Months ending Aug. 31, 1947	2,703	3,778	41	498
	46,451	62,792	509	12,660
			17912	5,774
			227	126



SHANGHAI POWER COMPANY

AUGUST, 1947

ANALYSIS OF CASE ENCOVERED FOR ESTIMATED LOSS OF REVENUE FROM CONSUMERS INVOLVED IN LARGELY OF ELECTRICITY AND FOR DAMAGED OR MISSING METERS AND BROKEN MAIN FUSE SEALS.

S.P.C. + W.D.P.C.

NATURE OF INVESTIGATIONS	Jumpers CS\$	Tripped Meters CS\$	Damaged Meters CS\$	Missing Meters CS\$	Part Payment CS\$	Broken Main Fuse Seals CS\$	TOTAL CS\$
Accounts Office Queries	1,594,000	-	301,000	-	-	-	1,895,000
Meter Readers' Reports	-	-	402,000	-	-	-	402,000
Route Meter Investigation	-	-	555,500	-	-	-	555,500
Power Meter Investigation	-	-	162,000	-	-	-	162,000
Small Area Investigation	-	-	202,000	-	-	-	202,000
Miscellaneous	-	-	4,822,500	470,000	-	1,050,000	6,342,500
<b>T o t a l</b>	<b>1,594,000</b>	<b>-</b>	<b>6,442,800</b>	<b>470,000</b>	<b>-</b>	<b>1,050,000</b>	<b>9,556,800</b>

W.D.P.C. (Included in above figures) :

Accounts Office Queries	-	-	301,000	-	-	-	301,000
Meter Readers' Reports	-	-	402,000	-	-	-	402,000
Small Area Investigation	-	-	202,000	-	-	-	202,000
Miscellaneous	-	-	1,025,000	-	-	210,000	1,235,000
<b>T o t a l</b>	<b>-</b>	<b>-</b>	<b>1,928,000</b>	<b>-</b>	<b>-</b>	<b>210,000</b>	<b>2,138,000</b>

	S.P.C. + W.D.P.C.	W.D.P.C. (only)
Month ending August 31st, 1947 .....	CS. \$ 9,555,800.-	CS. \$ 2,138,000.-
12 Months ending August 31st, 1947 .....	CS. \$114,175,910.-	CS. \$46,976,670.-

SHANGHAI POWER COMPANY

AUGUST, 1947

ANALYSIS OF CASE RECOVERED FOR ESTIMATED LOSS OF REVENUE FROM CONSUMERS INVOLVED IN LARCENY OF ELECTRICITY AND FOR DAMAGED OR MISSING METERS AND BROKEN MAIN FUSE SEALS.

S.P.C. + W.D.P.C.

NATURE OF INVESTIGATIONS	Jumpers CS\$	Temporarily Meters CS\$	Damaged Meters CS\$	Missing Meters CS\$	Part Payment CS\$	Broken Main Fuse Seals CS\$	TOTAL CS\$
Accounts Office Queries	1,594,000	-	301,000	-	-	-	1,895,000
Meter Readers' Reports	-	-	402,000	-	-	-	402,000
Route Meter Investigation	-	-	533,500	-	-	-	533,500
Power Meter Investigation	-	-	162,000	-	-	-	162,000
Small Area Investigation	-	-	202,000	-	-	-	202,000
Miscellaneous	-	-	4,822,500	470,000	-	1,050,000	6,342,500
<b>T o t a l</b>	<b>1,594,000</b>	<b>-</b>	<b>5,442,800</b>	<b>470,000</b>	<b>-</b>	<b>1,050,000</b>	<b>9,556,800</b>

W.D.P.C. (included in above figures) :

Accounts Office Queries	-	-	301,000	-	-	-	301,000
Meter Readers' Reports	-	-	402,000	-	-	-	402,000
Small Area Investigation	-	-	202,000	-	-	-	202,000
Miscellaneous	-	-	1,023,000	-	-	210,000	1,233,000
<b>T o t a l</b>	<b>-</b>	<b>-</b>	<b>1,928,000</b>	<b>-</b>	<b>-</b>	<b>210,000</b>	<b>2,138,000</b>

	S.P.C. + W.D.P.C.	W.D.P.C. (only)
Month ending August 31st, 1947 .....	CS. \$ 9,556,800.-	CS. \$ 2,138,000.-
12 Months ending August 31st, 1947 .....	CS. \$14,175,810.-	CS. \$45,976,670.-




SHANGHAI POWER COMPANY  
AND  
WESTERN DISTRICT POWER COMPANY OF SHANGHAI  
FEDERAL INC., U.S.A.

MONTHLY REPORT

FOR

SEPTEMBER 1947

25X1A



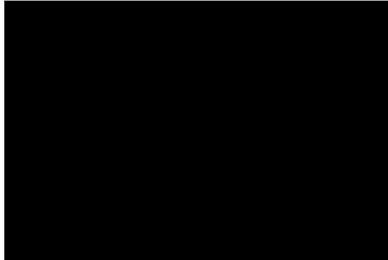
SHANGHAI POWER COMPANY  
AND  
WESTERN DISTRICT POWER COMPANY OF SHANGHAI  
FEDERAL INC., U.S.A.

MONTHLY REPORT

FOR

SEPTEMBER 1947

25X1A



SIUANSHAI POWER COMPANY

MONTHLY REPORT  
FOR  
SEPTEMBER 1947

<u>REPORT:</u>	<u>I N D E X</u>	<u>Section</u>	<u>Page</u>
Letter of Transmittal			
Revenues & Expenses (Compared with 1946)		1	1
Electric Demand, Output, Sales & Losses		2	1
Maximum Hour in KWH		2A	1
Net Output or Purchase in MKWH		2B	1
Units Sold & Accounted for in MKWH		2C	1
Transmission & Distribution Losses in % of Net Output or Purchase		2D	1
Customers, Service Inspections		3	1
Customers		3A	1
Service Inspections		3B	2
Employees		4	2
Riverside Operations		5	2
 <u>CHARTS:</u>			
	Max. Hour Generation & Output		A
	Units Generated, Delivered & Sold		B
	Employees		C
 <u>APPENDIX:</u>			
	<u>Reports</u>		
Secretarial & Accountancy - S.P.C. & W.D.P.C.			I
Consumers' Monthly Report - S.P.C.			II
Consumers' Monthly Report - W.D.P.C.			III
Generation Report			IV
Distribution Operation Division - S.P.C. & W.D.P.C.			V
Larceny of Electricity			VI

SHANGHAI POWER COMPANY

S U M M A R Y

1. REVENUES & EXPENSES COMPARED WITH 1946 (C\$):

Operating Revenues (C\$ Figures in Thousands)	Month of September	
	1947	1946
S.P.C.	C\$ 70,000,016	C\$ 4,070,228
W.D.P.C.	" 17,836,813	" 961,453
Combined **	<u>C\$ 74,588,212</u>	<u>C\$ 4,306,810</u>
<u>Operating Expenses</u>		
S.P.C.	C\$ 61,891,510	C\$ 4,464,133
W.D.P.C.	" 16,823,023	" 900,460
Combined **	<u>C\$ 64,865,916</u>	<u>C\$ 4,630,712</u>
<u>Net from Operation</u>		
S.P.C.	C\$ 8,708,506	C\$ -384,905
W.D.P.C.	" 1,013,790	" 61,003
Combined **	<u>C\$ 9,722,296</u>	<u>C\$ -323,902</u>

\*\* Inter-Company Items Eliminated.

2. ELECTRIC DEMAND, OUTPUT, SALES & LOSSES:

2A Maximum Hour in KWH

S.P.C. Riverside Max.Hr.Generation	152,238	123,651
W.D.P.C. Max.Hr. Demand in KW	33,268	24,608

2B Net Output or Purchase in MKWH (M=1000)

S.P.C. Net Output	81,770	63,713
W.D.P.C. Purchase from S.P.C.	19,045	12,461

2C Units Sold & Accounted for in MKWH

S.P.C. (Including sales to W.D.P.C.)	78,124 <sup>1</sup>	59,618
W.D.P.C.	17,334	12,198

2D Transmission & Distribution Losses in Percent of Net Output or Purchase

S.P.C. (W.D.P.C. considered as one customer)	4.5	6.4
W.D.P.C.	9.0	2.3

3. CUSTOMERS, SERVICE INSPECTIONS:

3A Customers

S.P.C.	98,785	96,014
W.D.P.C.	21,456	20,108
Combined **	<u>120,240</u>	<u>116,121</u>

\*\* Inter-Company Items Eliminated.

<sup>1</sup> Including 881 MKWH losses in synchronous plant for Power Factor improvement.

SHANGHAI POWER COMPANY

- 2 -

3B Service Inspections		Month of September	
(C\$ Figures in Thousands)		1947	1946
<u>Number</u>			
	S.P.C.	5,715	6,507
	W.D.P.C.	1,701	1,585
	Total	7,416	8,092
<u>Irregularities</u>			
	S.P.C.	1,113	1,355
	W.D.P.C.	317	370
	Total	1,430	1,705
<u>Cash Recovered (C\$)</u>			
	S.P.C.	14,150	2,615
	W.D.P.C.	4,292	626
	Total	18,442	3,241
<u>No. of Recoveries</u>			
	S.P.C.	18	44
	W.D.P.C.	8	9
	Total	24	53

4. EMPLOYEES:

<u>Number</u>			
	S.P.C.	3,074	3,061
	W.D.P.C.	134	125
	Total + (including staff on leave)	3,208	3,186

NOTE: Total Employees for the month of July 1947 should be 3,207 instead of 3,196  
 " " " " " August 1947 " " 3,206 " " 3,196

5. RIVERSIDE OPERATIONS:

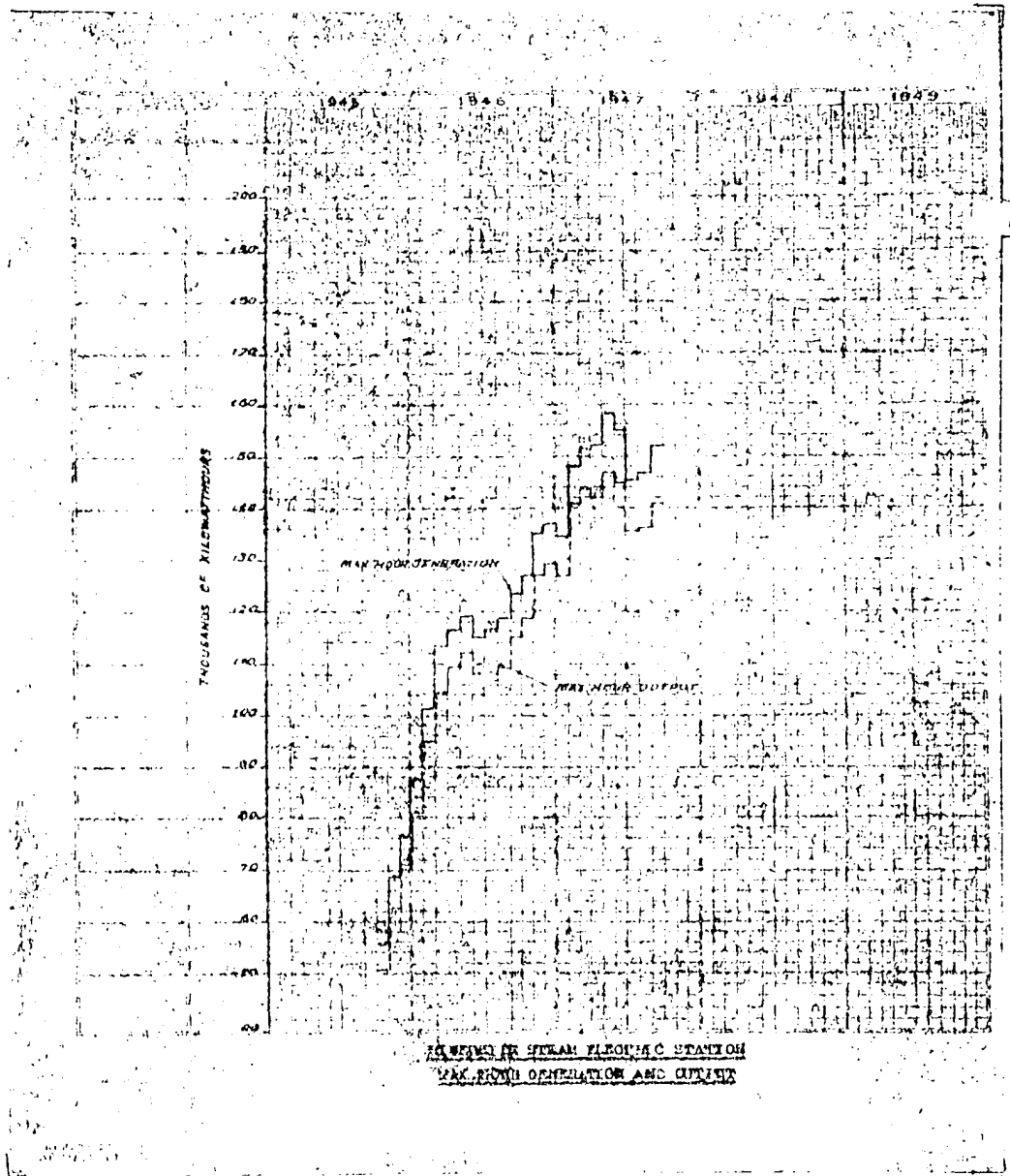
(1) <u>Generating Capacity</u>	1947	1946
Name plate rating (KW)	171,500	158,500
Name plate rating (KVA)	210,150	195,000
Working rating - Winter (KVA)	213,000	198,370
Working rating - Summer (KVA)	190,890	176,180

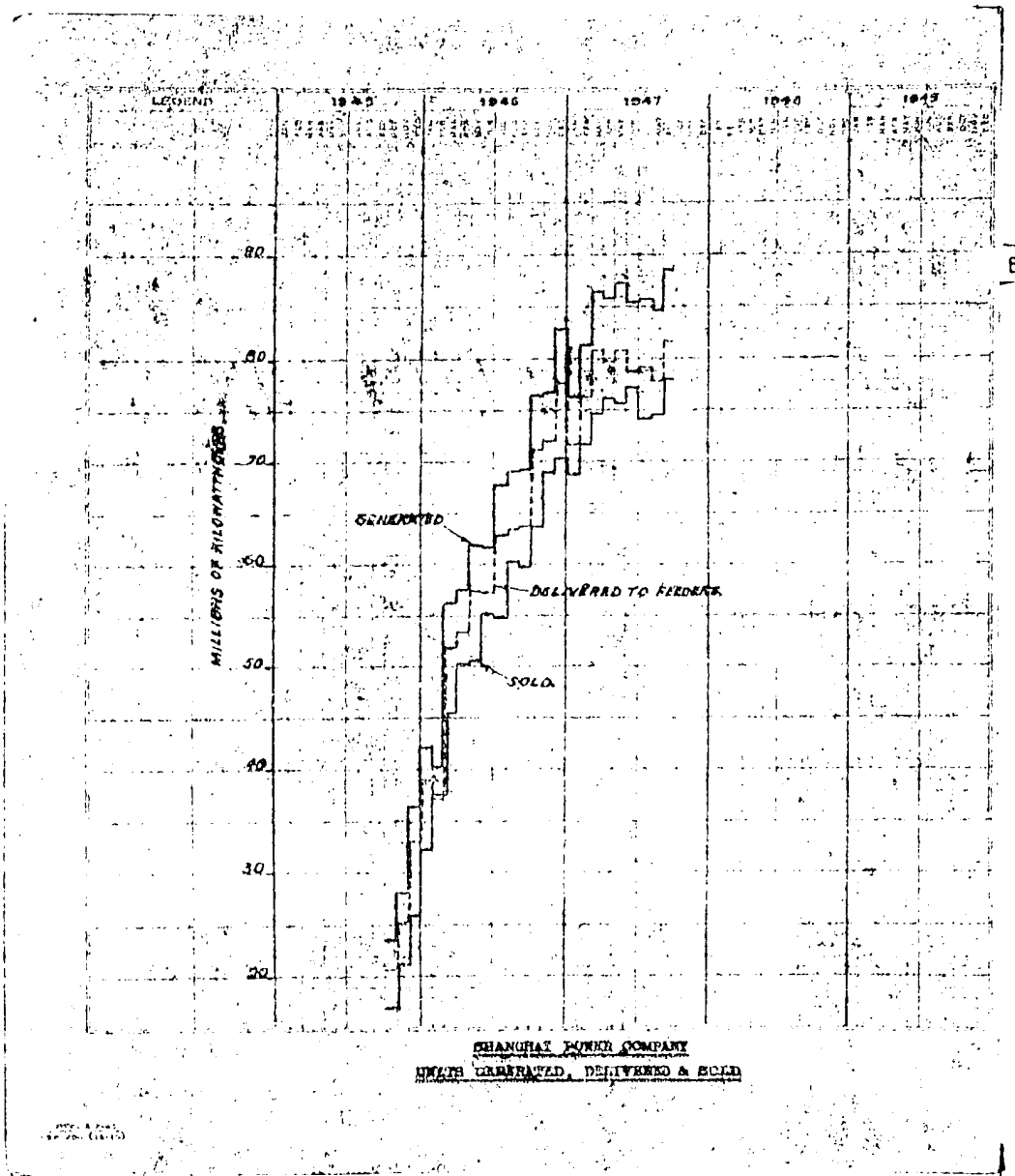
∅ Excludes TG-2, TG-6 & TG-11.

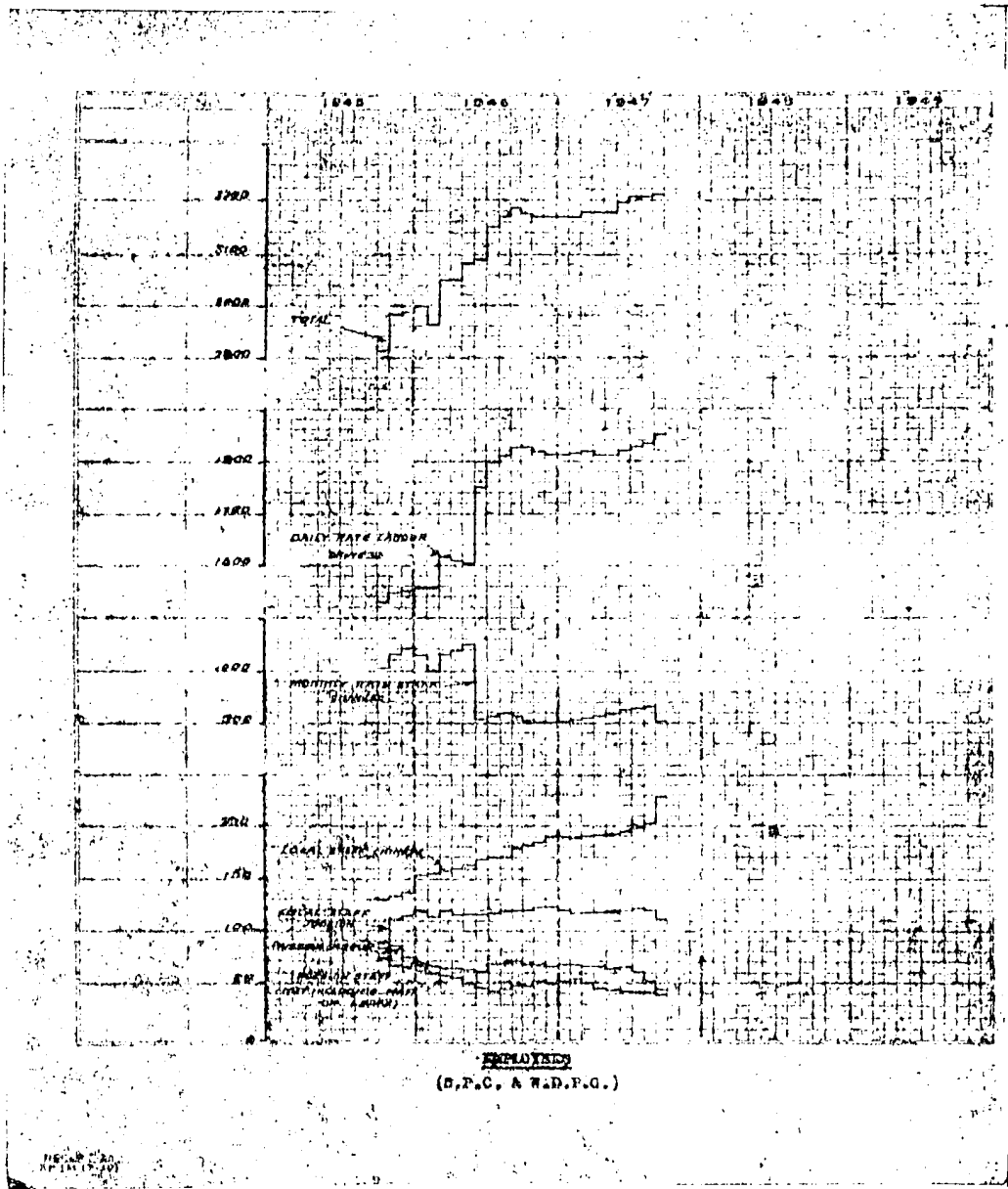
(2) Instantaneous Peak Generation (kW)	157,291	126,621
(3) Efficiency (BTU per KWH Output)	20,201	21,836
(4) Load Factor (Based on Output & Max.Hr. Output)	80.54	76.71

(5) <u>Fuel in tons of 2240 lbs</u>	1947		1946	
	Coal	Oil	Coal	Oil
In stock at end of August	36,369	956	19,995	794
Received during month	11,810	28,652	25,004	20,515
Used during month (Including Sundries)	20,489	28,768	25,310	20,824
In stock at end of September	27,690	840	20,489	485









SHANGHAI POWER COMPANY

SECRETARY & ACCOUNTANT

SEPTEMBER, 1947

SHANGHAI POWER COMPANY AND WESTERN DISTRICT POWER COMPANY, Ltd. Inc.

Cash on Hand and in Banks - Shanghai

The balance of cash on hand and in bank accounts in Shanghai on September 30, 1947 was as follows:

<u>Current Bank Accounts</u>	<u>S.P.C.</u> <u>CNY</u>	<u>W.D.P.C.</u> <u>CNY</u>
Secretary & Treasurer		\$ 193,094,409.54
Hongkong & Shanghai Banking Corporation	\$ 1,221,187,716.55	
General Fund Account	5,523,692,000.00	
Fixed Deposit Account		
(NY) \$ 4,823,692,000 due 1.29.48		
(SH) 1,000,000,000 due 1.31.48		
National City Bank of New York	21,276,147.00	
The Bank of China	10,779,366.00	
The Chekiang Industrial Bank, Ltd.		4,348,192,039.46
General Fund Account	36,722,077,714.55	
Fixed Deposit Account	20,000,000,000.00	
Compradors Cash on Hand	1,588,565,653.24	615,512.84
<b>Total</b>	<b>\$ 60,087,346,619.54</b>	<b>\$ 4,639,901,988.64</b>

Remittances to New York and from New York

During September 1947, the following remittances were obtained by us at the official open market rate of exchange:

Remittances to New York Office

<u>Date</u>	<u>Amount</u>	<u>Remarks</u>
Sept. 19	US\$25,000.00	for second instalment on 960 pcs. 12.5 kVa outdoor type capacitors and control gears for power factor correction at US\$135.417 per pcs. and 39 pcs. 300-400 amp. indoor type disconnecting switches for wall-mounting at US\$33.647 per piece.
	291.86	35,000 pcs. wire heap type padlock seals for locking meters amounting to US\$422.10 less US\$330.24 already bought on June 4 and July 7, 1947.
Sept. 22	312.63	one case medical supplies and 8 barrels of sodium sulphate.
Total	US\$25,604.49	

Remittances to London Agent

<u>Date</u>	<u>Amount</u>	<u>Remarks</u>
Sept. 26	2420.00	for 23 kV electric power metal-clad switchgear spare parts.
Total	2420.00	

The following statement shows the supervision fee payable to you with U.S. dollar equivalent at the open market rate of the Central Bank of China:

SHANGHAI POWER COMPANY

SECRETARY & ACCOUNTANCY

SEPTEMBER, 1947

SHANGHAI POWER COMPANY AND WESTERN DISTRICT POWER COMPANY, Fed. Inc.

Cash on Hand and in Banks - Shanghai

The balance of cash on hand and in bank accounts in Shanghai on September 30, 1947 was as follows:

	<u>S.P.C.</u> <u>CN\$</u>	<u>W.D.P.C.</u> <u>CN\$</u>
<u>Current Bank Accounts</u>		
Secretary & Treasurer	-	\$ 193,094,409.34
Hongkong & Shanghai Banking Corporation	\$ 1,221,167,718.55	
General Fund Account	5,523,692,000.00	
Fixed Deposit Account		
CN\$ 4,523,692,000 due 1.29.48		
CN\$ 1,000,000,000 due 1.31.48		
National City Bank of New York	21,276,147.00	
The Bank of China	10,779,386.00	
The Chekiang Industrial Bank, Ltd.	-	4,346,192,059.46
General Fund Account	56,722,077,714.55	
Fixed Deposit Account	20,000,000,000.00	
Comptroller's Cash on Hand	1,598,563,633.34	515,519.84
<b>Total</b>	<b>\$ 65,067,846,619.54</b>	<b>\$ 4,539,901,988.64</b>

Remittances to New York and from New York

During September 1947, the following remittances were obtained by us at the official open market rate of exchange:

Remittances to New York Office

<u>Date</u>	<u>Amount</u>	<u>Remarks</u>
Sept. 19	US\$25,000.00	for second instalment on 960 pos. 12.5 kVa outdoor type capacitors and control gears for power factor correction at US\$155.417 per pce. and 39 pos. 300-400 amp. indepr type disconnecting switches for wall-mounting at US\$33.847 per piece.
	291.86	35,000 pos. wire mesh type padlock seals for locking meters amounting to US\$522.10 less US\$330.24 already bought on June 4 and July 7, 1947.
Sept. 22	312.63	one case medical supplies and 9 barrels of sodium sulphite.
Total	US\$25,604.49	

Remittances to London Agent

<u>Date</u>	<u>Amount</u>	<u>Remarks</u>
Sept. 26	2420.00	for 23 kV electric power metal-clad switchgear spare parts.
Total	2420.00	

The following statement shows the supervision fee payable to you with U.S. dollar equivalent at the open market rate of the Central Bank of China:

SHANGHAI POWER COMPANY

- 2 -

	<u>C.N. Dollars</u>	<u>Exchange Rate</u>	<u>U.S. Dollars</u>
Period Sept. 17, 1945 to Dec. 31, 1946	16,357,028,761	50,100	326,487.60
January to August, 1947	8,016,600,000	50,100	160,000.00
Month of September	<u>1,008,000,000</u>	50,100	<u>20,000.00</u>
	25,379,628,761		506,487.60

The Chinese dollar equivalent of the accrued consultation fee payable to you for the period Sept. 17, 1945 to Aug. 31, 1947 was adjusted to the open market rate of the Central Bank of China at Sept. 30, 1947, i.e. CN\$30,100. The exchange difference of CN\$17,948,529,000 as per the following calculation originally was charged to Miscellaneous Suspense - Exchange Adjustment and subsequently transferred to Exchange - Net, in accordance with the suggestion in your letter of Sept. 5, 1947.

		<u>In Thousand CN\$</u>
Sept. 17, 1945 to Aug. 31, 1947	US\$486,487.60 at CN\$50,100 =	24,573,029
Less on books:		
Sept. 17, 1945 to July 31, 1947	US\$466,487.60 at CN\$12,100 =	5,644,500
Month of August 1947	<u>20,000.00 at CN\$39,000 =</u>	<u>780,000</u>
	<u>US\$486,487.60</u>	<u>6,424,500</u>
Exchange Difference charged to Miscellaneous Suspense - Exchange Adjustment		<u>17,948,529</u>

The following exchange adjustments made in August 1947 in connection with accrued supervision fee, were reversed in September, 1947.

Exchange adjustment charged to earned surplus	<u>CN\$9,782,016,000</u>
Exchange adjustment charged to operating expenses	<u>783,300,000</u>

Accounts Payable

Unpaid fuel bills as at Sept. 30, 1947 were as follows:

<u>Fuel Oil</u>	
Unpaid bills for September - CN\$7,282,000,000 (equivalent to US\$401,193.14)	

Accounts Receivable and Collections

The total amount due from consumers, as at Sept. 30, 1947 excluding Municipal and CN\$14,283,712,000 intercompany sales due from Western District Power Company of Shanghai was CN\$80,534,018,000. The amount due from the Municipal Government for both companies was CN\$2,698,800,000. Municipal overdue accounts as at Sept. 25, 1947, in respect of the period Jan. 1 to June 30, 1947 and amounting to CN\$494,140,295, were deducted from Shanghai Power Company's royalty payment on Sept. 30, 1947.

Customers' Deposits

Deposits collected during the month for both companies amounted to CN\$90,838,000 including CN\$25,000,000 in the form of security deposits; withdrawals during the month amounted to CN\$11,868,000. The balance of deposits held against service charges for both companies amounted to CN\$7,524,170,000 of which the amount of CN\$27,900,360

SHANGHAI POWER COMPANY

- 3 -

(nominal value) was in the form of securities segregated as follows:

	S.P.C. CN\$	W.D.P.C. CN\$
S.M.C. Debentures	12,620	-
Bank Guarantee	56,800	25,027,600
S.P.C. 7.5% Silver Preferred Stock	2,054,080	573,860
Shanghai Telephone Co. shares	2,100	-
S.P.C. First Mortgage Debentures, 5 1/2% Dollar Series, due 1973	151,300	42,000
	<u>2,256,900</u>	<u>23,643,460</u>

Payroll

Our payroll for the month with high cost of living index 54,400 times basic pay (scaled down in accordance with Municipal Government formula) totalled CN\$13,166,884,900 segregated as follows:

Foreign and Executive	CN\$ 2,244,911,000
Local	3,740,844,000
Chinese	6,890,997,900
Leave Pay	250,712,000
	<u>CN\$13,166,884,900</u>

Increase in coal price

The coal price charged by the Fuel Control Commission was increased from CN\$320,000 per metric ton to CN\$720,000 per metric ton on Sept. 1, 1947. On Sept. 29, 1947, the Shanghai Fuel Control Commission of the Ministry of Economic Affairs advised us again that due to the rise in the costs of material and labor and the increase in freight charges, the price of coal supplied by the Commission will be increased from CN\$720,000 to CN\$860,000 per ton, ex ship Shanghai, effective from Oct. 1, 1947.

Dividend Equalization Reserve and General Reserve

During the month we set aside CN\$4,888,000,000 for Dividend Equalization Reserve and CN\$2,444,000,000 for General Reserve which amounts were CN\$1,388,000,000 and CN\$624,000,000 higher than the last month's figures. These accruals were calculated as follows:

Estimated Capital Invested in Business at 12/31/41 of US\$50,000,000 at 50,100 = CN\$2,505,000,000,000	
1% p.a. allowed in the franchise for Dividend Equalization Reserve	CN\$25,000,000,000
Less accrued up to August 31, 1947	5,500,000,000
Balance to be accrued in four months	<u>CN\$19,500,000,000</u>
Accrued for September, 1947	<u>CN\$ 4,888,000,000</u>
1% p.a. of Capital Invested in Business allowed in the franchise for General Reserve	CN\$12,525,000,000
Less accrued up to August, 1947	2,750,000,000
Balance to be accrued in four months	<u>CN\$ 9,775,000,000</u>
Accrued for September, 1947	<u>CN\$ 2,444,000,000</u>

SHANGHAI POWER COMPANY

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SEP. 30, 1947  
C/P 100 TO 471

Chinese Government Profits Tax

The adverse operating result due to the increase of the open market rate of U.S. dollars from CN\$39,000 to CN\$60,100 during the current month having made the accruals for current year Chinese Government Profits Tax up to the month of July sufficient to cover the tax for the nine months period up to Sept. 30, 1947, no provision was made in the current month for Shanghai Power Company.

In the case of the Western District Power Company, an accrual of CN\$400,000,000 was made for this tax in the current month based upon the following calculations:

	<u>Million CN\$</u>
Net additions to Earned Surplus for the 8 months ended Aug. 31, 1947	2,390
Add back - Profits Tax Accruals - Jan. to Aug. 1947	210
	<u>2,508</u>
Net additions to Earned Surplus for Sept. 1947 (including Profits Tax)	3,068
	<u>5,576</u>
Less: Estimated Depreciation for the 9 months Jan.-Sept., 1947	1,800
Taxable Income for the 9 months Jan. to Sept., 1947	<u>3,776</u>
Profits Tax for the 9 months Jan. to Sept. 1947 16% of above	604
Less: Profits Tax accrued to Aug. 31, 1947	210
Profits Tax accrual for September, 1947	<u>394</u>
	Say 400
	*****

Material Replacement Reserve

The percentage added to stores issued for this reserve in September was reduced to 100% and the amount accrued in the current month was CN\$708,000,000.

Contingency Reserve Exchange

During the month, we set aside CN\$11,897,000,000 for this reserve and charged to current month's operating expenses. The figure was calculated as follows:

Exchange liabilities US\$1,056,005.76 at 50,100 =	CN\$52,905,890,000
Balance on books before adjustment at Sept. 30, 1947	<u>59,885,216,000</u>
Debited to Miscellaneous Suspense - Exchange Adjustment	CN\$13,662,674,000
Balance in Miscellaneous Suspense - Exchange Adjustment at 8/31/47	<u>53,936,696,000</u>
Balance to be amortized in 4 months	<u>CN\$17,588,370,000</u>
September proportion amortized	<u>CN\$11,897,000,000</u>
	*****

Employee Pension and Retirement Reserve

A total of CN\$3,800,000,000 was set aside as provision for this reserve in the current month and was charged to operating expenses. This represented an increase of CN\$500,000,000 over the August figure in accordance with the following calculations:-

<u>Provision for Pensions</u>	
Total potential liability US\$1,500,000.00 @ 50,100 =	CN\$75,150,000,000
Sept. proportion = 1/60 of total	CN\$ 1,253,000,000
<u>Provision for Retirement Gratuities</u>	
Total potential liability at present H.C.L. 34,400 =	CN\$103,494,000,000
Sept. proportion = 1/60 of total	1,723,000,000



SHANGHAI POWER COMPANY

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SEP 1947  
BY 40818-471

	Brought Forward -	
		CN\$2,978,000,000
Additional provision for monthly increase of the potential liability for retirement gratuities		408,000,000
		<u>CN\$3,386,000,000</u>
Less provided on W.D.P.C. books for September, 1947		60,000,000
		<u>CN\$3,326,000,000</u>
Provision for this reserve on S.P.C. books, say		CN\$3,500,000,000

Casualty & Insurance Reserve

The current month provision for this reserve was CN\$250,000,000 based upon US\$5,000 at the exchange rate of CN\$50,100 and charged to operating expenses. There will be no reacrual for amounts below CN\$50,000,000 paid out from this reserve.

A. Kondal Ward  
Secretary & Treasurer

October 15, 1947

SHANGHAI POWER COMPANY

October 27, 1947

SECRET

CONSUMERS' MONTHLY REPORT FOR SEPTEMBER

SHANGHAI POWER COMPANY

SEPTEMBER STATISTICS

Analysis of K.W.H. Sales

	This Year	Last Year	Increase	Increase %
Residential Lighting)	2,562,911	6,898,301	1,758,110	25.8
Commercial Lighting )				
Residential Heating & Cooking)	1,446,316	1,427,394	9,456	0.7
Commercial Heating & Cooking )				
Bulk Supply Industrial	28,281,207	22,512,581	6,368,626	28.3
Bulk Supply Commercial	1,502,012	1,194,659	397,353	33.9
Small Power (Incl. D.C. Units)	4,796,450	3,825,476	971,474	25.4
Public Utility:				
Shanghai Trans	1,024,674	669,139	113,545	13.0
French Trans	856,591	1,114,304	-257,713	-23.6
Shanghai Waterworks	1,300,450	967,750	332,700	35.1
Chapei Co.	7,008,897	7,607,491	-598,594	-6.2
Intercompany - S.H.P.C.	19,062,850	14,022,491	5,040,359	36.0
Private Street Lighting	77,062	70,336	6,726	9.6
Municipal Street Lighting	193,895	191,587	2,308	1.2
Municipal Others	402,975	374,387	28,588	7.1
Total	77,025,137	62,911,658	14,173,479	22.5
Total Units Sold (12 months ending September 1947)	262,123,487	210,524,625	112,679,862	57.1

Analysis of Large Industrial Sales in K.W.H.

	This Month	Last Month	Last Year	Increase % over Last Year
Chinese Cotton Mills	18,949,257	17,241,605	1,601,515	50.4
Other Cotton Mills	292,750	359,600	4,541,470	-88.5
Total Cotton Mills	19,242,007	17,601,205	12,143,985	27.0
Flour Mills	1,773,900	1,426,600	1,444,860	22.8
Rubber Products	940,580	838,410	581,630	61.9
Paper Mills	1,002,028	873,432	917,618	9.2
Lumber Mills	21,580	24,070	13,150	62.1
Egg Produce	-	-	-	-
Oil Mills	92,500	119,150	70,950	30.4
Ice & Cold Storage Factories	1,666,150	2,018,030	1,125,275	33.8
Tobacco Factories	222,670	212,359	206,960	7.6
Silk Mills	42,160	42,560	41,150	19.5
Miscellaneous Textiles	1,981,417	1,842,450	1,682,084	16.8
Metal Working	954,340	962,948	510,116	83.2
Woolen Mills	303,900	300,000	216,570	40.3
Miscellaneous Others	810,422	710,268	537,943	50.7
Total	28,811,327	26,950,621	21,511,321	38.3

SHANGHAI POWER COMPANY

October 27, 1947

SEP. 22, 1947  
BY: [illegible]

CONSUMERS' MONTHLY REPORT FOR SEPTEMBER

SHANGHAI POWER COMPANY

SEPTEMBER STATISTICS

Analysis of K.W.H. Sales

	<u>This Year</u>	<u>Last Year</u>	<u>Increase</u>	<u>Increase</u>
				<u>%</u>
Residential Lighting)	8,564,911	6,806,801	1,758,110	25.8
Commercial Lighting )				
Residential Heating & Cooking)	1,446,815	1,437,359	9,456	0.7
Commercial Heating & Cooking )				
Bulk Supply Industrial	28,881,207	22,514,381	6,366,826	28.3
Bulk Supply Commercial	1,508,019	1,109,659	398,360	35.9
Small Power (incl. D.C. Lifts)	4,796,950	3,825,476	971,474	25.4
<u>Public Utility:</u>				
Shanghai Trams	1,004,664	889,139	115,525	13.0
French Trams	856,500	1,120,200	-263,700	-23.6
Shanghai Waterworks	1,300,440	962,730	337,710	35.1
Chapel Co.	9,008,899	9,607,201	-598,302	-6.2
Intercompany - W.D.P.C.	19,044,800	14,002,400	5,042,400	36.0
Private Street Lighting	77,062	70,338	6,724	9.6
Municipal Street Lighting	193,895	191,587	2,308	1.2
Municipal Others	400,975	374,387	26,588	7.1
<u>Total</u>	<u>77,085,137</u>	<u>62,911,658</u>	<u>14,173,479</u>	<u>22.5</u>
Total Units Sold (12 months ending September 1947)	863,193,487	542,522,625	313,670,862	57.1

Analysis of Large Industrial Sales in K.W.H.

	<u>This Month</u>	<u>Last Month</u>	<u>Last Year</u>	<u>Increase</u>
				<u>% over</u>
				<u>Last Year</u>
Chinese Cotton Mills	13,949,257	17,343,605	12,600,515	50.4
Other Cotton Mills	292,750	259,600	2,551,470	-88.5
Total Cotton Mills	19,242,007	17,603,205	15,151,985	27.0
Flour Mills	1,773,900	1,326,600	1,444,860	22.8
Rubber Products	940,580	838,210	581,030	61.9
Paper Mills	1,002,028	873,432	917,618	9.2
Lumber Mills	21,580	24,070	13,150	64.1
Egg Produce	-	-	-	-
Oil Mills	92,500	116,250	70,950	30.4
Ice & Cold Storage Factories	1,506,150	2,038,030	1,125,875	33.8
Tobacco Factories	222,660	214,359	206,960	7.6
Silk Mills	49,160	49,560	41,150	19.5
Miscellaneous Textiles	1,981,417	1,893,452	1,696,084	16.8
Metal Working	934,843	962,948	510,216	83.2
Woolen Mills	303,900	300,000	216,550	40.3
Miscellaneous Others	810,482	710,568	537,953	50.7
<u>Total</u>	<u>28,881,207</u>	<u>26,950,684</u>	<u>22,514,381</u>	<u>28.3</u>

SHANGHAI POWER COMPANY

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REF. NO. P.O.  
OF 2000 17-237

CONNECTIONS

No. of Customers		This Month	Last Month	Last Year	Increase during month
		98,785	98,501	96,014	284
"	Refrigerators	8,548	8,535	8,383	13
"	Cookers	2,970	2,966	2,989	4
"	Radiators	1,935	1,968	2,818	-30
"	Water Heaters	78	75	66	3
"	Misc. Appliances	167	167	167	-
H.P. of Motors		13,823	13,845	14,484	-22

∅ Includes Refrigerators installed in Western District Power Company Area.

x These figures include Appliances hired by Western District Power Co. of S'hai.

CONNECTED LOAD

K.W. Lighting		102,785	102,613	99,659	172
"	Heating: Comprising	(31,837)	(31,845)	(34,148)	(-8)
"	Cookers	18,327	18,293	18,338	34
"	Radiators	9,843	9,930	12,528	-87
"	Water Heaters	152	131	121	21
"	Miscellaneous	3,515	3,491	3,161	24
"	Motors	230,846	230,488	229,890	358
"	Industrial Heating	4,563	4,359	4,029	204
"	W.D.P.C.	54,600	54,600	54,600	-
"	Total	424,631	423,905	422,326	726

MONTHLY MOVEMENT IN CUSTOMERS

	Total All Classes
Total Customers Reconnected	131
Total Customers Disconnected	<u>72</u>
Gain	59
Total New Customers Connected	<u>225</u>
Total Increase During Month	<u>284</u>

SHANGHAI POWER COMPANY

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GENERAL COMMENTS

The final form of the Restrictive Measures were passed at a Municipal Government meeting held on September 26th, 1947, and we received official confirmation on September 30th, 1947. In last month's report, the various stages of development of the scheme were discussed in full. As mentioned, we were strongly against the introduction of an allotment plan, knowing from previous experience the many difficulties involved in successfully putting such a scheme into effect. However, we were overruled on this point, and the scheme as it now stands will be enforced as from the October 1947 meter reading date of each consumer. It is doubtful if these Measures will achieve the desired results which we were hopeful of attaining by our original scheme of straightforward progressive rates applied to all non-industrial consumers.

The final form is set out hereunder. It will be noted that certain modifications have been made to the setup given in last month's report. For instance, it will be noted that the period on which allotment is based has been changed, and the application to the "Residential" group has been revised.

RESIDENTIAL

Allotment equals highest monthly usage of all services during the period March/April/May 1947.

1 - 40 KWH .....	At Prevailing Rate
41 KWH - Allotment .....	At 2 times Prevailing Rate
Usage over Allotment .....	At 4 times Prevailing Rate - 1st Offence
	At 6 times Prevailing Rate - 2nd Offence
	At 6 times Prevailing Rate - 3rd Offence *

COMMERCIAL

Allotment equals highest monthly usage of all services, excluding Power, during the period March/April/May 1947.

Up to 70% of Allotment .....	At Prevailing Rate
70% - 100% Allotment .....	At 3 times Prevailing Rate
Usage over Allotment .....	At 5 times Prevailing Rate - 1st Offence
	At 10 times Prevailing Rate - 2nd Offence
	At 10 times Prevailing Rate - 3rd Offence *

COMMERCIAL BULK SUPPLY

Allotment equals highest monthly usage during the period March/April/May 1947.

Up to 80% of Allotment .....	At Prevailing Rate
80% - 100% Allotment .....	At 3 times Prevailing Rate
Usage over Allotment .....	At 5 times Prevailing Rate - 1st Offence
	At 10 times Prevailing Rate - 2nd Offence
	At 10 times Prevailing Rate - 3rd Offence *

\* Supply may be disconnected on 3rd Offence.

INDUSTRIAL LIGHTING

Allotment equals highest monthly lighting usage during the period March/April/May 1947.

SHANGHAI POWER COMPANY

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Up to 80% of Allotment ..... At Prevailing Rate  
 80% - 100% Allotment ..... At 3 times Prevailing Rate  
 Usage over Allotment ..... At 5 times Prevailing Rate - 1st Offence  
 At 10 times Prevailing Rate - Subsequent Offences

INDUSTRIAL BULK SUPPLY

No restriction.

In view of the fact that the Restrictive Measures become effective as from October 1st, 1947, it was necessary that each consumer should be advised of his allotment prior to his October meter reading date. Realizing that we would be pressed for time, our Accounts Office proceeded with the work of recording the allotment for each consumer, preparing special notices to go out immediately the scheme was approved, etc. However, the last minute change in the allotment period to March/April/May 1947 caused quite an upset in view of the fact that allotments had been based on the original April/May/June period. Nevertheless, we were able to get the allotment notices to consumers mailed on time.

Certain news items had appeared in the press during the month bearing on the forthcoming Restrictive Measures. As was to be expected, many letters were received from consumers asking - in anticipation - for special consideration, etc., etc. Now that the scheme is an accomplished fact, the volume of incoming mail can be expected to reach considerable proportions.

COMMENTS: TOTAL KILOWATT-HOUR SALES

The meter reading months were as follows:

	<u>September</u>	<u>August</u>	<u>Difference</u>
Schedule Rate Consumers	29.98	31.41	- 4.5%
Bulk Supply Consumers	30.80	30.70	+ 0.3%
Municipal Consumers	33.00	30.00	+10.0%

Total Kilowatt-hour Sales for September were 77,085,137 KWH compared with 73,590,000 KWH in August. The weighted reading months were very nearly equal. The increase of 3,500,000 KWH corresponds to 4.8% and was partly due to increased rated capacity of the generating plant with cooler river water, but mainly due to the fact that practically no breakdowns occurred during the month. Most of the extra energy available was taken by Industrial Bulk Supply Consumers (1,900,000 KWH) and Inter-company (2,800,000 KWH). Sales to Chapel Company also increased while sales to the other classes declined.

Residential & Commercial Lighting Sales were 8,564,911 KWH, a 4.8% decrease from last month's total of 9,000,000 KWH, corresponding to the shorter reading month. Actually, a slight seasonal increase is normal, but exceptionally bright and warm weather counteracted the seasonal influence.

Residential & Commercial Heating & Cooking Sales were down from 1,546,000 KWH in August to 1,446,815 KWH in the current month due to the same causes.

Industrial Bulk Supply Consumers took 28,881,207 KWH compared with only 26,950,000 KWH last month, an increase of 7.2%. Sales to Ice & Cold Storage Plants were seasonally down, while most of the other industries increased their consumption.

Commercial Bulk Supply Consumers' usage dropped by 18.3% to 1,508,019 KWH as air-conditioning installations were no longer operated.

SHANGHAI POWER COMPANY

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SEP 20 1947

Small Power Sales decreased by 5.6% to 4,746,950 KWH, mainly due to the shorter reading month.

Shanghai Trams took 1,004,664 KWH or 3.9% less than in August.

French Company sales dropped by 15.7% to 856,500 KWH.

Shanghai Waterworks took 1,300,440 KWH or 4.8% less than during the previous month due to seasonally diminishing demand for water.

Chapei Company sales increased by 1.8% to 9,008,897 KWH.

Intercompany sales reached a total of 19,044,800 KWH - 17.5% over last month's total of 16,213,000 KWH.

Private & Public Street Lighting showed no change,

nor did Municipal Other.

#### ANALYSIS OF LARGE INDUSTRIAL SALES

Cotton Mills - Sales increased by 9.3% to 19,241,007 KWH. Favourable conditions at our Generating Station with practically no breakdowns, made additional energy available as compared with the previous month, and less enforced load reduction was necessary.

With the widening margin between the official I.T. rate and the official open market rate, even relatively small allotments of raw cotton ensure handsome profits for the mills which are able to dispose of much of the yarn at the open market rate.

Flour Mills took 1,773,900 KWH in September compared with only 1,326,600 KWH in August, an increase of 33.7%. While well below the peak in 1946 when UNRRA grain flooded the markets here, it is over double the 1940 average. The grain supply at present is rather erratic, and it should be borne in mind that in view of the relatively small capacity of the local mills (milling about 20-25,000 tons per month), even one or two extra shipments influence the level of operations.

Rubber Products - Sales to this group increased by 12.2% to reach 940,580 KWH, an all-time high. The capacity of the plants has been steadily increased and many new factories erected, as the unstable monetary conditions make operators prefer to reinvest profits in additional plant and raw materials. The demand, especially from exporters, is extremely heavy and the production is easily disposed of at very comfortable profits.

Paper Mill sales also increased and reached a total of 1,002,028 KWH - 14.7% over last month's figure. This is well over the prewar average, but below the spring and early summer level of around 1,100,000 KWH. The increase was mainly due to increased activity by the China Fibre Container Co. after two months' partial shutdown. In spite of reduced imports, the demand is still slack and prices have not increased in proportion to other commodities.

Lumber & Egg Produce Plants both remained practically idle with no improvement in sight.

Oil Mill sales decreased by 20% to 92,500 KWH, mainly due to lack of beans. The local soya bean crop is not harvested till the middle of October and in view of the situation in Manchuria from where additional material is normally obtained, no appreciable increase can be expected till November.

SHANGHAI POWER COMPANY

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SEP. 15 1950  
NOV. 15 1950

Ice & Cold Storage Plants - Sales dropped seasonally by 26.4% to 1,506,150 KWH.

Tobacco Factories increased by 3.9% to 222,660 KWH. Extreme price increases and reduced earnings have reduced demand, while raw material is scarce with smaller allotments of imported tobacco. Only a relatively small seasonal increase may therefore be expected.

Silk Mill sales dropped by 0.8% to 49,160 KWH, which is only about half of the normal prewar total. The present output is just sufficient to satisfy local demand and practically nothing is exported. The rapidly increased exchange rate has failed to stimulate this industry as prices of raw materials have at least kept step, while world market prices have declined. The United States, normally the best consumer, show no sign of changing from their preference for rayon and nylon, and the European markets are amply supplied by the Italian and French producers. No improvement is therefore to be expected for this industry for some time.

Miscellaneous Textiles took 1,981,417 KWH, or 4.6% more than last month. The demand is good and it is expected that the mills will continue to run at full capacity.

Metal Working sales declined by 2.9% to 934,843 KWH. Most mills maintained their activities, but the total was pulled down by slightly lower usage by the Asia Steel Co. Ltd. which used 40,000 KWH less than last month.

Woolen Mills took the same as last month with a total of 303,900 KWH. A seasonal increase was expected but was probably delayed by the warm weather.

Miscellaneous Other sales increased by 14.1% to 810,482 KWH, mainly due to increased activity by Coal Briquette and Glass Factories. Breweries and Aerated Water Plants were seasonally down.

#### POWER SERVICE

Applications for power service for night operation only are still being received at an average rate of from 2-3 per day. During September, 78 applications totalling 1,340 H.P. were accepted, which brings the total, to the end of this month, up to 164 for an aggregate load of 2,793 H.P. in both S.P.C. and W.D.P.C. areas. However, owing to the fact that very few of the locally manufactured transformers are yet available for service, there is still an acute shortage of spare transformer capacity and as a result only about 35% of the above load has been connected to date.

The following applications for power service were accepted during the month:

Reconnections:	3	Applications totalling	237 H.P.
New Load	: 78	"	" 1,500 "
Total	: 81	"	" 1,737 "

Of the above total load, 173 H.P. covers official recording of unauthorized additions made during the period when restrictions were previously in force, 325 H.P. for the Boston Worsted Company's new mill at 8 Dixwell Road, temporary supply for 70 H.P. at Aloud Spinning & Weaving Company's new mill at 377 Haiphong Road for testing newly installed machinery, and 11 applications for loads of from 1 - 2 H.P. were for noodle and beancurd shops. The balance of the load was for night operation only and included 200 H.P. for a Flour Mill, 133 H.P. for a Printing & Dyeing Factory, and loads of from 1 - 60 H.P. for the following industries: printing, metals, rubber, paint, glass, lumber, silk weaving and cotton.



SHANGHAI POWER COMPANY

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SEP. 29 1946  
BY 4000 17.21

The situation regarding the present heavy loading of transmission cables is causing considerable concern and with a view to reducing the peak loading on each transmission substation, a scheme is being worked out to re-group the textile mills for load reduction purposes.

As explained in our Report for October 1946, the cotton mills are arranged in six groups for load reduction and each week-day one group is shut down voluntarily during day-shift, while a second group is on stand-by for load reduction. It is now planned to re-arrange the groups so that as far as possible the load reduction will apply proportionately to all transmission substations.

Recently, in the event of a breakdown of 23 KV cables it has on occasion been necessary to shed load at the transmission substation concerned to prevent overloading of the remaining feeders. The existing load reduction schedule for each primary substation is therefore being revised to include as many of the small industrial consumers as possible and so eliminate the injustice of the enforced load reduction burden being borne almost entirely by the large textile mills. It is anticipated that with a steadily increasing load demand on the system, the necessity for shedding load at transmission substations will arise more frequently in the future.

During the month, load conditions at Riverside showed a very marked improvement as compared with August. Excluding T.G. 2 (2,000 Kw), all T.G. plant was available on 21 days this month as against only 5 days last month. The advent of cooler weather was also a contributory factor, there being a reduction in fan and air-conditioning load of about 5,00 Kw, resulting in a corresponding reduction in enforced load reduction.

In the course of the month, the large textile mills suffered an average loss per mill of approximately 25 production hours due to enforced load reductions. This is a marked improvement from July and August when the average loss was as high as 80 and 70 hours respectively.

The estimated loss of sales potentiality due to load reduction in September was as follows:

Cotton Mills .....	4,030,720 KWH
Miscellaneous Industries .....	633,370 "
Chapei & French Power Companies ...	255,660 "
TOTAL	<u>4,922,000 KWH</u>

Allowing for the gain of approximately 1,830,000 KWH as a result of the Sunday working schedule, the total loss of sales potentiality due to insufficient generating capacity was approximately 3,092,000 KWH as compared with 6,191,000 KWH last month. All voluntary load reduction is still being calculated as lost sales.

The temporary increase in allotment of 3,000 Kw granted to the French Power Company while one of their generators was under repair, has been discontinued as the new 3,600 Kw generator is now operating on full load. This Company's allotment therefore reverts to normal, i.e. 4,700 Kw.

The allotment to the Chapei Power Company has been reduced from 19,400 Kw to 18,900 Kw as they recently have been able to increase the output from their own generating station due to an increase in available steam generating capacity.

During September, the average potential demand showed practically no change as compared with July and August and was approximately 164,000 Kw in the forenoon and 153,000 Kw in the afternoon. When there were no outages of generating plant, Riverside

SHANGHAI POWER COMPANY

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could negotiate a maximum sustained demand of about 143,000 Kw during daytime, while in the evenings it was seldom found necessary to reduce load, and the highest instantaneous peak demand recorded was 157,000 Kw.

The following load prospects were recorded during September:

ADDITIONAL LOAD

1) Name: China Rolling & Steel Works.  
Address: 330 Whashing Road.  
Additional Load: 700 H.P.  
Estimated Additional Maximum Demand: 350 Kw.  
Estimated Additional Annual Revenue: CN\$650,000,000

This consumer plans to install two additional rolling mills aggregating 700 H.P. Supply will be given at 23 KV and consumer has been advised regarding the purchase of suitable equipment.

2) Name: Chinese Aluminium Rolling Mills, Ltd.  
Address: 610 Meichow Road.  
Additional Load: 1,000 H.P.  
Estimated Additional Maximum Demand: 500 Kw.  
Estimated Additional Annual Revenue: CN\$870,000,000

This consumer is installing an aluminium foil plant recently purchased from the Yee Tsoong Tobacco Company (ex Footing) and the operation of this machinery will create an estimated additional load demand of 500 Kw, bringing the total demand up to approximately 1,400 Kw.

Supply for the final demand will be given temporarily at 6.6 KV but will later be changed to 23 KV when our 23 KV equipment is available. The consumer has been advised regarding the purchase of suitable 23 KV equipment.

3) Name: Chinese Industrial Gas Company.  
Address: 537 Liaoyang Road.  
Additional Load: 900 H.P.  
Estimated Additional Maximum Demand: 450 Kw.  
Estimated Additional Annual Revenue: CN\$1,100,000,000

The above consumer plans to install additional plant in two stages as follows:

1st Stage - Supply required about June 1948 for an estimated increase in load demand of 200 Kw.

2nd Stage - Supply required about June 1949 for a further estimated increase in load demand of 250 Kw.

This will bring the total demand up to 700 Kw and supply for this load will be given at 23 KV. However, owing to shortage of S.P.C. 23 KV equipment, supply for the first stage of the extensions will be given temporarily at low voltage, the present supply voltage.

NEW LOAD

1) Name: Sing Hwa Brass Rolling Factory.  
Address: 550 Chunan Road.  
Connected Load: 300 H.P.  
Estimated Maximum Demand: 180 Kw.  
Estimated Annual Revenue: CN\$300,000,000.

SHANGHAI POWER COMPANY

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REF. 21 200  
BY 2001/2001

This is a new mill and consumer plans to install 4 cold rolling machines with auxiliaries, thus creating an estimated load demand of 70 KW. Supply for night operation only will be required about January 1948.

Extension of this project, planned to take place early in 1949, will bring the estimated demand up to 180 KW and supply for this load will be given at low voltage.

- 2) Name: Sung Lee Rubber Factory.  
 Address: 551 Chaoufoong Road.  
 Connected Load: 600 H.P.  
 Estimated Maximum Demand: 350 KW.  
 Estimated Annual Revenue: CN\$780,000,000.

This is a new factory for the manufacture of V-belts, hose and tyres. Machinery consisting of 5 rubber rollers and auxiliaries will be installed to start operations, creating an estimated load demand of 200 KW.

It is planned to install additional machinery about April 1948, bringing the total demand up to 350 KW. Supply for this load will be given at 6.6 KV.

Supply for the first stage of development will be given for night operation only and consumer has already placed an order with a local manufacturer for 1 - 250 KVA transformer and a 6.6 KV automatic oil circuit breaker.

An additional transformer will be ordered when more definite plans have been made regarding the development of this project.

All revenues mentioned in this Report are based on current rates, viz:

CN\$1,130 per KWH for consumption of electricity up to 50,000 KWH  
 per month  
 and CN\$1,170 per KWH for consumption of electricity in excess of this amount.

Power Installation Inspections

The following inspections were made during the month:

<u>Number of Inspections in September</u>	<u>Unauthorized Additions</u>
80	24

RESIDENTIAL SECTION

Home Service - The activities of this section continue normally. High consumption complaints are being attended to and advice on how to operate cookers economically was given by our demonstrators.

Showroom - Routine work was carried out in the showroom. The staff was kept busy during the month with enquiries concerning the forthcoming restrictive measures and allotments.

Water Heaters & Radiators - A large number of radiators was returned this month following the announcement that space heating would be prohibited during the coming winter.

SHANGHAI POWER COMPANY

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REF. NO. 1-10  
SP. FORM 17-571

HIRED PLANT INSTALLATION & MAINTENANCE SECTION

Summary of Workshop jobs:

Motors repaired .....	17	pcs.
Switches & Starters overhauled .....	12	"
Cockers overhauled & tested .....	22	"
Water Heaters " " " .....	5	"
Hot Plates fabricated .....	215	"
Service Calls attended .....	984	

Miscellaneous work and departmental jobs accounted for 283 man-days.

Hired Motors:

New Connections - 6 motors aggregating 168 H.P. These were all for night operation except one replacement of a consumer's motor.

Disconnections - 2-1 H.P. totalling 2 H.P.

Breakdowns - One major breakdown occurred - a 200 H.P. unit installed at the Sinza Pumping Station of the Shanghai Waterworks. The shaft of this unit was badly worn due to a slack chain sprocket.

ADVERTISING SECTION

Newspapers - One "Position Vacant" (Personnel Office) advertisement was inserted in the North China Daily News, China Daily Tribune and the Sin Wan Pao from September 17th to September 23rd, 1947.

A notice entitled "An Open Letter by Shanghai Power Company and Western District Power Company of Shanghai" was inserted in all the English, Chinese and Russian language newspapers on September 25th, 1947. This letter referred to the strike called by the workers in protest against the arrest of six of their fellow workers accused of participation in Communistic activities.

Articles which appeared in the China Press, North China Daily News, Central China Daily News and Sin Wan Pao were headlined: "Rules for Power Use Disclosed"; "Public Utility Bureau Chief Explains Power Restrictions"; "Three Measures for the Relief of Present Power Shortage"; "Restrictive Measures Governing Power Usage in Shanghai Amended by City Council".

General - In connection with a student-training program, diagrams showing the principle of operation of turbines were drawn and colored. These completed sketches will be mounted on linen and sprayed with varnish.

Sketches of all types of motors will be done, the art work on which will take as long as two years to complete.

*E. E. Colterjohn*

A. E. Colterjohn  
Assistant Consumers' Engineer

epo

WESTERN DISTRICT POWER COMPANY OF SHANGHAI (FEDERAL INC. U.S.A.)

October 27, 1947

FORM 100-100  
APR 22 1947

WESTERN DISTRICT POWER COMPANY OF SHANGHAI,  
FEDERAL INC. U.S.A.

SEPTEMBER STATISTICS

Analysis of K.W.H. Sales

	This Year	Last Year	Increase	Increase %
Residential Lighting)	1,487,012	1,209,470	277,542	22.9
Commercial Lighting )				
Residential Heating & Cooking)	533,254	505,602	27,652	5.5
Commercial Heating & Cooking )				
Bulk Supply Industrial	11,200,034	7,750,205	3,444,829	44.4
Bulk Supply Commercial	46,271	10,828	35,443	327.3
Small Power	2,791,253	2,301,401	489,852	21.3
Public Utility:				
Chapel Co.	1,008,000	1,312,200	-304,200	-23.2
Private Street Lighting	11,077	10,759	318	3.0
Municipal Street Lighting	23,143	23,782	-639	-2.7
Municipal Others	232,986	184,338	48,648	26.4
Total	17,333,030	13,313,585	4,019,445	30.2
Total Units Sold (12 months ending September 1947)	185,639,425	106,794,242	78,845,183	73.8
Total Units Purchased (12 months ending September 1947)	197,119,710	114,744,262	82,375,448	71.8
Distribution Losses (12 Months average)	5.8%	6.9%	-1.1%	-15.9
Maximum Demand for Purchased Power - KW	32,268	25,748		

Analysis of Large Industrial Sales In K.W.H.

	This Month	Last Month	Last Year	Increase % over Last 1
Chinese Cotton Mills	6,862,450	5,957,000	4,272,000	60.7
Other Cotton Mills	3,300	3,600	783,620	-99.6
Total Cotton Mills	6,865,750	5,960,600	5,055,620	35.8
Flour Mills	428,875	426,250	302,000	42.0
Rubber Products	259,194	189,670	149,675	73.2
Paper Mills	616,684	522,560	129,731	375.4
Tobacco Factories	2,160	1,500	-	-
Ice & Cold Storage Factories	50,600	41,600	29,700	70.4
Silk Mills	233,975	208,765	194,015	20.6
Miscellaneous Textiles	1,909,353	1,648,717	1,413,716	35.1
Metal Working	122,645	102,395	107,025	14.6
Woolen Mills	358,250	338,460	291,580	22.9
Miscellaneous Others	352,548	323,910	82,143	329.2
Total	11,200,034	9,764,427	7,755,205	44.4

WESTERN DISTRICT POWER COMPANY OF CANADA (INCORPORATED IN CANADA)

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REG. BY P.S.W.  
APR 28 1954

CONNECTIONS

	<u>This Month</u>	<u>Last Month</u>	<u>Last Year</u>	<u>Increase during month</u>
No. of Customers	21,456	21,382	20,108	74
" Refrigerators	2,299	2,291	2,219	8
" Cookers (Hired) x	788	784	779	4
" Radiators ( " ) x	267	268	388	-1
" Water Heaters ( " ) x	29	29	25	-
" Misc. Appliances ( " ) x	29	29	29	-
H.P. of Motors ( " ) x	4,720	4,680	3,514	40

x Hired from S.P.C. and included in S.P.C. Statement.

CONNECTED LOAD

K.W. Lighting	15,304	15,214	14,424	90
" Heating: Comprising	(7,383)	(7,335)	(7,636)	(48)
" Cookers	5,715	5,677	5,600	38
" Radiators	1,261	1,264	1,685	-3
" Water Heaters	64	64	56	-
" Miscellaneous	343	330	295	13
" Motors	69,007	68,425	64,226	582
" Industrial Heating	1,073	1,050	958	23
" Total	92,767	92,024	87,244	743

MONTHLY MOVEMENT IN CUSTOMERS

	<u>Total All Classes</u>
Total Customers Reconnected	18
Total Customers Disconnected	16
	Gain 2
Total New Customers Connected	72
Total Increase During Month	74

WESTERN DISTRICT POWER COMPANY OF SHANGHAI, GENERAL INC. U.S.A.

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SEP. 1957  
22 28 11 23COMMENTS: TOTAL KILOWATT-HOUR SALES

The reading month was as follows:

	<u>September</u>	<u>August</u>	<u>Difference</u>
Schedule Rate Consumers	30.53	31.06	- 1.7%
Bulk Supply Consumers	32.00	30.10	+ 6.3%
Municipal Consumers	33.00	30.00	+10.0%

Total Kilowatt-hour Sales for September were 17,333,030 kWh or 10.9% over the August total of 15,630,000 kWh. The longer reading month accounted for 5% of the increase, while the remainder was taken by Industrial and Commercial Bulk Supply consumers, including Chapei Company. Small Power users also increased their consumption although the reading month for this class was 1.7% shorter.

Residential & Commercial Lighting decreased by 3.9% to 1,487,012 kWh and Residential & Commercial Heating & Cooking by 8.9% to 533,254 kWh, although a seasonal increase is normal. The bright and warm weather accounted for this.

Industrial Bulk Supply consumers consumed 11,200,034 kWh compared with only 9,760,000 kWh last month, mainly due to higher usage by the Cotton Spinning and Weaving Mills as less enforced load reduction was necessary.

Commercial Bulk Supply used 13.7% more than last month with a total of 46,271 kWh.

Small Power sales reached 2,791,253 kWh or 9.9% over the August consumption. Several new consumers operating only during the off peak periods contributed to the increase.

Chapei Company used 1,008,000 kWh or 11.8% more than last month.

Private Street Lighting sales declined by 7.4%, while

Public Street Lighting showed no change.

Sales to Municipal Others increased by 6.7% to 232,986 kWh.

ANALYSIS OF LARGE INDUSTRIAL SALES

Cotton Mill consumption increased by 15.2% to 6,865,750 kWh. This is considerably more than the 6.3% increase of the reading month. One consumer - the "100 Sing Cotton Mill" - with a usage of 76,900 kWh, previously on Schedule Rate, was added to this group.

As in the Shanghai Power Company area, the mills in the Western District are operating to the fullest extent possible.

Flour Mills took 428,875 kWh, or 0.6% over the August total of 426,000 kWh. This group comprises two consumers only - one increased consumption from 118,000 kWh to 178,000 kWh, while the other decreased consumption from 308,000 kWh to 250,000 kWh - indicating the irregularity of the grain supply.

Rubber Products - Sales increased by 36.7% to reach a total of 259,194 kWh, only 8,000 kWh below the all-time high which occurred in June this year.

MALAYSIAN ELECTRICITY SUPPLY CORPORATION (M.S.E.C.)

SEP. 1957

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Paper Mill usage totalled 616,684 KWH, or 18.0% over last month's consumption, mainly due to increased usage by the Chung Hoo Paper Products Factory which took 150,000 KWH compared with only 96,000 KWH last month.

Ice & Cold Storage Factories - Consumption increased by 21.6% to 50,600 KWH, a post-war high for the one consumer in this class.

Sales to Silk Mills totalled 233,975 KWH, or 12.1% over last month. This industry is operating at a load factor of about 40% only compared with 65% for Cotton Mills.

Miscellaneous Textiles took 15.8% more than in August. The total was 1,909,353 KWH - a new all-time high - and only slightly less than the corresponding S.P.C. total of 1,981,000 KWH.

Metal Working sales gained 19.8% and reached 122,645 KWH, also a new post-war high.

Woolen Mills - Sales increased slightly less than the percentage increase of the reading month, while

Sales to Miscellaneous Others increased slightly more. Stone Pulverizing Works again showed the highest increase for this class of industries.

#### POWER SECTION

Applications accepted during September for connection of power supply were as follows:

New Load - 19 Applications totalling 249 H.P.

These applications include 1 1/2 H.P. for a pump for the Standard Vacuum Oil Company and 2 H.P. for a noodle shop. The remainder for loads of from 3 - 100 H.P. is for night operation only and covers the following industries: rubber, rice-grinding, cotton, silk, chemicals and electrical repairs.

During the month the following load prospect was recorded:

#### ADDITIONAL LOAD

Name: Yih Foong Worsted Mill.  
Address: Lincoln Avenue  
Additional load: 750 H.P.  
Estimated Additional Maximum Demand: 450 KW.  
Estimated Additional Annual Revenue: RM1,600,000,000

This factory is at present located in the premises of the Foh Shing Flour Mills Nos. 2, 4 & 8 in S.P.C. area. The existing machinery will be transferred to a new factory at the above location and extensions, planned to take place in about three years' time, will create an estimated increase in load demand of 450 KW, bringing the total demand up to 600 KW.

The final demand will be supplied at 23 KV, but supply for the existing load will be given temporarily at low voltage. Consumer has been advised regarding the purchase of suitable 23 KV equipment.



WESTERN DISTRICT POWER COMPANY OF INDIANA, INC. DEBAL INC. U.S.A.

SEP 22 1957  
AP 48 (11-20)

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Power Installation Inspections

Inspections made during the month were as follows:

<u>Number of Inspections in September</u>	<u>Unauthorized Additions</u>
40	6

RESIDENTIAL SECTION

Domestic Cooking - During the month, there was little movement of cookers in the Western Area. The number of cookers returned from consumers was slightly lower than the number transferred, resulting in the increase of four cookers connected for the month.

Home Service - Two demonstrations on "economical cooking" were given to consumers in this area by our demonstrators. Only a few high consumption complaints have been received during this month.

*A. S. Colterjohn*  
A. S. Colterjohn

cpo

SHANGHAI POWER COMPANY

SHANGHAI POWER COMPANY  
 RIVERSIDE STEAM ELECTRIC STATION  
 MONTHLY GENERATION REPORT  
 SEPTEMBER 1947

OUTPUT & PERFORMANCE DATA -

	A	B	C		D		E
	Total Station Net Output Kwh	Short Time Peak Demand KW	St B Gross Generation Kwh	% of Total	St C Gross Generation Kwh	% of Total	Overall Heat Consumption Btu/net Kwh
Sept 1947	81,770,494	157,291	36,234,863	41.63	22,600,000	25.47	20,201
Aug 1947	77,998,570	151,442	38,158,173	45.08	13,145,000	15.53	21,109
Sept 1946	63,712,822	126,282	26,766,236	38.74			21,886
Sept 1941	53,900,284	132,292	33,148,668	56.32			19,364
% increase over							
Aug 1947	4.84	3.86	-		71.93		-
Sept 1946	28.34	24.56	37.99		-		-
Sept 1941	51.71	18.90	11.42		-		4.31
% decrease from							
Aug 1947	-	-	3.21		-		4.30
Sept 1946	-	-	-		-		7.70

	Hourly Station Net Output Kwh	St B Hourly Generation Kwh	St C Hourly Generation Kwh
Sept 1947 (720 hr)	113,570	51,298	31,388
Aug 1947 (744 hr)	104,837	51,288	17,668
Sept 1947 (721 hr)	88,367	37,124	-
Sept 1941 (744 hr)	72,446	44,555	-
% increase over Aug 1947	8.33	0.02	77.65
Sept 1946	28.52	38.15	-
Sept 1941	56.77	15.13	-

SHANGHAI POWER COMPANY

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Remarks:

The lower heat rate compared with August 1947 due to (1) better Station load factor; (2) much higher Station 'G' generation; (3) better vacuum resulting from lower river water temperature.

The better economy compared with September 1946 due to (1) 1/c of Station 'C'; (2) better Station load factor; (3) higher Station 'B' generation account 1/c of TG 16; (4) better equipment condition.

The higher heat rate (in spite of better Station load factor and 1/c of Station 'C') compared with September 1941 due to the fact that a great part of the increased load demand has to be met by less efficient (almost obsolete) units in Station 'A'.

STEAM-GENERATORS --

SG No	Date o/c 1/c		Hours o/c	Type of Inspection & Work Done	Hr not Avail-able	Total Hr Oper-ated	Operating Hr Since Last Overhaul
31	-	-	0		0	720	3 463
30	14	14	6	Steam log; leaky drain valves repaired (IDA) - both valves overhauled; high and low water alarm overhauled.	6	702	7 369
29	18	19	9	FD Fan inspected (IDA) - FDF, belt coupling re-named.			
	20	21	13	Leaky Sh Caps rejointed (IDA) - One Sh cap joint renewed, one drain valve on steam line and one air valve overhauled. PAF motor coupling and bearing renewed.	22	568	12 834
28	8/30	11	242	Routine cleaning and general repairs completed (IMS) - Total time o/c = 274 hr. One leaky Ec cap joint renewed; 30 Sh caps rejointed; all gas baffles examined, sealed and patched; IDF impeller, casing, CI casing wearing plates and MS wearing plates examined; FDF blades cleaned, bearings checked and ducting cleaned out of grits; Ph tested, approx 30% of tubes found choked with soot deposits, some cleaned out, 6 leaky tubes plugged; valves overhauled; IDF OCB overhauled; temp recorder wiring and conduit installed. Unit soot cleaned and probe tested.	242	475	10 628
27	27	28	13	Water alarm whistle overhauled (IDA) - NR valve, valve and seat grounded, IDF damper and flue gas washer stack base patched.	13	702	9 846
26	15	20	109	Leaky Ec repaired (IDU) - Three Ec tubes renewed due to internal corrosion, No 3 front vertical nipple renewed, bottom of No 42 front header welded up, one Ec tube re-expanded and 18 Ec caps rejointed. One Sh drain valve overhauled.			

SHANGHAI POWER COMPANY

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SG No	Date o/c 1/c	Hours o/c	Type of Inspection & Work Done	Hr not Avail- able	Total Hr Oper- ated	Operating Hr Since Last Overhaul
			2 ash pit CW pipes and sprayers, 4 sets ash door lever and pins renewed. 2 connecting rods and 3 stroke adjuster renewed. Ec press tested.			
25	30 - 11 -	6 465	Repairing of leaky Ec progressing (IDU)	115	521	8 037
			Routine cleaning and general repairs to furnace brickwork after 3296 hr operation (IMS) - Work progressing.	465	254	10 284
24	20 27	151	Leaky Ec repaired (IDU) - Two Ec tubes removed due to pitting and corrosion, front vertical nipple No 49 re-expanded. 2 Sh cap joint faces on header welded up, 7 Sh caps renewed, Ph elements washed. Stoker gear cleaned, 2 connecting rods, 6 stroke adjusters renewed. Grate washed, 20 tuyeres and 12 pusher plates renewed. Ash door lever and pins <del>two</del> renewed. Furnace walls, ash pit brickwork and riddling pits patched. Unit soot cleaned and press tested.	151	392	6 797
23	27 28	13	Two lengths of blow down piping renewed (IMS) - Copas drain valve overhauled.	13	706	11 770
22	24 -	166	Renewing of Ec headers and repairing of grate parts (IMS) - Work progressing.	166	454	5 784
21	8/31 6	125	Repairing of leaky Ec completed (IDU) - Total time o/c = 139 hr. Unit routine cleaned and press tested. Ec distributor tube No 40 renewed; 3 Ec and 16 Sh caps rejointed; 4 return tubes re-expanded; 34 main tube caps rejointed; one air valve and 2 stop valve by-pass valves overhauled; FD dumper operating mech changed to quick operating type; flexible pipes fitted in place of copper tubing for FO supply to burners; Ph washed and inspected, B A C top rows of elements badly burnt and corroded; furnace walls patched.	125	589	12 930
20	6 15	202	Furnace brickwork repaired and unit routine cleaned (IDA). Three Ec caps rejointed, 1 mixing valve renewed, 60 Sh tubes re-expanded, 36 Sh caps rejointed. One cross tube renewed due to internal corrosion. Stoker gear cleaned, 2 ecc pieces and collars, 1 piston, 3 connecting rods, 6 stroke adjuster bolts, 80 tuyeres, 14 ash pusher plates and 2 dumping bars renewed. Furnace brickwork trimmed and made good. IM rear ash pit wall rebuilt. Ph washed and examined, gear box opened up and checked. IDU impeller blades cleaned. Unit soot cleaned and Ec press tested.	202	462	4 761

SHANGHAI POWER COMPANY

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SG No	Date o/c	1/c	Hours o/c	Type of Inspection & Work Done	Hr not avail-able	Total Hr Oper-ated	Operating Hr Since Last Overhaul
19	22	22	1	Aux motors and switches cleaned and examined (IMS)	1	711	3 299
18	8/29	2	32	Routine cleaning and Ec repairing completed (IMS)- Total time o/c = 83 hr. 7 Ec caps and 5 Sh caps rejointed. 2 Ec distributor tubes re-expanded and 2 Sh drains overhauled. Grate washed, 70 tuyeres, 12 ash pusher plates and 1 dumping bar renewed. Stoker gear cleaned, 2 connecting rods and 4 stroke adjuster bolts changed, IDF & FDF inspected. Unit soot cleaned and press tested.	32	551	3 517
17	1	1	0	No 3 grate gear box repaired - Unit banked			
	14	14	7	Ec repaired (IDA) - One main tube cap and 2 Ec caps rejointed, center nipple Ec inlet header re-expanded. No 3 strickle door renewed. Ec press tested.	7	671	10 789
16	-	-	0	---	0	710	16 218
15	10	19	221	Leaky Ec repaired (IDU) - One holed Ec tube changed; choked No 3 pass cleaned out; choked riddling pit cleaned; 2 burnt FD damper wires changed; sample water valve overhauled; both mixing valve covers rejointed.	221	469	1 033
14	-	-	0	---	0	710	1 526
13	11	11	0	LH grate repaired and burnt damper wires changed.	0	714	3 068
12	14	14	7	Leaky Ec caps rejointed (IDA) - Drum inspected, no heavy mud deposits.	7	615	3 956
11	1	6	107	Split LH grate overhauled (IDU) - grate drawn out and overhauled, all worn or burnt parts renewed.			
	27	28	24	Four leaky Sh tubes cut out and blind nipples fitted (IDU) - Burnt damper wire and pulleys renewed.	131	494	1 919
10	24	24	5	Jammed LH grate repaired (IDU) - Riddling cleaned out of grate links, one broken link replaced with quick repair link.			
	27	28	24	Leaky Ec repaired (IDA) - Several Ec caps and one Sh cap rejointed. Holed LH riddling hopper patched	29	534	2 537
9	8/4		720	Partial overhaul progressing (IMS)	720	0	5 856

Notes:- 1. Unscheduled SG Outages -

(a) Units taken out immediately (IDA)

SG No	26	24	21	15	11	10	Total
Times o/c	2	1	*	1	2	1	7
Hours o/c	115	151		221	131	5	(623 hr)

\* See last month's report.

BIRMINGHAM POWER COMPANY

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(b) Repairs done on a deferred date (IDA)

<u>SG No</u>	<u>30</u>	<u>29</u>	<u>27</u>	<u>20</u>	<u>17</u>	<u>12</u>	<u>10</u>	<u>Total</u>
Times o/c	1	2	1	1	1	1	1	8
Hours o/c	6	22	13	202	7	7	24	(281 hr)

(2) Tube Renewals -

<u>SG No</u>	<u>26</u>	<u>24</u>	<u>20</u>	<u>15</u>	<u>Total</u>
Boiler tubes	0	0	1	0	1
Ec tubes	3	2	0	1	6

BOILER HOUSE AUXILIARIES -1. Feed Water Pumps (FWP) -

FWP 27 - Motor and starter cleaned.  
 22 - Remade joint on steam pipe to trap and repacked valves.  
 20 - Starting resistor partially changed.  
 15 - Outboard bearing renewed.  
 13 - Honed center bearing journal smooth and renewed the center bearing.  
 12 - General Overhaul progressing.  
 5 - Motor, starting switch and water rheostat installed. Cable and conduit work in progress.

2. BH Auxiliaries -

(a) BH 2: SG 14-16-IDF steam engine HP bottom and LP top and bottom ends adjusted.  
 SG 10-12-IDF OCB tank changed (leaking).  
 SG 9-11 - Stoker driving shaft, two bearings renewed.  
 SG 9-11, 1c - Motors and switches cleaned and examined.  
 (b) BH 3: SG 17, 19, 20, 21, 22, 24, 25 and 26 - Motors and switches cleaned and examined.  
 (c) BH 4: SG 27, 29 & 30 - Motors and switches cleaned and examined.  
 MR 4/6 - Valve motor temporary supply leads installed.  
 (d) BH 5: SG 31 Ph A, B - Ammeter relocated.

RAW COAL HANDLING PLANT -

Tr 1 - Traversing wire north end shackles reinstalled, hoisting wire ropes and operating brake shoes renewed, trolley equipment repaired.  
 Tr 2 - Scale tested and trolley equipment repaired, motors and controllers cleaned.  
 Tr 3 - 4 tread wheels, bushes renewed, 2 bucket and one shaft renewed, 2 wheels welded up at spigots, bolt holes enlarged, new bolts fitted, trolley equipment repaired.  
 RT 2 - Renewed one sprocket wheel for agitator, hoisting wire ropes and operating brake lining; installed temporary DC main supply cable.  
 BC 3, 11, 12, 22, 23, 26, 28, 43, 44 - Motors and switches cleaned.

SHANGHAI POWER COMPANY

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FUEL OIL HANDLING PLANT -

- BH 3: (a) FOP 11 - glands repacked and steam cylinder cover joint renewed.  
 (b) FO heaters - Tubes cleaned and drain pipe patched.  
 (c) FO supply line to SG 18, 19 and 20 put i/c.
- BH 4: (a) Steam valve on No 2 FO tank renewed.  
 (b) No 3 FO burner valve on SG 29 renewed.  
 (c) FO heaters - Tubes cleaned.

FULVERIZED FUEL HANDLING PLANT -

- FM 3 - General overhaul progressing.  
 FM 5 & 6 - Indicating lamp resistors installed on EF.  
 FM 7 - Worn out motor bearing repaired, indicating lamp resistors installed on EF.

ASH HANDLING PLANT -

1. Electric Locomotives (LE)  
 LE 1 - Overhaul progressing.  
 LE 2 - Overhaul completed. Renewed 4 sets wheels and 2 brake shoes, patched ash hopper and changed defective field coil on No. 1 motor.  
 LE 3 - Changed one set large wheels.  
 LE 4 - Routine cleaned.
2. Ash Belt 1 & 2 - Routine cleaned.  
 3. Ash Truck - Overhead equipment minor repaired.

TURBINE-GENERATOR

TG No	Date o/c	1/c	Hours o/c	Type of Inspection & Work Done	Hr net Avail-able	Total Hr Oper-ated	Operating Hr Since Last Overhaul
18	-	-	0	---	0	720	3 306
16	18	18	14	Renewed keys in No 2 & 4 governor control valve (IDA) - Oil leak on W phase transformer repaired.	14	700	5 475
15	-	-	0	---	0	720	15 590
14	21	22	6	Main OCB for aux overhauled (IMS) - CP motors cleaned, starters overhauled; GFO motor cleaned, starter overhauled.	6	711	15 672
13	4	4	6	Routine cleaned (IMS)			
	5	5	7	Relocated air cooler pump discharge pipe (IMS) - removed discharge valve and run a separate discharge pipe for this pump.			
	10	10	5	Relocated air cooler pump suction pipe (IMS) - removed suction valve and made a separate suction pipe from cooler to pump.	18	687	3 254

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TG No	Date o/c	1/c	Hours o/c	Type of Inspection & Work Done	Hr not Avail-able	Total Hr Oper-ated	Operating Hr Since Last Overhaul
12	2	3	8	Routine cleaning (IMS).			
	5	5	4½	Relocated air cooler pump piping (IMS) - Removed discharge valve and relocated discharge pipe so that this pump has its own discharge line instead of in common with TG 13.			
	10	10	6½	Relocated air cooler pump piping (IMS) - Removed suction valve and relocated suction pipe so that this pump has a direct suction line from air cooler but left the interconnecting valve in suction line between TG 12 & 13.			
10	27	27	3	Brush gear cleaned and brushes renewed as required (IMS).	22	694	13 765
	13	14	9½	Routine cleaning not carried out (IMS) - Workmen unwilling to work.			
	27	28	13½	Routine cleaned (IMS) - Nipped No 4 bearing in housing. Both main OCB and starters for GP A and B overhauled, GP motors cleaned.	23	682	13 459
9	-	-	0	---	0	599	15 048
8	6	7	15	Routine cleaned (IMS) - Spooler gear examined. Both turbine oil coolers dismantled, boiled out, nests washed, and reassembled.	15	690	12 543
7	1	2	10	Main steam by-pass valve repaired (IDA).			
	21	21	10	All aux motors cleaned (IMS).			
	29	29	38	Replacing cylinder lagging and fitting flexible pipes to main oil pump (IMS) - Inlet and outlet pipes of main oil pump removed, out, and flexible steel pipes fitted to both lines permitting the pump to move freely when expanding with turbine cylinder. This alteration improves the running condition at the steam and considerably, as proved by the readings of vibrometer. The steam end door removed, worm and worm wheel examined and found in excellent condition, and as long as the pedestal insulation remains sound, no trouble should be experienced with this drive. Condenser cleaned and tested, main oil cooler cleaned and cylinder lagging replaced.	58	590	1 139
5	7	7	3½	Cleaned governor gear (IMS) - Flushed bearing water jackets and cleared TW to bearing line. Main OCB for aux overhauled, GP and AW motors cleaned, GP starter overhauled.	6	672	9 752
4	16	18	2½	Tested condenser (IDA) - One tube plugged.			
	14	14	3	Routine cleaning not carried out account mechanical maintenance workmen unwilling to work (IMS) - Main OCB for aux overhauled, GP & AW motors cleaned, AW starter overhauled.	3	657	10 376
2	5/18		720	Replacing of generator stator progressing.	720	0	1 366
1	1	1	16	Routine cleaning twice (IMS).	16	523	1 504
	17	17					



AMERSON POWER COMPANY

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Notes:- Unscheduled TG Outages -

(a) Units taken out immediately (IDU) - Nil

(b) Repairs done on a deferred date (LDA)

<u>TG No</u>	<u>16</u>	<u>7</u>	<u>5</u>	<u>Total</u>
Times o/c	1	1	1	3
Hours o/c	14	10	2½	(26½ hr)

TURBINE HOUSE AUXILIARIES -1. Circulating Water Pumps (CWP)

CWP 27 - Repacked stuffing box.

22 - Starting switch contacts examined and cleaned, spring tightened. Stuffing box repacked.

13 - General overhaul (after 9942 hr operation) in progress.

Booster Pump - Motor cleaned, OCB overhauled.

2. Service Water Pumps (SWP)

SWP 12 - Motor sent to workshop for repairing of faulty armature.

3. Air Compressor (Cp)

Cp 1 - Semi-annual inspection completed; Cp routine cleaned. Main, crankpin and crosshead bearings adjusted, driving V-belt renewed, oil in crank case changed, safety valve tested and operated at 100 psi, motor cleaned and starting switch overhauled.

Cp 3 - Routine cleaned.

Cp 4 - Oil in crank case changed.

4. Transformer Oil Pump (TP)

TP 15 - Oil cooler routine cleaned; pump motor dismantled and winding cleaned; starter overhauled.

FLOATING EQUIPMENT -1. Tow Bouts (TB)

TB Rectifier - Boiler cleaned and boat dry docked for survey of engine, hull and boiler.

2. Coal and Ash Lighters (CL & AL) -

AL 2 - General overhaul progressing.

CL 14 - General overhaul progressing.

MISCELLANEOUS MECHANICAL EQUIPMENT -

1. Water Screen WS 6 - Overhaul progressing.

2. Fire Hydrant No 23 - Relocated.

3. Chlorination plant - Numerous repairs made.

4. TW Booster Pump - Motor changed, main and starting OCB overhauled.

SHANGHAI POWER COMPANY

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ELECTRICAL EQUIPMENT -

1. 23 Kv SH Equipment

AB 7/8, AD 14 : OCB overhauled after faulty operation.  
 BS 4-5, BP 5, Re 5, Re AN: OCB overhauled.  
 AB 1/2, 3, 4, AE 25, 26: OCB overhauled, O/L protection tested by  
 primary current injection method  
 AC 23, 24, 33, 6/31, AK 36, 38, AH 52 & 53: O/L protection tested.

2. 6.6 Kv SH Equipment

BS (6.6 kv HS) - OCB overhauled.  
 BP (6.6 kv SH) - OCB overhauled.

3. Transformers

HST 3 & St 1, 2, 3 - HT & LT OCB overhauled.  
 ST 5/9, 14 - HT OCB overhauled.

4. Rotary Converters

PC 1, 2 & MC 4 - Brushgear cleaned and examined; brushes renewed  
 where necessary; DC fault trip supply fuse renewed.

5. Miscellaneous

- (a) Lift door contacts repaired.
- (b) MG 5/6 indicating lamp resistors installed.
- (c) Smoke signalling lamp boxes and relays being made. Telephone  
 installed in inspectors room. Flood lights installed to  
 illuminate BH 4 stacks.
- (d) Earth wiring installed for station electrical appliances.

RIVERSIDE WORKSHOP -

1. Overhauled 4 motors, 1 transformer, 1 current transformer; reconditioned  
 1 set transformer tails; rewound 1 asynchronous motor, 6 DC genera-  
 tor shunt field coils; machined 60 copper stems for pole transform-  
 ers, 10 copper contacts, 36 moving sparking contacts, 24 wood in-  
 sulators; made 42 copper contacts, 36 fixed sparking contacts, 80  
 tubular copper sockets, 21 copper terminals, 10 carbon contacts,  
 4 fuse boxes, 4 iron fuse holders, 6 brush holder springs, 30  
 copper contacts, 24 brass contacts, 4 carbon brushes; repaired 11  
 blow lamps, 2 link sticks.
2. Machined 21 MS flanges, 12 MS tip holders, 310 MS bolts, studs and  
 screws, 21 MS and tool steel pins and keys, 15 steel and brass  
 spindles, 10 steel shafts, 11 MS pipes, 57 MS and brass nipples,  
 97 MS flanges, 390 bakelite washers, 130 MS and brass nuts, 28  
 brushes, 16 nozzles, 28 union couplings, 30 Ec tube caps, 120 mis-  
 cellaneous articles for various purposes; made 24 MS studs and  
 washers, 6000 GI roofing nails, 20 dust pans, 2 MS trays, 9 MS  
 lever bars, 2 sets MS dumper air lock, 1 set Ph elements, 1 pipe  
 ladder, 1 brass strainer, 1 copper expansion, 2 brass clamps, 1  
 set LF small wheels; repaired 16 copper tubes, 2 fire hoses, 30  
 spring handles, 1 coal briquette machine, 1 hot water tank; over-  
 hauled 2 CR valves, 1 soot blower; remstalled 9 GI bearings, 1  
 brass bearings; balanced 4 brass impellers, 1 IDF impeller; recon-  
 ditioned 100 "T" brackets, 120 square stay clamps.

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3. Made 3 sets IDF blades, 3 MS gratings, 2 coal pipes, 3 sets vent tanks, 1 MS powder pipe, 1 MS ladder; bent 84 pipes, 13 angle irons, 13 MS plates; forged 800 MS flat plates, 16 MS flanges, 15 steel hammers, 100 Ec tube caps, 1489 lb MS flanges, brackets, bushes, etc; sharpened and altered 140 steel chisels.
4. Electric welded 42 pipe flanges, 11 pipes, 3 pipe toes, 18 pipe sockets, 50 concrete pole base frames, 4 fuse boxes, 4 soot blower headers, 6 base plate liners, 16 cable joint boxes, 50 angle iron cross arms, 6 Ec tube caps, 1 CS boss; gas welded 7 MS floats, 1 CI cylinder, 1 CI gland, 2 FO nozzles, 28 FO pipe clamps; gas brazed 12 transformer tails, 3 brass valve appendices, 1 brass gate valve, brass valve disc.
5. Galvanized 24 GI double arm bolts and nuts, 1 LT outrigger bracket, 5 back braces, 94 turn buckles, 100 eye bolts, 20 armour clamps, 20 hooks and rings, 13 anchor brackets, 20 back clamps, 40 earth cloats.
6. Foundry produced following castings:
 

28,907 lb	cast iron
1,339 lb	HD brass
874 lb	Copper ingots
1,938 lb	Brass ingots
7. Building and Wharf Maintenance:
  - (a) Maintenance work to all plumbings and pipe work in station progressing; renovation of staff quarter progressing.
  - (b) Repaired roofs over Mechanical Testing Office, down pipes and gutters for No 9 Store, drain pipes for Chemical Lab, Corr GI sheetings for No 2 Store.
  - (c) Made concrete box and gutters beside TR shop, dismantled roof and brick walls of No 2 Store.
  - (d) Repairs to TH walls of St B progressing.
  - (e) Made roofing over open space adjoining north end of Time Office.
  - (f) Fixing window glass and repairing to steel window frames in TH progressing.
  - (g) Rebuilding bomb damaged wall of coal Storage B progressing.
  - (h) Fender renewals along river frontage progressing.

MISCELLANEOUS NOTES

The labour roll at Riverside totals 1312 including 19 Foreign and 87 Local Agreement, 42 Russians, 9 Subsidiary Staff (Foreign Watchmen), 25 Chinese Apprentice Engineers, 1 Student Engineer, 1 Engineer Trainee and 1128 Chinese Staff.

There were no major labour troubles during the first half of the month but the situation deteriorated in the latter half culminating in a sit down strike by the TH Maintenance crew in an attempt to force the removal of one of their supervisors. After rather protracted negotiations with the Labour Union, a solution was reached whereby the men resumed work and agreed to withdraw their demand against their supervisor.

SHANGHAI POWER COMPANY

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Further difficulties were experienced in (1) transfer for temporary work the BH Maintenance crew from BH 4 to BH 2; (2) refusal by the BH 3 Maintenance crew to clean oil fuel burners because they considered this work should be done by operation men and; (3) trouble with BH Maintenance crew over the number required to work overtime for routine cleaning during weekends. Negotiations for settlement of these difficulties were undertaken and subsequently suspended due to the arrest by Government Authorities for political reasons of some of the Union officers.

Following the arrest of SEC Union officials, a walkout occurred of all workers excepting operation staff on September 23rd. They, however, returned to work the next morning, but engaged in a sitdown strike until 3pm when they recommenced work, they were carrying on negotiations with the SAB, however, and extra Police Guards were placed on duty around the plant.

Failing the release of the Union officials, it is anticipated that further trouble will ensue.

The average % of absentee is due to sickness and/or other causes of the Regular Chinese Staff amounted to 4.19% for the monthly rate, and 11.53% for the daily rate; the sickness % being 1.76% and 5.40% respectively.

#### GENERAL-

##### Staff:

During the month we suffered the loss of the following personnel:

- 2 Charge Engineers
- 1 Assistant Charge Engineer
- 1 Lubrication Supervisor
- 1 Junior Maintenance Engineer
- 1 Stenographer.

which has thrown an additional burden upon the operation staff. Consequent upon the depleted operation staff we have been forced to suspend all holidays for the time being.

Six student apprentices have been assigned for training as Rotary Board operators, with a view to replacing the Russian staff who have been depleted in numbers due to repatriation.

In regard to BH attendants, the management are now advertising for applicants complying with definite physical and educational standards, and it is hoped to start training the selected applicants within a few weeks time.

At present we are operating BH 3 with only half the usual complement of operational staff, which is a matter of considerable concern to Senior Charge Engineers, particularly in the event of any form of major trouble.

##### Operation:

Record Daily Generation - The plant continued to be operated at maximum output of available equipment. The daily generation for September 26 namely 3,125,415 kwh nearly equaled the all time record.

MANHATTAN POWER COMPANY

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Our total station net output increased by 4.84% over last month namely 81,770,494 Kwh as against 77,998,570 Kwh, this increase being due to increased Station 'C' generation and slightly lower river water temperature.

The hourly station net output increased 8.33% from 104,837 Kwh to 113,570 Kwh.

The load factor based on gross generation increased from 77.54% in August to 80.95% for September.

3G UNITS -

3G 31:

This unit has remained in commission successfully during the whole month evaporating 360,000 - 380,000 lbs/hr with coal and oil fuel on a 50-50 Btu basis. It was found that the Bailey motor control equipment functioned better with the additional coal being burned.

Considerable difficulties are being experienced due to excessive slagging and soot accumulation.

Load has been reduced on several occasions to assist de-slagging operations and to date we have been successful in removing clinker by this method.

Generally speaking, the main difficulties experienced in operating this unit are removal of excessive soot and clinker accumulation, it is thought that changes to the soot blowing equipment will undoubtedly be necessary, it being impossible to keep the unit clean with existing arrangement.

General:

Considerable amount of repair work has been carried out on various 3G units this month, a total of 2668 hours being spent upon repair work for all units.

Every opportunity being taken to put 3G units into the best condition possible with the time at our disposal, every advantage being taken of excess 3G capacity over TG capacity during the summer months.

The unscheduled outages show a considerable decrease over previous month, namely 7 against 20, the deferred outages show an increase namely 8 as against 4 for previous month.

SHANGHAI POWER COMPANY

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The total hours SG were o/c for unscheduled and deferred outages show a decrease, namely 90 1/2 hours as against 1135 for previous month, and were made up as follows:-

Unscheduled Outages - 623 hr as against 598 hr.  
Deferred Outages - 281 hr as against 537 hr.

Tube renewals registered a considerable decrease, namely 7 as against 24 for previous month.

Major maintenance work for the month consisted of the following:

SG 26 - o/c 242 hrs; routine cleaning and general repairs.  
SG 26 - o/c 115 hrs, renewed three Ec tubes, welding of bottom front header, expanding of one Ec tube and rejoining of 18 Ec caps etc.  
SG 25 - o/c 465 hrs. Routine cleaning and general repairs to furnace brickwork.  
SG 24 - o/c 151 hrs, repairs to economiser and furnace brickwork etc.  
SG 22 - o/c 166 hrs. Renewing of Ec headers.  
SG 20 - o/c 202 hrs, repairs to furnace brickwork. 60 Sh tubes re-expanded, 75 Sh caps rejointed and one cross tube renewed, stoker gear repairs.  
SG 15 - o/c 221 hrs, repairs to economiser.  
SG 9 - o/c 720 hrs for partial overhaul.

TG UNITS -

TG 18:

This unit has remained in successful operation during the month.

TG 7:

This unit is carrying full load successfully after its major overhaul, its running, however, was further improved by the substitution of flexible connections for original rigid pipe connection to the main oil pump.

Subsequent vibrometer readings confirmed above stated result.

TG 2:

This unit is now considered as being o/c more or less permanently, it not being considered feasible to repair Elect rotor and stator.

One pole of the elect rotor was completely rewound after about 6 months work and the rotor has again become defective.

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General:

Apart from TG 7 o/c 58 hrs, all work on TG units was of a routine nature.

As in previous months, practically all maintenance work has been carried out at weekends and other off peak periods necessitating considerable overtime payments to workmen.

Apart from TG 2 o/c due to electrical breakdowns, the total hours TG units were o/c for all causes, amounted to 181 hours only.

Unscheduled Outages	- Nil -	Nil
Deferred Outages	- 3 -	totalling 26 $\frac{1}{2}$ hr.

CALTEX CONSTRUCTION -

Water tests completed satisfactorily, we are now awaiting new calibration tables from Caltex, their original tables having been found defective according to our calculations. Upon receipt of new tables and agreement thereto, we propose putting ROT 4 into commission.

ELECTRICAL -

Electrical work during the month was generally speaking of a routine nature, considerable Maintenance work particularly on lighting circuits was carried out, lack of equipment and material has retarded this work considerably.

FUEL OIL SUPPLY -

Fuel oil consumption for the month totalled 28,768 long tons, the maximum daily consumption being 1,020 tons and average daily consumption 958.93 tons.

The increased use of coal in SG 31 has enabled us to keep well within our allotment of 30,129 long tons per mensem.

WORKSHOPS -

The Workshop continues to be loaded with work, necessitating considerable overtime, quite a few contracts for various machine work have been placed with outside contractors.

The Winding Shop continues to be loaded with work, progress in this section appears to be slow and it is practically impossible to contract this work outside.

SHANGHAI POWER COMPANY

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REHABILITATION & CONSTRUCTION -

Painting of Coal Handling equipment and outside structures Station C now satisfactorily completed.

Repairs to Turbine House Walls, B Station Progressing. 70% completed.

Roofing over open space adjoining north end of Time-Office. 100% completed.

Glazing Steel window frames - Turbine House - Progressing. Number of panes set 3040 pcs.

Repairing Steel Window Frames in Turbine House. 90% completed.

Repairing bomb damaged East Retaining Walls of Storage B and laying new drains and blocking existing drains. Progressing. 40% completed.

Tender renewals along River Frontage. Progressing. 50% completed.

Concrete cover slates. 500 pcs completed.

Construction of 11' high x 3525 lineal feet reinforced retaining walls on three sides of the existing Coal Storage A. Progressing. 5% completed.

Repairs and general overhaul to coal lighter No 14 and Ash-Lighter No 2. Progressing. 40% completed.

Re-roofing of Turbine House. Started.

FUEL -

Coal receipts were 11,810 tons during September, made up of two kinds of coal. 20,408 tons were burned and 81 tons issued by Stores making a total of 20,489 tons. Total stocks on October 1, 1947 (8 am) were 27,890 tons, consisting of 21,222 tons on mechanical storage, 3,689 tons on dead storage and 2,773 tons in bunkers. Coal deliveries during the period were 8,679 tons less than burned plus issued, and stocks were decreased a like amount.

Oil receipts were 28,651.51 tons during September and 28,768 tons were burned, thus decreasing stocks on October 1, 1947 (8 am) to 839.57 tons.

MUD DREDGING -

During the month 3,680 cubic yd of mud (23 lighters of 160 cubic yd per lighter) dredged from in front of our wharves and pump houses.



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COKE & BRIQUETTE

During the month 133,844 lb of coarse coke was recovered from ashes, of which 48,461 lb issued to the coke recovery contractor and 32,160 lb issued for company use, leaving 729581 lb in Stores on October 1, 1947.

During the month 100 metric tons of anthracite coal was received from local suppliers and 79.2 metric tons of anthracite issued for the manufacture of briquettes for sale to employees. Total amount of briquettes made was 264 metric tons, of which 261.3 metric tons was issued.

Shanghai, October 23, 1947.

*C. J. Flence*  
C J Flence

ENC: SG Water Report  
TG Oil Report  
Characteristic Curves

RIVER SIDE STEAM ELECTRIC STATION  
SHANGHAI POWER COMPANY  
CHEMICAL LABORATORY

BOILER WATER ANALYSIS  
FOR UNIT NO. 2 OF SECTOR 20147

DATE 194

SAMP. NO.	SAMP. TIME	ALKALINITY (MEQ/L)			SODIUM SULFATE (PPM)	% CL	% Na <sub>2</sub> SO <sub>4</sub>	SiO <sub>2</sub>	pH	TEMP. (°C)	CHEMICALS ADDED (LB)	REMARKS		
		Ca	Mg	TOTAL										
1														
2														
3														
4														
5														
6														
7														
8														
9														
10														
11		68	107	221	2.1	74.8	6	10.9	2493	54	72	CS & 23"		
12		98	126	514	4.3	95.9	7	10.9	2438	53	64	CS & 23"		
13		70	92	474	5.2	650	5	10.6	2483	54	63	CS & 23"		
14		73	97	390	4.0	1043	9	10.6	2918	52	104	CS & 23"		
15		100	116	441	1.5	123	17	11.1	1872	6	15	13"		
16		100	116	441	3.8	527	9	11.0	2500	12	24	CS & 13"		
17		109	127	519	2.8	194	9	10.9	237	10	20			
18		63	53	105	1.9	23	10	10.6	397	17	20			
19		45	57	213	3.7	29	17	10.6	443	9	9			
20		41	55	132	3.3	43	10	10.6	433	13	15			
21		48	63	121	2.6	28	6	10.6	440	15	15			
22		37	73	119	1.6	51	20	10.6	910	8	10			
23		22	31	138	1.6	45	13	10.3	643	5	5			
24		43	55	88	1.6	23	23	10.6	404	13	14	13"		
25		23	33	70	3.1	74	28	10.6	639	5	5			
26		40	52	126	3.2		14	10.6	457	24	5			
27		46	62	123	2.6		14	10.6	492	7	10			
28		62	94	242	3.4	43	34	10.6	729	30	37	95"		
29		58	68	110	4.8	47	27	10.6	611	11	13	73"		
30		34	61	253	3.5	48	33	10.6	664	19	19	45"		
31		37	57	308	3.4	53	37	10.6	712	15	17	73"		
AVG		59	63	144	1.0	11	10	10.9	544	58	54	129"		
							25			300	55	375	123	53

CHAPTER 10 -  
 GENERATING ENGINEER  
 CHEMICAL ENGINEER  
 MAINTENANCE ENGINEER  
 GENERATION SUPT  
 SEE  
 TO OFFICE  
 LUBRICATION BUREAU

RIVERSIDE STEAM ELECTRIC STATION  
 TURBINE OIL SERVICE DATA

DECEMBER 1947

DATE October 18, 1947

TG No.	OPERATING HR	MAKE-UP		CENTRIFUGE OPERATION				LABORATORY REPORT			REMARKS
		GAL	DESCRIPTION	HR	DRY SOLIDS OZ	SOLIDS GR PER 1000 HR	WATER LB	VISCOSITY (SP) P/ST	ACIDITY W/ROH/CM	DEWELUITY MIN	
10	720	24	Tycol Lt						0.108	22	
10	720	25	DTE Lt 797	250			72		0.080	21	
15	420			171	22	50	444		1.41	32	
14	711	24	DTE Lt 797						1.43	3	
13	607	5	DTE Lt 797						0.082	8	
12	694	10	DTE Lt 797						0.45	5	
11											
10	481								0.26	30	
9	498	24	Tycol Lt	103			70		0.083	21	
8	460	25	Tycol Lt						2.24	4	
7	590	24	DTE Lt 797						0.080	6	
6											
5	472	25	Tycol Lt	445	34	54	275		0.103	21	
4	457	15	Tycol Lt	640	30	44	2704		0.084	2	
2											
1	322	20	DTE Lt 797						1.10	8	

HISTORY OF OIL BATCHES

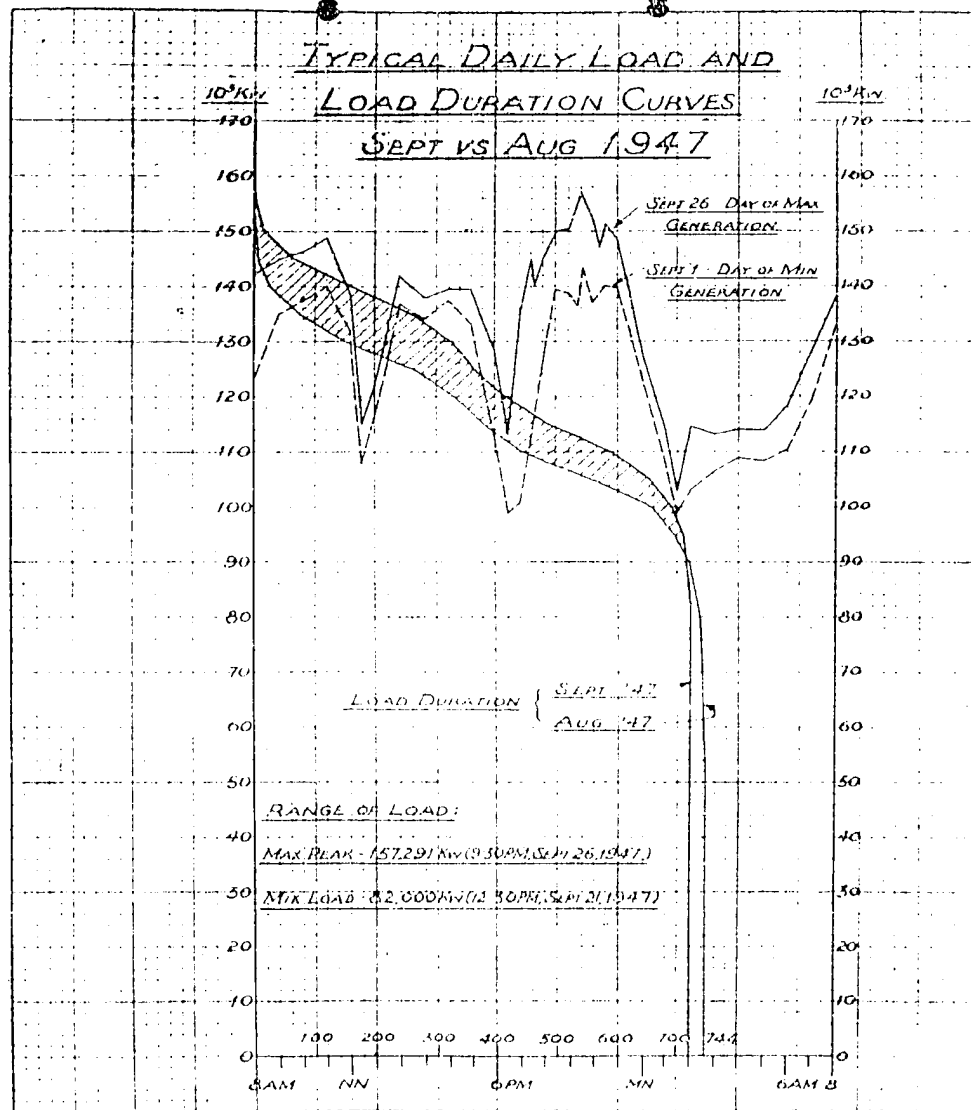
TG No.	LAST FULL CHANGE			TOTALS TO DATE				MAKE-UP DATA			OPERATING HRS SINCE LAST OVERHAUL
	DATE	GAL	DESCRIPTION	OPERATING HR	SOLIDS GR/1000 HR	WATER LB	WATER LB/1000HR	TOTAL GALLONS	GAL PER 1000 HR	TO HR PER GAL	
10	Nov 46	576	Rio Tycol Lt	3308				82	25	60	3 308
10	Nov 46	940	DTE Lt 797	5474	394	72	1304	238	38	24	5 474
15	Aug 38	948	DTE Lt	63874	2149	34	9114	143	2264	24	18 074
14	June 37	987	Shell BSA	66917	3774	54	13334	199	2257	39	18 674
13	Mar 47	103	DTE Lt 797	3834				4	1	43	3 234
12	Apr 37	111	DTE Lt	61261	33	1	4	300	10	102	13 763
11											
10	June 36	1200	Tycol Lt	47924	605	10	1144	17	2069	31	13 459
9	May 46	890	Rio Tycol Lt	11220	216	19	421	44	290	25	13 049
8	Sept 36	580	Tycol Lt	47320	3113	45	8240	70	2214	33	12 943
7	July 47	384	DTE Lt 797	1134				24	22	47	1 139
6											
5	July 46	250	Rio Tycol Lt	9754	173	18	403	41	144	17	9 734
4	June 46	220	Rio Tycol Lt	10374	407	39	38070	3114	136	15	10 374
2											
1	AUG 36	296	Old Shell	6907				323	47	21	1 694

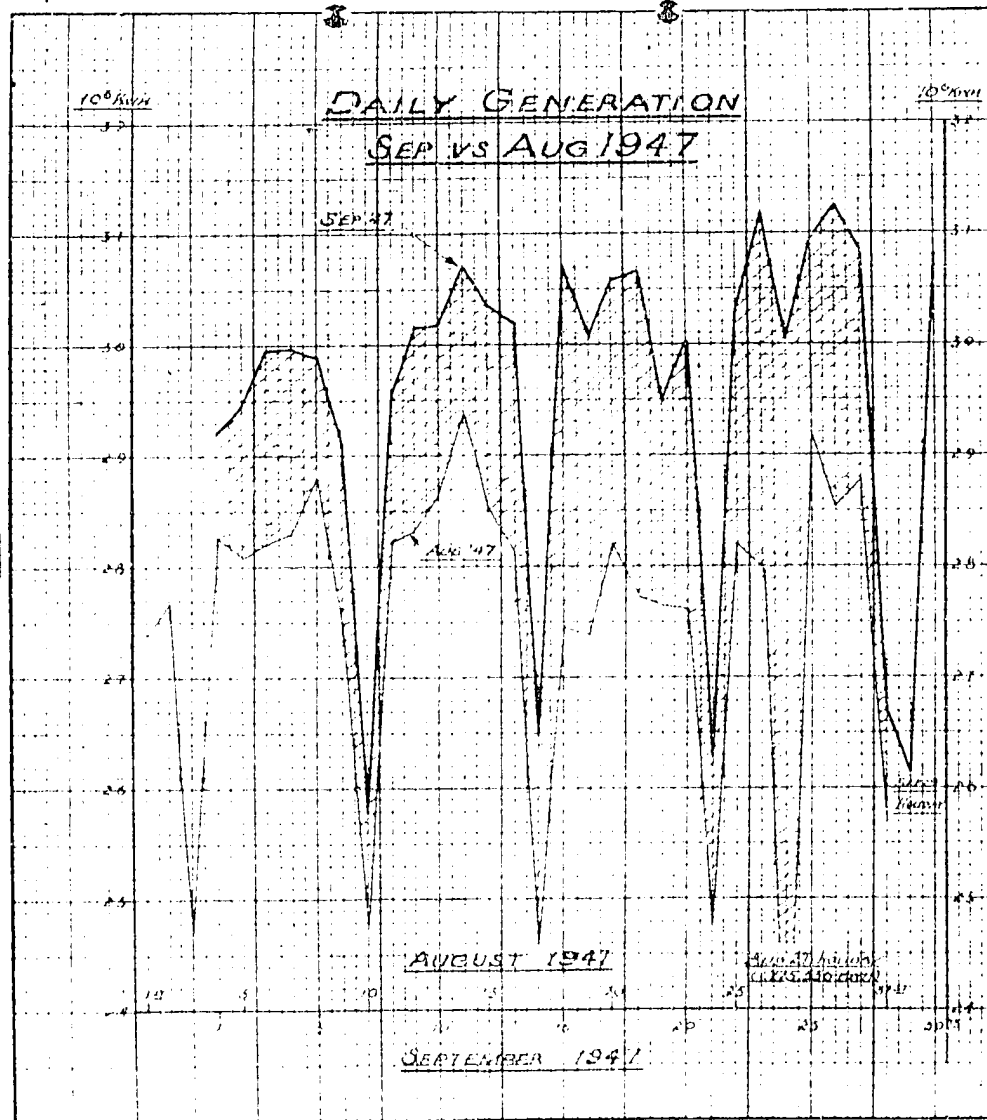
TG 8 - Oil Cooler tube nests coiled in solution of Soda and Sodium Phosphate and washed with Condensate.  
 TG 7 - Oil System drained for MO and recharge through Press-Filter.

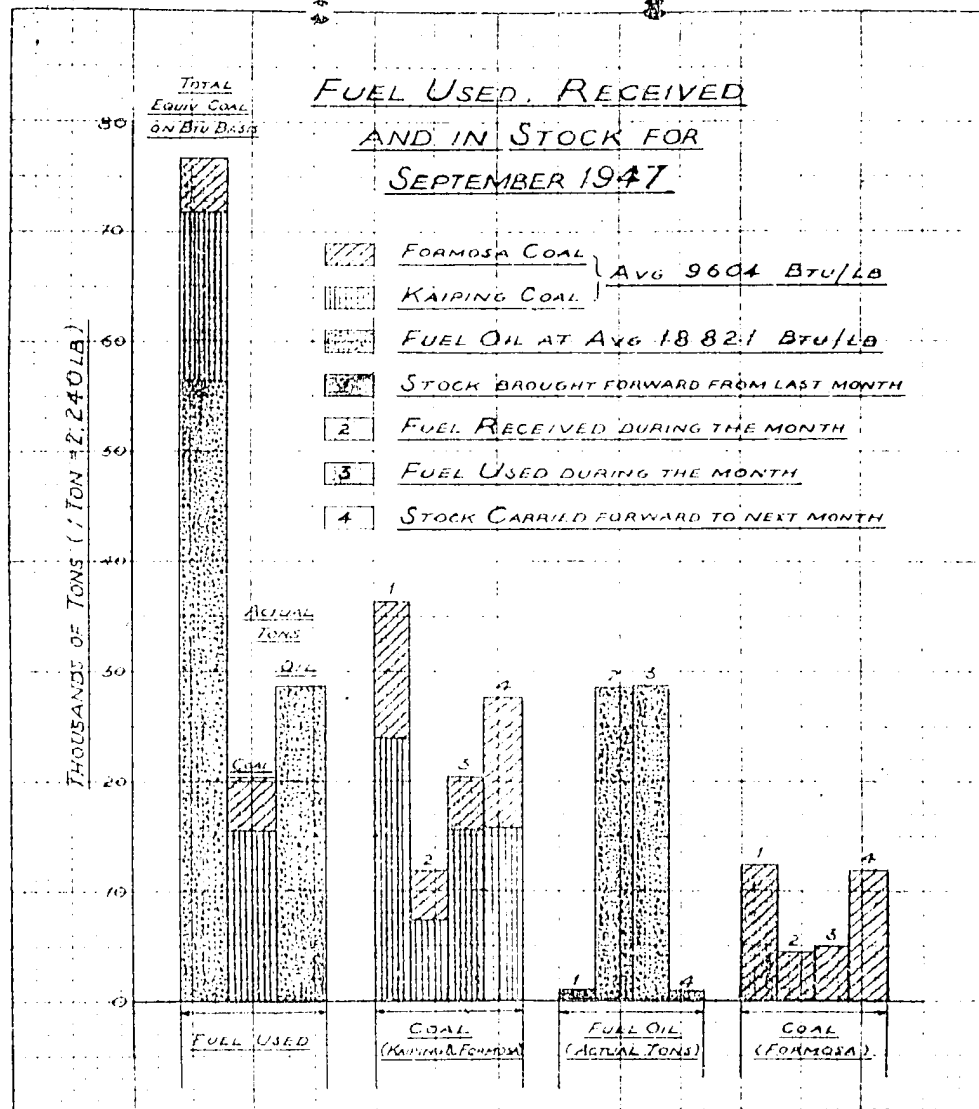
J. W. Baker

A. Liven

AP 280 (2-47)







SHANGHAI POWER COMPANY

September 30, 1947

SHANGHAI POWER COMPANY AND  
WESTERN DISTRICT POWER COMPANY OF SHANGHAI  
FEDERAL INC., U.S.A.

DISTRIBUTION OPERATING DEPARTMENT  
MONTHLY LETTER FOR SEPTEMBER 1947

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SHANGHAI POWER COMPANY

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The following outlines the activities in connection with operation, maintenance and construction work in this Department.

I OPERATION

(A) SERVICE FAILURES AND TROUBLE CALLS

(1) Major Service Failures

(a) Load Reduction due to insufficient electrical (E) and/or steam(S) generating capacity at Riverside

Date	Sep 1	Sep 2	Sep 3	Sep 4	Sep 5	
Area affected	SPC WDPC Chapei French	SPC WDPC Chapei	SPC WDPC Chapei	SPC WDPC Chapei	SPC WDPC Chapei	
Supply from substation	5 sub-stations	Riverside Tonquin Connaught Robison	5 sub-stations	5 sub-stations	6 sub-stations	
Feeder	17 feeders	18 feeders	22 feeders	15 feeders	11 feeders	
Customer	18 customers & LV networks	22 customers & LV networks	25 customers & LV networks	20 customers & LV networks	12 customers & LV networks	
Duration of supply interruption	2 mins to 3 hrs 20 mins	2 mins to 4 hrs 4 mins	2 mins to 3 hrs 39 mins	19 mins to 3 hrs 41 mins	56 mins to 3 hrs 40 mins	
Estimated kVA-hrs lost	Company's area	AM 6,630 PM 11,870 Ev 21,800	AM 64,085 PM 30,750 Ev 11,780	AM 38,497 PM 28,050 Ev 14,210	AM 15,650 PM 34,880 Ev 10,100	AM 7,250 PM 30,090 Ev 3,400
	Chapei	PM 2,430	PM 6,440 Ev 7,750	AM 2,600 PM 6,850	PM 9,790	AM 1,860 PM 7,340
	French	Ev 10,500				
	Total	53,230	120,805	90,217	70,420	49,940
Insufficient electrical and/or steam Generating capacity	S	S	S & E	S & E	S & E	
Remarks	AM - refers to morning peak load period (8am to 12 noon) PM - " " afternoon " " " (12 noon to 7 pm) Ev - " " evening " " " (after 7 pm)					



SHANGHAI POWER COMPANY

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(a) Load Reduction due to insufficient electrical(E) and/or steam(S) generating capacity at Riverside (continued)

Date	Sep 6	Sep 7	Sep 8	Sep 9	Sep 10	
Area affected	SPC Chapel	SPC WPC	SPC	SPC	SPC WPC Chapel	
Supply from substation	Riverside Yangchow Tonquin	Tonquin Robison	Riverside Yangchow	Tonquin	Yangchow Tonquin Connaught Robison	
Feeder	4 feeders	C 8, 3 9, Japan China	A 10 G 5	CC 103	12 feeders	
Customer	5 customers & LV networks	NWK 5 Japan China	Kung Dah 1 Shanghai 4	New China Textile	12 customers & LV networks	
Duration of supply interruption	36 mins to 2 hrs 47 mins	16 mins to 56 mins	34 mins to 3 hrs 6 mins	1 hr 54 mins	2 mins to 3 hrs 45 mins	
Estimated kVA-hrs lost	Company's area	AM 4,715 PM 3,340		AM 1,440 PM 5,810	PM 2,520	AM 27,510 PM 31,310
	Chapel	AM 3,005				AM 2,600
	French					
	Total	11,060	6,027	7,250	2,520	61,420
Insufficient electrical and/or steam Generating capacity	E	E	E	E	E	
Remarks	AM - refers to morning peak load period (8 am to 12 noon) PM - " " afternoon " " " (12 noon to 7 pm) Ev - " " evening " " " (after 7 pm)					

SHANGHAI POWER COMPANY

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(a) Load Reduction due to insufficient electrical(E) and/or steam(S) generating capacity at Riverside (continued)

Date	Sep 11	Sep 12	Sep 13	Sep 15	Sep 17	
Area affected	SPC WDFC Chapel	SPC Chapel	SPC Chapel	SPC WDFC Chapel	SPC WDFC Chapel	
Supply from substation	Tonquin Connaught Robison	Yangchow Tonquin Connaught	Riverside Tonquin	5 sub-stations	5 sub-stations	
Feeder	7 feeders	5 feeders	6 feeders	6 feeders	15 feeders	
Customer	11 customers & LV networks	5 customers & LV networks	7 customers & LV networks	9 customers & LV networks	15 customers & LV networks	
Duration of supply interruption	2 mins to 3 hrs 44 mins	52 mins to 2 hrs 24 mins	53 mins to 2 hrs 38 mins	51 mins to 2 hrs 43 mins	33 mins to 3 hrs 27 mins	
Estimated kVA-hrs lost	Company's area	AM 5,200 PM 29,250	AM 1,393 PM 4,640	AM 17,130	AM 19,575 PM 3,410	AM 48,560 PM 14,660
	Chapel	PM 7,350	AM 2,300 PM 4,030	PM 4,960	PM 5,400	AM 4,360
	French					
	Total	41,800	12,360	22,090	28,385	67,580
Insufficient electrical and/or steam Generating capacity	E	E	E	S	S	
Remarks	AM - refers to morning peak load period (8 am to 12 noon) PM - " " afternoon " " " (12 noon to 7 pm) Ev - " " evening " " " (after 7 pm)					

SHANGHAI POWER COMPANY

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(a) Load Reduction due to insufficient electrical(E) and/or steam(S) generating capacity at Riverside (continued)

Date	Sep 18	Sep 19	Sep 21	Sep 22	Sep 23	
Area affected	SPC WDPC Chapel	SPC WDPC Chapel	SPC	SPC	SPC WDPC	
Supply from substation	Riverside Tonquin Cannaught Robison	5 sub-stations	Yangchow	Riverside Yangchow	Riverside Yangchow Tonquin Robison	
Feeder	10 feeders	28 feeders	G 6 GG 201 GG 101	A 6 G 9	7 feeders	
Customer	13 customers & LV networks	31 customers & LV networks	3 customers	Dong Shing 2 Sung Sing 6	7 customers	
Duration of supply interruption	53 mins to 2 hrs 54 mins	10 mins to 4 hrs 7 mins	1 hr 4 mins to 1 hr 29 mins	56 mins to 1 hour	38 mins to 2 hrs 36 mins	
Esti- mated kVA-hrs lost	Company's area	AM 20,030 PM 20,100	AM 97,280 PM 51,730	AM 4,970	AM 4,220	AM 20,220 PM 1,710 Ev 3,800
	Chapel	PM 6,996	AM 13,490 PM 7,790			
	French					
	Total	47,126	170,290	4,970	4,220	25,730
Inadequate electrical and/or steam generating capacity	S	E	E	E	E	
Remarks	AM - refers to morning peak load period (8 am to 12 noon) PM - " " afternoon " " " (12 noon to 7 pm) Ev - " " evening " " " (after 7 pm)					

SHANGHAI POWER COMPANY

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(a) Load Reduction due to insufficient electrical(E) and/or steam(S) generating capacity at Riverside (continued)

Date	Sep 24	Sep 25	Sep 26	Sep 27	Sep 28	
Area affected	SPC WDPC Chapel	SPC WDPC	SPC WDPC Chapel	SPC Chapel	SPC WDPC	
Supply from substation	5 sub-stations	Riverside Tonquin Yangchow Robison	Connaught Tonquin Yangchow Robison	Riverside Tonquin Connaught Yangchow	10 sub-stations	
Feeder	27 feeders	16 feeders	12 feeders	16 feeders	18 feeders	
Customer	30 customers & LV networks	16 customers & LV networks	16 customers & LV networks	16 customers & LV networks	20 customers & LV networks	
Duration of supply interruption	31 mins to 4 hrs 48 mins	8 mins to 2 hrs 57 mins	59 mins to 3 hrs 47 mins	1 hr 16 mins to 3 hrs 30 mins	1 hr 3 mins to 4 hrs 46 mins	
Estimated kVA-hrs	Company's area	AM 94,000 PM 72,700 Ev 16,730	AM 32,041 PM 12,270 Ev 3,000	AM 25,980 PM 32,690 Ev 12,290	AM 27,650 PM 18,010 Ev 12,610	AM 78,680 PM 11,310 Ev 12,820
	Chapel	AM 10,170 PM 11,800		PM 7,460	AM 3,540 PM 5,720	
	French					
	Total	205,400	47,311	78,420	67,540	152,810
	Insufficient electrical and/or steam generating capacity	S & E	E	S	E	E
Remarks	AM - refers to morning peak load period (8 am to 12 noon) PM - " " afternoon " " " (12 noon to 7 pm) Ev - " " evening " " " (after 7 pm)					

SHANGHAI POWER COMPANY

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(a) Load Reduction due to insufficient electrical(E) and/or steam(S) generating capacity at Riverside (continued)

Date	Sep 30	
Area affected	SPC	
Supply from substation	Tonquin	
Feeder	C 22 C 23	
Customer	Tung Yih C/M	
Duration of supply interruption	41 mins	
Estimated kVA-hrs lost	Company's area	AM 1,630
	Chapel	
	French	
	Total	1,630
Insufficient electrical and/or steam generating capacity	E	
Remarks	AM - refers to morning peak load period (8 am to 12 noon) PM - " " afternoon " " " (12 noon to 7 pm) Ev - " " evening " " " (after 7 pm)	

SHANGHAI POWER COMPANY

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(b) Other Causes

Date	Sep 7	Sep 7	Sep 7	Sep 8	Sep 22
Area affected	SPC	SPC	SPC	Chapei	Chapei
Supply from substation	Tungchow	Chuoyang	Pingliang-Ningwu PT Shanghai C/E No. 6	Connaught	Fearon
Feeder	International P/M O/H line	KK 201 AK 36	- " -	E 11	B 11/18
Customer	International P/M Hailar-Tungchow PT	5 customers	- " -	Chapei Chang an	Chapei Paotung
Cause of failure	Lightning	Lightning	Lightning	Fault on Chapei system	Fault on Chapei system
Fault cleared by	International P/M O/H line OCB & Hailar-Tungchow PT O/H fuses	KK 201 & AK 36 OCBS	D/O fuses	E 11 OCB	B 11/18 OCB
Damage to equipment	None	Transformer OCB, 14 pair control cable to KK 201 OCB, KK 201 OCB one insulator	None	None	None
Duration of supply interruption	1 hr 6 mins to 3 hrs 30 mins	41 mins to 36 mins for 6.6 kV feeders only	1 hr 56 mins to 2 hrs 20 mins	7 mins	15 mins
Load affected kVA	Company's area	230	4,850	300	
	Chapei				2,000
	French				1,800
Remarks		See also please next page			

SHANGHAI POWER COMPANY

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COMMENTS, SERVICE FAILURE, SEPTEMBER 7, CHAOYANG SUBSTATION

The initial cause of the first failure was due to severe flashover during lightning storm across two 23 kV wall tubes on KK 201 overhead line at China Textile Machinery on Hochien Road. The 23 kV OCB on KDR 5 switchboard at Chaoyang Substation tripped automatically and cleared the fault but with large quantity of oil and combustible gas forced out from the tank. An explosion followed resulting in a fire on the ground floor of the Substation.

The second failure took place two hours and eighteen minutes after the first one, when the fire had been quenched by the Trouble Section gang. The fault developed in the 23 kV current transformer chamber bus bar side spout of the "Transformer" OCB on the KDR 5 switchboard at Chaoyang. AK 36 OCB tripped out on overcurrent protection at Chaoyang Substation and later all AK feeders were switched out from Riverside making Chaoyang Substation completely dead.

Simultaneously the Trouble Engineer closed 6.6 kV K 2 OCB at Sung Sing 6 Substation with the intention of making a parallel between Yangchow and Chaoyang Substations in order to transfer load away from Chaoyang under the instruction previously given by the System Control Engineer. This caused a feed back into the "Transformer" OCB fault at Chaoyang and K 2 OCB at Sung Sing 6 Substation tripped out immediately. Afterwards supply to all 6.6 kV consumers were restored via Yangchow G 10.

The "Transformer" OCB was inspected and found that one of the six porcelain bushings was completely shattered. The blue phase CT chamber spout insulator was badly shattered and covered with compound. Due to the shortage of spare insulators, it is decided to abandon this OCB for the time being and supply to the transformer was effected by connecting the cable to the ex-KK 103 OCB.

The KK 201 OCB was inspected, and found that the red phase bus bar selector turret plug insulator was slightly cracked while the white phase bus bar selector turret switch contactor was smashed. All the sparkers were badly burnt and oil carbonized. Repair work was done by utilizing spare parts from the "Transformer" OCB. 14-core control cable was burnt due to fire. 13 1/2 feet of the cable was cut out including the pothead and replaced.

Both the main and the auxiliary bus bars were pressure tested. The main bus bar was proved to be satisfactory while the auxiliary bus bar doubtful. The main bus bar was then made alive and supply to Shanghai 2 & 3 restored at 7.43 pm, while the auxiliary bus bar was left dead.

Repair work was completed at 11.54 am on September 9, 1947 when supply to Asia Steel was resumed and the transformer re-energized. All OCBs at Chaoyang were rendered non-automatic as it was considered unsafe to let them trip automatically again on any fault.

Means for identifying the faulty feeder has been provided.

Since KDR 5 switchgear show poor performance in rupturing fault current this time and in the past, further use of this type switchgear at Chaoyang and Yangchow is under consideration.

SHANGHAI POWER COMPANY

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(b) Other Causes (continued)

Date	Sep 26
Area affected	SPC
Supply from substation	Taepoo
Feeder	LV feeder 11
Customer	Taepoo LV 11 network
Cause of failure	Faulty OCB
Fault cleared by	OCB opened by operator
Damage to equipment	LV OCB
Duration of supply interruption	1 hour 27 mins
Load affected kVA	Company's area 225
	Chapai
	French
Remarks	



SHANGHAI POWER COMPANY

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(2) Classified Service Failures (including Item 1)(a) Caused by Defective Equipment

Equipment		Number of Failures	
		This Month	Last Month
Overhead Lines:	HV	-	-
	LV	3	-
Underground Lines:	Cables	-	1
	Joints	-	-
	Potheads	-	-
Transformers and voltage regulators		-	-
Switchgear		1	-
Power fuses		1	2
Protection equipment		-	-
Traction equipment		-	-
Metering equipment		-	-
Current and potential transformers		-	-
Street lighting:	Series	1	1
	Multiple	4	2
Other Company's equipment		-	-
<b>Total</b>		<b>10</b>	<b>6</b>

(b) Other Causes

Cause of Failure		Number of Failures	
		This Month	Last Month
Foreign agencies:	Overhead Lines	1	5
	Street lighting	-	1
Tram trolleys:	Underground Lines	-	-
	Overhead Lines	2	2
	Street lighting	6	5
Theft of equipment		-	-
Typhoons and storms		-	-
Lightning		8	8
Flood		-	-
Fire		-	1
Vermin and birds		-	2
Overload		1	1
Customers' equipment failures:			
	Company's area	1	2
	Ex franchise area	2	2
Company's staff:	Misoperation	-	-
	Fouled by workmen	-	-
Generating station trouble		26	29
Undetermined		3	3
<b>Total (b)</b>		<b>50</b>	<b>59</b>
<b>Total (a &amp; b)</b>		<b>60</b>	<b>65</b>

SHANGHAI POWER COMPANY

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(3) Trouble Calls attended to by System Trouble Section

	Number of Calls					
	This Month			Last Month		
	SPC	WDPC	Total	SPC	WDPC	Total
<u>Company's Installation</u>						
23 kV overhead and underground lines	1	-	1	-	-	-
6.6 kV overhead and underground lines	5	-	5	6	11	17
380 volt overhead and underground lines	24	9	33	9	20	29
Street lighting lines and equipment	43	3	46	29	8	37
Traffic signals	102	6	108	96	2	98
House service connections and wires	54	21	75	55	15	70
Substation equipment	4	-	4	3	-	3
DC Traction equipment and lifts	2	-	2	-	-	-
Fire calls	55	3	58	34	4	38
False alarms	-	-	-	-	-	-
Miscellaneous	3	4	7	8	7	15
<u>Customers' premises</u>						
Lighting	813	186	999	918	208	1026
Power	115	51	166	96	71	167
Heating	38	12	50	44	9	53
Total Trouble Calls attended to	1258	296	1554	1198	355	1553
Average per day	41.9	9.9	51.8	38.6	11.5	50.1

(B) TRANSFORMERS AND REGULATORS

(1) Connected and/or Disconnected from Service

SPC

Location	Capacity in kVA		Remarks
	Connected	Disconnected	
Fouron	1-625		Load increase.
"	1-20	1-15	Burnt out (Street Lighting Regulator).
Dent	1-125		Reinstallation.
Tungchow	1-940		Load increase.
E Broadway-Chaoufoong PT	1-225	1-200	Drain valve knocked off by transport contractor.

WDPC

Location	Capacity in kVA		Remarks
	Connected	Disconnected	
Warren-Lincoln Branch PT	1-20		New installation.
Kung Sung W/M		1-200	Replaced by consumer's own transformer.

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UNITS

SPC NDPC

- (2) Type changed for network voltage regulation
- (3) Switched on or off load for operational purposes
- (4) Under observation due to overload or overheating

2 1  
1 -

SPC

Location	Capacity kVA	Type	Max Load		Max oil top temp	Ambi- ent temp	Temp rise	Remarks
			%	Hours dura- tion				
Meichow-Chaoyang PT	225	Outdoor	117	1 1/2	56	35	21 1/2	WO in hand.
Widow's Monument PT	225	"	124	1 1/2	58 1/2	28 1/2	30	
Robinson-Seymour PT	225	"	118	1 1/2	52	28 1/2	23 1/2	
Dalny-Wayside PT	225	"	58	1 1/2		31		) Transformers ) have been ) equipped ) with tem- ) perature ) indicating ) plasters ) which will ) give colour ) indication ) when top ) oil tem- ) perature ) reach 70°C.
E Seward-Chaoufoong PT	225	"	105	1 1/2		31		
Tongshau-Dent PT	225	"	95 1/2	1 1/2		31		
Pingliang-Wuashing PT	225	"	79	1 1/2		26		
Point-Kungping PT	225	"	126	1		31		
Shanghai C/M No. 6	325	"	97	1		31		
Baikal-Liaoyang PT	325	"	81	1		26		
Wotmore-Ward PT	225	"	76	1 1/2		25		
Hochien-Sungfow PT	50	"	81	4		25		
Pingliang-Ningwu PT	125	"	74	2		31		
Wuashing-Point PT	325	"	111	1 1/2		32		
Bubbling Well	200	Indoor	114	1	56 1/2	28	28 1/2	
" " Ind Voltage Regulator	260	"	115	1	52 1/2	28	24 1/2	
Ferry-Connaught PT	325	Outdoor	116	1 1/2	67	25	42	WO in hand.
Hailar-Tungchow PT	62 1/2	"	126	1	35 1/2	25	10 1/2	
E Yuhang-Chusan PT	325	"	113	2	57 1/2	23	34 1/2	
Wuchow PT	225	"	102	1	44	24 1/2	19 1/2	
Sung Sing No. 6 No.2	940	Indoor	115	3 1/2	68	32	36	
" " " No.3	940	"	103	1	64	28	36	
" " " No.4	940	"	103	2	65	28	34	
E Broadway-Chaoufoong PT	225	Outdoor	102	1 1/2	50	26	24	
Thorne-E Kanking PT	125	"	118	1 1/2	39 1/2	23	16 1/2	
Tea Tobacco Company	225	"	102	1 1/2	69 1/2	30 1/2	31	
Pingliang-Tinghai PT	125	"	152	2	46 1/2	22	24 1/2	Transformer to be en- larged.

SHANGHAI POWER COMPANY

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## WDPC

Location	Capacity kVA	Type	Max Load		Max oil top temp	Ambi- ent temp	Temp rise	Remarks
			%	Hours dura- tion				
Great Western Riding School PT	325	Outdoor	114	1	59	32	27	
Dah Yuen W/M PT	325	"	106	1	64	33	31	Replaced by consumer's own 400 kVA transformer.
Kung Sung W/M	200	Indoor	138	1	71	27	44	
Wah Fong R/F OT	225	Outdoor	120	1	61	31	30	
Yu Yuen "D" PT	325	"	118	1	56	24	32	
Yung Hwa Factory OT	225	"	102	1	58	32	26	
Zoo Ka Yie PT	225	"	100	1	47	28	19	
Dollar Radio Station	375	Indoor	124	1	51	28	23	

## (C) MISCELLANEOUS TESTS

Units	Equipment	Voltage	Nature of test	Reason for test
1	Transformer, 500 kVA, 3 $\phi$ , make China Construction & Manufacturing Company	$\frac{6,600}{400}$	Ratio, insulation resis- tance, pressure, phasing, open and short circuit	Consumers' Eng Department request.
1	Pin insulator, property of Yangtse Power Company	15,200	Dry flashover, wet flash- over and puncture	Consumers' Eng Department request.
6	Flourescent lamps, 30 watt, make Westinghouse	220	Check performance and heat run	Acceptance.
-	Consumer's installation at Pioneer Steel Rolling	6,600	Insulation resistance, continuity, and voltage ratio	Additional load.
1	Transformer, 500 kVA, 3 $\phi$ , make Sinc Electrical Manufacturing Company	$\frac{6,930}{220}$	Insulation resistance, oil breakdown, ratio, phasing, open and short circuit	Consumers' Eng Department request.
1	Induction motor, 1 HP, 3 $\phi$ , make Ideal, pro- perty of Shanghai Engineering Corporation	$\frac{380}{220}$	Insulation resistance, speed, no load current	Consumers' Eng Department request.

SHANGHAI POWER COMPANY

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Units	Equipment	Voltage	Nature of test	Reason for test
4	LV tails for 325 kVA Wua Tung Transformers	380	Heat run	Check the brazing of the tails.
-	Main and aux bus bars of KDR 5 & 7 switch gears at Chaoyang Sub- station	23,000	Overvoltage	After failure.
2	T 2 cable and pothead Control cable for KK 201 feeder	23,000 380	Overvoltage and phasing, insulation resistance	After repairs.
1	Transformer, 400 kVA, 3 $\phi$ , make Wing On, property of Eung Sung W/M	$\frac{6,600}{380}$	Insulation resistance, ratio, oil breakdown and phasing	New installation.
-	Traction rectifier in- stallation at Bubbling Well Substation	$\frac{6,600}{550}$	Insulation resistance, overvoltage and con- tinuity	Commissioning.
1	Water fog nozzle	-	Electrical conductivity of water fog	Investigation. SFC Fire Safety Committee.
21	Shunt field coils for Westinghouse 600 kW 500 V DC generator	550	Copper resistance	Fearon stores request.
1	Transformer, 125 kVA, 3 $\phi$ , make Ferranti, at Dent Substation	$\frac{6,600}{380}$	Overvoltage, insulation, resistance and con- tinuity	New installation.
-	$\Delta$ /Y switch and wood spacers	6,600	Overvoltage	Consumers' Eng Department request.
1	Transformer, 940 kVA, 3 $\phi$ , make IGE	$\frac{6,600}{350}$	Insulation resistance, continuity, ratio and phasing	After overhaul.
1	Transformer, 225 kVA, 3 $\phi$ , make Shibaaura	$\frac{6,300}{370}$	Insulation resistance, continuity, ratio and phasing	After overhaul.

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Units	Equipment	Voltage	Nature of test	Reason for test
-	Feeders C 22 and C 23 at Tung Yih Substation	-	Continuity	Suspected faulty.
1	MG 3 3,600 kVA Fearon Substation	$\frac{6,300}{550}$	Insulation resistance of field coils and armatures	) After completion of repairs of Motor ) Stator at Riverside workshop.
1	Syn motor stator of MG 3 850 HP, 3,600 kVA, make Westinghouse	6,300	Insulation, overvoltage and continuity	) Stator at Riverside workshop.
1	Transformer, 325 kVA, 3 $\phi$ , make Wha Tung	$\frac{6,600}{395}$	Insulation resistance, ratio, phasing, regulation, efficiency and heat run	Acceptance.
1	Voltage regulator 188 kVA, make IGE at Park Substation	6,600	Overvoltage and insulation resistance	After a long period of idleness.
-	Metalclad switch gear KDR 5 at Chaoyang Substation	-	Check relay indications of non-automatic OCBS	New alteration.
1	Syn motor of MG 3 at Fearon Substation, 850 HP, 3,600 kVA, make Westinghouse	$\frac{6,300}{550}$	Insulation, overvoltage, relay performance	Prior to commissioning.
1	Voltage regulator, 260 kVA, make IGE, at Woohang Substation	6,600	Overvoltage and insulation resistance	Prior to commissioning.
3	Spare stator coils for MGs	6,600	Voltage-time	Comparison of different kinds of insulation.
1	OCB type OR 101, make HTH at Tungehow Substation	6,600	Overvoltage and insulation resistance	New installation.

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II MAINTENANCE

Routine inspection, maintenance and testing of plant on the transmission and distribution system have proceeded according to programme.

(A) TRANSFORMERS AND REGULATORS

- (1) Overhauled (Core lifted, windings and connections examined, IR tested, and oil changed)

SFC

Location	Capacity in kVA	Workshop	Reason for overhaul
E Broadway-Chinoufoong PT	225	Fearon Substation	Drain valve knocked off by transport contractor.
Tu Yu Yue	940	Fearon Substation	Over 10 years in service without overhaul.

WDPC

Location	Capacity in kVA	Workshop	Reason for overhaul
Hungjao-Warren PT	20	Fearon Substation	Over 10 years in service without overhaul.

U N I T S

	<u>SFC</u>	<u>WDPC</u>
(2) <u>Inspected on site</u> .....	5	3
(3) <u>Oil-Dielectric tested</u> .....	10	3

SHANGHAI POWER COMPANY

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(B) OIL CIRCUIT BREAKERS

(1) Overhauled and Tripping Mechanism Tested

Reason for test	Number of OCBs tested			
	SPC		WDPC	
	Company's property	Customer's property	Company's property	Customer's property
Routine and special maintenance	36	1	-	6
Oil circuit breakers tripped	6	-	2	-
New installation or operation resumed	5	11	-	1
<b>Total</b>	<b>47</b>	<b>12</b>	<b>2</b>	<b>7</b>

U N I T S

SPC      WDPC

(2) <u>Oil-Dielectric strength tested</u> .....	71	3
(3) <u>Oil changed</u> .....	22	1

(C) OIL TREATMENT PLANT

Location	Transformer Oil				Switch Oil			
	Issued	Returned	Filtered	Stock	Issued	Returned	Filtered	Stock
	OS gallons							
Fearon Oil Depot	820	532	2,227	885	781	810	2,356	913
On Site - SPC	-	-	-	-	-	-	-	-
WDPC	-	-	-	-	-	-	-	-
<b>Total</b>	<b>820</b>	<b>532</b>	<b>2,227</b>	<b>885</b>	<b>781</b>	<b>810</b>	<b>2,356</b>	<b>913</b>

Samples of Oil Tested for Breakdown ..... 107



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(D) PROTECTION, BATTERIES AND TELEPHONES

(1) Protection Tests

Type of Protection	Number of Panels where tests carried out	
	SPC	NDPC
Overload and/or Earth Leakage Feeder or Transformer Balance	4	-
	6	-
Total	10	-

(2) Relays

Type of Relay	Number of Relay Elements			
	SPC		NDPC	
	Circuit tests	Changed	Circuit tests	Changed
Inverse Time	11	-	-	-
Instantaneous	33	-	-	-
Total	44	-	-	-

(3) Batteries

Work done	Lead-Acid & Edison Types		Ni-Fe Type	
	110V in Primary Substations	Telephone Exchange	30 V in Secondary Substations	
	SPC		SPC	NDPC
Inspected, cleaned and topped up	27	4	43	14
Equalizing charges conducted	6	2	-	-
Charged and discharged	-	-	-	-
Electrolyte changed	-	-	2	-

(4) Auto-Telephone Equipment and Lines

Instruments installed .....	2
" disconnected .....	-
" changed .....	1
" moved .....	4
" overhauled .....	1
" faults repaired .....	18
Line faults located and repaired .....	-
Switches overhauled .....	2
Exchange equipment faults repaired .....	5
Miscellaneous equipment overhauled .....	-

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## (E) PRIMARY SUBSTATIONS

Regular and Special Maintenance

Substation	Company	Equipment	Work done	% completed
Primary Sub-stations	SPC	Switchgear	Inspection of all metalclad switchgear for oil and compound leaks	100
Park			Overhaul and overload test metal-clad switchgear	50
Connaught			Overhaul and overload test metal-clad switchgear	50
Fearon	SPC	Rotary Plant	Repair of 3,600 kVA synchronous motor of MG 3	100
			Overhaul of three 3,600 kVA synchronous motor generators and starting gears	40
Clock Tower	SPC	Rectifier Plant	Inspection and cleandown of traction rectifier equipment	100
Connaught and Park	SPC	Power transformers	Inspection of main transformers	70
Primary Sub-stations	SPC & WDFC	Instrument transformers	Inspection of all current transformers for oil and compound leaks	100
			Overhaul of pressure testing transformers	100
Park			Inspection and cleandown potential transformers	100
Connaught			Inspection and cleandown potential transformers	50
Primary Sub-stations	SPC & WDFC	Various sub-station equipment	Inspection of fire extinguishers	100
Connaught and Park			Overhaul and testing of earthing resistance	100
Primary Sub-stations	SPC & WDFC	Batteries	Routine maintenance	To programme
Safety devices inspection and check on artificial respiration practice carried out according to programme.				

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REPAIRS TO SYNCHRONOUS MOTOR GENERATOR NO. 3, FEARON SUBSTATION

Complete reinsulation of AC motor stator winding was completed and all six shunt field coils of DC generator were replaced with new ones obtained from Westinghouse Electrical & Manufacturing Company - the manufacturer of this machine, and the machine was eventually put in service on September 19, after having been out of commission for 3½ years.

On March 22, 1944 the machine failed due to insulation breakdown of the AC motor stator winding.

The original intention of partial re-insulation of winding utilizing the old mica insulation of the coil-sides was abandoned after exhaustive experiments and tests. The aged insulation became brittle and did not stand any handling. Condition of the insulation of undamaged coils was proved satisfactory, when tested in slots. However, the removal of these coils for retaping and then fitting them back into slots, had weakened their insulation to unsatisfactory level.

Complete re-insulation of the whole winding became therefore unavoidable, but as at that time our stock of moulding mica was inadequate for this job, and as none could be obtained on the market, the whole work was shelved. After the termination of the war a new stock of moulding mica was received from US and re-insulation of the stator winding proceeded without further delay.

In 1942 it was first noticed that some of the traction DC generators (Tenquin Substation No. 2, Fearon Substation Nos. 1 and 3) have their shunt field excitation somewhat lower than normal. This was attributed to the development of shorted turns in the shunt field coils, due to their old age.

Replacement of defective coils was effected with coils manufactured in Riverside workshop. Several methods of coil impregnation were tried out, but none of them proved to give completely satisfactory results.

No compound or varnish was available, which possesses a good heat conveying characteristics together with plasticity at low temperatures and high "flowing" point. The best available was GE 227 compound. The high operating temperature of these coils causes compound to run down, thus creating air pockets between adjacent layers of coil conductors which in turn leads to further rise in coil temperature by retarding heat conveyance, and eventual charring of the cotton insulation, thus creating shorted turns.

The new "Westinghouse" coils were ordered for all three generators having defective coils.

The first set of coils was installed in the Fearon Substation DC generator No. 3 during machine assembly after repairs to the AC motor stator.

The remaining two machines (Fearon Substation No. 1 and Tenquin Substation No. 3) will have their coils changed in the near future.

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(F) SECONDARY SUBSTATIONS

Regular and Special Maintenance

Location	Com-pany	Work done	% completed
Chusan	SFC		85
Delhi	"		90
Wing On 5	"		100
China Rolling Steel Work	"	<u>Biannual Regular Maintenance</u>	100
Lwo	"		100
Wing On Stores	"	Overhaul of switchgear, testing of automatic protective equipment,	100
Range	"	inspection of transformers and regulators, inspection of all electrical equipment and cleaning.	60
Tsepo	"		5
Bubbling Well	"		20
Kiaochow	"		5
Kwango	"		100
Shanse	"		100
Chung Woo P/M	WDPC		100
Eastern District		Inspect lightning arresters indicators	100
Eastern District		Overhaul of five power transformers at Fearon Substation	100
All districts		Checking of standard auxiliary equipment in substations	85
All districts		Inspection of all metalclad switchgear and current transformers for oil and compound leaks	100
All districts		Overhaul of oil pumps	60
Central District		Overhaul of exhaust fans	25
All districts		Inspection of pole transformers	To programme
All districts		Inspection of safety devices and check on artificial respiration practice	To programme

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(G) OVERHEAD LINES AND STREET LIGHTING

(1) Inspection and Overhaul of Overhead Lines (All Districts)

System voltage	Locations where maintenance of overhead lines has been carried out to programme
6.6 kV	A 9, A 13

(2) Repairs and Replacements of Overhead Line Equipment (All Districts)

Equipment	Inspected	Repaired	Renewed
Stays	65	-	3
Brackets	169	-	1
Line switches	4	-	-
Lightning arresters	5	-	-
Insulators	528	-	24
Fuses	21	-	5
Series transformers	-	-	-
Lamp fittings	-	-	-
Lamp brackets	-	-	-
Connections	-	-	-

(3) Poles and Pole Bases - Routine and Special Maintenance

	SFC	WDPC
Poles inspected	204	-
Wood poles painted	-	-
Iron poles painted	-	-
Concrete poles repaired	-	-
Decayed wood poles renewed: Main	3	-
Suspension	4	1
Stay	3	-
Concrete bases inspected	150	-
Concrete bases repaired	-	-
Concrete bases renewed	4	1
Cast iron sleeves renewed	5	-
Cast iron sleeves replaced by concrete bases	-	-
Obsolete concrete sleeves replaced by concrete bases	-	-

(4) Street Lamps faulty and renewed

	SFC	WDPC
Municipal street lighting	1075	114
Private street lighting	586	97
Total	1661	211

(5) Traffic Signal Switches

Location	Installed	Removed	Replaced	Overhauled
Eastern District	-	-	-	4
Central District	-	-	-	54
Western District	-	-	-	3

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(H) UNDERGROUND LINES

	<u>% completed</u>	
	<u>SPC</u>	<u>WDPC</u>
(1) <u>Inspection and Maintenance</u>		
Idle cable risers .....	100	100
Road condition along cables in Eastern District .....	100	-
Central District duct line and manholes .....	100	-
Underground cables on bridge crossings .....	100	-
	<u>Units</u>	
	<u>SPC</u>	<u>WDPC</u>
Cable potheads and joints: 23 kV .....	8	-
(including standardization) 6.6 kV .....	8	6
380 V .....	1	-
Feeder pillars .....	-	2
	<u>Locations</u>	
	<u>SPC</u>	<u>WDPC</u>
Underground cables slung and protected: .....	-	Robison Rd W of Kiaochow Rd

(2) 23 kV Underground Cable Failure Located and Repaired ..... 4

SPC

Feeder name	Location of failure	Faulty cores	Cause of failure	Repairs
AD 15	Joint 8 (Pingliang Rd E of Glen Rd)	R, B	Obsolete design	Length of 10 feet replaced by new cable and two new joints
AD 7	Joint 25 (Pingliang Rd - Wetmore Rd)	R, W, E	Obsolete design	Length of 10 feet replaced by new cable and two new joints
AD 14	Joint 33 (E Broadway W of Chaoufoong Road)	R, W, B	Obsolete design	Length of 10 feet replaced by new cable and two new joints
AD 13	Joint 52 (Yu Yu Ching Rd N of Amoy Road)	R, W, B	Obsolete design	Length of 13 feet replaced by new cable and two new joints

WDPC Nil.

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- (3) 6.6 kV Underground Cable Failure Located and Repaired ..... Nil
- (4) 380 V Underground Cable Failure Located and Repaired ..... Nil
- (5) Pilot, PL and Telephone Cable Failure Located and Repaired ..... 1

SPC

Feeder name	Location of failure	Cause of failure	Repairs
PL Pontoon 5, The Bund	Pontoon 5, The Bund	Mechanical damage	Length of 55 feet replaced by new cable, one new pothead, and one new joint

WDPC Nil.

- (6) 23 kV Underground Cable Preventive Repairs ..... Nil
- (7) 6.6 kV Underground Cable Preventive Repairs ..... Nil
- (8) 380 V Underground Cable Preventive Repairs ..... Nil

(I) BUILDINGS

	<u>Location</u>	<u>Work Done</u>	<u>% completed</u>
SPC	1. Fearon Underground trench gear shed	Repairs to roof and building	95
	2. Fearon Transport Workshop	Repair door	90
	3. Fearon Construction Sub-station Workshop	Repair roof	95
	4. Fearon Yard	Repair pavement	100
	5. Fearon Construction Sub-station Workshop	Alterations to building	25
	6. Fearon Transport Workshop	Raising the lintel	95
	7. Dent Substation	Raising concrete floor	50
	8. Fearon Transport Workshop	Repairing tin hut	90
	9. Fearon Substation	Installation of louvres	100
WDPC	Nil		

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III CONSTRUCTION

(A) SERVICES

	<u>SPC</u>	<u>WDPC</u>
(1) <u>House Services</u>		
Connections .....	443	198
Disconnections .....	83	27
Net increase .....	360	171
 (2) <u>Municipal Street Lighting</u>		
Connections .....	9	-
Disconnections .....	-	-
Net increase .....	9	-
 (3) <u>Private Lighting</u>		
Connections .....	13	-
Disconnections .....	27	-
Net increase .....	-14	-

(B) OVERHEAD LINES

(1) <u>Erection</u>	<u>Area</u>	<u>Location</u>	<u>Route length</u> <u>yards</u>	<u>Number of</u> <u>poles</u>
390/220 V 4-wire	SPC	450-460 Paoting Road	210	-
"	"	Pullar-Tungchow PT	695	-
"	WDPC	Hungjao Road W of Warren Road	34	-
 (2) <u>Salvage</u>				
6.6 kV 3-wire	SPC	Koa Iron Works	440	-
"	WDPC	Chung Ha Lah, off Great Western Rd	165	-
 (3) <u>Poles</u>			<u>SPC</u>	<u>WDPC</u>
Erected .....			5	3
Removed .....			1	-
Moved at the request and expense of the Municipality .....			-	-



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(C) UNDERGROUND LINES

(1) Installation

- |                       |      |  |
|-----------------------|------|--|
| Cable -               | SPC  | <ol style="list-style-type: none"> <li>1. 14 yds, .4 sq in, 4-core, 660 V cable for Tungchow LV 1-A feeder at Tungchow Road N of Point Road</li> <li>2. 13 yds, .4 sq in, 4-core, 660 V cable for Tungchow LV 3 feeder at E Yuhang Road E of Chaoufoong Road</li> <li>3. 17 yds, .4 sq in, 4-core, 660 V cable for Tungchow LV 7 feeder at Chaoufoong Road N of Tongshan Road</li> <li>4. 13 yds, .25 sq in, 4-core, 660 V cable for Tungchow LV 2 feeder at Singkeipang Road N of Tongshan Road</li> </ol>  |
|                       | NDPC | Nil  |
| Joints and potheads - | SPC  | <ol style="list-style-type: none"> <li>1. One 6.6 kV transformer pothead for resumed supply to China Rolling &amp; Steel Works, Whashing Road</li> <li>2. One 6.6 kV pole pothead for supply to Ferry-Wuting PT</li> <li>3. One 660 V joint and one 660 V pole pothead for Tungchow LV 1-A feeder, Tungchow Road</li> <li>4. One 660 V joint and one 660 V pole pothead for Tungchow LV 2 feeder, Singkeipang Road</li> <li>5. One 660 V joint and one 660 V pole pothead for Tungchow LV 3 feeder, E Yuhang Road</li> <li>6. One 660 V pole pothead for Tungchow LV 4 feeder, Tongshan Road</li> <li>7. One 660 V joint and one 660 V pole pothead for Tungchow LV 7 feeder, Chaoufoong Road</li> <li>8. One 23 kV KDR 5 metalclad switchgear pothead for Transformer No. 2, Chaoyang Substation</li> </ol> |
|                       | NDPC | Nil  |

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(2) Salvage

Cable -	SPC	Nil
	WDPC	Nil
Joints and potheads -	SPC	1. One 23 kV KDR 5 metalclad switchgear pothead for Transformer No. 2, Chaoyang Substation
		2. One 23 kV KDR 5 metalclad switchgear pothead for KK 103 feeder, Chaoyang Substation.
	WDPC	Nil

(3) Deviation

	SPC	Due to Transformer No. 2 OCB failure on KDR 5 Group Feeder Board, Transformer No. 2 cable was temporarily deviated to KK 103 CCB, at Chaoyang Substation
	WDPC	In order to provide space for 23 kV standby feed to Edinburgh Substation (tee-off DF 73), Edinburgh LV 1 feeder was deviated from north side of its pole to the south side of the same pole.

(D) SUBSTATIONS

	<u>Substation</u>	<u>Work Done</u>	<u>% completed</u>
SPC	1. Tien Chang Paper Mill, Yangtszepoo Road	Enlargement of metering current transformers	30
	2. Tungchow	Installation of one additional 940 kVA transformer	85
	3. Dent	Installation of a 125 kVA transformer	90
	4. Wing On 5, Pingliang Road	Installation of temporary 6.6 kV metering supply	100
	5. Foo Shing Tobacco, Macao Road	Rearrangement of distribution transformers	100
	6. Tonquin	Change of station transformer from 2-625 kVA to 1-1,000 kVA	90
	7. Sing Yue No. 1, West Soochow Road	Installation of 6.6 kV bus couple gang operated links	30

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	<u>Substation</u>	<u>Work Done</u>	<u>% completed</u>
SPC	8. Kiu Lung W & D Factory, Paoting Road	Installation of a 225 kVA transformer	20
	9. Darroch, Tiendong, Range, and Kashing	Remove 6.6 kV bulk supply metering from Darroch & Tiendong and install at Kashing & Range	Cancelled
WDPC	1. Yeong Dah W/F, Jessfield Road	Installation of 6.6 kV supply	40
	2. Union Syndicate, off Connaught Road	Installation of 6.6 kV supply	30
	3. Kung Sung W/M, Lincoln Avenue	Conversion of 6.6 kV metering	90
	4. Kwang Sing P & D, Keswick Road	Conversion of 6.6 kV metering	30

(E) BULK SUPPLY METERING

<u>Work Done</u>	<u>SPC</u>	<u>WDPC</u>	<u>Total</u>
Metering equipment installed	4	2	6
" " removed	-	1	1
" " changed	2	3	5

(F) VARIOUS WORK

	<u>Nature of Work</u>	<u>Location</u>	<u>% completed</u>
SPC	1. Repair control cable of Kk 201 OCB, KDR 5 Board	Chaoyang Substation	100
	2. Clean tools and equipment	Fearon Substation Workshop	60
	3. Manufacturing pothead bracket Dwg No. 53/358 B for tee-off DF 73	Fearon Substation Workshop	100
	4. Redrugging of cables from rotten to good reels and repairs to cable reels	Haiphong and Yangchow Depots	100
	5. Shifting Underground Emergency stock to new store room	Fearon Underground Emergency Store	95

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	<u>Nature of Work</u>	<u>Location</u>	<u>% completed</u>
SPC	6. Making reinforcing clamps for 4'-0" copper sleeves	Fearon Substation Workshop	60
	7. Clean tools and equipment	Fearon Underground Workshop	100
	8. Prepare material for Underground Emergency Store	Fearon Underground Workshop	-
	9. Filling compound for distribution transformer bushings	Fearon Substation	100
	10. Remaking transformer pot-head (transformer damaged by truck)	E Broadway-Chaoufoong PT	100
	11. Disconnect PL at Pontoons 6 & 7 for HTW	Pontoons 6 & 7, The Bund	100
	12. Change tails for Zochang LW 11-A pole pothead	Qiansan Road	100
	13. Re-mount Park LW 10 on new wood pole	Sinze Road	100
SPC	All		

IV WORK DONE FOR CONSUMERS

	<u>Location</u>	<u>Nature of Work</u>	<u>% completed</u>
SPC	1. Tongxin Substation	Removal of temporary traction supply	10
	2. Ming On No. 5, Pingliang Road	Installation of 2-625 kVA transformers on hire	100
WDPC	1. Kang Sung W/H, Lincoln Avenue	Installation of consumer's 400 kVA transformer and sale of substation equipment to consumer	100

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V STAFF

(A) CHANGES

Engineering and Office Staff

<u>SPC</u>	None
<u>WDPC</u>	None

Monthly Rate Staff

SPC

Chen Chai Hwa	Student Apprentice	Transferred to Generation Department
Lu Ju Bai	"	" " " "
Cheo Shui Fu	Cook Boy	Transferred to Daily Rate
Chiu Pang Chi	TSF 1	Transferred to Daily Rate
Chao Chin Haiang	TSF 3	" " " "
Hau Lu Ti	TSF 4	" " " "
Feng Cheng Yung	TSF 5	" " " "
Chen Ken Haiang	TSF 6	" " " "
Chu A Chang	TSF 7	" " " "
Chou Chin Kong	TSF 8	" " " "
Chu Yuch Lin	TSLA 1	" " " "
Chu Ah Suen	TSL 1	" " " "
Lu Chang Ken	TSL 4	" " " "
Wong Foo Ching	TSL 5	" " " "
Han Lung Ken	TSL 8	" " " "
Che Chin Ken	TSL 9	" " " "
Wang Kuei Yung	TSL 10	" " " "
I Lung Sheng	TSL 11	" " " "
Chang Yu Mei	TSL 12	" " " "
Shen Tsai Ching	TSL 13	" " " "
Chen Lung Chuan	TSL 14	" " " "
Shen Ksien Ting	TSQ 2	" " " "
Tseu Yoong Zien	TSQ 3	" " " "
Chu You Kung	TSH 2	" " " "
Tang Chion Sheng	TSH 4	" " " "
Yang Yu Ken	TSF 9	Discharged

WDPC

Chang Loong Feh	TSL-W 2	Transferred to Daily Rate
Kung Yun Kuei	TSL-W 3	Discharged

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Daily Rate Staff

SPC

COT 9	Lamp Trimmer	Invalid			
CUQ 6	Improver	Discharged			
FOX 18	Labourer	Invalid			
RF 6	Fitter	Discharged			
CMF 4	Fitter	Discharged			
Chen Shui Fu	Cook	Transferred from Monthly Rate			
TSE 1	Fitter	Transferred from Monthly Rate			
TSE 2	"	"	"	"	"
TSE 4	"	"	"	"	"
TSE 5	"	"	"	"	"
TSE 6	"	"	"	"	"
TSE 7	"	"	"	"	"
TSE 8	"	"	"	"	"
TSLA 1	Lineman Leading Hand	"	"	"	"
TSL 1	Lineman	"	"	"	"
TSL 4	"	"	"	"	"
TSL 5	"	"	"	"	"
TSL 8	"	"	"	"	"
TSL 9	"	"	"	"	"
TSL 10	"	"	"	"	"
TSL 11	"	"	"	"	"
TSL 12	"	"	"	"	"
TSL 13	"	"	"	"	"
TSL 14	"	"	"	"	"
TSQ 2	Improver	"	"	"	"
TSQ 3	"	"	"	"	"
TSH 2	Helper	"	"	"	"
TSH 3	"	"	"	"	"
TSH 4	"	"	"	"	"
CSFZ 1	Temporary Fitter	Terminated			
CSFZ 2	" "	"			
CSFZ 3	" "	"			
CSPZ 1	" Carpenter	"			
CSPZ 1	" Painter	"			
CCKZ 1	" Labourer	"			
CCKZ 2	" "	"			

WDPC

TSL-W 2	Lineman	Transferred from Monthly Rate
WOL 37	"	Discharged
WOLZ 9	Temporary Lineman	Engaged

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(B) ACCIDENTS

Date	Employee injured	Location of accident	Description of accident	Fatal or permanent injured	Disabled for the period of
Aug 28	V I Krikoriantz	Old Park Sub-station, first floor	Checked temperature of LV bus bar risers by hand, touching two phases simultaneously due to lapse of mind. Suffered severe shock, but did not lose consciousness	No	3 months

VI MISCELLANEOUS

- (A) Theft of Materials Nil.  
(In SPC and WPC Areas)

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## VII APPENDIX: TRANSPORT DIVISION

The following outlines the activities of the Transport Division during the month.

(A) MOTOR VEHICLES(1) Summary

Vehicles	Passenger cars	Pick-ups	Station wagons	Vans	Trucks	Special vehicles*	Trailers
In Operation	55	10	2	5	14	3	4
In Storage	-	-	-	-	1 <sup>x</sup>	-	4

\* Oil tanker and 20-ton lorries.

<sup>x</sup> One truck chassis with bus body in storage from September 22, 1947.(2) Operating Data of Motor Vehicles

Type	No. in service		GASOLINE							
			Issue (gallons)		Usage (gallons)		Mileage run		Average mpg	
			Sep	Aug	Sep	Aug	Sep	Aug	Sep	Aug
Passenger cars	55*	53	5,795	5,805	5,788	5,782	68,538	70,785	11.8	12.2
Station wagons	2	2	145	165	145	165	1,775	1,918	12.2	11.6
Pick-ups	10	10	964	1,020	964	1,020	12,600	13,365	13.1	13.1
Trucks (1½-ton)	2	2	212	230	212	230	2,207	2,276	10.4	9.9
Trucks (5½-ton)	9	9	1,192	1,205	1,192	1,205	8,936	9,349	7.5	7.8
Lorries (6-ton)	2	2	160	227	160	227	649	1,020	4.1	4.5
Lorries (20-ton)	2	2	31	100	45	100	69	151	1.5	1.5
Oil tanker truck	1	1	10	-	-	10	-	20	-	2.0
Meter vans	2	2	146	156	146	156	1,177	1,248	8.0	8.0
Trouble Section van	1	1	153	162	153	162	1,035	1,061	6.8	6.5
Cooker vans	2	2	347	364	347	364	3,428	3,430	9.9	9.4
Bus	2	1	259	242	253	242	1,518	1,452	6.0	6.0
Trailers	8	8	-	-	-	-	-	-	-	-
Total	98	95	9,414	9,676	9,405	9,663	101,932	106,075	10.8	11.0

\* One new passenger car in operation from September 20, 1947.

One passenger car returned by Bureau of Public Utilities on Sept 20, 1947.



SHANGHAI POWER COMPANY

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(3) Maintenance Work on Motor Vehicles

Type	General Overhaul completed		Emergency Overhaul completed		Minor adjustments and repairs		Repairs after			
							Accident		Breakdown	
	Sep	Aug	Sep	Aug	Sep	Aug	Sep	Aug	Sep	Aug
Passenger cars	2	-	54	49	32	35	1	2	5	8
Station wagons	-	-	4	3	2	1	-	-	-	-
Pick-ups	-	-	14	24	6	6	-	-	2	-
Trucks (1 1/2-ton)	-	-	6	4	2	4	-	-	1	4
Trucks (3 1/2-ton)	-	-	15	17	8	7	-	1	2	1
Lorries (6-ton)	-	-	2	1	2	1	-	-	-	-
Lorries (20-ton)	-	-	-	1	-	-	-	-	-	1
Oil tanker	-	-	-	-	-	-	-	-	-	-
Motor vans	-	-	5	10	2	1	-	-	-	2
Trouble Section van	-	-	-	-	-	-	-	-	-	-
Cooker van	-	-	-	-	-	-	-	-	-	-
Bus	-	-	1	2	1	1	-	-	-	-
Trailers	-	-	-	-	-	-	-	-	-	-
Total	2	-	101	111	55	58	4	3	10	16

(4) Motor Vehicle Engine Lubricating Oil

Description	Issue (US gallons)		
	Sep	Aug	
Cars	134	153	Feuron stock at the end of this month: 309 US gallons of SAE 40
Trucks	164	185	
Other purposes	13	5	
Total	311	343	

(5) Motor Vehicle Breakdowns

Classification	Cases	%
Electrical equipment	5	31.3
Engine	-	-
Chassis	3	18.7
Fuel system	4	25.0
Tire and tubes	4	25.0
Total	16	100.0

Frequency: 6,371 miles per breakdown.

SHANGHAI POWER COMPANY

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(B) MAJOR HAULAGE JOBS

Units	Equipment			Moved		Size of truck	Man-days
	Capacity kVA	Weight lbs	Description	From	To		
1	125	3,330	Transformer	Fearon Stores	Dent Substation	20	14
2	325	2x4,665	"	Riverside Workshop	Fearon Substation		
1	225	3,970	"	Fearon Stores	Broadway-Chaoufoong PT	20	20
1	225	5,350	"	Broadway-Chaoufoong PT	Fearon Substation		
1	4,200	17,400	"	Riverside Workshop	Riverside Transformer House	20	20
1	225	5,350	"	Fearon Substation	Fearon Stores	--	40
1	940	16,800	"	Fearon Substation	Tungchow Substation	20	
1		40,000	Stator	Riverside Workshop	Fearon Substation	20	32
2	325	2x4,665	Transformer	Sing An Factory	Wah Tung Factory	20	7
1	625	16,800	"	Fearon Stores	Fearon Substation	-	7
1	200	5,900	"	Kung Sung Mill	Fearon Substation	20	20
1*	400	9,000	"	Kung Sung Mill	Kung Sung Mill	-	
1	125	3,310	"	Riverside Workshop	Fearon Stores	33	10
1	625	14,400	"	Wing On No.5 Mill	Fearon Substation	20	37
1	200 HP	4,480	Motor	Yangchow Stores	Shanghai Waterworks, Yangtazepoo	6	10
Total		164,950					217

\* Removal from one location to another location within the mill.

(C) BICYCLES

(1) Taxi Bicycle and Tricycle Service

Department	Type	No. in service	Issue for temp use	Issued as taxi	Remarks
Transport Division	Bicycles	54	21	12	
	Tricycles	7	7	-	
Meter Department	Bicycles	25	-	-	
	Tricycles	-	-	-	

SHANGHAI POWER COMPANY

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(2) Bicycle and Tricycle Maintenance

Type	No. in service	General overhaul		Minor adjustments and repairs		Routine inspection		Repairs after accident	
		Sep	Aug	Sep	Aug	Sep	Aug	Sep	Aug
Company's bicycles	253	-	-	109	113	13	12	-	-
Employees' bicycles	25	-	-	6	8	4	5	-	-
Tricycles	10	-	-	7	5	-	-	-	-
Fedicabs	3	-	-	5	6	-	-	-	-
Trailers	2	-	-	1	-	-	-	-	-
Total	293	-	-	128	132	17	17	-	-

(D) HANDCARTS

Type	No. in Service	No. in Storage	No. in Construction	Number in repair	
				Maintenance	After Accident
Large 2-ton	1	2	-	-	-
Standard 1-ton	9	13	-	-	-
House Service	3	1	-	-	-
Balancing	3	1	-	-	-
Total	16	17	-	-	-

SHANGHAI POWER COMPANY

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(Z) TRANSPORT WORKSHOP

Shop	WORK DONE		
	Transport Division	Other divisions	
		Manhours	% of total
Vulcanizing	Repaired for - Motor cars: 19 tires; 148 tubes Bicycles: 20 tires; 18 tubes	-	-
Tailor	Repairs to 19 seat covers 37 upholstery 18 uniforms	Manufacture of 3 seat covers	-
Paint	Repainted: 1 motor car; 2 bicycles Touched up: 124 motor car jobs; 48 bicycle jobs	-	-
Welding	Repaired by welding 58 motor vehicle bodies 16 engine parts 25 chassis parts	129	78.2
Battery	Replated: 3 batteries Repaired: 25 " Charged: 151 "	-	-
Blacksmith	Forged: 31 new parts Repaired: 117 damaged parts	4	2.4
Whitesmith	Repaired - 40 vehicle radiators 13 bumpers 12 bodies 21 doors 23 windows 48 various small parts	-	-

SHANGHAI POWER COMPANY

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Shop	WORK DONE		
	Transport Division	Other divisions	
		Manhours	% of total
Electrical	Repaired or overhauled - 11 starters 9 dynamos 48 horns	-	-
Carpenter	Repairs to 15 vehicle bodies  Manufacture of 1 vehicle body	Repairs to: 8 chairs 2 revolving chairs 2 desks 5 extension ladders  ----- Minor repairs: 6	3.6
Machine	Repairs to 67 engine parts 296 other parts  Manufacture of 49 engine parts 386 other parts	26	15.8
Lubrication Centre	Motor vehicles: Oil changed: 52 General inspection: 53 General lubrication: 55	-	-

SHANGHAI POWER COMPANY

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## (F) ACCIDENTS

## (1) Motor Vehicles

Date	Vehicle		Location of accident	Description of accident	Damage to SPC vehicle			SPC driver to blame?	Persons injured	
	Type	No.			Major	Minor	None		Staff	Cut-siders
Sep 2	Pass car	54456	Peking Road	Damaged by bicycle	-	x	-	No	No	No
Sep 3	Pass car	10645	Park Road	Collided with wagon	-	-	x	Yes	No	No
Sep 3	Pass car	17800	Route Vallon	Collided with rickshaw	-	x	-	Yes	No	No
Sep 6	Pick-up	30053	Edinburgh Road	Collided with pedicab	-	-	x	Yes	No	No
Sep 6	3½-ton van	30068	Bubbling Well Road	Hit a Pedestrian	-	-	x	No	No	Yes
Sep 9	Pass car	54452	Bubbling Well Road	Hit by truck	-	x	-	No	No	No
Sep 10	Pick-up	30043	Connaught Road	Knocked down pedestrian	-	-	x	No	No	Yes
Sep 11	3½-ton van	30040	Hanbury Rd Bridge	Collided with truck	-	x	-	No	No	No
Sep 11	Pass car	50503	Hankow Road	Smashed by car	-	x	-	No	No	No
Sep 12	Pass car	17800	Ward Road	Smashed by truck	-	x	-	No	No	No
Sep 12	Pass car	10646	Race Course Road	Collided with car	-	x	-	Yes	No	No
Sep 15	Pass car	10653	The Bund	Collided with jeep	-	x	-	No	No	No
Sep 16	Pass car	10657	Nanking Rd	Collided with car	-	x	-	No	No	No
Sep 16	Pass car	17520	Nanking Rd	Smashed by car	-	x	-	No	No	No
Sep 17	Pass car	54453	Burkill Rd	Smashed by truck	-	x	-	No	No	No
Sep 18	Pass car	10639	Nanking Rd	Collided with car	-	x	-	No	No	No
Sep 18	Pass car	17801	Route Cardinal Mercier	Collided with motor cycle	-	-	x	No	No	No
Sep 28	Pass car	10650	Kiangso Rd	Smashed by car	-	x	-	No	No	No
Sep 29	Pick-up	30047	Soochow Rd	Knocked down a pedestrian	-	-	x	Yes	No	Yes

Frequency: 5,365 miles per accident.

SHANGHAI POTTER COMPANY

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(2) Bicycles and Tricycles

None

(3) Details of Accidents involving general public

Date	Location of accident	Damage to outside vehicle			Injury to outsiders			Remarks
		Major	Minor	None	Major	Minor	None	
Sep 2	Peking Road	-	-	x	-	-	x	
Sep 3	Park Road	-	x	-	-	-	x	
Sep 3	Route Vallon	-	-	x	-	-	x	
Sep 6	Edinburgh Road	-	x	-	-	-	x	
Sep 6	Bubbling Well Road	-	-	-	-	x	-	
Sep 9	Bubbling Well Road	-	-	x	-	-	x	
Sep 10	Connaught Road	-	-	-	-	x	-	
Sep 11	Hanbury Road Bridge	-	-	x	-	-	x	
Sep 11	Hankow Road	-	x	-	-	-	x	
Sep 12	Ward Road	-	-	x	-	-	x	
Sep 12	Race Course Road	-	x	-	-	-	x	
Sep 15	The Bund	-	x	-	-	-	x	
Sep 16	Nanking Road	-	-	x	-	-	x	
Sep 16	Nanking Road	-	x	-	-	-	x	
Sep 17	Burkill Road	-	-	x	-	-	x	
Sep 18	Nanking Road	-	-	x	-	-	x	
Sep 18	Route Cardinal Mercier	-	x	-	-	-	x	
Sep 26	Kiangse Road	-	x	-	-	-	x	
Sep 27	Goochow Road	-	-	x	-	x	-	

(4) Staff

None

SHANGHAI POWER COMPANY

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(G) STAFF

- (1) Supervisory Staff  
No change
- (2) Clerical Staff  
No change
- (3) Monthly Rate Staff  
No change
- (4) Daily Rate Labour  
No change

*S. L. Dong*

S. L. Dong  
Acting Distribution Operating Engineer



SHANGHAI POWER COMPANY

Shanghai, October 7th, 1947.

The General Manager :

METER & TESTING DEPARTMENT  
LARCENY OF ELECTRICITY  
MONTHLY REPORT FOR SEPTEMBER, 1947.

Accounts Office Queries :

One case of larceny was detected, and revenue amounting to CN\$3,323,000 has been recovered.

One case of damaged meter was found. The cost of repairs, etc. amounting to CN\$175,000 has been paid by the consumer.

Meter Readers' Reports :

Seven cases of damaged meters were found when following up these reports. The cost of repairs, etc. amounting to CN\$1,596,000 has been paid by the consumers.

Route Meter Investigation :

One case of larceny was detected, and revenue amounting to CN\$2,688,000 has been recovered.

Three cases of damaged meters were found. The cost of repairs, etc., amounting to CN\$361,000 has been paid by the consumers.

Power Meter Investigations :

One case of damaged meter was found. The cost of repairs, etc. amounting to CN\$242,000 has been paid by the consumer.

Miscellaneous :

One case of larceny was detected when following up a report from Installation Section's staff, and revenue amounting to CN\$2,477,000 has been recovered.

Nine cases of damaged meters were reported by Installation Section's staff. The cost of repairs, etc. amounting to CN\$6,130,000 has been paid by the consumers.

Damaged or Missing Main Fuse Box Lead Seals :

Thirty-five cases of above infringement of Company's Regulations have been handled by the Installation Section. Fees paid by consumers total CN\$1,050,000.

SHANGHAI POWER COMPANY

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S u m m a r y :

Three cases of larceny have been detected and settled during the month together with twenty-one cases of damaged meters and/or associated equipment.

Revenue amounting to CN\$18,442,000 has been recovered, of which :-

- a. CN\$9,488,000.- represent recovered revenue.
- b. CN\$8,904,000.- represent an estimated cost of repairs to damaged meters and associated equipment.
- c. CN\$1,050,000.- represent fees paid for damaged or missing main fuse box lead seals.

Estimated Unmetered Consumption :

One hundred and three cases of unmetered consumption due to defective or damaged meters were dealt with on Consumers' Accounts Inspect Orders during the month. The consumption was estimated at 23,649 kWhrs., and revenue amounting to CN\$26,723,370.- was recovered.

-----  
NOTE :- Three cases of unmetered supply taken by various units of the Chinese Armed Forces have been reported by the Installation and Investigation Sections' staff and Meter Readers during the month. These have been passed to the Installation Section for action in concert with Consumers' Engineer's Department.  
-----

*A. Bennett*  
-----  
for E. Jacobs,  
Meter & Testing Engineer

AVG/zkc

SIANGHAI POWER COMPANY

September, 1947.

S.P.C. + W.D.P.C.

NATURE OF INVESTIGATIONS	PREMISES INSPECTED	METERS REPORTED DEFECTIVE	IRREGULARITIES FOUND	LARGEST CASES			TOTAL CASES
				Jumpers	Tempered Meters	Damaged and/or Missing Plant	
Accounts Office Queries	622	655	233	1	-	1	2
Meter Readers' Reports	10	9	7	-	-	7	7
Route Meter Investigation	2325	3277	1050	1	-	3	4
Four Meter Investigation	1	1	1	-	-	1	1
Casual Visits - Day	4	8	1	-	-	-	-
Small Area Investigation	183	233	65	-	-	-	-
Informers' Letters	1	1	1	-	-	-	-
Miscellaneous	36	50	12	-	1	9	10
<b>T o t a l</b>	<b>3182</b>	<b>4234</b>	<b>1450</b>	<b>2</b>	<b>1</b>	<b>21</b>	<b>24</b>

W.D.P.C. (Included in above figures) :

Accounts Office Queries	123	137	66	-	-	-	-
Meter Readers' Reports	3	3	1	-	-	1	1
Route Meter Investigation	401	578	180	1	-	-	1
Small Area Investigation	183	233	65	-	-	-	-
Casual Visits - Day	1	4	-	-	-	-	-
Informers' Letters	1	1	1	-	-	-	-
Miscellaneous	4	4	4	-	-	4	4
<b>T o t a l</b>	<b>721</b>	<b>980</b>	<b>317</b>	<b>1</b>	<b>-</b>	<b>5</b>	<b>6</b>

Month ending Sept. 30, 1947	S.P.C. + W.D.P.C.		W.D.P.C. (only)	
	Premises/Meters	Irregularities/Cases	Premises/Meters	Irregularities/Cases
Month ending Sept. 30, 1947	3,182	4,234	721	317
12 Months ending Sept. 30, 1947	44,132	62,445	12,695	5,721
			17,993	183

SHANGHAI POWER COMPANY

SEPTEMBER, 1947

ANALYSIS OF CASE RECOVERED FOR ESTIMATED LOSS OF REVENUE FROM CONSUMERS INVOLVED IN LARCENY OF ELECTRICITY, AND FOR DAMAGED OR MISSING METERS AND BROKEN MAIN FUSE SEALS.

S.P.C. + W.D.P.C.

NATURE OF INVESTIGATIONS	Jumpers Ct\$	Tempered Meters Ct\$	Damaged Meters Ct\$	Missing Meters Ct\$	Part Payment Ct\$	Broken Main Fuse Seals Ct\$	TOTAL Ct\$
Accounts Office Queries	5,323,000	-	175,000	-	-	-	5,498,000
Meter Readers' Reports	-	-	1,996,000	-	-	-	1,996,000
Route Meter Investigation	2,688,000	-	361,000	-	-	-	3,049,000
Power Meter Investigation	-	-	242,000	-	-	-	242,000
Miscellaneous	-	2,477,000	2,191,000	3,939,000	-	1,050,000	9,657,000
<b>T o t a l</b>	<b>6,011,000</b>	<b>2,477,000</b>	<b>4,565,000</b>	<b>3,939,000</b>	<b>-</b>	<b>1,050,000</b>	<b>18,042,000</b>

W.D.P.C. (Included in above figures):

Accounts Office Queries	-	-	-	-	-	-	-
Meter Readers' Reports	-	-	222,000	-	-	-	222,000
Route Meter Investigation	2,688,000	-	-	-	-	-	2,688,000
Miscellaneous	-	-	1,232,000	-	-	150,000	1,382,000
<b>T o t a l</b>	<b>2,688,000</b>	<b>-</b>	<b>1,454,000</b>	<b>-</b>	<b>-</b>	<b>150,000</b>	<b>4,292,000</b>

	S.P.C. + W.D.P.C.	W.D.P.C. (only)
Month ending September 30th, 1947	C.N. \$ 18,442,000.--	C.N. \$ 4,292,000.--
12 Months ending September 30th, 1947	C.N. \$ 29,376,510.--	C.N. \$ 50,648,550.--

25X1A

SHANGHAI POWER COMPANY  
AND  
WESTERN DISTRICT POWER COMPANY OF SHANGHAI  
FEDERAL INC., U.S.A.

MONTHLY REPORT

FOR

OCTOBER 1947

25X1A

25X1A

SHANGHAI POWER COMPANY  
AND  
WESTERN DISTRICT POWER COMPANY OF SHANGHAI  
FEDERAL INC., U.S.A.

MONTHLY REPORT

FOR

OCTOBER 1947

ILLEGIB

CHAMPLAIN POWER COMPANY

MONTHLY REPORT

FOR

OCTOBER 1947

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SHANGHAI POWER COMPANY

S U M M A R Y

1. REVENUES & EXPENSES COMPARED WITH 1948 (C\$):

Operating Revenues (C\$ Figures in Thousands)	Month of October	
	1947	1948
S.P.C.	C\$ 168,164,275	C\$ 4,352,186
W.D.P.C.	" 40,579,247	" 1,058,658
Combined **	<u>C\$ 178,263,564</u>	<u>C\$ 4,594,503</u>
<u>Operating Expenses</u>		
S.P.C.	C\$ 128,565,334	C\$ 4,907,520
W.D.P.C.	" 37,910,582	" 1,006,192
Combined **	<u>C\$ 155,993,658</u>	<u>C\$ 5,150,371</u>
<u>Net from Operation</u>		
S.P.C.	C\$ 39,600,941	C\$ -615,333
W.D.P.C.	" 2,668,665	" 49,466
Combined **	<u>C\$ 42,269,606</u>	<u>C\$ -565,867</u>

\*\* Inter-Company Items Eliminated.

2. ELECTRIC DEMAND, OUTPUT, SALES & LOSSES:

2A Maximum Hour in KWH

S.P.C. Riverside Max.Hr.Generation	186,175	126,691
W.D.P.C. Max.Hr.Demand in KW	33,627	25,748

2B Net Output or Purchase in MKWH (M=1000)

S.P.C. Net Output	84,141	71,304
W.D.P.C. Purchase from S.P.C.	17,915	14,008

2C Units Sold & Accounted for in MKWH

S.P.C. (including sales to W.D.P.C.)	79,515 *	63,834
W.D.P.C.	17,090	13,315

2D Transmission & Distribution Losses in Percent of Net Output or Purchase:

S.P.C. (W.D.P.C. considered as one customer)	5.5	10.5
W.D.P.C.	4.5	4.9

3. CUSTOMERS, SERVICE INSPECTIONS:

3A Customers

S.P.C.	99,088	96,531
W.D.P.C.	81,852	80,861
Combined **	<u>180,940</u>	<u>116,591</u>

\*\* Inter-Company Items Eliminated.

\* Including 874 MKWH losses in synchronous plant for Power Factor improvement.



SHANGHAI POWER COMPANY

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<u>3B Service Inspections</u>		<u>Month of October</u>	
<u>Number</u>	(C\$ Figures in 'Thousands)	<u>1947</u>	<u>1946</u>
	S.P.C.	8,047	6,521
	W.D.P.C.	1,398	3,397
	Total	9,445	9,918
<u>Irregularities</u>			
	S.P.C.	1,401	1,361
	W.D.P.C.	258	734
	Total	1,659	2,095
<u>Cash Recovered (C\$)</u>			
	S.P.C.	14,421	8,673
	W.D.P.C.	19,963	651
	Total	34,384	9,324
<u>No. of Recoveries</u>			
	S.P.C.	18	42
	W.D.P.C.	15	12
	Total	31	54

4. EMPLOYEES:

<u>Number</u>			
	S.P.C.	3,046	3,045
	W.D.P.C.	125	150
	Total * (including staff on leave)	3,171	3,195

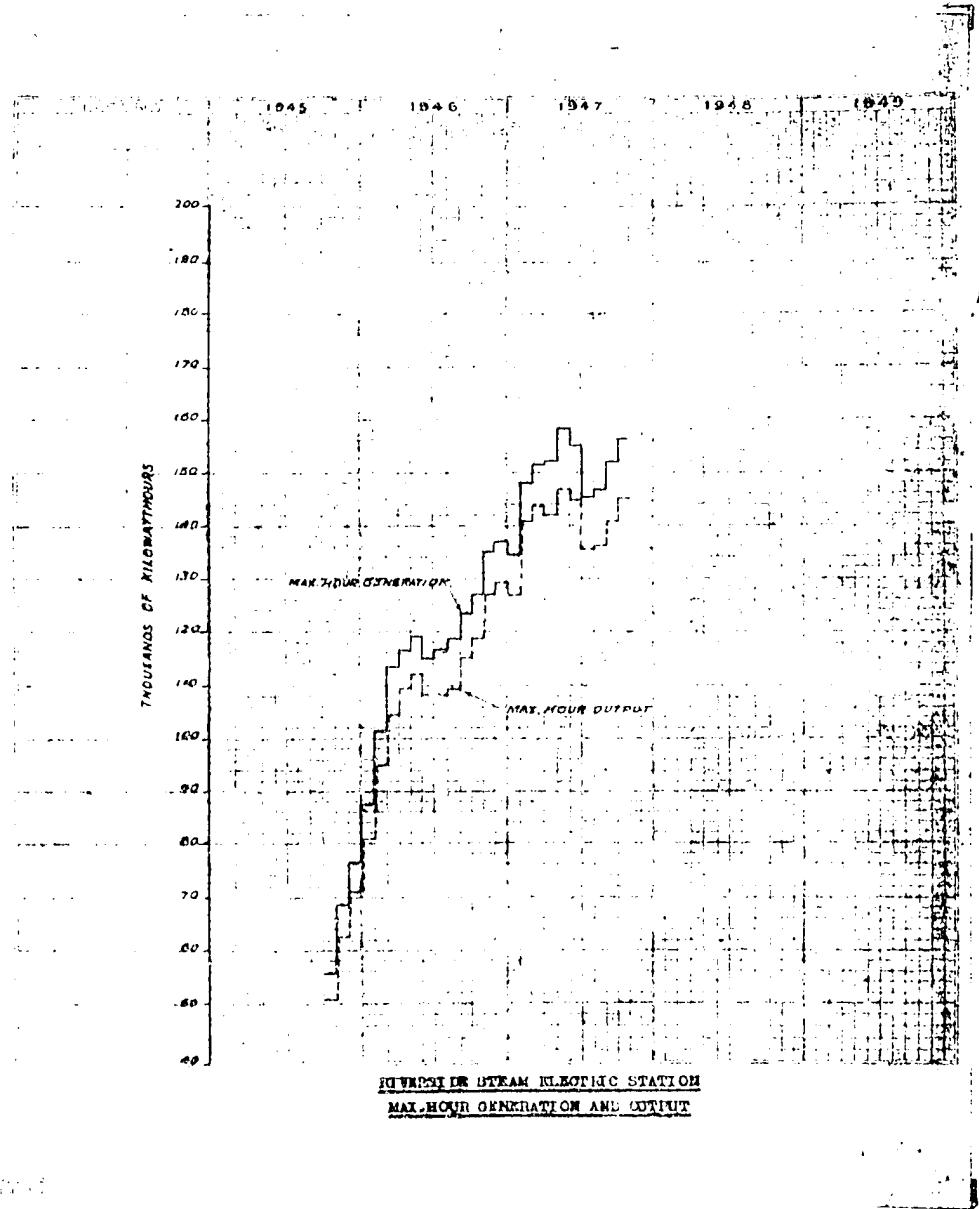
5. RIVERSIDE OPERATIONS:

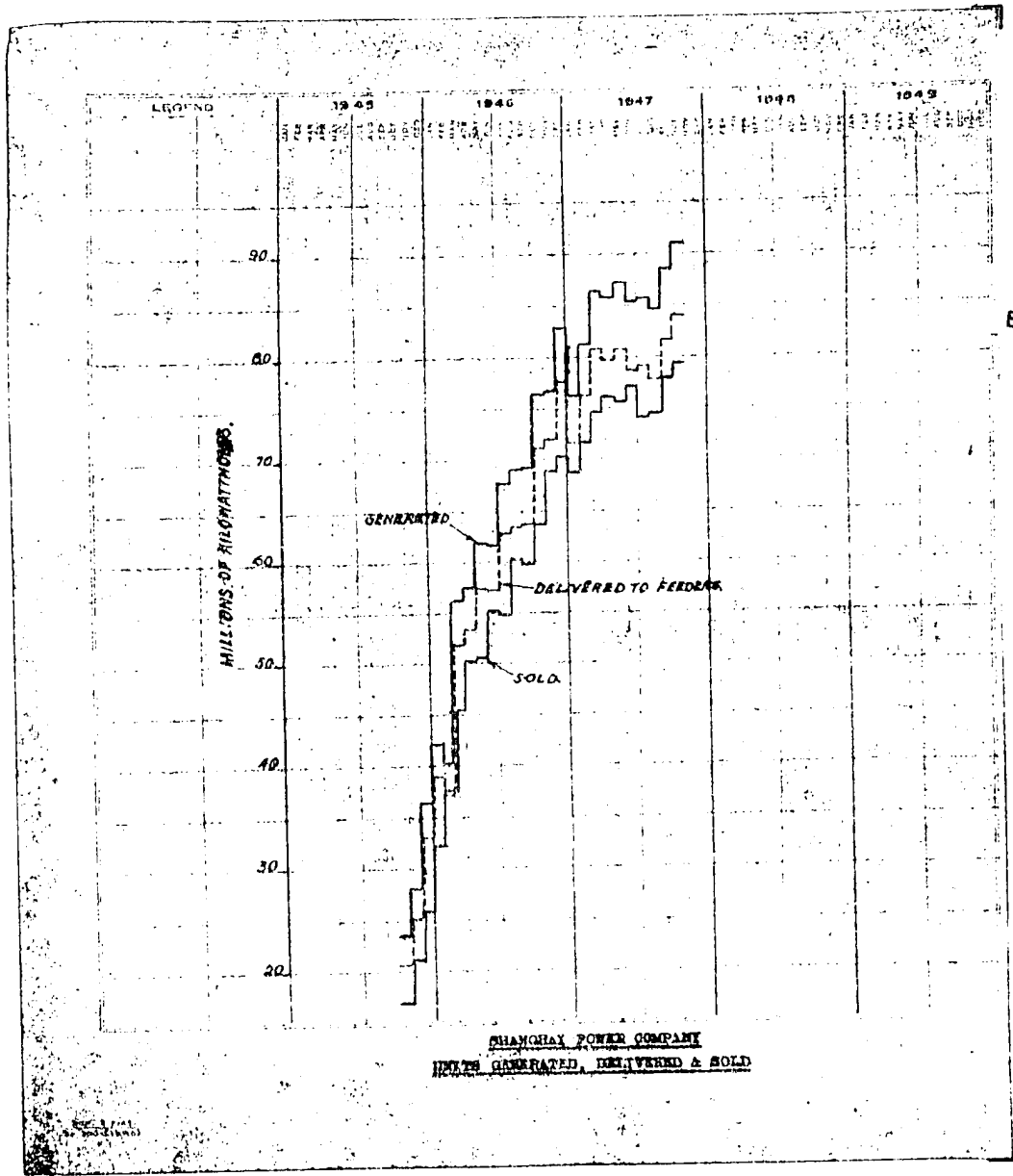
(1) <u>Generating Capacity</u>	<u>1947</u>	<u>1946</u>
Name plate rating (KW)	171,500	168,500
Name plate rating (KVA)	210,150	198,000
Working rating - Winter (KVA)	213,080	198,370
Working rating - Summer (KVA)	190,890	176,180

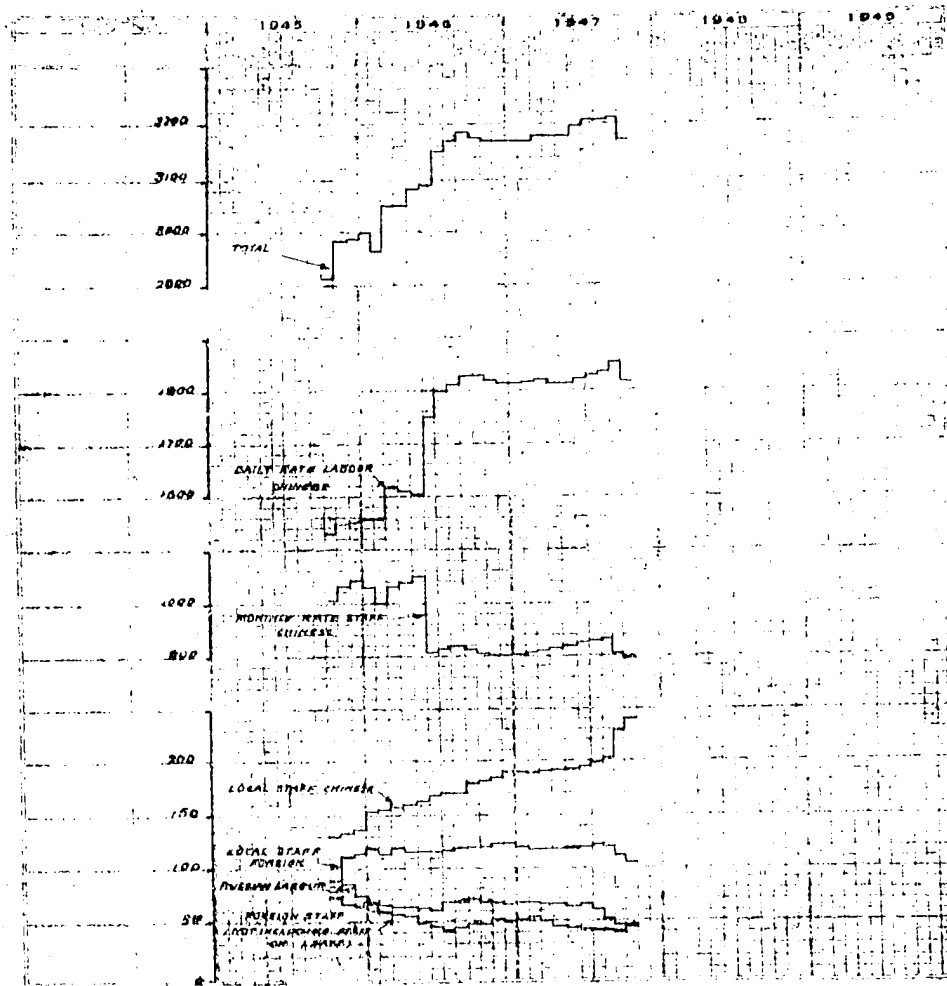
Ø Excludes TG-2, TG-6 & TG-11.

(2) <u>Instantaneous Peak Generation (KW)</u>	159,208	132,476
(3) <u>Efficiency (BTU per KWH Output)</u>	19,099	21,038
(4) <u>Load Factor (Based on Output &amp; Max.Hr.Output)</u>	77.89	80.83

(5) <u>Fuel in tons of 2240 lbs.</u>	<u>1947</u>		<u>1946</u>	
	<u>Coal</u>	<u>Oil</u>	<u>Coal</u>	<u>Oil</u>
In stock at end of September	27,690	840	20,489	488
Received during month	19,633	29,071	21,326	22,004
Used during month (Including Sundries)	20,047	28,993	30,399	20,446
In stock at end of October	27,276	918	11,413	2,043







EMPLOYEES  
(S.P.C. & W.D.P.O.)

REF ID: A61481

SHANGHAI POWER COMPANY

SECRETARY AND ACCOUNTANCY

OCTOBER 1947

SHANGHAI POWER COMPANY AND WESTERN DISTRICT POWER COMPANY

Cash on Hand and in Banks - Shanghai:

The balance of cash on hand and in bank accounts in Shanghai on October 31, 1947, was as follows:

<u>Current Bank Accounts</u>	<u>H.F.C. CN\$</u>	<u>W.D.P.C. CN\$</u>
Secretary & Treasurer		193,094,409.34
Hongkong & Shanghai Banking Corporation		
General Fund Account	1,517,053,491.55	
Fixed Deposit Account	5,523,692,000.00	
CN\$4,523,692,000 due 1.29.48		
CN\$1,000,000,000 due 1.31.48		
Fixed Deposit Account due 11.9.47	5,000,000,000.00	
National City Bank of New York	21,276,147.00	
The Bank of China	10,779,386.00	
The Chekiang Industrial Bank, Ltd.		5,659,486,633.46
General Fund Account	23,338,234,174.55	
Fixed Deposit Account due 11.12.47	20,000,000,000.00	
Compadore Cash on Hand	<u>3,265,067,568.24</u>	<u>315,690.84</u>
Total	<u>58,676,098,767.34</u>	<u>5,852,896,733.64</u>

Remittances to New York & London:

During October 1947 the following remittances were obtained by us at the official open market rate of exchange:

Remittances to New York Office

<u>Date</u>	<u>Amount</u>	<u>Remarks</u>
October 4	US\$ 130.00	for 500 pcs. "Temp-O-Spot" Thermal call indicators for checking temperature of distribution transformers.
" 13	159.00	for 250 pcs. Electric fuse links for drop out fuses.
" 17	25,000.00	for 3rd installment on 960 pcs. 12.5 kVA outdoor type capacitors and control gears for power factor correction at US\$135.417 per pcs. and 39 pcs. 300-400 amp. indoor type disconnecting switches for wall mounting at US\$33.847 per pcs.
Total	<u>US\$25,289.00</u>	

Remittances to London Agent

<u>Date</u>	<u>Amount</u>	<u>Remarks</u>
October 15	£ 13.15.6	for 50 pcs. Screwdriver testers (electric tester in the shape of a screwdriver).
" 29	£ 8. 3.3	for 1 parcel steel sheathed asbestos gaskets for steam boilers 2-1/2" round handle fittings.
Total	<u>£ 21.18.9</u>	

SHANGHAI POWER COMPANY

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The following statement shows the supervision fee payable to you with U.S. dollar equivalent at the open market rate of the Central Bank of China. The exchange difference of CN\$1,110,560,000 was charged to Miscellaneous Suspense - Exchange Adjustment and subsequently transferred to Exchange - Net.

	Thousand CN\$	Exchange rate	US\$
Balance of account at Sept. 30, 1947	25,375,029	50,100	506,487.60
Month of October	<u>1,114,000</u>	55,700	<u>20,000.00</u>
	26,489,029		526,487.60
Less payment in New York	<u>1,623,110</u>	16,231.096	<u>100,000.00</u>
Balance before adjustment	24,865,919		426,487.60
Balance at open market rate of 55,700	<u>23,755,359</u>		<u>426,487.60</u>
Exchange difference	<u>1,110,560</u>		<u>-</u>

Accounts Payable:

Unpaid fuel bills as at October 31, 1947, were as follows:

Fuel Oil

Unpaid bills for October - CN\$12,896,620,000 (equivalent to US\$231,537.17)  
 Estimated unpaid import duty on fuel oil - CN\$27,820,000,000.

Accounts Receivable & Collections:

The total amount due from consumers, as at October 31, 1947, excluding Municipal and CN\$34,626,090,000 for intercompany sales due from Western District Power Company of Shanghai, was CN\$185,963,697,000. The amount due from the Municipal Government for both companies was CN\$4,351,640,000. The increase in the balance of Accounts Receivable was mainly due to the revision of rates effective October 1, 1947.

Customers' Deposits:

Deposits collected during the month for both companies amounted to CN\$52,334,000 and withdrawals during the month amounted to CN\$6,718,000. The balance of deposits held against service charges for both companies amounted to CN\$7,569,786,000, of which the amount of CN\$27,899,800 (nominal value) was in the form of securities segregated as follows:

	S.P.C. CN\$	W.D.P.C. CN\$
S.P.C. Debentures	12,620	
Bank Guarantee	56,800	25,027,600
S.P.C. # 6 Silver Preferred Stock	2,053,520	573,860
Shanghai Telephone Co. Shares	2,100	
S.P.C. First Mortgage Debentures, 5% Dollar Series, due 1973	<u>131,300</u>	<u>42,000</u>
	<u>2,256,340</u>	<u>25,643,460</u>

Payroll:

Our payroll for the month with high cost of living index 49,100 times basic pay (scaled down in accordance with Municipal Government formula) totalled CN\$22,004,145,000 segregated as follows:

SHANGHAI POWER COMPANY

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Foreign and Executive	CN\$6,846,680,000
Local	5,256,971,000
Chinese	9,694,337,000
Leave Pay	<u>202,937,000</u>
	CN\$22,004,145,000

Rate Revisions:

Due to increased cost of operations, the Government approved a further revision of our rates on October 21 and brought our rates for ordinary consumers up to CN\$2,700 per kWh, effective retroactively from October 1st billings. The Consumers' Engineer's Dept. monthly report will give further details on this matter.

Increase in Coal Price:

The coal price charged by the Fuel Control Commission was increased from CN\$720,000 to CN\$860,000 per metric ton effective October 1, 1947. On October 30 the Shanghai Fuel Control Commission of the Ministry of Economic Affairs advised us again that, due to increased costs of materials and labor and higher freight charges, the price of coal supplied by the Commission will be increased to CN\$1,140,000 per metric ton from November 1, 1947.

Dividend Equalization Reserve and General Reserve:

During the month we set aside CN\$5,820,000,000 for Dividend Equalization Reserve and CN\$2,910,000,000 for General Reserve due to the revision of the official open market rate of exchange from CN\$50,100 on September 30 to CN\$55,700 on October 31, 1947. The computation of the accruals followed the same method as last month.

Chinese Government Profits Tax:

It was found that the increase in the open market rate of U.S. dollars from CN\$50,100 to CN\$55,700 during the current month has made the accruals for current year Chinese Government Profits Tax up to the month of July sufficient to cover the tax for the ten months period up to October 31, 1947. Hence no provision was made in the current month for the Shanghai Power Company.

In the case of the Western District Power Company, an accrual of CN\$330,000,000 was made for this tax in the current month in accordance with the following computations:

	<u>Million CN\$</u>
Net additions to Earned Surplus for the 9 months ended Sept. 30, 1947	4,978
Add back: Profit Tax Accruals - Jan. to Sept. 1947	<u>610</u>
	5,588
Net additions to Earned Surplus for Oct. 1947	<u>5,797</u>
Less: Estimated depreciation for Jan. - Oct. 1947	11,385
Taxable Income for the period Jan. - Oct. 1947	<u>2,000</u>
Profits Tax for the period Jan. to Oct. 1947 = 10% of above	939
Less: Profits Tax accrued to Sept. 30, 1947	<u>610</u>
	<u>329</u>
Profits Tax accrual for October 1947	say <u>330</u>

SHANGHAI POWER COMPANY

Material Replacement Reserve:

In conformity with the suggested procedure for calculating the amounts to be provided for this Reserve, as outlined in the ninth paragraph of your letter of September 5, 1947, a comparison was made between issues at original costs and replacement costs and on this basis a sum of CN\$3,214,212,000 was provided to the operation and maintenance accounts of Operating Expenses in October.

Contingency Reserve Exchange:

During the month we charged off CN\$13,866,301,000 from a suspense to the current month's operating expenses. The figure was calculated as follows:

Balance in Miscellaneous Suspense - Exchange Adjustment at September 30, 1947	CN\$35,691,277,000
Add debit in October to Miscellaneous Suspense	<u>5,907,627,000</u>
Total	CN\$41,598,904,000
October proportion amortized = 1/3 of total	= CN\$13,866,301,000

Employee Pension and Retirement Reserve:

A total of CN\$4,650,000,000 was set aside as provision for this reserve in the current month and was charged to operating expenses. This represented an increase of CN\$1,150,000,000 over the September figure in accordance with the following calculations:

	<u>Million CN\$</u>
Provision for Pensions	
Total potential liability US\$1,500,000 @ 55,700 = Million \$83,550	
October proportion = 1/60 of total	1,393
Provision for Retirement Gratuities	
Total potential liability at present H.C.L.49,100 = Million \$147,720	
October proportion = 1/60 of total	2,462
Additional provision for monthly increase of potential liability for retirement gratuities	<u>867</u>
Less provided on W.D.P.C. books for October 1947	<u>4,722</u>
	<u>76</u>
Provision for Employee Pension & Retirement Reserve on S.P.C. books say	<u>4,650</u>

Casualty & Insurance Reserve:

The current month provision for this reserve was CN\$280,000,000 based upon US\$5,000 at the exchange rate of CN\$55,700 and charged to operating expenses.

*A. Kendal Ward*

A. Kendal Ward  
Secretary & Treasurer

November 18, 1947



SHANGHAI POWER COMPANY

November 29, 1947

REV. 10-15-47

CONSUMERS' MONTHLY REPORT FOR OCTOBER

SHANGHAI POWER COMPANY

OCTOBER STATISTICS

Analysis of K.W.H. Sales

	This Year	Last Year	Increase	Increase %
Residential Lighting)	9,240,732	6,806,891	2,433,931	35.8
Commercial Lighting )				
Residential Heating & Cooking )	1,579,943	1,437,359	142,584	9.9
Commercial Heating & Cooking )				
Bulk Supply Industrial	30,413,992	22,514,381	7,899,611	35.1
Bulk Supply Commercial	1,241,081	1,109,659	131,422	11.8
Small Power (Incl. D.C. Lifts)	5,025,776	3,825,476	1,200,300	31.4
Public Utility:				
Shanghai Trams	1,140,857	889,139	251,758	28.2
French Trams	831,500	1,120,200	-288,700	-25.8
Shanghai Waterworks	1,307,670	962,730	344,940	35.8
Chapei Co.	9,112,458	9,607,201	-494,743	-5.1
Intercompany - W.D.P.C.	17,915,209	14,002,400	3,912,809	27.9
Private Street Lighting	77,543	70,338	7,205	10.2
Municipal Street Lighting	194,262	191,587	2,675	1.4
Municipal Others	374,074	374,387	-313	-0.1
Total	78,454,128	62,911,658	15,543,470	24.7
Total Units Sold (12 months ending October 1947)	878,736,957	549,522,625	329,214,332	59.9

Analysis of Large Industrial Sales in K.W.H.

	This Month	Last Month	Last Year	Increase % over Last Year
Chinese Cotton Mills	20,274,480	18,949,257	12,600,515	60.9
Other Cotton Mills	352,700	292,750	2,551,470	-86.2
Total Cotton Mills	20,627,180	19,242,007	15,151,985	36.1
Flour Mills	1,649,700	1,773,900	1,444,860	14.2
Rubber Products	1,072,115	940,580	581,030	84.5
Paper Mills	1,203,337	1,002,028	917,618	31.1
Lumber Mills	25,640	21,580	13,150	95.0
Egg Produce	-	-	-	-
Oil Mills	93,200	92,500	70,950	31.4
Ice & Cold Storage Factories	1,127,265	1,506,150	1,125,875	-0.3
Tobacco Factories	221,049	222,660	206,960	6.8
Silk Mills	47,620	49,160	41,150	15.7
Miscellaneous Textiles	2,079,404	1,981,417	1,596,084	22.6
Metal Working	1,085,617	934,843	510,216	113.0
Woolen Mills	336,800	303,900	216,550	55.5
Miscellaneous Others	849,065	810,482	537,953	57.8
Total	30,413,992	28,881,207	22,514,381	35.1

SHANGHAI POWER COMPANY

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CONNECTIONS

	<u>This Month</u>	<u>Last Month</u>	<u>Last Year</u>	<u>Increase during Month</u>
No. of Customers	99,016	98,785	96,331	301
" Refrigerators	8,551	8,548	8,338	3
" Cookers (Hired) x	2,966	2,970	2,989	-4
" Radiators ( " ) x	1,934	1,936	2,736	-2
" Water Heaters ( " ) x	77	78	66	-1
" Misc. Appliances ( " ) x	167	167	167	-
H.P. of Motors ( " ) x	14,151	13,823	14,484	328

∅ Includes Refrigerators installed in Western District Power Company Area.

x These figures include Appliances hired by Western District Power Co. of Shanghai.

CONNECTED LOAD

K.W. Lighting	102,969	102,785	100,067	184
" Heating: Comprising	(31,819)	(31,837)	(33,840)	(-18)
" Cookers	18,308	18,327	18,323	-19
" Radiators	9,837	9,843	12,235	-6
" Water Heaters	152	152	121	-
" Miscellaneous	3,522	3,515	3,161	7
" Motors	231,645	230,846	229,890	799
" Industrial Heating	4,574	4,563	4,029	11
" W.D.P.C.	54,600	54,600	54,600	-
" Total	425,607	424,631	422,426	976

MONTHLY MOVEMENT IN CUSTOMERS

	<u>Total All Classes</u>
Total Customers Reconnected	79
Total Customers Disconnected	<u>107</u>
Loss	28
Total New Customers Connected	<u>329</u>
Total Increase During Month	<u>301</u>

SHANGHAI POWER COMPANY

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SEP 19 4 47  
OF 1947GENERAL COMMENTS

Restrictive Measures, details of which were given in last month's Report, were put into force as from and including October 1st, 1947. Each consumer has been advised of his allotment and classification. Needless to say, following the announcement of the Restrictive Measures, incoming mail on the question of allotment soon reached high proportions with an average of around 50 letters being received daily. A Sub-Committee of the Shanghai Electricity Supply Regulating Committee was set up to study the various requests and to make decisions. It was soon realized that many requests were of a similar nature and could readily be classified. This was done and the bulk of the letters as they are received are segregated into groups as follows:

Schools, hospitals, doctors' clinics with medical apparatus, essential services (Post Office, Police, Military, Transport, Communications, etc.), diplomatic services, etc.

The foregoing are, mainly, requests for allotment increase to permit of efficient operation. After reference to the Committee, Supplementary Regulations were issued to enable the foregoing enquiries to be handled in a straightforward manner. There are, however, many other types of enquiries which require individual investigation, foremost among which are requests from Residential Consumers for allotment increase due to the fact that premises were not fully occupied during the period on which allotment was based, namely, March/April/May 1947, and consequently electricity services were not in normal full operation. Each case has to be checked and a report submitted, with relevant data, to the Committee for decision.

It is as yet too early to visualize what will be the ultimate results attained by the present plan with regard to releasing load to industry.

At the moment, public feeling is none too friendly, especially on the question of allotment and the 10% tax which the Municipal Authorities collect on the Restrictive Charges. As mentioned in previous reports, this Company was from the beginning strongly adverse to the setting of allotments in view of previous experience which showed how unfair this method can be. On being overruled on this point by the authorities, we proposed that the period April/May/June be taken for allotment computation since during that period neither heating nor air-conditioning is being utilized. The authorities decided against this period and substituted the period March/April/May. This switch was positively detrimental to the success of the plan as it included the month of March (consumptions as from February 1st) which is one of the coldest months in Shanghai with correspondingly high electricity usage. The effect of this was that consumers who had used electric radiators indiscriminately in face of prohibition, gained a distinct advantage over consumers who had been exerting the strictest economy.

Notes

After considerable negotiations and delays, revised rates were authorized on October 20, 1947, to be applied retroactively to and from October 1, 1947 meter reading date. The revised rates are set out hereunder. For convenient reference, the previous rates, which have been in force since July 1st of this year, are also given.

SHANGHAI POWER COMPANY

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BY 11:21

	Effective July 1, 1947 CNR/KWH	Effective Oct. 1, 1947 CNR/KWH
Residential Lighting, Cooking & Power .....	1,130	2,700
Commercial Lighting, Cooking & Power .....	1,130	2,700
Industrial Power - up to 50,000 KWH/Month .....	1,130	2,700
" " - excess over 50,000 KWH/Month .....	1,190	2,760
Public Street Lighting & Traffic Signals .....	580	1,365
Private Street Lighting .....	1,085	2,655
Shanghai Waterworks .....	805	1,905
Shanghai Tramways .....	805 *	1,905 *
Chapei Company - usage up to 8,360,000 KWH/Month .....	570	1,355
" " - excess usage .....	1,039	2,440
French Company - usage up to 850,000 KWH/Month .....	570	1,355
" " - excess usage .....	1,039	2,440

\* Plus \$45 for D.C. Supply

NOTE - Less 2% discount where supply is taken at high voltage.

The new rates were again computed on the old formulae for oil and coal. However, we are making satisfactory progress with the authorities regarding the before-mentioned automatic formula to cover all variables and we hope to have a decision on this all important question in the very near future.

COMMENTS: TOTAL KILOWATT-HOUR SALES

The meter reading months were as follows:

	October	September	Difference
Schedule Rate Consumers	32.04	29.98	+6.9%
Bulk Supply Consumers	30.60	30.80	-0.6%
Municipal Consumers	28.00	33.00	-15.1%

Total Kilowatt-Hour Sales for October were 78,454,128 KWH compared with 77,085,000 KWH in September. The increase was less than 2% and was mainly due to the longer reading month for Schedule Rate Consumers. Increased usage was registered by practically all classes, although Commercial Bulk Supply consumers' usage declined by 17.7% due to the end of the hot season with consequent termination of air-conditioning usage. Intercompany Sales also decreased due to consumers' exceptionally short reading month.

Residential & Commercial Lighting Sales were 9,240,732 KWH as against 8,564,000 KWH last month. This is an increase of 680,000 KWH, or about 8%, which is less than normal considering the difference in reading months and the exceptionally bright weather. Nebulosity was reported under 50%, which was considerably less than normal.

Residential & Commercial Heating Sales were up from 1,440,000 KWH last month to 1,579,943 KWH in the current month, an increase of 140,000 KWH or nearly 10%. This is a normal seasonal increase.

Restrictive measures have now been introduced to curtail consumption by these services and a reduction is probable next month.

SHANGHAI POWER COMPANY

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REF. NO. P-0  
OF APR. 1947

Industrial Bulk Supply consumers took 30,413,992 KWH which is 1,500,000 KWH, or 5%, over the September total. Most industries shared in the increase although Ice & Cold Storage Plant usage was seasonally down.

Commercial Bulk Supply - This month's consumption was 1,241,000 KWH or 17.7% less than last month. Reduced air-conditioning usage accounted for the decline.

Small Power Sales increased by 4.8% to 5,025,776 KWH, in step with the longer reading month.

Shanghai Trams - Sales to this consumer gained 13.6% and reached 1,140,897 KWH, a new post-war high, in spite of a short partial strike at the beginning of the reading month.

French Trams took 831,500 KWH, practically up to allotment of 850,000 KWH.

Shanghai Waterworks - Sales totalled 1,307,670 KWH, showing no change from last month.

Chapei Company used 9,112,458 KWH, the same as in September.

Intercompany Sales were down to 17,915,000 KWH due to short reading month.

Private & Public Street Lighting showed no change.

Sales to Municipal Others decreased by 6.7% to 374,074 KWH.

#### Analysis of Large Industrial Sales

Cotton Mills - Sales increased by 7.2% to 20,627,180 KWH, a new post-war high, compared with 19,242,027 KWH in September. Favourable conditions at our Riverside Generating Plant, and increased capacity due to lower water temperature, released additional energy which was readily absorbed.

The import quota of cotton has been cancelled for the last quarter of 1947, but local UNRRA stock will be made available. Together with domestic cotton production it is estimated that there is a sufficiency of raw material on hand for several months. Yarn prices have increased with the unofficial open market rate of exchange as all the half-hearted attempts to regulate prices have proved futile. Practically all the mills increased their usage.

Flour Mills took 1,650,000 KWH or 7% less than last month. Prices have increased even more rapidly than the exchange rates and the mills are reported to be operating at handsome profits. Grain arrivals are still erratic but no actual shortage exists at the present.

Rubber Products - Sales to this group increased by 14% to 1,072,000 KWH, a new post-war and all-time high, as practically all consumers recorded gains.

This industry has experienced an unprecedented boom after the war and is still riding the crest. At present, imports of raw rubber do not cover the demand but considerable stocks are available. While profits previously were enormous - some mills recovering their invested capital in a few months - they are now more moderate.

All raw materials like coal, diesel oil, cloth and gasoline have increased rapidly. Raw rubber from local stocks has also increased in the same proportion,

SHANGHAI POWER COMPANY

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but mills receive a ration of 4 tons per month per roller at the official price. This rationed rubber price is at present \$7,000 per lb. while the black market price is \$27,000 per lb. The whole production is sold at the black market price, so in effect the Government subsidizes each factory by \$150,000,000 per machine. This is, of course, both a needless and unsound policy, but it enables the manufacturer to gain a monthly profit of at least 10% on invested capital measured in good money. In C.N. dollars a yearly return of 20 times invested capital is common. The demand for rubber goods continues to be excellent.

Paper Mills - Sales registered a 20% increase to reach 1,203,000 KWH, which is a post-war high. The increase was mainly due to top production by the China Fibre Container Co. which took 105,000 KWH more than last month.

Paper mills fared rather badly during the summer months. Insufficient import quotas have now reduced local stocks, however, and prices which ruled lower than for other commodities have suddenly shot up. In an inflationary market like the present, this attracts speculation and the demand is abnormally accentuated. A reaction is therefore to be expected when speculators unload, but energy sales are likely to remain high as long as imports remain restricted to the present level.

Lumber & Egg Produce Plants both continued idle with no improvement in sight.

Oil Mills - Sales showed no change.

Ice & Cold Storage Plants - Sales dropped seasonally by 25.5% to 1,122,000 KWH, almost exactly the same as last year.

Tobacco Factories took slightly less than last month with a total of 221,000 KWH, although seasonal improvement is normal. Extremely high prices and scarcity of raw material have resulted in decreased sales. Prospects of increased production seem small.

Silk Mills - In contradistinction to most other Shanghai industries, the silk mills of Shanghai have experienced great difficulties after the war. Cocoon production has not been up to prewar neither as regards quantity nor quality. Transportation from the silk growing districts has been difficult and expensive, and the rayon supply highly irregular.

For a short time during the first months of this year, prospects seemed somewhat brighter especially for the Western district spinning mills. But a reaction set in and at present there seems to be no possibility of resumption of export sales on anything like the prewar scale. Sales this month totalled 47,600 KWH only compared with 49,160 KWH in September.

Miscellaneous Textiles - Sales increased by 4.9% from 1,980,000 KWH last month to 2,080,000 KWH in the current month. This is close to the postwar high of 2,100,000 KWH which occurred in June this year. The weaving mills, almost without exception, are doing very well, prices are high and demand brisk as the flight from Chinese currency continues and capital is being turned into commodities. Products which are not absorbed by the retail trade are immediately purchased for investment.

Metal Working - Sales to this group increased by 16.2% and reached a total of 1,100,000 KWH, a new post-war high. Aluminium was steady but steel rolling mills usage increased steeply, wire mills more moderately.

SHANGHAI POWER COMPANY

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SEP. 27. 1950  
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Metal prices have increased sharply and in an even higher ratio than foreign exchange due to low stocks, reduced import allotments and fair demand.

Woolen Mills - Scarcity and high cost of "tops" has made operations difficult. One consumer, the Wah Fong Worsted Mill - 66 Lincheng Road - with maximum demand of 100 KW and consumption of 22,000 KWH, previously on Schedule Rate, was added to the list. In spite of this, sales only reached 337,000 KWH compared with 304,000 KWH in September.

Miscellaneous Others - Sales increased by 4.8% and reached 350,000 KWH as against 310,000 KWH the preceding month. Practically all mills increased their operations except Breweries and Aerated Water Companies whose sales were seasonally down.

#### POWER SECTION

During the month, 72 applications for power service totalling 1,111 H.P. were accepted for night operation only, bringing the total to the end of the month up to 236 for an aggregate load of 3,804 H.P. in both S.P.C. and W.D.P.C. areas. Owing to the present limitations of the low voltage distribution system, only about 45% of this load has been connected as connection of the larger loads, viz. 50 H.P. and upwards, depends to a great extent on the installation of additional distribution transformer capacity.

Periodic inspections are made during office hours and also in the evenings to check that consumers are keeping strictly to the prescribed operating time, viz. 11.00 p.m. - 7.00 a.m. Up to date, 12 cases of violation of this rule have been discovered, the penalty being immediate disconnection of supply for a period of 14 days, after which reconnection is made on the understanding that in the event of a second infringement of the regulations, supply will be permanently disconnected.

Applications for power service accepted during the month were as follows:

Reconnections:	3	Applications totalling	29 H.P.
New load	: 66	"	"
Total	: 69	"	"

The above load includes 143 H.P. for Standard Shirt Factory, 216 Tongshan Road, and is part of the extension of this factory referred to in our May Report; 60 H.P. for a Ministry of Communications' Radio Station; 142 H.P. for a banknote printing establishment; 10 H.P. for a news agency - all of which were authorized by the Bureau of Public Utilities - and 11 H.P. for a passenger lift. The remainder of the applications were for night operation only and include loads of 50, 63, 80 and 150 H.P. for rubber factories, 114 H.P. for a new weaving mill and loads of from 1 - 30 H.P. covering the following industries: leather, confectionery, cosmetics, metals, electrical repairs, silk weaving, printing, rice polishing and coal briquettes.

During the month load conditions at Riverside deteriorated as compared with September, but this was mainly due to labour trouble at the beginning of the month, which affected the operating staff of the Power Station. Consequently, on the evening of October 1st it was necessary to reduce load until the maximum sustained demand was only about 95,000 KW. "C" Station had to be shut down and the remaining S.G. units on the line were operated on oil fuel only. With the high pressure boiler shut down, it was decided to take advantage of this opportunity to carry out some necessary repairs on this unit and "C" Station was not back again on normal load until the evening of the 8th.

SHANGHAI POWER COMPANY

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SEP 18 1947  
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On the 3rd of the month the labour situation at Riverside was almost normal again and with additional boilers on load, a maximum sustained demand of 115,000 KW could be negotiated. A further increase in available generating plant on the 4th made it possible for the Station to cope with a maximum sustained demand of about 128,000 KW, and this was maintained during weekdays until the return to normal generating conditions on the 8th when "C" Station was again in full commission.

From the 1st - 8th the allotments to the French Power Company and the Chapel Company were reduced in proportion to load reduction required and the operating time for Cotton Mills was considerably curtailed. The following tabulation shows the estimated daily loss in kilowatt-hour sales during this period, due to shortage of generating plant, making it necessary to apply enforced load reduction. Voluntary load reduction has not been included as this, under the present operating schedule of the Cotton Mills, is practically a daily constant.

<u>Date</u>	<u>Estimated loss in KWH Sales due to enforced load reduction</u>	<u>Remarks</u>
1st	589,000	Max. sustained demand gradually reduced to approx. 95,000 KW
2nd	701,000	max. sustained demand approx. 95,000 "
3rd	340,000	Max. sustained demand approx. 115,000 "
4th	265,000	Max. sustained demand approx. 128,000 "
5th (Sunday)	63,000	
6th	194,000	Max. sustained demand approx. 128,000 "
7th	214,000	Max. sustained demand approx. 128,000 "
8th	173,000	Max. sustained demand gradually increased to 143,000 "

The total of 2,539,000 KWH represents approximately 85% of the enforced load reduction aggregate for the month.

However, despite the shortage of generating plant previously referred to, the combined kilowatt-hour sales of S.P.C. and W.D.P.C. for this month recorded an all-time high, as is shown in the following comparison:

Sales for October 1947 ..... 77,627,000 KWH  
Sales for December 1936 (previous record) ..... 76,174,000 KWH

In the course of the month the large textile mills suffered an average loss per mill of approximately 45 production hours due to enforced load reduction. The increase, as compared with September when the loss was 25 hours, was mainly due to operating difficulties at Riverside, as explained earlier in this Report.

The estimated loss of sales potentially due to load reduction in October was as follows:

Cotton Mills ..... 5,077,000 KWH  
Miscellaneous Industries ..... 669,000 KWH  
Chapel and French Power Companies ..... 4,921,000 KWH  
Total ..... 6,237,000 KWH

Allowing for the gain of approximately 1,830,000 KWH as a result of the Sunday working schedule, the total loss of sales potentiality, due to insufficient generating capacity, was approximately 4,407,000 KWH as compared with 3,092,000 KWH last month. (All voluntary load reduction is still calculated as lost sales.)



SHANGHAI POWER COMPANY

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REF. 22 P. 2  
SP 222 (12.21)

It is too early yet to estimate what effect the restrictive charges on rates will have in reducing the load demand. However, it is expected that the C.T.I.I. Cotton Mills will have generating plant aggregating 6,000 KW on load in the near future, which will correspondingly reduce the demand on the system. There is also a progressive increase in T.G. capacity at Riverside due to seasonal fall in river water temperature, and it is therefore anticipated that it will soon be possible to discontinue the voluntary load reduction scheme, as applied at present to miscellaneous industries.

During October the average potential demand showed little change as compared with the previous month and was approximately 165,000 KW in the forenoon and 155,000 KW in the afternoon. By the end of the month Riverside could cope with a maximum sustained demand of about 150,000 KW, and with normal generating plant available; no load reduction was necessary over the evening peak. The highest instantaneous peak demand recorded was 159,000 KW.

Power Installation Inspections:

The following inspections were made during the month:

<u>No. of Inspections in October</u>	<u>Unauthorized Additions</u>
246	34

HIRED PLANT INSTALLATION & MAINTENANCE SECTION

Summary of Workshop Jobs:

Motors repaired .....	9	pcs.
Switches & Starters overhauled .....	12	"
Cockers tested & overhauled .....	15	"
Radiators " " " .....	6	"
Water Heaters " " " .....	6	"
Hot Plates fabricated .....	189	"
Service Calls attended .....	1000	

Miscellaneous work and departmental jobs accounted for 340 man-days.

Hired Motors:

Connections - 3 motors aggregating 160 H.P.  
Disconnections - Nil

Breakdowns:

Three major breakdowns occurred during October. Two were due to slack bearings and the third was the partial burn-out of stator coils on a 200 H.P. motor. This latter repair was carried out on consumer's premises.

SHANGHAI POWER COMPANY

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REF ID: A66117

ADVERTISING SECTION

Newspapers - A notice announcing introduction of the "Restrictive Measures" was published in all English, Chinese and Russian language newspapers as well as the China Weekly Review on October 1st and 2nd, 1947. This notice was inserted jointly by the five supply companies serving the territory of Greater Shanghai. The notification gave a summary of the Restrictive Measures governing the use of electricity which are to be applied to the various classes of service.

Special notices on this subject were posted at all our collection depots.

An "Open Letter by the Shanghai Power Company and Western District Power Company of Shanghai" was inserted in all newspapers on October 2nd, 1947. The text of this notice explained the circumstances which forced the hands of the authorities to adopt measures to suppress electricity usage of non-industrial consumers.

Four "position vacant" (Personnel Office) advertisements were inserted in the English and Chinese language newspapers.

The Revision of Rates was announced in all papers on October 21, 1947.

Following the appearance of various press news items criticizing the recent rate increases by the electricity supply companies, an "Open Letter by Shanghai Power Company" was inserted in all newspapers on October 29th, 1947, giving full explanation of the necessity to increase rates. At the request of the Bureau of Public Utilities, this notice was also inserted in four extra Chinese evening newspapers - the Sin Yah Pao, Wah Mei Wan Pao, Ta Wen Pao and Shu Shih Sin-Pao.

A series of four articles by Randall Gould entitled "Shanghai is on Electric Hot Spot" appeared in the Shanghai Evening Post. These articles gave a full and clear picture of Shanghai's numerous electricity supply problems. One thousand booklets were also printed of this series of articles.

A series of three articles - "Power Saving" - was written by Dorothy Gould and published in the Shanghai Evening Post. These articles contained hints to consumers on how to economize in the use of electricity in the home in order to release power to Shanghai's industries. Special sketches were drawn by this company to accompany this series of articles.

Articles appeared under the following captions in the China Press, North China Daily News, Shanghai Evening Post, Shun Pao, Sin Wan Pao, Ta Kung Pao and Chung Yang Jih Pao: "Power Limit Measures Announced", "Cut and Increases", "New Rate of \$2,700 per kWh Asked", "Six Power Companies in Shanghai Area Appeal for Higher Rates", "Steady Increase of Production Cost Makes Power Companies Unable to Cover their Deficits - Rate Revision Requested", "Six Power Companies Unanimously Asked for Rate Increase to be Applied Retroactively as from October 1st", "Rates for Utilities Doubled", "Six Utilities Call For Further Hike".

General - More stencils were made for the Workshop. Charts - "Cross Section - Boilers" - were painted. Due to the complexity and urgency of these charts, additional men have been employed to help carry out this special work.

*A. E. Colter*  
A. E. Colter/John  
Assistant Consumers' Engineer

WESTERN DISTRICT POWER COMPANY OF SHANGHAI, FEDERAL INC. U.S.A.

November 29, 1947

REF. OF U.S. DEPT. OF COMMERCE

WESTERN DISTRICT POWER COMPANY OF SHANGHAI,  
FEDERAL INC., U.S.A.

OCTOBER STATISTICS

Analysis of K.W.H. Sales

	<u>This Year</u>	<u>Last Year</u>	<u>Increase</u>	<u>Increase</u>
				<u>%</u>
Residential Lighting)	1,558,564	1,209,470	349,094	28.9
Commercial Lighting )				
Residential Heating & Cooking)	502,424	505,602	-3,178	-0.6
Commercial Heating & Cooking )				
Bulk Supply Industrial	11,046,655	7,755,205	3,291,450	42.4
Bulk Supply Commercial	47,591	10,828	36,763	339.5
Small Power	2,771,538	2,301,401	470,137	20.4
<u>Public Utility:</u>				
Chapel Company	929,500	1,312,200	-382,700	-29.2
Private Street Lighting	11,581	10,759	822	7.6
Municipal Street Lighting	24,348	23,782	566	2.4
Municipal Others	194,961	184,338	10,623	5.8
<u>Total</u>	<u>17,087,162</u>	<u>13,313,585</u>	<u>3,773,577</u>	<u>28.3</u>
Total units sold (12 months ending October 1947)	189,413,002	106,794,242	82,618,760	77.4
Total units purchased (12 months ending October 1947)	201,032,510	114,744,262	86,288,248	75.2
Distribution Losses (12 months average)	5.8%	6.9%	-1.1%	-15.9
Maximum Demand for Purchased Power - KW	33,627	25,748		

Analysis of Large Industrial Sales in K.W.H.

	<u>This Month</u>	<u>Last Month</u>	<u>Last Year</u>	<u>Increase</u>
				<u>% over</u>
				<u>Last Year</u>
Chinese Cotton Mills	6,615,260	6,862,450	4,272,000	54.9
Other Cotton Mills	3,000	3,300	783,620	-99.6
Total Cotton Mills	6,618,260	6,865,750	5,055,620	30.9
Flour Mills	416,150	428,875	302,000	37.8
Rubber Products	357,594	259,194	149,675	138.9
Paper Mills	707,130	616,684	129,731	445.1
Tobacco Factories	-	2,160	-	-
Ice & Cold Storage Factories	37,400	50,600	29,700	25.9
Silk Mills	227,905	233,975	194,015	17.5
Miscellaneous Textiles	1,835,309	1,909,353	1,413,716	33.4
Metal Working	133,620	122,645	107,025	24.8
Woolen Mills	343,315	358,250	291,580	17.7
Miscellaneous Others	319,972	352,548	82,143	289.5
<u>Total</u>	<u>11,046,655</u>	<u>11,200,034</u>	<u>7,755,205</u>	<u>42.4</u>

WESTERN DISTRICT POWER COMPANY OF SHANNON DENAL INC. U.S.A.

REF. 20 P. 87.  
AP. 40 (11-54)

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<u>CONNECTIONS</u>				<u>Increase during month</u>
	<u>This Month</u>	<u>Last Month</u>	<u>Last Year</u>	
No. of Customers	21,522	21,456	20,261	66
" Refrigerators	2,298	2,279	2,220	-1
" Cookers (Hired) x	787	788	783	-1
" Radiators ( " ) x	267	267	379	-
" Water Heaters ( " ) x	28	29	25	-1
" Misc. Appliances ( " ) x	29	29	29	-
H.P. of Motors	4,925	4,720	3,514	205

x Hired from S.P.C. and included in S.P.C. Statement.

<u>CONNECTED LOAD</u>				
K.W. Lighting	15,325	15,304	14,526	21
" Heating: Comprising	(7,378)	(7,383)	(7,634)	(-5)
" Cookers	5,714	5,715	5,629	-1
" Radiators	1,261	1,261	1,658	-
" Water Heaters	62	64	56	-2
" Miscellaneous	341	343	291	-2
" Motors	69,711	69,007	64,226	704
" Industrial Heating	1,071	1,073	958	-2
" Total	93,485	92,767	87,344	718

MONTHLY MOVEMENT IN CUSTOMERS

	<u>Total All Classes</u>
Total Customers Reconnected	10
" " Disconnected	42
	Loss 35
Total New Customers Connected	101
Total Increase during month	66

WESTERN DISTRICT POWER COMPANY OF INDIANA: DERAL INC. U.S.A.

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SEP 28 1946  
AP 24 11:40COMMENTS: TOTAL KILOWATT-HOUR SALES

The reading month was as follows:

	<u>October</u>	<u>September</u>	<u>Difference</u>
Schedule Rate Consumers	29.63	30.53	- 3.0%
Bulk Supply Consumers	29.90	32.00	- 7.0%
Municipal Consumers	28.00	33.00	-15.0%

Total Kilowatt-hour Sales for October were 17,087,162 KWH or about 150,000 KWH (1.4%) less than in September. The weighted reading month was 5.6% shorter than last month, so actually Daily Sales increased by 4%, in line with S.P.C. sales.

Residential & Commercial Lighting Sales increased by 4.8%. Based on an average length month (30.4 days), sales were up by nearly 3% which is normal.

Residential & Commercial Heating Sales decreased from 530,000 KWH in September to 502,000 KWH in the current month. Monthly sales declined by 8.3%, no doubt due to the higher energy rates but also partially due to decreased refrigeration usage.

Industrial Bulk Supply took 11,046,000 KWH which is a slight decline from last month's total of 11,200,000 KWH, due to the 7% shorter month. All industries reduced operations except Rubber, Paper and Metal Works.

Commercial Bulk Supply usage gained by 2.9% to reach 47,600 KWH.

Small Power Sales dropped to 2,771,000 KWH from 2,791,253 KWH in September.

Chapel Company took 929,000 KWH - 7.8% less than in September.

Private & Public Street Lighting Sales increased 4.5% and 5.2% respectively.

while Municipal Other Sales decreased by 16.3% to 194,961 KWH.

ANALYSIS OF LARGE INDUSTRIAL SALES

Cotton Mills - Sales to this group declined by 3.6% to 6,620,000 KWH. Considering the 7% shorter reading month, operations actually increased by 3.5%.

Flour Mills took 416,000 KWH or about the same as the previous month.

Rubber Products - Sales to this group increased by 30% to 357,000 KWH. The highest monthly sales in 1946 were 150,000 KWH (October).

Paper Mills - Sales were 14.7% over the previous month.

Ice & Cold Storage Factories - Sales decreased seasonally by 26.1% to 37,000 KWH.

Silk Mills - As in the S.P.C. area, the Silk Mills in the Western District reduced operations. Sales totalled 228,000 KWH - 2.6% less than in September.

Miscellaneous Textiles - Sales declined slightly to 1,885,000 KWH, while

WESTERN DISTRICT POWER COMPANY, SINGAPORE SERIAL INC. U.S.A.

NOV 22 1947  
AP 111111

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Metal Working Sales increased by 8.9% to 131,620 KWH, a new post-war high.  
Woolen Mills took less than last month, the total being 343,000 KWH.  
Miscellaneous Others - Stone Pulverizing Factories reduced operations; others showed little change. The total declined by 9.2% to 320,000 KWH.

POWER SECTION

Applications accepted during the month for connection of power supply were as follows:

Reconnection:	1 Application	for	20 H.P.
<u>New Load</u>	: 20 Applications	totalling	869 H.P.
<u>Total</u>	: 21 Applications	totalling	889 H.P.

These applications include 516 H.P. for Ching Foong Cotton Mill - this load prospect was referred to in our Report for October 1946; 25 H.P. and 27 H.P. for water pumping in connection with the City Water Planning Department's scheme to improve the domestic water supply in the Western District. The remainder, for night operation only, include 200 H.P. for a new dyeing and weaving factory and loads of from 1 - 20 H.P. covering the following industries: rubber, confectionery, weaving, battery-charging, metals, rice polishing and glass.

In the course of the month supply was given to the following new load:

Yeong Dah Mill - 2450 Jessfield Road

This prospect was first referred to in our Report for May 1947. Supply could only be given at 6.6 KV owing to the heavily loaded condition of the L.V. network in this area, and the consumer has therefore installed his own 250 KVA transformer. The estimated increase in load demand is 60 KW which is expected to yield an annual revenue of CN\$750,000,000.

The revenue mentioned above is based on the new net rates effective as from October 1st, i.e:

CN\$2,540 per KWH for consumption of electricity up to 50,000 KWH per month.

and CN\$2,580 per KWH for consumption in excess of this amount.

Power Installation Inspections

The following inspections were made during the month:

<u>No. of Inspections</u> <u>in October</u>	<u>Unauthorized</u> <u>Additions</u>
13	2

*A. E. Colterjohn*  
A. E. Colterjohn

SHANGHAI POWER COMPANY

SHANGHAI POWER COMPANY  
RIVERSIDE STEAM ELECTRIC STATION

MONTHLY GENERATION REPORT

OCTOBER 1947

OUTPUT & PERFORMANCE DATA -

	A	B	C		D		E
	Total Station Net Output KWH	Short Time Peak Demand KW	St B Gross Generation KWH	% of Total	St C Gross Generation KWH	% of Total	Overall Heat Consumption Stu/net KWH
Oct 1947	84,141,395	159,319	40,579,518	44.57	18,678,000	20.51	19,599
Sept 1947	81,770,494	157,291	36,934,863	41.63	22,600,000	25.47	20,201
Oct 1946	72,304,378	132,475	29,569,728	38.53	-	-	21,058
Oct 1941	52,707,402	133,753	34,681,344	60.27	-	-	19,162
% increase over							
Sept 1947	2.90	1.29	9.87		-		-
Oct 1946	18.00	20.26	37.23		-		-
Oct 1941	59.54	19.11	17.01		-		2.28
% decrease from							
Sept 1947					17.35		2.98
Oct 1947					-		6.04

	Hourly Station Net Output KWh	St B Hourly Generation KWh	St C Hourly Generation KWh
Oct 1947 (745 hr) *	112,941	54,459	25,071
Sept 1947 (720 hr)	113,570	51,290	31,389
Oct 1946 (744 hr)	95,839	39,744	-
Oct 1941 (720 hr)	73,235	48,169	-
% increase over			
Sept 1947	-	6.18	-
Oct 1946	17.04	37.05	-
Oct 1941	54.28	14.12	-
% decrease from			
Sept 1947	0.53	-	20.13

Remarks:

The better economy (despite lower St C generation) compared with September 1947 attributable to (1) better average vacuum on account of lower river water temperature; (2) better SG and TG efficiency resulting from improved loading and operating conditions.

SHANGHAI POWER COMPANY

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The lower heat rate (despite poorer St load factor) compared with October 1947 due to (1) 1/c of St C; (2) higher percentage of St B generation; (3) better operating conditions.

As has been the case for some months, the current higher heat rate (despite better load factor and 1/c of St C) compared with October 1947 is due entirely to the fact that a great part of the increased load demand has to be carried by less efficient (almost obsolete) units in St A.

\* Daylight saving time was ended on November 1, 1947, hence clocks in this Station were set back one hour at mid-night November 1, 1947, making total operating hours of this month 745 (from 8.00 am October 1, 1947 to 8.00 am November 1, 1947).

STEAM-GENERATORS -

SG No	Date		Hours o/c	Type of Inspection & Work Done	Hr not Avail-able	Total Hr Oper-ated	Operating Hr since last Overhaul
	o/s	1/c					
31	1	7	141	Soot cleaning after 786 hr operation (IES) - Unit soot cleaned; breeching and base of stack examined and cleaned; grit tanks opened up and cement lined; PF burner nozzles all opened up and new joints fitted; ash pit water nozzles checked and renewed; blow down valve repacked; HP manifold drain valve overhauled; SH gas dampers checked, bearings cleaned and greased; feeder gears cleaned and checked; PF bunker swept down, lining examined; FD ducting tested, leaky joints caulked; Ph cooling water piping to gear boxes cleaned, COH vent pipe to DH renewed; FO heater tube cleaned; PAF damper bearings examined, cleaned and greased; soot blowers examined, burnt heads renewed, gearing oiled, angle of blow checked; power SV top joint on isolating valve remade, plug in valve bonnet renewed.	141	593	4 076
30	9	10	13	IDF balanced and whistle valve overhauled (IDU).	13	715	8 084
29	25	26	11	Steam line joint remade and drain valves overhauled (IDA) - IDF impeller checked. Eo pressure tested and soot cleaned.	11	727	13 561
28	18	19	12	High and low water level alarm overhauled (IDA). IDF impeller balanced, sample water valve repacked. Eo soot cleaned and press tested.	12	728	11 356



SHANGHAI POWER COMPANY

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SG No	Date		Hours o/c	Type of Inspection & Work Done	Hr not Avail- able	Total Hr Oper- ated	Operating Hr since last Overhaul
	o/c	1/c					
27	10	10	8	IDF oil switch overhauled (IMS).	8	729	10 573
26	9/30	3	56	Repairing of leaky Ec completed (IDU) - One Ec tube re-expanded, 2 Ec caps rejoined, Ec rough cleaned and press tested. Grate washed down, 7 stroke adjusters and 8 adjuster bolts renewed.			
	12	12	6	One jammed coal plunger renewed (IDU).			
	13	14	13	One Ec tube welded and 3 Ec caps renewed (IDU) - Ec press tested.			
	28		35	General overhaul after 8431 hr operation (IMS) - Reconditioning of Sh and Ec progressing.	160	394	-
25	9/10	2	26	Routine cleaning and furnace brickwork repairing completed (IMS) - One Ec cap rejoined; 3 Sh tubes out out and blind nipples fitted, 32 Sh cap joints renewed. One air valve and 2 gage glasses renewed. IDF impeller cleaned, casing patched. FDF outer bearing checked. Furnace brickwork extensively repaired. All FOB cleaned and new flexible pipes fitted. Unit soot cleaned and press tested. Total time o/c = 491 hr.	26	692	10 976
24			0	---	0	503	7 305
23	24	-	178	Repairing of furnace brickwork progressing (IMS) - One length of defective blow down pipe renewed.	178	559	12 329
22	9/24	8	188	Removal of Ec header and repairing of grate parts completed (IMS) - Total time o/c = 354 hr. Ec header NO40 renewed (front and rear), all new tubes fitted. 2 internally pitted Ec tubes changed, 4 front vertical nipples re-expanded, 50 Ec caps rejoined. One Sh cap renewed, 2 Sh drains overhauled. All valve glands repacked. 2 gage glasses, 4 connecting rods, 10 stroke adjusters and 6 adjuster bolts renewed. Main stoker driving shaft bearings cleaned and adjusted. Grate washed down and examined, 60 tuyeres, 5 dumping bars and 14 ash pusher plates renewed. Five rows of arch bricks renewed and furnace brickwork made good. Unit soot cleaned and press tested.			
	12	12	4	Ph center bearing examined (IDA) - All 3 support rollers renewed.	192	168	5 952
21	21	21	3	Ph element washed and examined (IDU).			
	27	27	1	FIF motor brushes renewed (IDA) - Ammeter changed.	4	737	13 667

SHANGHAI POWER COMPANY

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SG No	Date		Hours o/c	Type of Inspection & Work Done	Hr not Avail- able	Total Hr Oper- ated	Operating Hr since last Overhaul
	o/c	1/c					
20	11	12	12	Leaky Ec repaired (IDA) - No. 7 dist tube welded to vertical header, several caps rejoined, Ec press tested.	12	489	5 250
19	9	24	361	Routine cleaning and general repairing (IMS) - 18 main tube cap joints renewed, 2 return tubes re-expanded, 3 Ec caps rejoined, 28 Sh caps changed, tube O-95 cut out and blind nipples fitted. One soot blower master valve, sample water valve, Copos regulator and one bye-pass valve overhauled. Ph center bearing shaft and casing renewed, elements washed, ID and FD bearings cleaned and examined. Flexible piping fitted to FO burners. LH furnace wall partially rebuilt. Wind box insulated. Soot blower system cleaned and lubricated. 2 Gauge glasses renewed. Unit soot cleaned and press tested.	361	354	3 653
18	4	5	13	Leaky Ec repaired (IDA) - Four Ec caps rejoined, No. 3 dist tube welded into vertical header. 1 act ash door levers changed, ash pit water service cleaned. Three stroke adjusters and 6 bolts changed. Ec press tested.	13	457	3 974
17	2	2	7	No. 4 Grate gear box, one speed rack renewed (IDA) - Gear box overhauled; No. 2 strickle door renewed.	7	555	11 344
16	9	-	535	Partial overhaul after 16,422 hr operation (IMS) - Work progressing.	535	204	-
15	12	12	0	Choked sampling water pipe renewed (IDA).	16	606	1 719
	26	26	0	Stoker driving shaft bearing cleaned (IDA).	6	602	2 215
14	12	12	6	IDF engine adjusted (IDA).	534	181	-
13	9	-	534	Partial overhaul after 3240 hr operation (IMS) - Work progressing.	17	545	4 501
12	14	15	17	Leaky water Gauge Glass cock overhauled (IDA) - Drum examined for mud deposits.	0	670	2 569
11	15	15	0	Rickling pit cleaned out and jammed center grate adjusted - Unit not o/c.	0	479	3 016
10	27	27	0	Broken ash pit door changed.			

SHANGHAI POWER COMPANY

SG No	Date		Hours c/c	Type of Inspection & Work Done	Hr not Avail-able	Total Hr Oper-ated	Operating Hr since last Overhaul
	o/c	1/c					
9	8/4	14	319	Partial overhaul completed (INS) - Drum (no active pitting or corrosion found) cleaned and Apertor painted, lagging not removed. Headers examined, tubes in fairly good condition, all turbo-cleaned, 2 externally corroded tubes renewed. Eo tubes, all good, turbo-cleaned. Sh tubes examined, 50 pitted and thinned tubes renewed. Mounting all removed, overhauled and tested. Grates drawn out, overhauled, worn parts renewed. Brickwork good, baffles sealed. Ash pits repaired, pipe work examined and changed as required. All 2" blow down pipes renewed, new continuous blow down piping installed. Unit soot cleaned and press tested.	319	0	0

Notes:- 1. Unscheduled SG Outages -

(a) Units taken out immediately (IDU)

SG No:	30	26	21	Total
Times o/c	1	2	1	4
Hours o/c	13	19	3	(35 hr)

(b) Repairs done on a deferred date (IDA)

SG No:	29	28	22	21	20	18	17	15	14	12	Total
Times o/c	1	1	1	1	1	1	1	2	1	1	11
Hours o/c	11	12	4	1	12	13	7	16	6	17	(92 hr)

2. Tube Renewals -

SG No:	22	9	Total
Boiler Tubes	-	2	2
Eo "	12	-	12
Sh "	-	30	30

BOILER HOUSE AUXILIARIES -

1. Feed Water Pumps (FWP) -

- FWP 27 - Oil baffle adjusted, oil drain in bearing cleaned.
- 22 - Leaky joints remade and valves repacked.
- 21 - Overload valve glands repacked.
- 17 - General overhaul (after 8861 hr operation) progressing.
- 12 - Overhaul completed: Impeller good, packing rings HP built up, LP good, shaft OK, bearings all re-installed, steam and drain valves reseated, emergency trip valve seat welded to valve housing, steam and water pipes re-aligned, runaway governor tested and operated at 6100 rpm.

SHANGHAI POWER COMPANY

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1. Feed Water Pumps (FWP) - (continued)

- FWP 5 - Pump put i/o October 26, 1947.  
 3 - General overhaul (after 6474 hr operation) and re-leveling of bed-plate progressing.  
 2 - Motor cleaned, starting switch overhauled, oil changed.  
 1 - Gland sleeve renewed.

2. BH Auxiliaries -

- (a) BH 2: SG 14-16 - IDF engine bearings adjusted.  
 SG 13-15 - Auxiliary motors cleaned, starting switches cleaned and examined.  
 SG 9-15 - Holed parts of blow down line renewed.  
 (b) BH 3: FW line - Joints between FBS/22-24 & 25 remade.  
 SW line - ? lengths of piping changed.  
 FBS/12 - Valve removed for overhaul, distance piece fitted.  
 (c) BH 4: Steam Range - 4 joints remade, TG 16 steam line steam trap valves overhauled.  
 Lift - Wire ropes, guides and balance weight bushes examined and greased.  
 IDF spare motor - Assembled.

RAW COAL HANDLING PLANT -

- Tr 1 - Weighing machine tested, 3 rivets on trod wheel carrier renewed.  
 Tr 3 - One trod wheel for alowing cab dismantled and inspected. Coal grab shackle pin and 2 shackle plates renewed, travelling motor brake lining changed and 6 leather washers for coupling renewed.  
 HT 2 - Operating cab and traversing motor housing renewed, cable for feeder plate motor changed and one broken chain shackle for grab renewed.  
 DC 11-20 - Motors and switches cleaned and examined.  
 DC 15 - Renewed 2 brake shoes for tripper and repaired tripper travelling gear.  
 DC 22 - Inlock cable renewed.  
 DC 26 - Renewed 10 wooden pulley bases, one MS pulley base, 8 CI brackets and 4 broken pulleys.  
 DC 27 - Motor and starting switch panel overhauled.  
 DC 28 - Switches cleaned and examined.  
 DC 41 - Renewed 58 ft of belting. One extra troughing pulley fitted.  
 DC 43 - Renewed 58 ft of belting.  
 Riddling Belt - Renewed head pulley and shaft. Gear box overhauled, worm and shaft renewed. Motor changed.  
 BE 1 - Renewed 8 sets of links and 6 shafts.

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FUEL OIL HANDLING PLANT -

- 1 - Fuel Oil Heaters: Tubes cleaned and drain connected to new Clarke's steam traps.
- 2 - Fuel Oil Pumps: FOP 4-5: Motor cleaned, oil switch and starters cleaned and examined.
- 3 - Installation of duplicate steam line for fuel oil system and 6" delivery line from new FO Pump House progressing.

PULVERIZED FUEL HANDLING PLANT -

- FM 3 - General overhaul progressing.  
 FM 1-4 - Motors and starters repainted.  
 FM 5-7 - Mills greased, oiled, cleaned out and parts checked. Screw Conveyors cleaned out, screws, dampers and bearings checked. Vent fan No. 5 motor outer bearing dismantled, examined, cleaned and refitted.

ASH HANDLING PLANT -

- 1 - Electric Locomotives (LE) -
  - LE 1 - Overhaul progressing.
  - LE 2 - Changed one set large wheels and one set small wheels.
  - LE 3 - Changed one set small wheels.
  - LE 4 - Controllers and trolley equipment cleaned and examined.
- 2 - Ash Belt No. 1 - Motor changed.
- 3 - Ash Track - Overhead equipment repaired.

TURBINE-GENERATORS -

TG No	Date		Hours o/c	Type of Inspection & Work Done	Hr not Avail-able	Total Hr Oper-ated	Operating Hr since last Overhaul
	o/c	1/c					
16	1	8	161	Unit not in operation account o/c of SG 31 (IMS) - Gland drain cooler tested, 7 tubes found leaking, 6 renewed and 1 plugged.	161	563	3 889
16	5	5	7	Auxiliary motors all cleaned (IMS) - Starting switches cleaned, oil changed.			
	10	10	6	Balance weights on exciter end of generator rotor adjusted (IDU).			
	19	19	3 $\frac{1}{2}$	Balance weights on exciter end of rotor altered (IDA) - Governor taken apart, all parts examined and found in good order, limit switch altered to permit more load.	16 $\frac{1}{2}$	712	6 187

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TG No	Date		Hours o/a	Type of Inspection & Work Done	Hr not Avail- able	Total Hr Oper- ated	Operating Hr since Last Overhaul
	o/c	1/c					
15	9	9	5½	Routine cleaning (IMS) - Steam trap valves overhauled.			
	10	10	7	Transformer oil leak on B # repaired (IDJ) - Transformer cover tightened and cleaned externally.			
	23	23	1	Two slipping brush holders renewed (IDA) - Brushes changed.	13½	709	16 299
14	11	12	12½	Routine cleaning (IMS) - Steam strainers cleaned. Transformer cleaned and OCB trip tested.	12½	731	16 603
13	6	6	5½	Main oil pump examined (IDA) - Gear key removed.	5½	728	3 962
12	1	3	51	Main oil pump repaired (IDA) - Four bushes changed. Unit routine cleaned.	51	693	14 468
10	16	16	5	Main oil coolers and transformer oil coolers cleaned (IMS) - Motor bearing examined.	5	722	14 181
9	12	12	6½	Changed spindle and packings to governor valve No. 2 (IDA) - Both main and starting switches overhauled, oil changed. Auxiliary motors and oil coolers cleaned.			
	25	26	13	Routine cleaned (IMS) - Renewed water pipe to No. 2 bearing, overhauled steam valves to auxiliary oil pump.	19½	705	15 751
8	12	12	2½	Main oil coolers and transformer oil coolers cleaned (IMS).	2½	731	15 274
7	4	5	13½	Condenser tested for leaks (IDA) - Balance pipe found leaking, ordered 2 copper expansion joints to ease strain on these pipes.			
	22	22	3½	Overhauled steam trap and valves (IMS) - Governor valve packing renewed.	17	655	1 794
5	2	3	13	Routine cleaning (IMS).			
	15	15	8	Main oil pump clearance reduced (IDA) - Worn gear examined.			
	18	19	11	Steam isolating valve removed for overhaul (IMS) Spare valve fitted. Joint on steam line to steam trap renewed.	32	609	10 361
4	2	2	6	Routine cleaning (IMS) - Ejector steam valve repacked.			
	26	26	8	Minor repairs (IDA) - Rejointed strainer cover; overhauled steam trap and valves; overhauled auxiliary oil pump steam valves and overhauled 6.6 kv OCB and neutral OCB.	14	641	11 017
2	5/18		720	Generator stator replaced.	720	0	1 366
1	20	21	17	Routine cleaning (IMS).	17	417	2 001

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Notes:- Unscheduled TG Outages -(a) Units taken out immediately (IDU)

<u>TG No</u>	<u>16</u>	<u>15</u>	<u>Total</u>
Times o/c	1	1	2
Hours o/c	6	7	(13 hr)

(b) Repairs done on a deferred date (IDA)

<u>TG No</u>	<u>16</u>	<u>15</u>	<u>13</u>	<u>12</u>	<u>9</u>	<u>7</u>	<u>5</u>	<u>4</u>	<u>Total</u>
Times o/c	1	1	1	1	1	1	1	1	8
Hours o/c	3 $\frac{1}{2}$	1	5 $\frac{1}{2}$	5 $\frac{1}{2}$	6 $\frac{1}{2}$	13 $\frac{1}{2}$	8	8	(97 hr)

TURBINE HOUSE AUXILIARIES -1 - Circulating Water Pumps (CWP) -

- CWP 28 - Glands repacked.
- CWP 21 - Examined impeller, replaced one new NR valve plate and brazed up another plate, overhauled 6.6 kv main OCB.
- CWP 16 - Gland repacked; motor and main switch cleaned, contacts examined and oil changed.
- CWP 15 - Motor and starting switch cleaned, oil changed; 3 balls in motor thrust bearing removed.

2 - Air Compressors (Cp) -

- Cp 1 - Routine cleaned, relief valve adjusted.
- Cp 3 - Suction and discharge valve plates renewed, bearings adjusted and water jackets cleaned.
- Cp 4 - Motor cleaned, O/L device re-adjusted.

3 - TG 14 Condensate Pump 'A' -

- Bearings examined and found OK.

FLOATING EQUIPMENT -1 - Tow Boats -

- TB "Rectifier" - 1/3 after dry docking and survey, boiler hydraulically tested to 165 psi for Bureau of Navigation Surveyor.
- TB "Reactor" - Due for boiler cleaning and survey.

2 - Ash Lighters -

- AL 2 - General overhaul progressing.
- CL 14 - General overhaul progressing.
- AL 3 - Lifting chains removed.

SHANGHAI POWER COMPANY

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MISCELLANEOUS MECHANICAL EQUIPMENT -

- 1 - Water Screen - WS 6 -  
Overhaul progressing.
- 2 - Deaerator - DH 1 -  
Steam isolating valve changed to 8" sluice valve. Retubing  
of vent heater progressing.
- 3 - TW Line -  
3 lengths of steel pipe replaced with CI pipe; valve TW/13  
overhauled; level indicating chain of TW tank replaced  
with galvanized wire rope; booster pump and motor re-  
aligned, bearings cleaned and examined.
- 4 - Hot Water and Heating Boilers -  
Relief valves ground in and tested, opened at following psi:  
(a) Office Building: Hot water boiler - open at 50 psi.  
Heating boiler - open at 50 psi.  
(b) Main Store: Hot water boiler - Open at 15 psi.  
Heating boiler - open at 12 psi.

ELECTRICAL EQUIPMENT -

- 1 - 23 kv SH Equipment -  
ST 18, HP, ST 17, BS - 23 kv OCB overhauled and new Neoprene  
Gaskets fitted.  
AE 27, 28, AB 9/10, AD 57, AC 5 - OCB overhauled and O/L  
protection tested by Primary Current  
injection method.  
AB 7/8, AG 20, 21, AG 15/18, Re 2, AG 17, AG 19 - O/L protection  
tested by Primary Current Injection  
method.  
AE 25, AC 24, AC 33 - OCB overhauled after faulty operation.  
HP 2, BS 1-2, BS 5-6 - Routine cleaned and trip test.
- 2 - 6.6 kv SH Equipment -  
A 1/2, A 10, A 6, A 3/4, A 9 - Switch overhauled and protection  
tested.  
A 7 - Switch overhauled.
- 3 - Transformers -  
HST 2 - HT and LT OCB overhauled.  
HST 3 - Transformer routine cleaned.  
LT 2 - R # transformer changed for overhaul.  
ST 10 - General overhaul progressing.



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4 - Converters -

- RC 1, 2 & MC 4 - Routine cleaned.  
 RC 3 - Starting panel cleaned, field windings re-varnished and ACB cleaned and examined.

5 - Miscellaneous -

- (a) Oil switch for 130 v emergency transformer in AS IA overhauled.  
 (b) Installing yard lighting OCB.  
 (c) Wiring for Workshop lathe motors.  
 (d) Station 'C' conductivity meter installed.  
 (e) Station 'C' lift repaired where necessary.

RIVERSIDE WORKSHOP -

- 1 - Overhauled stator, armature and transformer of RC 3; 12 motors; one 4200 kva transformer for TG 5; five current transformers, two 325 power transformers and one 15 kw GE PL regulator for DDO. Machined 30 brass insulator terminal bushes, 12 fibre gear pinions, 12 MS flanges, 2 HD brass alloy worm wheels and 4 impellers, one 118 stub toothed gear, one 24 teeth motor pinion, one 15 teeth MS pinion. Made 600 GI roofing nails, 6 pole transformer link boxes, 230 tinned copper tubular cable sockets, 60 transformer terminals, 3 pole transformer link boxes, 10 pitch buckets, 6 link sticks, 3 Haddle Gear for line switches, 24 GI trays, 21 earth pipes, 7 copper OCB contacts.
- 2 - Machined 805 pieces MS, Vibrax Steel, tool steel and brass bolts, studs, screws, pins, keys, shafts, spindles, flat bars, plugs, unions, flanges, nipples and union couplings; 53 MS pipes, 42 MS and brass reducers, 45 MS, CI and brass bushes and sleeves, 15 rings, 45 collars, 34 rollers, 14 sets worm gears, 30 pulleys, 18 flow meter nozzles, 10 fibre washers, 31 brass Ferrules and floats, 48 copper contacts, 22 cocks and valves; every 230 MS Ms caps, 280 MS Ec cap nuts.
- 3 - Made 1 copper expansion, 30 sets 30 chain links, 24 oil strainers, 50 sets FO burner pipes, 4 steam heaters, 1 hot water tank, 1 MS funnel, platform between TG 12 & 13, TG 6 staircase, steps and gratings for Station 'C'; reconditioned 173 alley side arms, 120 square stay clamps, 27 bolted wall brackets, 600 cross arms, 100 rod braces; reinstalled 5 bearings; balanced 10 brass impellers; overhauled 13 valves; bend 14 Sh tubes and 30 MS pipes; straightened 15 MS soot blower pipes; forged 865 pieces MS flats, handhole fittings, rings and collars, 134 sets MS clamps, 30 agitator ploughs, 37 chipping hammers and 271 trolley brackets, bolts and hook bolts, plate and liners, etc; sharpened 55 steel chisels.

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- 4 - Electric welded 24 MS supports, 30 pole base frames, 2 monel metal shafts; built up 730 cross arms, 27 wall brackets and 6 valve bodies; gas welded 30 Sh plugs, 13 trays, 11 soot blower nozzles, 10 bunker headers, 10 pitch buckets, 1 valve housing, 1 worm roller and discharge chute and rails for RT 2 and Tr 3; Gas brazed 15 copper tube ends, 6 brass impellers, 6 valve covers, 2 sets transformer tails, 2 copper joint sleeves; Galvanized 3891 lbs bolts and nuts, brackets, clamps and cross arms; tinned 150 TC tubular sockets.
- 5 - Foundry produced following castings: 33,860 lb CI; 165 lb HD brass alloy; 318 lb GP brass alloy; 926 lb brass ingots and 2,810 lb copper ingots.
- 6 - Building and Wharf Maintenance:
- (a) Maintenance work to all plumbing and pipework proceeding also renovation of Staff Quarters in progress.
  - (b) Repaired corrugated GI sheeting on roof of BH 2 & 3, down pipes and gutters on roof of CR and TH, windows in Office and Service Buildings as well as Station 'C', floor in No. 2 Stores, TG 14, plaster for PH 3 and concrete work for ash track.
  - (c) Made concrete foundation for FWP 5.
  - (d) Repairs to TH walls of Station 'B' progressing.
  - (e) Glazing steel window frames, TH, progressing.
  - (f) Rebuilding bomb damaged wall of Storage 'B' progressing.
  - (g) Fender renewals along River Frontage completed.
  - (h) Construction of retaining walls on 3 sides of Coal Storage 'A' progressing.
  - (i) Re-roofing of Turbine House progressing.
  - (j) Reconditioning and decoration for new Conference Room progressing.

MISCELLANEOUS NOTES

The labour roll at Riverside totals 1302 including 19 Foreign and 84 Local Agreement, 40 Russians, 9 Subsidiary Staff (Foreign Watchmen), 26 Chinese Apprentice Engineers, 1 Student Engineer, 1 Engineer-Trainee and 1128 Chinese Staff.

The month commenced with almost a complete walkout of the daily rate workmen and approximately 80% of shift personnel on October 1.

This possibility was of course anticipated, and full arrangements were made in advance to cope with such a situation.

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The action of many of our Local Appointee staff and Apprentice Engineers in coming to our assistance during the critical period of October 1 and 2 is fully appreciated and it can be put on record, that only by such co-operation were we enabled to carry the load with only 25 to 35% reduction.

By October 3, the situation had considerably eased, and the employees were working more or less normally, the workmen apparently had no complaint with the management, their dispute being with the local officials who were responsible for the arrest of the SPC Labour Union officials, 13 of which are missing from Riverside.

The SPC Labour Union is now in the process of being completely reorganised and it can be stated that there appears to be a considerable improvement in the efficiency of the workmen since the disbandment of the Original Union.

The average % of absenteeism due to sickness and/or other causes of the Regular Chinese Staff amounted to 7.87% for the monthly rate, and 10.52% for the daily rate; the sickness % being 3.25% and 3.87% respectively.

GENERAL -

Staff:

During the month we suffered the loss of further personnel, namely:

- 1 Senior Charge Engineer
- 1 Charge Engineer
- 1 Assistant Charge Engineer
- 1 Junior Maintenance Engineer
- 1 Fuel Plant Supervisor.

This drain on our personnel is naturally imposing a considerable strain upon the remaining staff and the Operation Staff in particular. The problem of staff replacement has now become one of major importance and is therefore receiving our fullest attention.

A number of young Chinese Engineers have joined our staff as Junior Charge Engineers, further we have been able to promote 2 of our Apprentice Engineers to Junior Charge Engineers; some of these Engineers are already doing a first class job and we hope to develop in time a number of first class Charge Engineers. Experience is the one main factor that is lacking with the majority of the Engineers referred to above, however, we hope to improve our Training and Educational methods and thereby considerably improve the general standard. This matter is now receiving our fullest attention and whilst at present the Training scheme is considered to be in its infancy, we hope to improve our methods in the near future.

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The training of six Student Apprentices as Rotary Switchboard Operators has now commenced, in addition, arrangements have been made to draft two Students at a time to the Electrical Division for training over a period of one month, this should allow them to have a better appreciation and understanding of their job.

A large response has been received to our advertisement in the local press for Boiler House Attendant Trainees, therefore it is hoped to commence the training scheme in the near future.

Operation:

Record Daily Generation - The plant continued to be operated at maximum output of available equipment. An all time highest record since POJO was made on October 28, i.e. 3,194,575 Kwh.

Our total station net output increased by 2.9% over last month namely, 84,141,395 Kwh as against 81,770,494 Kwh, this increase being due to approximately 10% increase in "B" Station generation, lower river water temperature and general improvement in efficiency despite 17.35% lower generation in "C" Station.

The hourly station net output decreased slightly by 0.55% from 113,570 Kwh to 112,941 Kwh.

The load factor based on gross generation decreased from 80.95% in September to 78.28% for October.

SG UNITS -

SG 31:

This unit was taken off load on October 1 owing to the walkout of the workmen including over 50% of the operation staff, the question of keeping this unit in commission in the event of serious labour trouble had been well discussed by all parties concerned prior to the actual trouble developing, and was considered necessary if only to concentrate the limited available key operating personnel in Stations 'A' and 'B'.

The unit had operated for 593 hours successfully, that is apart from the ever prevalent slagging troubles, however the opportunity was taken to carry out several jobs on this unit which required attention, these jobs are outlined in this report under SG heading, the unit was recommissioned on October 7.

Owing to excessive slagging troubles the fuel-oil burning rate was reduced to 47% oil - 53% coal on a Btu basis with a view to obtaining a cooler furnace temperature.

On October 23 we have to record that Valve V-104 developed a leak in its valve body; this leak has been caulked temporarily on about seven different occasions but we have managed to keep the unit in commission to date.

SHANGHAI POWER COMPANY

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Steel sliding protective doors have now been erected in front of Ash Pit inspection doors at elevation 33', these doors are fitted with coloured lenses and apertures for lighting, etc, they should undoubtedly provide adequate protection to ashing crews.

General:

Again we have to record that a considerable amount of much needed repairs have been carried out to the SG units, a total of 2357 hours being spent upon repairs for all units.

The unscheduled outages show a considerable decrease over previous month, namely 4 as against 7, the deferred outages show an increase namely 11 as against 8 for previous month.

The total hours SG were o/c for unscheduled and deferred outages show a marked decrease, namely 134 hours as against 904 for previous month, and were made up as follows:-

Unscheduled Outages	-	35 hours as against 623 hours.
Deferred Outages	-	99 hours as against 281 hours.

Tube renewals registered a considerable increase, namely 44 as against 7 for previous month, this can be accounted for owing to number of major overhauls in progress.

Major maintenance work for the month consisted of the following:

SG 23	-	o/c 176 hours for furnace repairs, completed.
SG 22	-	o/c 188 hours for routine cleaning, renewing of Ec headers, etc; see separate report; work completed.
SG 19	-	o/c 361 hours for routine cleaning and general repairs; work completed.
SG 16	-	o/c 535 hours for partial overhaul after 16,422 hours operation; work progressing.
SG 13	-	o/c 534 hours for partial overhaul after 3,249 hours operation; work progressing.
SG 9	-	o/c 319 hours for partial overhaul; completed.

TG UNITS -

TG 18 was taken o/c on October 1 owing to labour trouble, see notes under heading SG 31. The GCMO heater was dismantled for examination and it was found that 7 tubes were leaking, six were renewed and one plugged. It is anticipated that further trouble will be experienced with this unit as several tubes show indications of erosion, consequently spare tubes are being requisitioned.

All work on TG units was of a routine nature this month, and as in previous months, practically all such work has been carried out at week-ends and other off peak periods thereby necessitating considerable overtime payments.

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Apart from TG 18 which was o/c on account of SG 31 unit, the total hours TG units were o/c for all causes, amounted to 208 hours only.

Unscheduled Outages - 2 - totalling 13 hours.  
Deferred Outages - 8 - totalling 97 hours.

CALTEX CONSTRUCTION -

Minor modifications were carried out to valve locations in pipe lines supplying FOT 3 & 4, we are still awaiting revised Calibration Tables from Caltex prior to putting this tank into operation.

ELECTRICAL -

Electrical work during the month was generally speaking of a routine nature.

IT 2 - R  $\phi$  transformer taken o/c for major overhaul, and inspection of cooling coil in particular.

IT 10 - o/c for general overhaul and inspection.

Station 'C' Ventilating System work on ducts, registers, cable and control equipment for Fans progressing.

FUEL OIL SUPPLY -

Fuel oil consumption for the month totalled 28,793 long tons, the maximum daily consumption being 1,069 tons and average daily consumption 935.26 tons.

WORKSHOPS -

The Workshop continues to be loaded with work, necessitating considerable overtime, on several occasions it has been found necessary to work a night shift on various urgent jobs. A considerable amount of work has been carried out for the Distribution Department.

The workmen's efficiency in the Winding Shop has improved slightly this month, but there remains considerable room for further improvement.

REHABILITATION & CONSTRUCTION -

Repairs to TH walls "E" Station progressing. 97% completed.

Glazing Steel Window frames TH progressing, number of panes set 3,800 pieces.

Repairing of steel window frames in TH completed.

SHANGHAI POWER COMPANY

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Repairing bomb damage East retaining wall of Storage "B" and laying new drains, progressing, 70% completed.  
 Fender renewals along Wharf front completed.  
 Concrete retaining wall for Coal Storage "A" progressing, 20% completed.  
 Repairs and general overhaul of Coal Lighter No. 14 and Ash Lighter No. 2 progressing, 60% completed.  
 Re-roofing of TH progressing, work above Pump Bay No. 2 90% completed; work on Control Room roof 85% completed.  
 Conference Room, reconditioning and redecorating progressing, 15% completed.  
 Towboat "Rectifier" drydocked at New Engineering Works for overhaul and survey work, completed.

FUEL -

Coal receipts were 19,633 tons during October, made up of two kinds of coal. 19,932 tons were burned and 115 tons issued by Stores, making a total of 20,047 tons. Total stocks on November 1, 1947 (8.00 am) were 27,276 tons, consisting of 24,744 tons on mechanical storage and 2,532 tons in bunkers.

Coal deliveries during the period were 414 tons less than burned plus issued, and stocks were decreased a like amount.

Oil receipts were 29,071.28 tons during October, and 29,993 tons were burned, thus increasing stocks on November 1, 1947 (8.00 am) to 917.65 tons.

MUD DREDGING -

During the month 4,160 cubic yards of mud (26 lighters of 160 cubic yards per lighter) dredged from in front of our wharves and pump houses.

COKE & BRIQUETTES -

During the month 149,217 lb of coarse coke was recovered from ashes, of which 37,304 lb issued to the coke recovery contractor and 33,000 lb issued for Company use, leaving 800,494 lb in Stores on November 1, 1947.

During the month 209 metric tons of anthracite coal were received from local suppliers and 99.6 metric tons of anthracite coal issued for the manufacture of briquettes for sale to employees. Total amount of briquettes made was 332 metric tons, of which 255.53 metric tons were issued.

*C. J. Pleace*  
 C J Pleace

Shanghai, November 26, 1947

Encl: EC Water Report  
 EC Oil Report  
 Characteristic Curves

SECTION 101 -  
 GENERATION ENGINEER  
 CHEMICAL ENGINEER  
 MAINTENANCE ENGINEER  
 GENERATOR ADAPT  
 SCB  
 TR OFFICE  
 LUBRICATION BUREAU

RIVERSIDE STEAM ELECTRIC STATION  
 TURBINE OIL SERVICE DATA

October 1947

DATE November 8, 1947.

TG No.	OPERATING TIME HR	MAKE-UP		CENTRIFUGE OPERATION				LABORATORY REPORT			REMARKS
		GAL	DESCRIPTION	HR	DRY SOLIDS OZ	SOLIDS OZ PER 1000 HR	WATER LB	VISCOSITY 120° F/SAV/ST	ACIDITY MG SICH/CM	DEMULSITY MIN	
18	883							90	0.063	2 1/2	
16	713	26	DTE Lt 797	507	98	127	181	90	0.076	2 1/2	
15	709							93	1.17	3 1/2	
14	721	27	DTE Lt 797					93	1.30	2	
13	729	5	DTE Lt 797					95	0.077	2	
12	693	5	DTE Lt 797	41	3	4	6	96	0.80	3	
11											
10	722			116			96	91	0.18	3 1/2	
9	704			?	9	13	4	91	0.105	5 1/2	
8	731							96	2.06	4	
7	656	28	DTE Lt 797					91	0.057	6	
6											
5	609	20	Tyool Lt	597	75	123	101	93	0.24	2 1/2	
4	640	10	Tyool Lt	631	34	53	540	90	0.076	2	
2											
1	417							99	0.85	6	

HISTORY OF OIL BATCHES

TG No.	LAST FULL CHARGE			TOTALS TO DATE					MAKE-UP DATA			OPERATING HRS SINCE LAST OVERHAUL
	DATE	GAL	DESCRIPTION	OPERATING HR	SOLIDS OZ	SOLIDS OZ/1000 HR	WATER LB	WATER LB/1000 HR	TOTAL GALLONS	GAL PER 1000 HR	TG HR PER GAL	
18	Nov 40	576	Rio Tyool Lt	3809					62	21	47	3809
16	Nov 40	940	DTE Lt 797	6120	494	32	1445	243	234	39	26	6120
15	Aug 38	943	DTE Lt	64880	2149	33	9110	141	2266	35	29	16899
14	June 37	927	Shell B SA	67448	3776	56	13300	197	2022	39	27	16803
13	Mar 47	103	DTE Lt 797	3963	-	-	4	1	48	11	88	3963
12	Apr 37	111	DTE Lt	61994	36	1	12	-	605	10	102	14458
11												
10	June 36	1280	Tyool Lt	69856	680	10	1242	15	2089	30	33	14161
9	May 46	690	Rio Tyool Lt	11924	567	19	495	42	290	24	41	15702
8	Sept 36	680	Tyool Lt	66089	3115	46	5840	77	2214	33	31	13274
7	July 47	378	DTE Lt 797	1785	-	-	-	-	32	29	35	1785
6												
5	July 46	850	Rio Tyool Lt	10361	248	24	304	49	184	18	56	10361
4	June 46	850	Rio Tyool Lt	11018	441	40	3230	2966	146	13	75	11018
2												
1	Aug 36	296	Old Shell	7324	-	-	-	-	322	44	23	2001

AP 280 (Rev)

J C Baker

A Liven

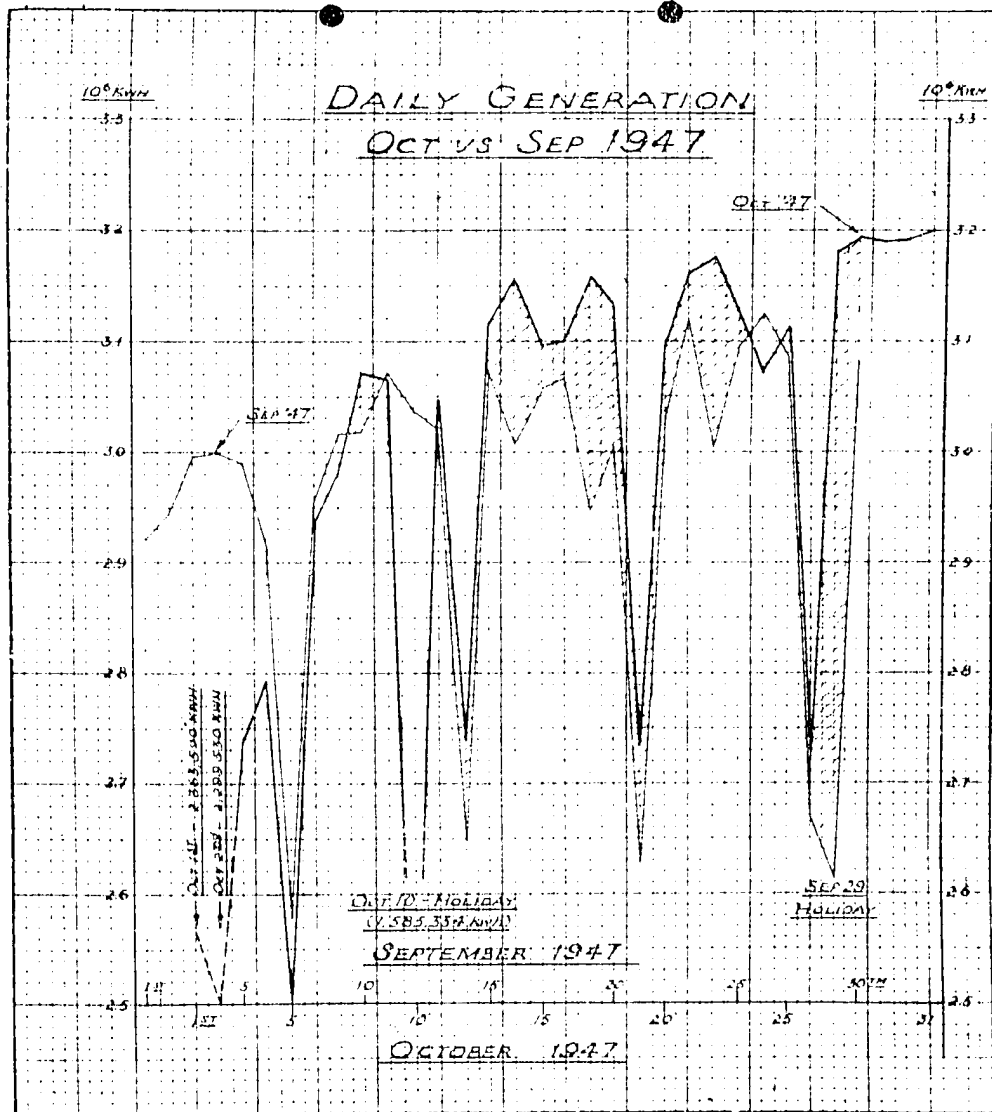


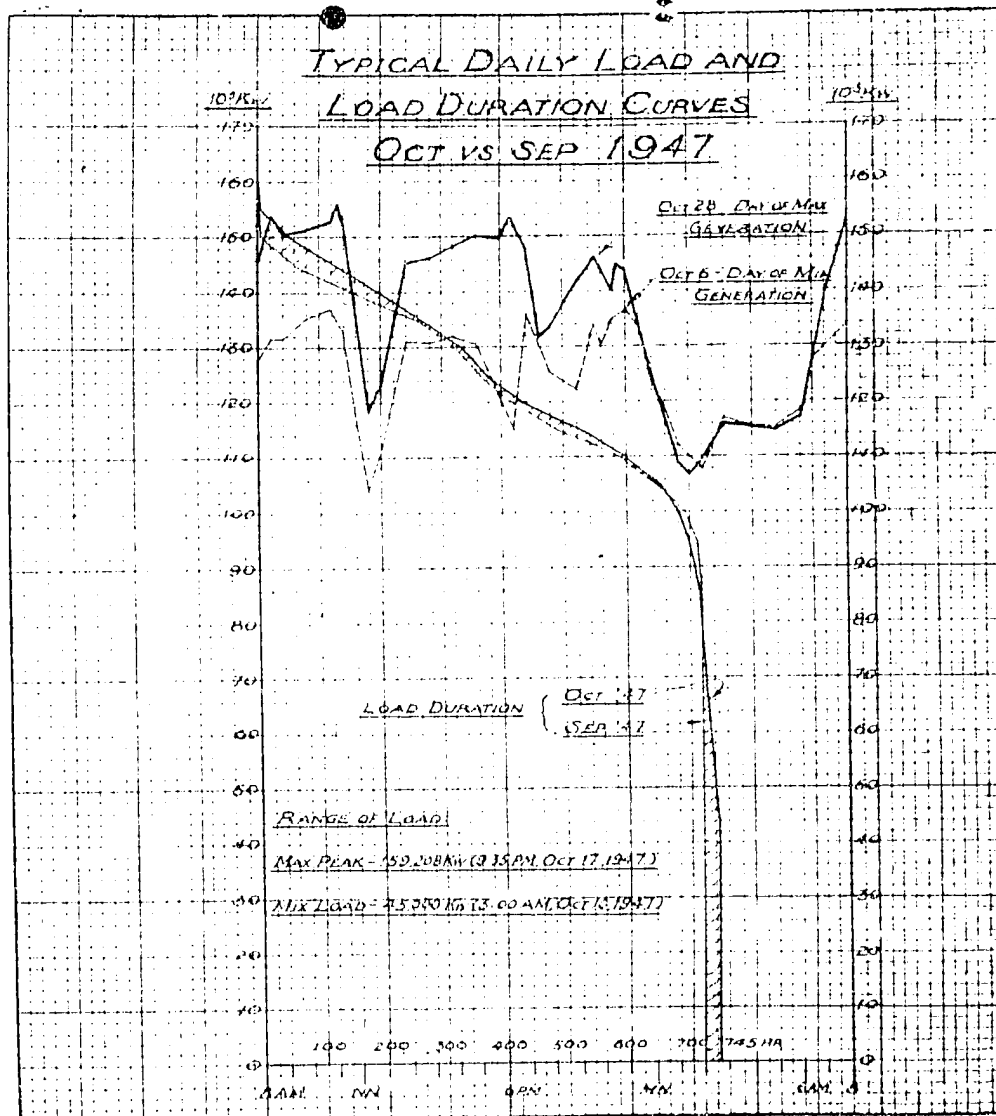
DATE TIME	ALKALINITY PARTS PER MILLION		SODIUM SULFATE	MEQ	TEMP. °C	PH	CHEMICALS ADDED, LB		REMARKS						
	CHLORIDE	TOTAL					CHLORIDE	SODIUM SULFATE							
1															
2															
3															
4															
5															
6															
7															
8															
9															
10	20	59	109	349	3.2	678	6	10.9	2889	26	53	CS @ 19"			
11	21	105	137	445	3.8	599	5	10.9	2188	30	60	CS @ 26"			
12	21	71	95	437	4.6	624	6	10.9	2350	34	63	CS @ 24"			
13	19	67	85	239	3.8	310	5	10.8	1948	15	52	CS			
14	24	157	215	191	0.9	131	4	10	10.9	1633	16	20	CS @ 24"		
15	23	101	123	594	5.6		5	10.9	2566	26	52	CS @ 28"			
16	31	241	275	233	0.9	174	5	11.0	2190	2	6	15"			
17	9	31	40	73	1.8	20	6	10.5	241	59	20	57			
18	17	40	77	219	2.8	32	25	10.8	594	9	15	15			
19	16	44	58	125	3.2	24	12	10.6	569	11	5	15			
20	21	63	85	324	3.4	29	23	10.8	678	4	9	9			
21	20	47	67	372	5.6	33	20	10.6	745	12	19	19			
22	9	38	47	115	2.4	20	20	10.6	378	10	10	10			
23	14	47	61	173	2.8	20	15	10.7	487	6	10	10			
24	17	59	74	128	2.1	30	21	10.7	476	8	15	15			
25	14	30	64	179	3.1	38	19	10.7	534	18	8	21			
26	15	35	71	154	2.5	23	15	10.6	645	15	10	12			
27	23	60	63	145	2.0	42	27	10.7	863	12	21	21	73"		
28	25	60	65	218	2.6	41	29	10.9	573	10	21	21	55"		
29	18	54	72	179	2.5	25	25	10.7	530	18	2	19	48"		
30	20	59	75	244	3.4	57	25	10.6	582	11	17	17	72"		
31	14	57	71	108	2.4	6	26	10.8	594	45	45	45	51 1/2"		
AVG										394	25	511	70	200	

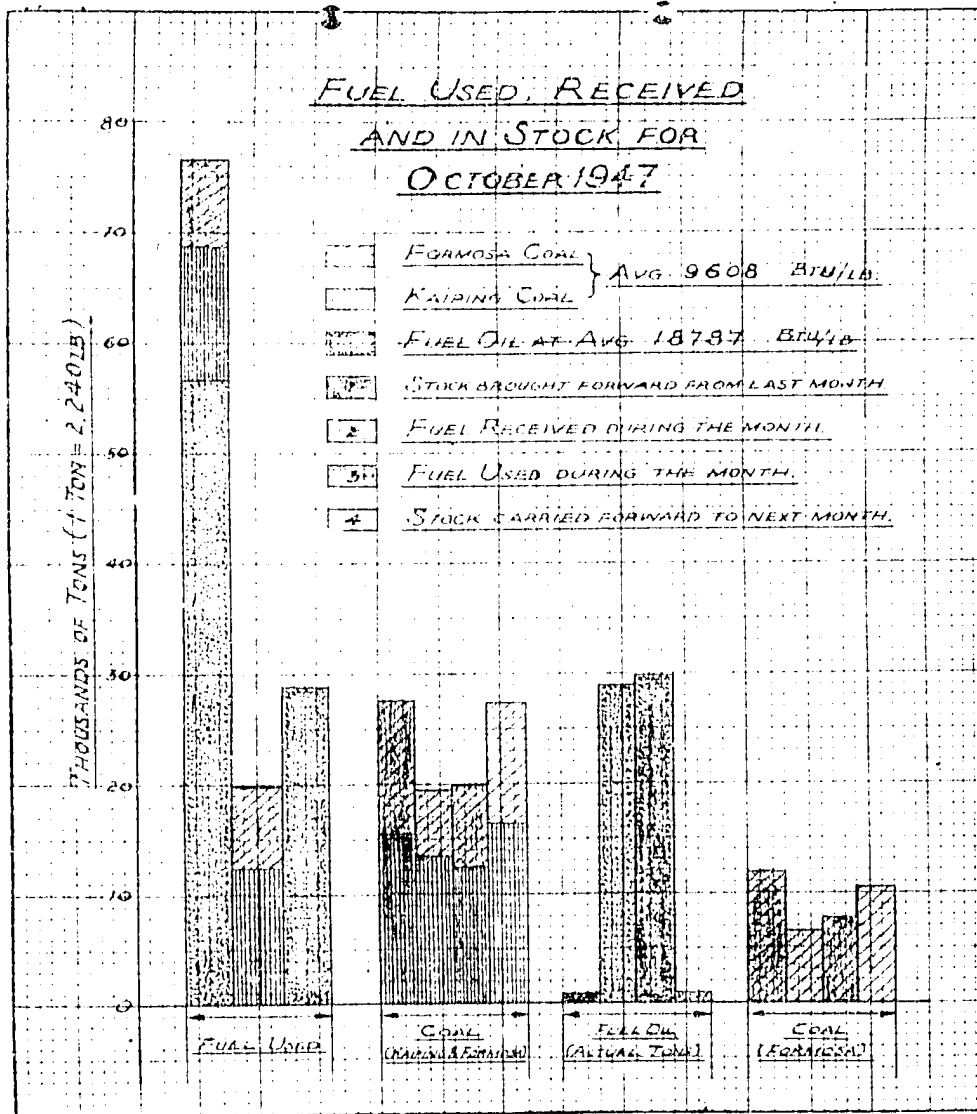
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AVENUE  
SHANGHAI POWER COMPANY  
BOILER WATER ANALYSIS  
FOR THE PERIOD OF OCTOBER 1947

RIVERSIDE STEAM ELECTRIC STATION  
CHEMICAL LABORATORY







SHANGHAI POWER COMPANY

October 31, 1947

SHANGHAI POWER COMPANY AND  
WESTERN DISTRICT POWER COMPANY OF SHANGHAI  
FEDERAL INC, USA

DISTRIBUTION DEPARTMENT  
MONTHLY REPORT FOR OCTOBER 1947

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The following outlines the activities in connection with operation, maintenance and construction work in this Department.

I OPERATION

(A) SERVICE FAILURES AND TROUBLE CALLS

(1) Major Service Failures

(a) Load Reduction due to insufficient electrical (E) and/or steam (S) generating capacity at Riverside

Date	Oct 1	Oct 2	Oct 3	Oct 4	Oct 6	
Area affected	SPC WDPC Chapel French	SPC WDPC Chapel French	SPC WDPC	SPC WDPC	SPC WDPC	
Supply from substation	13 sub-stations	24 sub-stations	Yangchow Tonquin Robison	Riverside Yangchow Tonquin Robison	5 sub-stations	
Feeder	34 feeders	37 feeders	9 feeders	8 feeders	12 feeders	
Customer	35 customers & LV networks	53 customers & LV networks	10 customers & LV networks	6 customers	14 customers & LV networks	
Duration of supply interruption	27 mins to 13 hrs 55 mins	20 mins to 17 hrs 45 mins	1 hr 5 mins to 13 hrs 33 mins	32 mins to 1 hr 37 mins	7 mins to 2 hrs 2 mins	
Estimated kVA-hrs lost	Company's area	AM 41,171 PM 154,666 Ev 57,162	AM 332,215 PM 488,320 Ev 171,545	AM 65,480 PM 73,110 Ev 27,370	AM 1,024 PM 12,250	AM 16,070 PM 4,814 Ev 1,638
	Chapel	AM 5,835 PM 27,265 Ev 100,240	AM 6,650 PM 10,640 Ev 5,320			
	French	AM 17,250 PM 3,330 Ev 12,470	AM 17,250 PM 26,240 Ev 13,120			
	Total	412,139	1,071,300	166,130	13,274	22,522
	Insufficient electrical and/or steam generating capacity	S & E	S & E	S & E	S & E	S & E
Remarks	AM - refers to morning peak load period (8 am to 12 noon) PM - " " afternoon " " " (12 noon to 7 pm) Ev - " " evening " " " (after 7 pm)					

SHANGHAI POWER COMPANY

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(a) Load Reduction due to insufficient electrical (E) and/or steam (S) generating capacity at Riverside (continued)

Date	Oct 7	Oct 8	Oct 9	Oct 13	Oct 14	
Area affected	SFC WDPC Chapei	SFC WDPC Chapei	SFC WDPC Chapei	SFC	SFC Chapei	
Supply from substation	6 sub-stations	6 sub-stations	Tonquin Connaught Robison	Riverside Yangchow	Yangchow Tonquin	
Feeder	21 feeders	29 feeders	15 feeders	6 feeders	4 feeders	
Customer	21 customers & LV net-works	30 customers & LV net-works	15 customers & LV net-works	6 customers & LV net-works	4 customers	
Duration of supply interruption	6 mins to 3 hrs 54 mins	8 mins to 3 hrs 57 mins	1 hr 22 mins to 4 hrs 9 mins	54 mins to 2 hrs 57 mins	50 mins to 3 hrs 9 mins	
Estimated kVA-hrs lost	Company's area	AM 65,880 PM 6,820 Ev 427	AM 50,414 PM 47,050	AM 41,800 PM 51,570	AM 13,515 PM 6,170	AM 12,180
	Chapei	AM 2,350 PM 7,668	AM 12,960 PM 7,900	AM 3,640 PM 8,070		PM 6,540
	French					
	Total	83,145	119,324	105,080	19,685	18,720
Insufficient electrical and/or steam generating capacity	S & E	S & E	E	E	E	
Remarks	AM - refers to morning peak load period (8 am to 12 noon) PM - " " afternoon " " " (12 noon to 7 pm) Ev - " " evening " " " (after 7 pm)					

SHANGHAI POWER COMPANY

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(a) Load Reduction due to insufficient electrical(E) and/or steam(S) generating capacity at Riverside (continued)

Date	Oct 15	Oct 17	Oct 18	Oct 19	Oct 20
Area affected	SPC WDPC Chapai	WDPC	SPC	SPC WDPC	SPC
Supply from substation	5 sub-stations	Robison	Riverside Tonquin	Yangchow Tonquin Robison	Yangchow
Feeder	20 feeders	Japan-China	3 feeders	5 feeders	GG 201 G 6
Customer	24 customers & LV networks	Japan-China	4 customers	6 customers & LV networks	Hun foong Wing On 5
Duration of supply interruption	46 mins to 4 hrs 5 mins	1 hour	11 mins to 2 hrs 12 mins	4 hrs 34 mins to 5 hrs 22 mins	3 hrs 25 mins to 2 hrs 30 mins
Estimated kVA-hrs lost	Company's area	AM 68,280 PM 31,100	AM 6,000	AM 6,610 Ev 4,930	AM 17,290 AM 4,770
	Chapai	AM 4,400 PM 4,090			
	French				
	Total	107,870	6,000	11,540	17,290
Insufficient electrical and/or steam generating capacity	E	E	E	E	S
Remarks	AM - refers to morning peak load period (8 am to 12 noon) PM - " " afternoon " " " (12 noon to 7 pm) Ev - " " evening " " " (after 7 pm)				



SHANGHAI POWER COMPANY

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(a) Load Reduction due to insufficient electrical(E) and/or steam(S) generating capacity at Riverside (continued)

Date	Oct 21	Oct 22	Oct 23	Oct 26	Oct 27	
Area affected	SPC WDPC	SPC WDPC	SPC WDPC Chapel	SPC WDPC	SPC WDPC	
Supply from substation	Yangchow Tonquin Connaught Robison	Riverside Yangchow Tonquin Robison	Tonquin Connaught Robison	Tonquin Connaught Robison	Yangchow Robison	
Feeder	7 feeders	4 feeders	5 feeders	8 feeders	5 feeders	
Customer	9 customers & LV networks	5 customers & LV networks	8 customers & LV networks	9 customers & LV networks	5 customers & LV networks	
Duration of supply interruption	17 mins to 50 mins	29 mins to 2 hrs 38 mins	28 mins to 4 hrs 50 mins	30 mins to 2 hrs 30 mins	49 mins to 3 hrs 5 mins	
Estimated kVA-hrs lost	Company's area	AM 9,325	AM 16,290 PM 1,975	AM 21,330 PM 17,860	AM 31,460	AM 17,570
	Chapel			PM 940		
	French					
	Total	9,325	18,265	40,130	31,460	17,570
Insufficient electrical and/or steam generating capacity	S	E	E	E	E	
Remarks	AM - refers to morning peak load period (8 am to 12 noon) PM - " " afternoon " " " (12 noon to 7 pm) Ev - " " evening " " " (after 7 pm)					

SHANGHAI POWER COMPANY

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(a) Load Reduction due to insufficient electrical(E) and/or steam(S) generating capacity at Riverside (continued)

Date	Oct 28	Oct 29	Oct 30
Area affected	SPC	SPC WDPC	SPC WDPC
Supply from substation	Yangchow Tonquin	Riverside Tonquin Robison	Tonquin Robison
Feeder	C 12, C 13 G 16	A 1/2 3/4 DF 73 C 24	5 feeders
Customer	Sing Yue 1 Sung Sing 2 Wing On 1	4 customers & LV net- works	4 customers
Duration of supply inter- ruption	3 hrs 13 mins to 3 hrs 17 mins	56 mins to 3 hrs 21 mins	1 hr 4 mins to 3 hrs 17 mins
Company's area	AM 18,630	AM 25,860	AM 24,705
Esti- mated kVA-hrs lost	Chapel  French		
Total	18,630	25,860	24,705
Insufficient electrical and/or steam generating capacity	E	E	E
Remarks	AM - refers to morning peak load period (8 am to 12 noon) PM - " " afternoon " " " (12 noon to 7 pm) Ev - " " evening " " " (after 7 pm)		

SHANGHAI POWER COMPANY

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(b) Other Causes

Date	Oct 2	Oct 8	Oct 13	Oct 13	Oct 19
Area affected	SPC	SPC Chapel	SPC WDPC	SPC	SPC
Supply from substation	Yangchow	Riverside	Bubbling Well	Riverside	Yungchow
Feeder	G 11 O/H line	Chapel B/S	All regulated feeders	A 5	GG 101
Customer	8 customers & LV networks	Chapel Bulk Supply	15 customers & LV networks	9 customers & LV networks	Shanghai C/M No. 5
Cause of failure	System arrangement disturbed by unknown person	Fault on Chapel system	Lightning arrester on M 1 O/H line failed	Mis-operation (Generation Department)	Consumer caused flashover on his installation
Fault cleared by	-	Chapel B/S OCB	Regulator OCB	A 5 OCB	GG 101 OCB
Damage to equipment	None	None	Expulsion type (Japanese) lightning arrester	None	None
Duration of supply interruption	3 hrs 27 mins to 3 hrs 32 mins	16 mins	31 mins to 1 hr 34 mins	1 min	6 hrs 30 mins
Load affected kVA	Company's area	2,050	2,400	1,100	10
	Chapel		7,600		
	French				
	Total	2,050	7,600	2,400	1,100
Remarks					Sunday

SHANGHAI POWER COMPANY

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(b) Other Causes (continued)

Date	Oct 30	
Area affected	SFC	
Supply from substation	Ferry	
Feeder	Ferry- Bubbling Well tie line	
Customer	Oriental Textile	
Cause of failure	5.6 kV O/H mains fouled by foreign matter	
Fault cleared by	Ferry- Bubbling Well tie line OCB	
Damage to equipment	None	
Duration of supply interruption	35 mins	
Load affected kVA	Company's area	900
	Chapei	
	French	
	Total	900
Remarks		

SHANGHAI POWER COMPANY

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(2) Classified Service Failures (including Item 1)(a) Caused by Defective Equipment

Equipment		Number of Failures	
		This Month	Last Month
Overhead lines:	HV	-	-
	LV	-	3
Underground lines:	Cables	-	-
	Joints	-	-
	Potheads	-	-
Transformers and voltage regulators		1	-
Switchgear		-	1
Power fuses		-	1
Protective equipment		1	-
Traction equipment		-	-
Metering equipment		-	-
Current and potential transformers		-	-
Street lighting:	Series	1	1
	Multiple	4	4
Other Company's equipment		-	-
Total (a)		7	10

(b) Other Causes

Cause of Failure		Number of Failures	
		This Month	Last Month
Foreign agencies:	Overhead lines	8	1
	Street lighting	-	-
	Underground lines	-	-
Tram trolleys:	Overhead lines	-	2
	Street lighting	5	6
Theft of equipment		-	-
Typhoons and storms		-	-
Lightning		-	8
Flood		-	-
Fire		-	-
Vermin and birds		-	-
Overload		-	1
Customers' equipment failures:			
	Company's area	1	1
	Ex franchise area	1	2
Company's staff:	Misoperation	1	-
	Fouled by workmen	-	-
Generating station trouble		23	26
Undetermined		1	3
Total (b)		40	50
Total (a & b)		47	60

SHANGHAI POWER COMPANY

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(3) Trouble Calls attended to by System Trouble Section

Company's Installation	Number of Calls					
	This Month			Last Month		
	SFC	WDPC	Total	SFC	WDPC	Total
23 kV overhead and underground lines	1	-	1	1	-	1
6.6 kV overhead and underground lines	6	1	7	5	-	5
380 volt overhead and underground lines	10	4	14	24	9	33
Street lighting lines and equipment	28	4	32	43	3	46
Traffic signals	112	9	121	102	6	108
House service connections and wires	71	39	110	54	21	75
Substation equipment	2	1	3	4	-	4
DC Traction equipment and lifts	-	-	-	2	-	2
Fire calls	49	7	56	55	3	58
False alarms	3	-	3	-	-	-
Miscellaneous	6	2	8	3	4	7
<u>Customers' premises</u>						
Lighting	810	216	1026	813	186	999
Power	86	65	151	115	51	166
Heating	50	11	61	38	12	50
Total Trouble Calls attended to	1234	359	1593	1250	296	1554
Average per day	39.8	11.6	51.4	41.9	9.9	51.8

(b) TRANSFORMERS AND REGULATORS

(1) Connected and/or Disconnected from Service

Location	Capacity in kVA		Remarks
	SFC		
	Connected	Disconnected	
Shanghai Quilt		1,000	Removal of standby transf.
Tongshan-Dent PT		225	PT dismantled.
Point-Kungping PT	325	225	Load increase.
Market Street	625	325	Load increase.
Hochien-Sungfow PT	62 $\frac{1}{2}$	50	Transformer failed in service.
Kiacchow-Wuting PT	325	325	Transformer oil contained water.*
Touquin	1,000	625	Load increase.
Tungchow	940		Load increase.

\* This type (Ferranti) was converted from indoor to outdoor use. The bushings originally used are incorrect. Programmed replacement with bushings of adequate design in hand (15 units to be rectified still in service).

SHANGHAI POWER COMPANY

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WDPC

Location	Capacity in kVA		Remarks
	connected	Disconnected	
Rubicon H 296 PT	20	7½	Load increase.
Brenan-Jessfield West PT	325	225	Load increase.

U N I T S

	<u>SFC</u>	<u>WDPC</u>
(2) <u>Taps changed for network voltage regulation</u>	2	-
(3) <u>Switched on or off load for operational purposes</u>	2	-
(4) <u>Under observation due to overload or overheating</u>		

SFC

Location	Capacity kVA	Type	Max Load		Max oil ton temp	Ambient temp	Temp rise	Remarks
			%	Hours duration				
Patons & Baldwins	625	Indoor	119	½	52	28	24	
Weinan	125	Outdoor	121	½	50	20	30	
Chinese Aluminium Rolling Mill	940	Indoor	102	½	60	25	35	
Jessfield-Yu Yuen PT	125	Outdoor	129	½	48	15½	32½	W O in hand.
Meichow-Chaoyang PT	225	"	134.7	½	55	23	32	
Bubbling Well Substation Local Transformer	200	Indoor	115	½	46	21½	24½	
Bubbling Well Ind Voltage Regulator	260	"	132	½	41	21½	19½	
Tsopoo-Kansuh PT	225	Outdoor	123	½	63	16	47	Transf. to be enlarged.
Da An Rubber Factory OT	225	"	121.5	½	58	21	37½	
Sung Sing No. 6	940	Indoor	121.5	½	60½	20	40½	
Wachow PT	225	Outdoor	111.3	½	32	16½	15½	
Ton Tobacco Company	225	"	126	½	51	26	25	
H Broadway-Chaoufoong PT	225	"	116	½	39½	19½	20	
Widow's Monument PT	225	"	117	½	40	17	23	
Bubbling Well-Gordon PT	225	"	132	½	47	16½	30½	Transf. to be enlarged.
Pingliang-Tinghai PT	125	"	185	1	58	15	43	60 ampa load has been shifted to Kung Dah l.
Wuting PT	225	"	120	1	56	18	38	Transf. to be enlarged.
Shanghai China Merchants Stock Exchange	125	"	105	½	40½	19½	21	
Av Edward VII-Chungking PT	225	"	108	1	36½	18½	18	W O in hand. Substation ventilation needs improvement. ED informed.
Hailar-Tungchow PT	62½	"	172½	1½	29½	16	13½	
Tung Yih Tr No. 3	940	Indoor	88	½	69	26	43	) ED informed.
" " Tr No. 2	940	"	88	½	58	23	34½	
" " Tr No. 1	940	"	88	½	67½	23½	44	
Moulain Ind Voltage Reg.	260	"	108	½	45½	21½	24	

SHANGHAI POWER COMPANY

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DPC

Location	Capacity kVA	Type	Max Load		Max oil top temp	Ambi- ent temp	Temp rise	Remarks
			%	Hours dura- tion				
Chung Woo P/M	325	Outdoor	118	127	73	27	46	ED informed.
Great Western-Keawick PT	125	"	127	127	51	27	24	
China Paper Mill OT	225	"	127	127	64	23	41	
Great Western Riding School PT	325	"	114	127	57	28	29	
Ming Sung PT	225	"	106	127	35	18	17	
Dah Doong C/M	625	Indoor	102	127	63	26	27	
Dah Chung Hwa Flour Mill	625	"	106	127	69	28	41	
Yu Yuen "D" PT	325	Outdoor	122	127	49	18	31	
Poh Sing Kyung Village PT	35	"	104	127	24	18	6	
Great Western-Lincoln Avenue PT	35	"	132	127	29	18	11	
E Tao An Pang "B" PT	50	"	134	127	35	23	12	W O in hand.
Wah Foong Rubber Factory	225	"	118	127	51	24	27	
Zao Ka Yih PT	225	"	109	127	45	21	24	
Tao Chong Hsing Glue Factory	625	"	106	127	31	23	8	
Chen Ka Jao PT	20	"	132	127	24	18	6	
Hai Loong P/M OT	225	"	138	127	80	21	59	ED informed.
Great Western Riding School PT	325	"	120	127	53	22	31	

(C) MISCELLANEOUS TESTS

Units	Equipment	Voltage	Nature of test	Reason for test
6	Thermometers, make China Scientific Company	-	Check of accuracy	Acceptance.
1	Transformer, 20 kVA, 1- $\phi$ make IGE	5,940 110	Insulation resistance, pressure, and ratio	After overhaul.
42	Transformer bushings, indoor type	6,600	Overvoltage and puncture	Acceptance.
4	Electrotin and tinned copper fuse wire make Shanghai Eng Corp	-	Determination of fusing current	Acceptance.



SHANGHAI POWER COMPANY

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Units	Equipment	Voltage	Nature of test	Reason for test
1	Transformer, 325 kVA, 3- $\phi$ , make Wha Tung	$\frac{6,600}{370}$	Insulation resistance, continuity, pressure, ratio, phasing and heat run	After overhaul.
1	Transformer, 625 kVA, 3- $\phi$ , make Osaka	$\frac{6,600}{380}$	Insulation resistance, continuity, pressure, ratio and phasing	After overhaul.
12	Shackle insulators, make Lee Chi Industrial Co	6,600	Overvoltage and puncture	Acceptance.
1	Transformer, 250 kVA, 3- $\phi$ , make Chung Ken, Yeong Dah W/F	$\frac{6,600}{400}$	Insulation resistance, and pressure test	Prior to commission- ing.
1	3 foot aerial cable sample, make General Cable Corp, .16 sq in	6,600	Overvoltage, flashover heat run, voltage- time	Acceptance.
1	Transformer, 500 kVA, 3- $\phi$ , make Great China E & Co. Property of Pioneer Steel	$\frac{6,600}{3,300}$	Insulation resistance, pressure and ratio	Prior to commission- ing.
1	Induction motor, 450 HP, 3- $\phi$ , property of Pioneer Steel	$\frac{3,000}{3,300}$	Insulation resistance, pressure and con- tinuity	Prior to commission- ing.
1	Lamcoold Board, make Mica Insulators Co	-	Chemical properties, heat resistance, dielectric strength and combustibility	Investigation.
6	Spout bushing insulators, KDR 5 switchgear	23,000	Overvoltage and general inspection	Acceptance.
1	Transformer, 625 kVA, 3- $\phi$ , make IGE	$\frac{6,000}{350}$	Insulation resistance, pressure, phasing and ratio	After overhaul.
1	Cable links at Shanghai C/M No. 5 (consumer's property)	23,000	Overvoltage	Prior to commission- ing after repairs.

SHANGHAI POWER COMPANY

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Units	Equipment	Voltage	Nature of test	Reason for test
3	Split-Conductor Current Transformers, make Reyrolle	23,000	Overvoltage, ratio, balance and polarity	Prior to installation at Yangchow AG 15/18 coil.
1	Merz-Price Current Transformer, make Reyrolle	6,600	Overvoltage and ratio	After repairs.
2	Lightning arrester discs, make IGE	-	Spill-over, voltage	Routine.
1	Induction motor, 450 HP, 3- $\phi$ , property of Pioneer Steel	$\frac{3,000}{3,300}$	Insulation resistance, overvoltage, and continuity	After drying out.
1	CCB type KDR 5, make GMC at Yangchow Substation	23,000	Pressure and insulation resistance	After overhaul.
1	GG 102 panel KDR 5 switchgear, make GbC, at Yangchow Substation	23,000	Insulation resistance, continuity and operating current	Inspection.
1	Reyrolle loop-in metering unit busding	23,000	Overvoltage	Prior to installation
1	Transformer, 200 kVA, 3- $\phi$ , make IGE	$\frac{6,000}{360}$	Insulation resistance, continuity, pressure, phasing and ratio	After overhaul.

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II MAINTENANCE

Routine inspection, maintenance and testing of plant on the transmission and distribution system have proceeded according to programme.

(A) TRANSFORMERS AND REGULATORS

- (1) Overhauled (Core lifted, windings and connections examined, IR tested, and oil changed)

SPC Nil.

WDPC

Location	Capacity in kVA	Workshop	Reason for overhaul
Connought-Jessfield PT	62½	Fearon Substation	General overhaul.

U N I T S

	<u>SPC</u>	<u>WDPC</u>
(2) <u>Inspected on site</u> .....	74	2
(3) <u>Oil-Dielectric tested</u> .....	31	3

SHANGHAI POWER COMPANY

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(B) OIL CIRCUIT BREAKERS

(1) Overhauled and Tripping Mechanism Tested

Reason for test	Number of OCBs tested			
	SFC		WDPC	
	Company's property	Customer's property	Company's property	Customer's property
Routine and special maintenance	23	16	1	3
Oil circuit breakers tripped	4	-	-	-
New installation or operation resumed	-	9	-	-
<b>Total</b>	<b>27</b>	<b>25</b>	<b>1</b>	<b>3</b>

U N I T S

	<u>SFC</u>	<u>WDPC</u>
(2) <u>Oil-Dielectric strength tested</u> .....	10	1
(3) <u>Oil changed</u> .....	17	-

(C) OIL TREATMENT PLANT

Location	Transformer Oil				Switch Oil			
	Issued	Returned	Filtered	Stock	Issued	Returned	Filtered	Stock
	US gallons							
Pearson Oil Depot	1,743	1,711	4,379	925	1,053	838	2,491	748
On Site - SFC	-	-	-	-	-	-	-	-
WDPC	-	-	-	-	-	-	-	-
<b>Total</b>	<b>1,743</b>	<b>1,711</b>	<b>4,379</b>	<b>925</b>	<b>1,053</b>	<b>838</b>	<b>2,491</b>	<b>748</b>

Samples of Oil Tested for Breakdown ..... 144

SHANGHAI POWER COMPANY

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(D) PROTECTION, BATTERIES AND TELEPHONES

(1) Protection Tests

Type of Protection	Number of Panels where tests carried out	
	SPC	MDPC
Overload and/or Earth Leakage	27	1
Feeder or Transformer Balance	-	-
Total	27	1

(2) Relays

Type	Number of Relay Elements			
	SPC		MDPC	
	Circuit tests	Changed	Circuit tests	Changed
Inverse Time	8	2	-	-
Instantaneous	6	-	-	-
Total	14	2	-	-

(3) Batteries

Work done	Lead-Acid & Edison Types		Ni-Fe Type	
	110 V in Primary Substations	Telephone Exchange	30 V in Secondary Substations	
	SPC		SPC	MDPC
Inspected, cleaned and topped up	22	14	58	13
Equalizing charges conducted	4	-	-	-
Charged and discharged	1	-	-	-
Electrolyte changed	-	-	-	-

(4) Auto-Telephone Equipment and Lines

Instruments installed	6
" disconnected	3
" changed	2
" moved	2
" overhauled	-
" faults repaired	20
Line faults located and repaired	5
Switches overhauled	2
Exchange equipment faults repaired	6
Miscellaneous equipment overhauled	-

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## (E) PRIMARY SUBSTATIONS

Regular and Special Maintenance

Substation	Company	Equipment	Work done	% completed
Connaught and Park	SPC	Switchgear	Overhaul and overload test metal-clad switchgear	100
Fearon, Yangchow and Tonquin			Inspection of heavy duty oil circuit breakers	30
Fearon	SPC	Rotary Plant	Overhaul of three 3,600 kVA synchronous motor generators and starting gears	40
Tonquin			Inspection of two synchronous condenser starting gears and separate exciter	20
Yangchow			Inspection of one 3,600 kVA synchronous motor generator starting gear	100
Tonquin			Dismantle one 3,600 kVA synchronous motor generator	20
Bubbling Well	SPC	Rectifier Plant (Tramway rectifier equipment Company's property)	Inspection and cleandown of traction equipment	100
Primary Sub-stations	SPC	Power transformers	Inspection of all transformer breathers and change of sorbent	50
Connaught and Park			Inspection of main transformers	100
Chaoyang			Inspection of main and earthing transformers	100
Yangchow and Tonquin			Inspection of main transformers and connecting up spare transformer for one week	50
Chaoyang and Connaught	SPC	Instrument transformers	Inspection and cleandown of potential transformers	100
Primary Sub-stations	SPC & WDPC	Various sub-station equipment	Inspection of all lightning arresters	35
			Testing of all rubber gloves	30
Primary Sub-stations	SPC & WDPC	Batteries	Routine maintenance	To programme
Safety devices inspection and check on artificial respiration practice carried out according to programme.				

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(F) SECONDARY SUBSTATIONSRegular and Special Maintenance

Location	Com- pany	Work done	% completed
Chusan	SFC		95
Delhi	"		100
Shanghai C/M No. 4	"	<u>Biannual Regular Maintenance</u>	100
Bubbling Well	"		85
Tsepo	"	Overhaul of switchgear, testing of automatic protective equipment.	15
Kiaochow	"	inspection of transformers and regulators, inspection of all electrical equipment and cleaning.	10
Hong Sing D & W Range	"		100
Country Hospital	WDPC		60
Yih Jing P/M	"		100
Haig Court Apartment	"		100
Eastern District		Overhaul of two power transformers at Fearon Substation	100
All Districts		Checking of standard auxiliary equipment in substations	95
Central District		Overhaul of street lighting regulators	100
All Districts		Overhaul of oil pumps	100
Central District		Overhaul of exhaust fans	40
All Districts		Inspection of pole transformers	To programme
All Districts		Inspection of safety devices and check on artificial respiration practice	To programme





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(R) UNDERGROUND LINES

		<u>% completed</u>	
		<u>SFC</u>	<u>WDPC</u>
(1)	<u>Inspection and Maintenance</u>		
	Idle cable risers .....	100	100
	Road condition along cables in Eastern District .....	100	-
	Central District duct line and manholes .....	100	-
	Underground cables on bridge crossings .....	100	-
<u>Units</u>			
		<u>SFC</u>	<u>WDPC</u>
	Cable potheads and joints: 23 kV .....	9	-
	(including standardization) 6.6 kV .....	8	1
	380 V .....	14	-
	Feeder pillars .....	1	1
<u>Locations</u>			
		<u>SFC</u>	<u>WDPC</u>
	Underground cables slung and protected: .....	-	Robison Road W of Kiaochow Road

(2) 23 kV Underground Cable Failure Located and Repaired ..... 2

SFC

Feeder name	Location of failure	Faulty cores	Cause of failure	Repairs
AE 25	Cable (E Seward Rd corner of Point Road)	B	Mechanical damage (external cause)	Length of 112 feet replaced by new cable and two new joints
AC 24	Joint 48 (Ningpo Road of Yunnan Rd)	R	Obsolete design	Length of 27 feet single core cable replaced by new cable with two new single core joints on red phase. Blue and white phase joints remade in position

WDPC

Nil.

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- (3) 6.6 kV Underground Cable Failure Located and Repaired ..... Nil
- (4) 380 V Underground Cable Failure Located and Repaired ..... Nil
- (5) Pilot, FI and Telephone Cable Failure Located and Repaired ..... Nil
- (6) 23 kV Underground Cable Preventive Repairs ..... 2

SPC

Feeder name	Location of weakness	Cause of weakness	Repairs
AD 57	Joint 11 (Gordon Road S of Wuting Road)	Inferior design of joint sleeve	Remade in position
AD 57	Joint 8 (Sinza Road E of Madhurst Road)	Inferior design of joint sleeve	Remade in position

WDPC Nil.

- (7) 6.6 kV Underground Cable Preventive Repairs ..... Nil
- (8) 380 V Underground Cable Preventive Repairs ..... Nil

(I) BUILDINGS

	<u>Location</u>	<u>Work Done</u>	<u>% completed</u>
SPC	1. Fearon Underground trench gear shed	Repairs to roof building	98
	2. Fearon Transport workshop	Repair door	100
	3. Fearon Construction Substation workshop	Repair roof	95
	4. Fearon Construction Substation workshop	Alterations to building	25
	5. Fearon Transport workshop	Raising the lintel	100
	6. Dent Substation	Raising concrete floor	50
	7. Fearon Transport workshop	Repairing tin hut	100
	8. Connaught Substation	Repair roof	100
	9. Yangchow Depot	Repair roof	25
WDPC	Nil.		

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III CONSTRUCTION

(A) SERVICES

	SFC	WDPC
(1) <u>House Services</u>		
Connections .....	513	335
Disconnections .....	68	28
Net increase .....	445	307
(2) <u>Municipal Street Lighting</u>		
Connections .....	-	49
Disconnections .....	-	-
Net increase .....	-	49
(4) <u>Private Lighting</u>		
Connections .....	57	4
Disconnections .....	33	-
Net increase .....	24	4

(B) OVERHEAD LINES

(1) <u>Erection</u>	<u>Area</u>	<u>Location</u>	<u>Route length yards</u>	<u>Number of poles</u>
330/220 V 4-wire	SFC	Hailar, Tungchow and Urga Roads	30	-
"	"	E Hanbury Bridge	28	-
"	"	Westmore N of Baikal	100	3
"	"	Corner Penang-Gordon Roads	42	2
"	WDPC	Hungjao Road W of Doliar Radio Station	141	-
(2) <u>Salvage</u>				
6.6 kV 3 wire	WDPC	Yih Ka Zeh, Ching Foong C/M	3	-
(3) <u>Poles</u>	SFC	WDPC		
Erected .....	16	11		
Removed .....	3	2		
Moved at the request and expense of the Municipality .....	-	-		

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(C) UNDERGROUND LINES(1) Installation

Cable -	SPC	12 yds, .06 sq in, 3-core, 6.6 kV cable for supply to Ferry-Wuting PT
	WDPC	53 yds, .025 sq in, 3-core, 6.6 kV cable for supply to Yeong Dah Weaving Factory, Jessfield Road
Joints and potheads -	SPC	One 6.6 kV transformer pothead for supply to Ferry-Wuting PT
	WDPC	One 6.6 kV pole pothead and one 6.6 kV indoor pothead in metering cubicle for supply to Yeong Dah Weaving Factory, Jessfield Road

(2) Salvage

Cable -		Nil.
Joints and potheads -	SPC	Two 6.6 kV indoor potheads salvaged from Local Transformer No. 1, Tongqin Substation
	WDPC	Nil.

(3) Deviation

	SPC	Due to repairs of Pontoon No. 7 by BPW PL pothead moved to new position, The Bund
	WDPC	<ol style="list-style-type: none"> <li>1. Due to change of transformer, cable pothead moved into metering cubicle and phasing changed to suit consumer's construction in Kung Sung Weaving Mill, Lincoln Avenue Branch</li> <li>2. Due to extension of consumer's building, Ching Fooag C/M feeder was deviated to new pole inside consumer's compound, Yenping Road</li> <li>3. Due to change to longer poles at China Cotton Mfg and Lih Hain D &amp; W, cable potheads were raised to a higher position, Yenping Road</li> <li>4. Due to deterioration of pole top, pole pothead for Haig Court Apartments, was lowered by one foot, Avenue Haig</li> </ol>

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(D) SUBSTATIONS

	<u>Substation</u>	<u>Work Done</u>	<u>% completed</u>
SPC	1. Tien Chang Paper Mill, Yangtzeppoo Road	Enlargement of metering current trans- formers	100
	2. Tungchow	Installation of one additional 940 kVA transformer	100
	3. Dent	Installation of a 125 kVA transformer	100
	4. Tonquin	Change of station transformer from 2-625 kVA to 1-1,000 kVA	100
	5. Sing Yue No. 1, West Szechow Road	Installation of 6.6 kV bus couple gang operated links	30
	6. Kiu Lung W & D Factory, Facting Road	Installation of a 225 kVA transformer	20
	7. Yangchow	Restoration of AC 16 and conversion of AM 80 to radial feeder	10
	8. Shanghai Quilt, Gordon Road	Removal of one 1,000 kVA transformer	100
	9. Market Street	Change of transformer from 325 kVA to a 625 kVA unit	100
WDPC	1. Yeong Dah Weaving Factory, Jenfield Road	Installation of 6.6 kV supply	100
	2. Union Syndicate, off Connaught Road	Installation of 6.6 kV supply	30
	3. Kung Sung W Mill, Lincoln Avenue Branch	Conversion of 6.6 kV metering	100
	4. Krang Sing P & D, Kerwick Road	Conversion of 6.6 kV metering	30
	5. Brennan	Installation of bus section OCB	90

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(E) BULK SUPPLY METERING

<u>Work Done</u>	<u>SPC</u>	<u>WDPC</u>	<u>Total</u>
Metering equipment installed	2	-	2
" " removed	1	-	1
" " changed	2	1	3

(F) VARIOUS WORK

	<u>Nature of Work</u>	<u>Location</u>	<u>% completed</u>
SPC	1. Clean tools and equipment	Fearon Substation Workshop	70
	2. Shifting Underground Emergency stock to new store room	Fearon Underground Emergency Store	95
	3. Making reinforcing clamps for 4'-0" copper sleeves	Fearon Substation Workshop	65
	4. Prepare material for Underground Emergency Store	Fearon Underground Workshop	-
	5. Redrummyng of cables from rotten to good reels and repair to cable drums	Fearon Depot	40
	6. Shifting cable drums to "C" station	Riverside Generating Station	100
	7. Installing lamps	Fearon Custodian's living quarters	100
	8. Remount pothead on new transformer	Kiaochow-Wating PT	100
WDPC	Nil.		

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IV WORK DONE FOR CONSUMERS

	<u>Location</u>	<u>Nature of Work</u>	<u>% completed</u>
SPC	Tonquin Substation	Removal of temporary traction supply and reinstallation at Yangchow Substation	15
WDPC	Yeong Dah Weaving Factory, Jossfield Road	Installation of consumer's 250 kVA transformer	100

V STAFF

(A) CHANGES

Engineering and Office Staff

SPC

Chou, James S Y	Student Engineer	Engaged
Chu, Y H	Assistant Engineer	) Promoted from Apprentice Engineer, ) effective August 14, 1947
Kuo, H H	" "	
Shao, T K	" "	

WDPC

None

Monthly Rate Staff

SPC

Lou Si Chun	Student Apprentice	Resigned
-------------	--------------------	----------

WDPC

None

Daily Rate Staff

SPC

CUX 22	Labourer	Engaged
CUQ 2	Improver	Engaged
TSL 3	Lineman	Transferred from WDPC
TSL 6	"	" " "
TSL 16	"	" " "
COL 35	"	" " "

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Daily Rate Staff (continued)

SFC

CUG	2	Trenchman	Invalided
CUX	5	Labourer	"
EMX	3	"	"
CGK	28	"	Discharged
CSPZ	2	Carpenter (temporary)	Engaged
CSPZ	2	Painter ( " )	"
CUXZ	6	Labourer ( " )	"
CUXZ	3	" ( " )	"
CSFZ	5	Fitter ( " )	"
CSFZ	6	" ( " )	"
CSFZ	7	" ( " )	"
CGKZ	1	Labourer ( " )	Service terminated
CGKZ	2	" ( " )	"
COLE	1	Lineman ( " )	"
EMKZ	1	Labourer ( " )	"
EMKZ	1	Linemen ( " )	"
CSFZ	4	Fitter ( " )	"
CUXZ	1	Labourer ( " )	"
CUXZ	2	" ( " )	"
CUXZ	3	" ( " )	"
CUXZ	4	" ( " )	"

WDPC

WOL	9	Lineman	Transferred to SFC Trouble Section
WOL	22	"	" " " " "
WOL	25	"	" " " " "
WOLZ	1	Labourer (temporary)	Service terminated
WOLZ	1	Lineman ( " )	"
WOLZ	2	" ( " )	"
WOLZ	3	" ( " )	"
WOLZ	4	" ( " )	"
WOLZ	7	" ( " )	"
WOLZ	8	" ( " )	Transferred to SFC regular staff



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(B) ACCIDENTS

Date	Employee injured	Location of accident	Description of accident	Fatal or permanent injured	Disabled for the period of
Oct 3	COT 1	Ferry Road South of Sinza Road	Was renewing FL lamp on a bamboo ladder. Corroded suspension wires, against which the ladder was placed, snapped and, he fell to the ground from a height of 18 feet	No	1½ months
Oct 6	CSF 26	Fearon Construction Substation Workshop	Sheet iron door of a cubicle slipped off the hinges, when injured was fitting it. The door lacerated his hand	No	2 days
Oct 28	TSH 3	Connaught Sub-station Compound	Removed one spare wheel from a pick-up. As it was too heavy for him, it slipped off and injured his fingers.	No	1 day

VI MISCELLANEOUS

(A) Theft of Materials  
(In SPC and WDPC Areas)

Nil.

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## VII APPENDIX: TRANSPORT DIVISION

The following outlines the activities of the Transport Division during the month.

## (A) MOTOR VEHICLES

## (1) Summary

Vehicles	Passenger cars	Pick-ups	Station wagons	Vans	Trucks	Special vehicles*	Trailers
In Operation	55	10	2	5	15	3	4
In Storage	-	-	-	-	-	-	4

\* Oil tanker and 20-ton lorries.

## (2) Operating Data of Motor Vehicles

Type	No. in service		GASOLINE							
			Issue (gallons)		Usage (gallons)		Mileage run		Average mpg	
			Oct	Sep	Oct	Sep	Oct	Sep	Oct	Sep
Passenger cars	55	55	5,871	5,795	5,882	5,788	59,006	68,538	11.7	11.8
Station wagons	2	2	137	145	137	145	1,654	1,775	12.1	12.2
Pick-ups	10	10	952	964	962	964	11,762	12,600	12.2	13.1
Trucks (1½-ton)	2	2	150	212	150	212	1,651	2,207	11.0	10.4
Trucks (3½-ton)	9	9	1,073	1,192	1,073	1,192	8,439	8,936	7.8	7.5
Lorries (6-ton)	2	2	233	160	233	160	1,034	649	4.4	4.1
Lorries (20-ton)	2	2	68	31	68	45	111	69	1.6	1.5
Oil tanker truck	1	1	5	10	9	-	11	-	1.2	-
Motor vans	2	2	131	146	131	146	1,090	1,177	8.3	8.0
Trouble Section van	1	1	112	153	112	153	674	1,035	6.0	6.8
Cooker vans	2	2	372	347	372	347	3,148	3,428	8.5	9.9
Bus	2	2	333	259	323	255	1,989	1,518	6.1	6.0
Trailers	8	8	-	-	-	-	-	-	-	-
Total	98	98	9,451	9,414	9,452	9,405	100,569	101,932	10.6	10.8

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(3) Maintenance Work on Motor Vehicles

Type	General Overhaul completed		Emergency Overhaul completed		Minor adjustments and repairs		Repairs after			
							Accident		Breakdown	
	Oct	Sep	Oct	Sep	Oct	Sep	Oct	Sep	Oct	Sep
Passenger cars	2	2	60	54	42	32	3	4	6	5
Station wagons	-	-	2	4	1	2	-	-	-	-
Pick-ups	-	-	19	14	10	6	-	-	6	2
Trucks (1 1/2-ton)	-	-	4	6	3	2	-	-	1	1
Trucks (3 1/2-ton)	-	-	18	15	7	8	-	-	2	2
Lorries (6-ton)	-	-	2	2	1	2	-	-	-	-
Lorries (20-ton)	-	-	1	-	-	-	-	-	-	-
Oil tanker	-	-	-	-	-	-	-	-	-	-
Motor vans	-	-	8	5	1	2	-	-	-	-
Trouble Section van	-	-	1	-	-	-	-	-	-	-
Cocker van	-	-	-	-	-	-	-	-	-	-
Bus	-	-	4	1	1	1	-	-	-	-
Trailers	-	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>2</b>	<b>2</b>	<b>119</b>	<b>101</b>	<b>66</b>	<b>55</b>	<b>3</b>	<b>4</b>	<b>15</b>	<b>10</b>

(4) Motor Vehicle Engine Lubricating Oil

Description	Issue (US gallons)		
	Oct	Sep	
Cars	144	134	Fearon stock at the end of this month: 35 US gallons of SAE 40 2,728 US gallons of SAE 30
Trucks	128	164	
Other purposes	6	13	
<b>Total</b>	<b>278</b>	<b>311</b>	

(5) Motor Vehicle Breakdowns

Classification	Cases	%
Electrical equipment	5	23.8
Engine	-	-
Chassis	5	23.8
Fuel system	6	28.6
Tire and tubes	5	23.8
<b>Total</b>	<b>21</b>	<b>100.0</b>

Frequency: 4,789 miles per breakdown.

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## (B) MAJOR HAULAGE JOBS

Units	Equipment		Description	Moved		Size of Man-truck	days
	Capacity kVA	Weight lbs		From	To		
1	80 HP	2,240	Motor	Fearon Stores	Ta Yu Yue Oil Mill	6	7
1	40 HP	1,500	"	Fearon Stores	Ta Yu Yue Oil Mill		
1	325	4,665	Transformer	Fearon Substation	Kiaochow-Wuting PT	20	24
1	325	6,075	"	Kiaochow-Wuting PT	Fearon Substation		
1	325	4,665	"	Fearon Substation	Ferry-Wuting PT	20	24
1	62½	2,115	"	Fearon Substation	Hochien-Sungfow PT	20	10
1	50	2,000	"	Hochien-Sungfow PT	Riverside Workshop		
1	625	16,800	"	Fearon Substation	Market Street Substation	20	20
1	200 HP	4,480	Motor	Shanghai Waterworks Yangtzepoo Work- shop	Shanghai Waterworks, 426 Sinza Road	6	10
1	325	4,665	Transformer	Riverside Workshop	Fearon Stores	6	5
1	1,000	12,500	"	Shanghai Quilt	Fearon Substation	20	30
1	585	4,665	"	Fearon Stores	Point-Kungping PT	20	24
1	225	5,417	"	Point-Kungping PT	Fearon Substation		
1	325	6,075	"	Fearon Substation	Riverside Workshop	20	24
Total		77,862					178

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(C) BICYCLES

(1) Taxi Bicycle and Tricycle Service

Department	Type	No. in service	Issue for temp use	Issued as taxi	Remarks
Transport Division	Bicycles	54	21	12	
	Tricycles	7	7	-	
Meter Department	Bicycles	25	-	-	
	Tricycles	-	-	-	

(2) Bicycle and Tricycle Maintenance

Type	No. in service	General overhaul		Minor adjustments and repairs		Routine inspection		Repairs after accident	
		Oct	Sep	Oct	Sep	Oct	Sep	Oct	Sep
Company's bicycles	249	-	-	97	109	12	13	1	-
Employees' bicycles	25	-	-	4	6	2	4	-	-
Tricycles	10	-	-	6	7	-	-	-	-
Pedicabs	3	-	-	7	5	-	-	1	-
Trailers	2	-	-	1	1	-	-	-	-
Total	289	-	-	115	128	14	17	2	-

(D) HANDICARTS

Type	No. in service	No. in Storage	No. in Construction	Number in repair	
				Maintenance	After Accident
Large 2-ton	1	2	-	-	-
Standard 1-ton	9	13	-	-	-
House Service	3	1	-	-	-
Balancing	3	1	-	-	-
Total	16	17	-	-	-

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(X) TRANSPORT WORKSHOP

Shop	WORK DONE		
	Transport Division	Manhours	Other divisions % of total
Vulcanizing	Repaired for - Motor vehicles: 17 tires; 179 tubes Bicycles: 33 tires; 15 tubes	96	23.5
Tailor	Repairs to 32 seat covers 46 upholstery 35 uniforms	26	6.4
Paint	Repainted: 1 motor car Touched up: 97 motor car jobs; 86 bicycle jobs	40	9.8
Welding	Repaired by welding 50 motor vehicle bodies 20 engine parts 35 chassis parts	69	16.9
Battery	Replaced: 6 batteries Repaired: 21 " Charged: 178 "	-	-
Blacksmith	Forged: 48 new parts Repaired: 139 damaged parts	12	2.9
White Smith	Repaired - 37 vehicle radiators 20 bumpers 19 bodies 25 doors 18 windows 57 various small parts	-	-

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Shop	WORK DONE		Other divisions	
	Transport Division		Manhours	% of total
Electrical	Repaired or overhauled - 15 starters 17 dynamos 59 horns		-	-
Carpenter	Repairs to 21 vehicle bodies	Repairs to: 12 chairs 3 revolving chairs 4 desks 9 extension ladders ----- Minor repairs:	128	31.4
Machine	Repairs to 86 engine parts 258 other parts  Manufacture of 63 engine parts 312 other parts		37	9.1
Lubrication Centre	Motor vehicles: Oil changed: 62 General inspection: 66 General lubrication: 66		-	-

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## (F) ACCIDENTS

## (1) Motor Vehicles

Date	Vehicle		Location of accident	Description of accident	Damage to SPC vehicle			SPC driver to blame?	Persons injured	
	Type	No.			Major	Minor	None		Staff	Out-siders
Oct 1	Pass car	17802	Broadway	Smashed by pedicab	-	x	-	No	No	No
Oct 6	Pass car	54456	Nanking Road	Bumped by car	-	x	-	No	No	No
Oct 8	Pick-up	42337	Ezra Road	Collided with car	-	-	x	Yes	No	No
Oct 8	3 1/2-ton van	30036	N Chekiang Rd	Collided with handcart	-	-	x	No	No	Yes
Oct 9	Pick-up	30045	Dalny Road	Collided with cyclist	-	-	x	No	No	No
Oct 13	Pick-up	30055	Moulmein Road	Collided with jeep	-	-	x	No	No	No
Oct 16	Pass car	10653	Avenue Road	Damaged by rickshaw	-	x	-	No	No	No
Oct 17	Pass car	52784	N Soochow Road	Hit by truck	-	x	-	No	No	No
Oct 18	3 1/2-ton truck	30059	Avenue Edward VII	Collided with jeep	-	x	-	Yes	No	No
Oct 19	Pass car	17520	Seward Road	Collided with handcart	-	x	-	No	No	No
Oct 20	Pass car	52441	Jessfield Road	Collided with pedicab	-	x	-	No	No	No
Oct 21	Pick-up	32762	Ezra Road	Collided with car	-	x	-	No	No	No
Oct 21	Pass car	10639	West End Garden	Collided with car	-	x	-	Yes	No	No
Oct 22	Pass car	17800	Rue Corneille	Damaged by cyclist	-	x	-	No	No	No
Oct 27	Pass car	52441	Route Pere Robert	Smashed by trolley bus	-	x	-	No	No	No
Oct 27	Pass car	10643	Fearon Depot	Hit against garage door	-	x	-	Yes	No	No
Oct 28	Pick-up	30043	Moulmein Road	Smashed by truck	-	x	-	No	No	No
Oct 31	Pass car	10651	Bubbling Well Road	Smashed by handcart	-	x	-	No	No	No

Frequency: 5,587 miles per accident.



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(2) Bicycles and Tricycles

Date	Bicycle No.	User	Location of accident	Description of accident	Damage to SPC bicycle		
					Major	Minor	None
Oct 2	Fedicab 1479	TDB. 8	Museum Road	Collided with truck	-	x	-
Oct 14	56	TDB. 2	Szechuen Road	Run over by truck	-	x	-
Oct 16	264	T3Q. 2	Fearon Road	Hit by another bicycle	-	x	-

(3) Details of Accidents involving general public

Date	Location of accident	Damage to outside vehicle			Injury to outsiders			Remarks
		Major	Minor	None	Major	Minor	None	
Oct 1	Broadway	-	-	x	-	-	x	
Oct 6	Hanking Road	-	-	x	-	-	x	
Oct 8	Ezra Road	-	x	-	-	-	x	
Oct 8	N Chekiang Road	-	x	-	-	-	x	
Oct 9	Dalny Road	-	x	-	-	-	x	
Oct 13	Moulmein Road	-	x	-	-	-	x	
Oct 16	Avenue Road	-	-	x	-	-	x	
Oct 17	N Soochow Road	-	-	x	-	-	x	
Oct 18	Avenue Edward VII	-	-	x	-	-	x	
Oct 19	Seward Road	-	-	x	-	-	x	
Oct 20	Jensfield Road	-	x	-	-	-	x	
Oct 21	Ezra Road	-	-	x	-	-	x	
Oct 21	West End Garden	-	x	-	-	-	x	
Oct 22	Rue Corneille	-	-	x	-	-	x	
Oct 27	Route Pero Robert	-	-	x	-	-	x	
Oct 28	Moulmein Road	-	-	x	-	-	x	
Oct 31	Bubbling Well Road	-	-	x	-	-	x	

(4) Staff

None

SIANGHAI POWER COMPANY

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(G) STAFF

(1) Supervisory Staff

LAN, C li                      Transport Assistant                      Released

(2) Clerical Staff

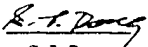
No change

(3) Monthly Rate Staff

No change

(4) Daily Rate Labour

Cleaner                      TOQ.8                      Invalided

  
S L Dong  
Distribution Engineer

SHANGHAI POWER COMPANY

Shanghai, November 7th, 1947.

The General Manager :

METER & TESTING DEPARTMENT  
LARCENY OF ELECTRICITY  
MONTHLY REPORT FOR OCTOBER, 1947

Accounts Office Queries :

Two cases of larceny were detected, and revenue amounting to CN\$7,514,000 has been recovered.  
Four cases of damaged meters were found. The cost of repairs, etc. amounting to CN\$671,000 has been paid by the consumers.

Meter Readers' Reports :

Five cases of damaged meters were found when following up these reports. The cost of repairs, etc. amounting to CN\$1,519,000 has been paid by the consumers.

Route Meter Investigation :

Two cases of larceny were detected, and revenue amounting to CN\$5,555,000 has been recovered.  
Seven cases of damaged meters were found. The cost of repairs, etc. amounting to CN\$1,149,000 has been paid by the consumers.

Small Area Investigation :

Three cases of larceny were detected, and revenue amounting to CN\$14,145,000 has been recovered.  
One case of damaged meter was found. The cost of repairs, etc., amounting to CN\$195,000 has been paid by the consumers.

Miscellaneous :

Seven cases of damaged meters were reported by Installation Section's staff. The cost of repairs, etc. amounting to CN\$2,916,000 has been paid by the consumers.

Damaged or Missing Main Fuse Box Lead Seals :

Twenty-four cases of above infringement of Company's Regulations have been handled by the Installation Section. Fees paid by consumers total CN\$720,000.

SHANGHAI POWER COMPANY.

- 2 -

SUMMARY :

Seven cases of larceny have been detected and settled during the month together with twenty-four cases of damaged meters and/or associated equipment.

Revenue amounting to CN\$34,384,000 has been recovered, of which :-

- a. CN\$27,214,000.- represent recovered revenue.
- b. CN\$ 6,450,000.- represent an estimated cost of repairs to damaged meters and associated equipment.
- c. CN\$ 720,000.- represent fees paid for damaged or missing main fuse box lead seals.

Estimated Unmetered Consumption :

Seventy-two cases of unmetered consumption due to defective or damaged meters were dealt with on Consumers' Accounts Inspect Orders during the month. The consumption was estimated at 10,468 KWhrs., and revenue amounting to CN\$28,263,600.-was recovered.

-----  
HOTE :- Three cases of unmetered supply taken by various units of the Chinese Armed Forces have been reported by the Installation and Investigation Sections' staff and Meter Readers during the month. These have been passed to the Installation Section for action in concert with Consumers' Engineer's Department.

-----  
*A. F. Smith*  
-----  
A. E. Jacobs,  
Meter & Testing Engineer

AVG/tsc

SHANGHAI POWER COMPANY

October, 1947.

ANALYSIS OF CASH RECOVERED FOR ESTIMATED LOSS OF REVENUE FROM CONSUMERS INVOLVED IN LARCENY OF ELECTRICITY, AND FOR DAMAGED OR MISSING METERS AND BROKEN MAIN FUSE SEALS.

S.P.C. + W.D.P.C.

NATURE OF INVESTIGATION	Jumpers		Tampered Meters		Damaged Meters		Missing Meters		Part Payment		Broken Main Fuse Seals		TOTAL
	GN\$	YEN	GN\$	YEN	GN\$	YEN	GN\$	YEN	GN\$	YEN	GN\$	YEN	
Accounts Office Queries	7,514,000	-	-	671,000	-	-	-	-	-	-	-	-	8,185,000
Meter Readers' Reports	-	-	-	1,519,000	-	-	-	-	-	-	-	-	1,519,000
Route Meter Investigation	5,585,000	-	-	1,149,000	-	-	-	-	-	-	-	-	6,734,000
Small Area Investigation	14,145,000	-	-	195,000	-	-	-	-	-	-	-	-	14,340,000
Miscellaneous	-	-	-	2,316,000	-	-	-	-	-	-	720,000	-	3,036,000
Total	27,214,000	-	-	6,450,000	-	-	-	-	-	-	720,000	-	34,384,000

W.D.P.C. (Included in above figures) :

Accounts Office Queries	-	-	-	450,000	-	-	-	-	-	-	-	-	450,000
Meter Readers' Reports	-	-	-	708,000	-	-	-	-	-	-	-	-	708,000
Route Meter Investigation	5,585,000	-	-	195,000	-	-	-	-	-	-	-	-	5,780,000
Small Area Investigation	14,145,000	-	-	195,000	-	-	-	-	-	-	-	-	14,340,000
Miscellaneous	-	-	-	505,000	-	-	-	-	-	-	210,000	-	715,000
Total	17,700,000	-	-	2,053,000	-	-	-	-	-	-	210,000	-	19,963,000

	S.P.C. + W.D.P.C.	W.D.P.C. (Only)
Month ending October 31st, 1947	GN\$ 34,384,000	GN\$ 19,963,000
12 Months ending October 31st, 1947	GN\$ 160,437,160	GN\$ 69,954,870

MANUAL POWER COMPANY

October, 1947.

S.P.C. + W.D.P.C.

NATURE OF INVESTIGATION	PREMISES INSPECTED	METERS INSPECTED	IRREGULARITIES FOUND	LARCENY CASES		
				Jumpers	Tampered Meters	Damaged &/or Missing Plant
Accounts Office Queries	614	838	340	2	-	4
Meter Readers' Reports	14	16	5	-	-	5
Route Meter Investigation	2990	4038	1198	2	-	7
Small Area Investigation	286	412	82	3	-	1
Casual Visits - Day	8	9	3	-	-	4
Informers' Letters	1	1	-	-	-	-
Miscellaneous	13	15	11	-	-	7
Total	4126	5319	1639	7	-	24

W.D.P.C. (Included in above figures) :

Accounts Office Queries	186	195	68	1	-	2
Meter Readers' Reports	9	10	3	-	-	3
Route Meter Investigation	129	150	63	1	-	2
Small Area Investigation	236	412	81	3	-	1
Casual Visits - Day	1	1	-	-	-	-
Informers' Letters	1	1	-	-	-	-
Miscellaneous	4	5	3	-	-	1
Total	616	782	238	5	-	8

Month ending Oct. 31, 1947	S.P.C. + W.D.P.C.		W.D.P.C. Only	
	Premises Inspected	Irregularities Cases	Premises Inspected	Irregularities Cases
12 Months ending Oct. 31, 1947	4126	5319	31	31
12 Months ending Oct. 31, 1947	44,075	52,228	457	11,837
		19,059	16,882	15,285

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Approved For Release 2000/04/18 : CIA-RDP80-00809A000500550001-7

Approved For Release 2000/04/18 : CIA-RDP80-00809A000500550001-7

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SHANGHAI POWER COMPANY  
AND  
WESTERN DISTRICT POWER COMPANY OF SHANGHAI  
FEDERAL INC., U.S.A.

MONTHLY REPORT

FOR

NOVEMBER 1947

25X1A



ILLEGIB

SHANGHAI POWER COMPANY  
AND  
WESTERN DISTRICT POWER COMPANY OF SHANGHAI  
FEDERAL INC., U.S.A.

MONTHLY REPORT

FOR

NOVEMBER 1947

ILLEGIB



SHAWNEE POWER COMPANY

MONTHLY REPORT  
FOR  
NOVEMBER 1947

<u>REPORT:</u>	<u>I N D E X</u>	<u>Section</u>	<u>Page</u>
Letter of Transmittal			
Revenues & Expenses (Compared with <u>1946</u> )		1	1
Electric Demand, Output, Sales & Losses		2	1
Maximum Hour in KWH		2A	1
Net Output or Purchase in MWH		2B	1
Units Sold & Accounted for in MWH		2C	1
Transmission & Distribution Losses in % of Net Output or Purchase		2D	1
Customers, Service Inspections		3	1
Customers		3A	1
Service Inspections		3B	2
Employees		4	2
Riverside Operations		5	2
 <u>CHARTS:</u>			
	Max. Hour Generation & Output		A
	Units Generated, Delivered & Sold		B
	Employees		C
 <u>APPENDIX:</u>			
	<u>Reports</u>		
Secretarial & Accountancy - S.P.C. & W.D.P.C.			I
Consumers' Monthly Report - S.P.C.			II
Consumers' Monthly Report - W.D.P.C.			III
Generation Report			IV
Distribution Operation Division - S.P.C. & W.D.P.C.			V
Larceny of Electricity			VI

SHANGHAI POWER COMPANY

S U M M A R Y

1. REVENUES & EXPENSES COMPARED WITH 1946 (C\$):

	Month of November	
	1947	1946
<u>Operating Revenues</u> (C\$ Figures in Thousands)		
S.P.C.	C\$ 293,565,935	C\$ 8,073,376
W.D.P.C.	" 78,477,291	" 1,971,805
Combined **	<u>C\$ 307,505,914</u>	<u>C\$ 8,451,157</u>
<u>Operating Expenses</u>		
S.P.C.	C\$ 181,281,772	C\$ 5,401,444
W.D.P.C.	" 74,215,720	" 1,801,343
Combined **	<u>C\$ 190,960,180</u>	<u>C\$ 8,798,745</u>
<u>Net from Operation</u>		
S.P.C.	C\$ 112,284,163	C\$ 2,671,932
W.D.P.C.	" 4,261,571	" 70,462
Combined **	<u>C\$ 116,545,734</u>	<u>C\$ 2,748,394</u>

\*\* Inter-Company Items Eliminated.

2. ELECTRIC DEMAND, OUTPUT, SALES & LOSSES:

2A Maximum Hour in KWH

S.P.C. Riverside Max.Hr. Generation	155,575	125,074
W.D.P.C. Max.Hr. Demand in KW	34,944	27,240

2B Net Output or Purchase in MKWH (M=1000)

S.P.C. Net Output	82,192	71,950
W.D.P.C. Purchase from S.P.C.	20,840	15,491

2C Units Sold & Accounted for in MKWH

S.P.C. (including sales to W.D.P.C.)	81,661 <sup>a</sup>	68,043
W.D.P.C.	19,372	14,742

2D Transmission & Distribution Losses in Percent of Net Output or Purchase

S.P.C. (W.D.P.C. considered as one customer)	0.6	4.0
W.D.P.C.	7.0	4.8

3. CUSTOMERS, SERVICE INSPECTIONS:

3A Customers

S.P.C.	99,469	96,744
W.D.P.C.	21,804	20,422
Combined **	<u>121,273</u>	<u>117,166</u>

\*\* Inter-Company Items Eliminated.

<sup>a</sup> Including 789 MKWH losses in synchronous plant for Power Factor improvement.

SHANGHAI POWER COMPANY

- 2 -

3B Service Inspections (C\$ Figures in Thousands)		Month of November	
		1947	1946
<u>Number</u>	S.P.C.	6,899	6,042
	W.D.P.C.	1,719	2,927
	Total	<u>8,618</u>	<u>8,969</u>
<u>Irregularities</u>	S.P.C.	877	1,064
	W.D.P.C.	317	623
	Total	<u>1,194</u>	<u>1,707</u>
<u>Cash Recovered (C\$)</u>	S.P.C.	22,521	1,867
	W.D.P.C.	17,726	694
	Total	<u>40,247</u>	<u>2,561</u>
<u>No. of Recoveries</u>	S.P.C.	24	33
	W.D.P.C.	6	20
	Total	<u>30</u>	<u>53</u>

4. EMPLOYEES:

<u>Number</u>		1947	1946
	S.P.C.	3,085	3,043
	W.D.P.C.	123	183
	Total + (including staff on leave)	<u>3,208</u>	<u>3,226</u>

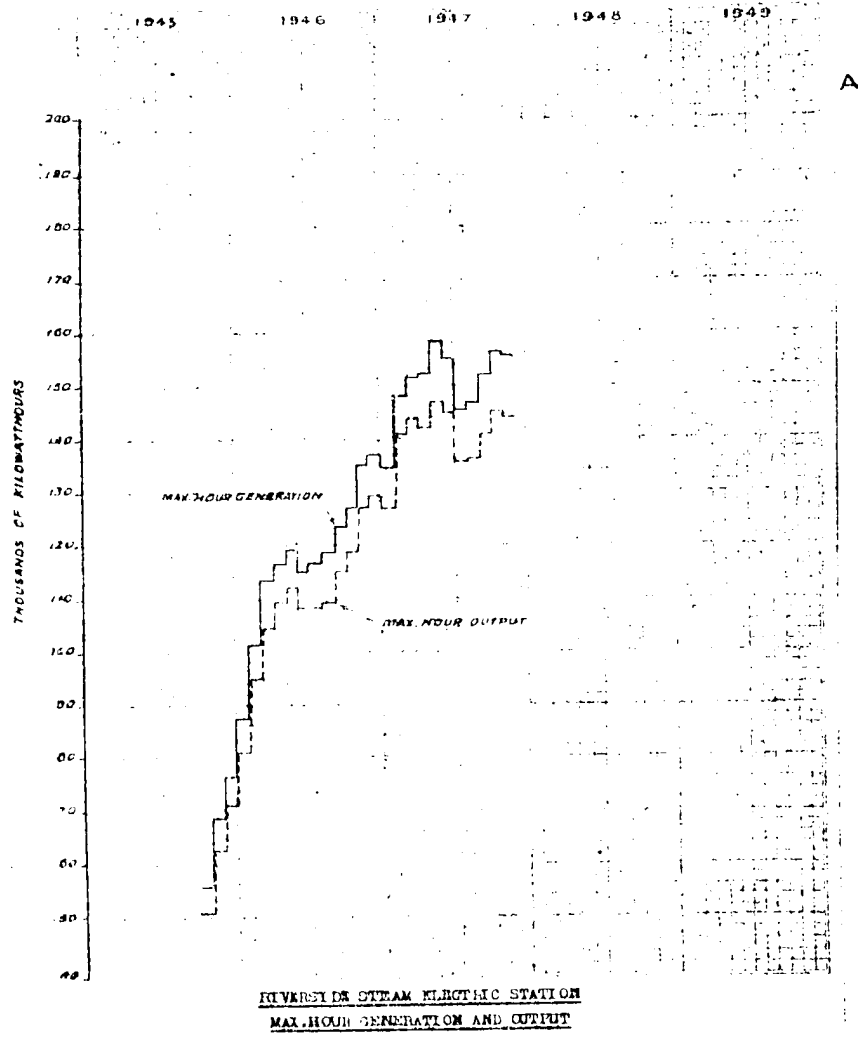
5. RIVERSIDE OPERATIONS:

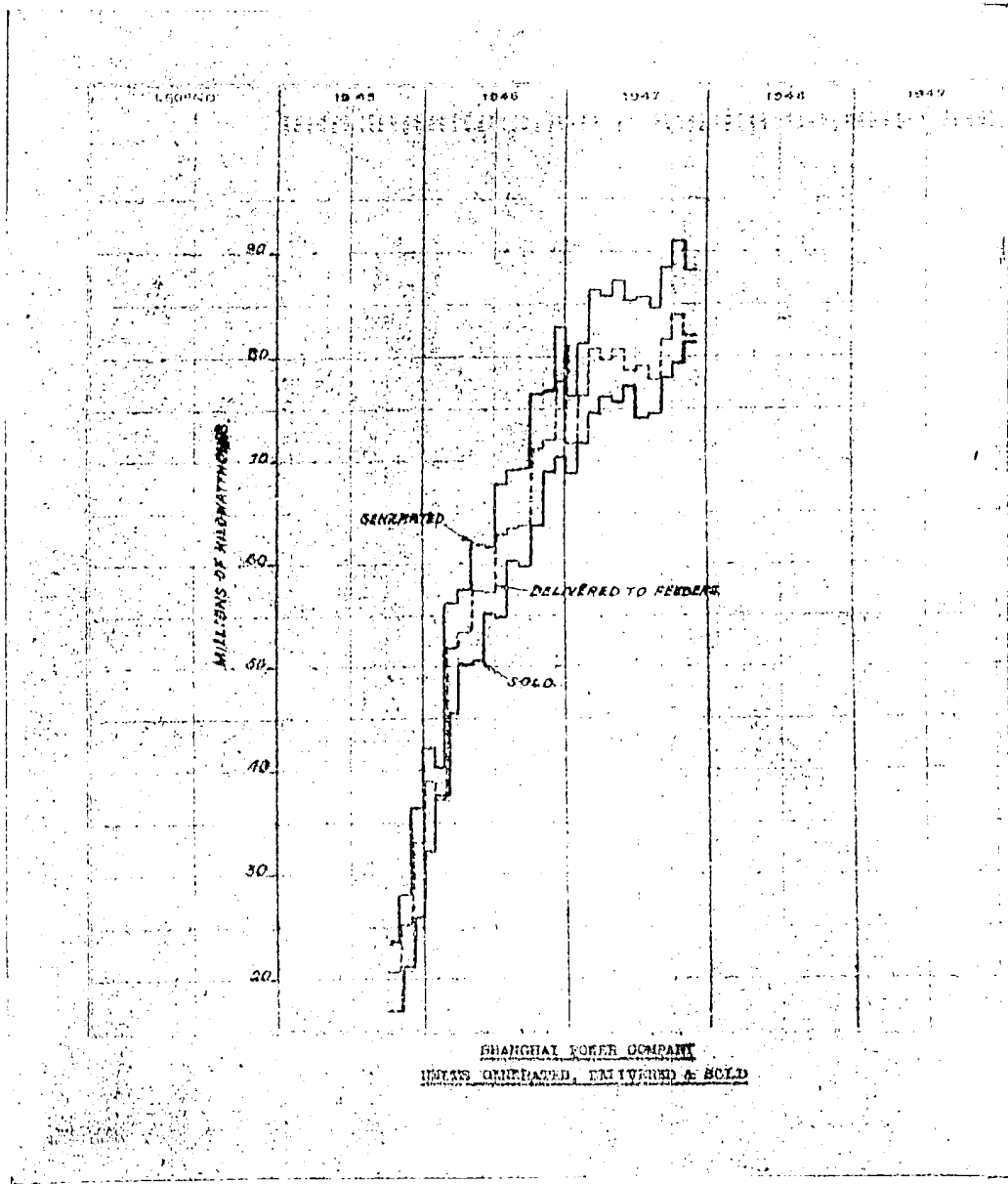
(1) <u>Generating Capacity</u>		1947 $\phi$	1946
Name plate rating	(KW)	171,500	150,000
Name plate rating	(KVA)	210,150	195,000
Working rating - Winter	(KVA)	213,000	198,370
Working rating - Summer	(KVA)	190,800	176,100

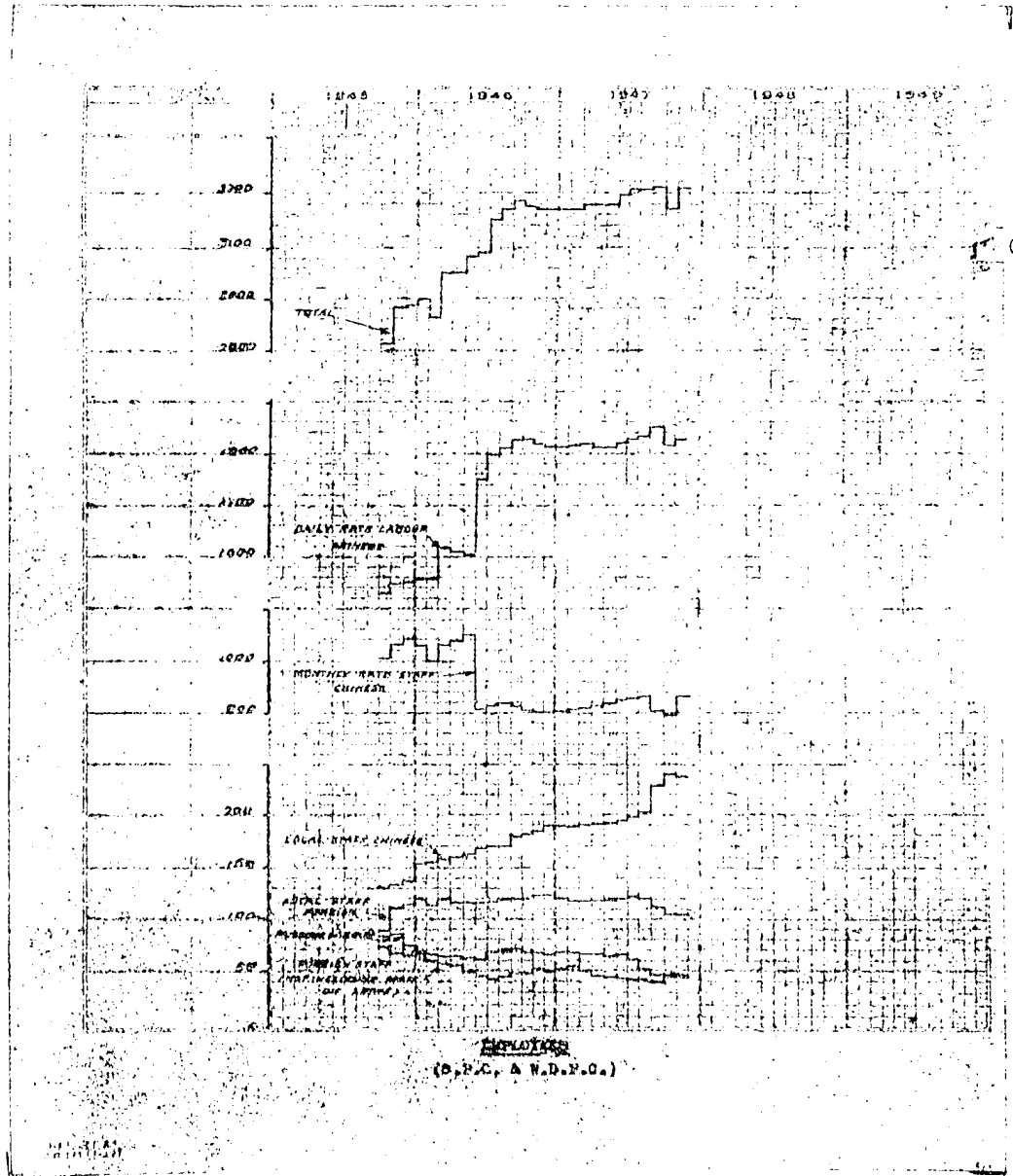
$\phi$  Excludes TG-8, TG-6 & TG-11.

(2) Instantaneous Peak Generation (KW)	161,835	140,658
(3) Efficiency (BTU per KWH Output)	19,389	20,879
(4) Load Factor (Based on Output & Max.Hr.Output)	79.27	76.83

(5) <u>Fuel in tons of 2240 lbs</u>	1947		1946	
	Coal	Oil	Coal	Oil
In stock at end of October	27,270	918	11,415	2,042
Received during month	14,424	50,000	29,647	23,255
Used during month (including sundries)	17,517	28,505	24,148	23,423
In stock at end of November	24,177	2,443	16,917	1,674









SHANGHAI POWER COMPANY

SECRETARY & ACCOUNTANCY

NOVEMBER 1947

SHANGHAI POWER COMPANY & WESTERN DISTRICT POWER COMPANY

Cash on Hand and in Banks - Shanghai

The balance of cash on hand and in bank accounts in Shanghai on November 30, 1947, was as follows:

Current Bank Accounts	S.P.C.	W.D.P.C.
	CN\$	CN\$
Secretary & Treasurer		193,094,409.34
Hongkong & Shanghai Banking Corporation		
General Fund Account	757,636.55	
Fixed Deposit Account	5,523,692,000.00	
CN\$4,523,692,000 due 1.29.48		
CN\$1,000,000,000 " 1.31.48		
Fixed Deposit Account due 12.9.47	5,000,000,000.00	
" " " 12.19.47	5,000,000,000.00	
Chase Bank - Fixed Deposit A/c due 12.27.47	10,000,000,000.00	
National City Bank of New York	21,276,147.00	
The Bank of China	10,779,386.00	
The Chekiang Industrial Bank, Ltd.		
General Fund Account	75,965,506,309.55	16,248,899,881.46
Fixed Deposit Account due 12.12.47	20,000,000,000.00	
Compradore Cash on Hand	4,078,085,881.24	490,457.84
<b>Total</b>	<b>125,600,097,360.34</b>	<b>16,442,484,748.64</b>

Remittances to New York:

During November 1947 the following remittances were obtained by us at the official open market rate of exchange:

Remittances to New York Office

Date	Amount	Remarks
November 17	US\$ 345.00	for 6 pieces 25 kV . 1,200 amp. porcelain bushings
	977.50	for 10 " 15 kV . 2,000 amp. porcelain bushings
	1,071.80	for 1 piece neutral grounding resistor 4 ohms, 2,000 amp. 15 kV iron type
	72.45	for 1 piece fuel voltage magnetic starter
	20.53	for 1 " push button station, time delay, 110 volts, 50 cycle type 1, two button "Start and Stop"
November 19	25,000.00	for 4th installment on 960 pcs. 12.5 kVA outdoor type capacitors and control gears for power factor correction at US\$135.417 per piece and 39 pieces 300-400 amp. indoor type disconnecting switches for wall mounting at US\$33.847 per piece.
November 27	496.56	for various conduit tubing and fittings for cable protection
<b>Total</b>	<b>US\$27,983.84</b>	

The following statement shows the supervision fee payable to you with U.S. dollar equivalent at the open market rate of the Central Bank of China.

SHANGHAI POWER COMPANY

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	Thousand CN\$	Exchange Rate	U.S.\$
Balance of account at Oct. 31, 1947	23,755,359	55,700	426,487.60
Add November Fee	1,480,000	74,000	20,000.00
	25,235,359		446,487.60
Balance at open market exchange rate of 74,000	33,040,082		446,487.60
Difference in exchange	7,804,723		-

The difference in exchange amounting to Thousand CN\$7,804,723 was charged to Miscellaneous Suspense - Exchange Adjustment and subsequently transferred to Exchange - Net.

Accounts Payable

Unpaid fuel bills as at November 30, 1947, were as follows:

Fuel Oil

Unpaid bills for November - CN\$3,176,942,840 (equivalent to US\$42,931.66)  
 Estimated unpaid import duty on fuel oil for October and November - CN\$64,055,594,374

Accounts Receivable & Collections

The total amount due from consumers, as at November 30, 1947, excluding Municipal and CN\$68,044,547,000 intercompany sales due from Western District Power Company of Shanghai, was CN\$331,648,242,000. The amount due from the Municipal Government for both companies was CN\$7,455,083,000. The increase in the balance of Accounts Receivable was due mainly to the increase in our tariffs effective from November 22, 1947.

Customers' Deposits

Deposits collected during the month for both companies amounted to CN\$30,894,000 and refunds to CN\$629,000. The balance of deposits held against service charges for both companies amounted to CN\$7,599,851,000 of which the amount of CN\$27,899,100 (nominal value) was in the form of securities segregated as follows:

	S.P.C. CN\$	W.D.P.C. CN\$
S.H.C. Debentures	12,620	-
Bank Guarantee	56,800	25,027,600
S.P.C. #6 Silver Preferred Stock	2,052,820	573,860
Shanghai Telephone Co. Shares	2,100	-
S.P.C. First Mortgage Debentures, 5% Dollar Series, due 1973	131,300	42,000
Total	2,255,640	25,643,460

Payroll

Our payroll for the month with high cost of living index 53,100 times basic pay (scaled down in accordance with Municipal Government formula) totalled CN\$28,869,424,600 segregated as follows:

Foreign & Executive	CN\$ 6,629,228,000
Local	5,634,835,000
Christmas Bonus for Local Appointees	5,058,215,000
Chinese	11,301,338,600
Leave Pay	245,808,000
Total	CN\$28,869,424,600

SHANGHAI POWER COMPANY

-3-

Rate Revisions

Due to increased cost of operations, the Government approved a further revision of our rates on November 22 and brought our rates for ordinary consumers up to CN\$4,650 per KWH effective from November 22, 1947. The Consumers' Engineer's Department monthly report will give further details on this matter.

Dividend Equalization Reserve and General Reserve

During the month we set aside CN\$10,396,000,000 for Dividend Equalization Reserve and CN\$5,198,000,000 for General Reserve due to revision of the official open market rate of exchange from CN\$55,700 on October 31st to CN\$74,000 on November 30, 1947. The computation of the reserves followed the same method as last month.

Chinese Government Profits Tax

Our current month provision for this tax for the Shanghai Power Company was CN\$9,600,000,000 based upon an estimated taxable income of CN\$186,746,000,000 for the eleven months ending November 30, 1947. The Profits Tax rate applicable to this income was 13%. Since we had already accrued CN\$14,700,000,000 from January to October 1947, it was decided to make a further accrual of CN\$9,600,000,000.

A total of CN\$940,000,000 was accrued in the books of the Western District Power Company in the current month. The computation followed the same method as last month.

Material Replacement Reserve

In conformity with the suggested procedure for calculating the amounts to be provided for this Reserve, as outlined in your letter of September 5, 1947, a comparison was made between issues at original costs and replacement costs and on this basis a sum of CN\$3,131,205,000 was prorated to the operation and maintenance accounts of Operating Expenses in the current month. We have written you fully on this subject under date of December 5, 1947.

Contingency Reserve Exchange

During the month we charged off CN\$21,822,996,000 from suspense to current month operating expenses. The figure was calculated as follows:

Balance in Miscellaneous Suspense - Exchange	CN\$ 27,732,603,000
Adjustment at October 31, 1947	<u>15,913,388,000</u>
Add debit in November to Miscellaneous Suspense	
Total	CN\$ <u>43,645,991,000</u>
November proportion amortized = 1/2 of total =	CN\$ <u>21,822,996,000</u>

Employee Pension and Retirement Reserve

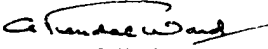
A total of CN\$5,350,000,000 was set aside as provision for this reserve in the current month and charged to operating expenses. This represented an increase of CN\$700,000,000 over the October figure due to revised open market rate of exchange and high cost of living index. The method of calculation was the same as the last month.

SHANGHAI POWER COMPANY

-4-

Casualty and Insurance Reserve

The current month provision for this reserve was CN\$370,000,000 based on US\$5,000 at the exchange rate of CN\$74,000 and charged to operating expenses.

  
A. Kendal Ward,  
Secretary & Treasurer.

December 18, 1947

SHANGHAI POWER COMPANY

December 30, 1947

CONSUMERS' MONTHLY REPORT FOR NOVEMBER

SHANGHAI POWER COMPANY

NOVEMBER STATISTICS

Analysis of K.W.H. Sales

	<u>This Year</u>	<u>Last Year</u>	<u>Increase</u>	<u>Increase</u>
			<u>%</u>	<u>%</u>
Residential Lighting)	8,212,907	8,005,504	207,396	2.6
Commercial Lighting )				
Residential Heating & Cooking)	1,228,081	1,535,139	-307,058	-20.0
Commercial Heating & Cooking )				
Bulk Supply Industrial	30,705,220	24,868,770	5,837,450	23.5
Bulk Supply Commercial	1,118,454	1,094,176	24,278	2.2
Small Power (Incl. P.C. Lifes)	4,929,140	4,417,520	511,620	11.6
<u>Public Utility:</u>				
Shanghai Trams	1,120,036	992,351	127,685	12.9
French Trams	882,000	1,106,500	-224,500	-20.3
Shanghai Waterworks	1,254,660	865,500	389,160	45.0
Chapel Co.	9,701,954	9,156,499	545,455	6.0
Intercompany - W.D.P.C.	20,840,000	15,491,200	5,348,800	34.5
Private Street Lighting	76,572	72,957	3,615	5.0
Municipal Street Lighting	194,668	192,694	1,974	1.0
Municipal Others	386,843	279,208	107,635	38.6
<u>Total</u>	<u>30,651,528</u>	<u>68,078,018</u>	<u>12,573,510</u>	<u>18.5</u>
Total Units Sold (12 months ending November 1947)	892,310,467	596,540,625	294,769,842	49.4

Analysis of Large Industrial Sales in K.W.H.

	<u>This Month</u>	<u>Last Month</u>	<u>Last Year</u>	<u>Increase</u>
			<u>Last Year</u>	<u>% over</u>
				<u>Last Year</u>
Chinese Cotton Mills	21,466,965	20,274,480	17,588,980	22.0
Other Cotton Mills	394,300	352,700	132,700	197.1
Total Cotton Mills	21,861,265	20,627,180	17,721,680	23.4
Flour Mills	935,500	1,649,700	966,000	2.0
Rubber Products	997,505	1,072,115	662,580	50.5
Paper Mills	1,218,242	1,403,337	890,362	36.8
Lumber Mills	29,190	25,640	14,044	107.8
Egg Produce	-	-	-	-
Oil Mills	137,150	93,200	119,900	14.4
Ice & Cold Storage Factories	764,545	1,122,265	876,767	-12.8
Tobacco Factories	201,271	221,049	220,827	-8.9
Silk Mills	55,300	47,620	43,690	26.6
Miscellaneous Textiles	2,188,893	2,079,404	1,811,696	20.8
Metal Working	1,155,545	1,086,617	737,547	56.7
Woolen Mills	342,330	336,800	245,780	39.3
Miscellaneous Other	769,404	849,065	557,897	37.9
<u>Total</u>	<u>30,706,220</u>	<u>30,413,992</u>	<u>24,868,770</u>	<u>23.5</u>

SHANGHAI POWER COMPANY

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REF. NO. OF 1951

CONNECTIONS

		<u>This Month</u>	<u>Last Month</u>	<u>Last Year</u>	<u>Increase during month</u>
No. of Customers		99,468	99,086	96,744	383
" Refrigerators	∅	8,563	8,551	8,389	12
" Cookers	(Hired) x	2,959	2,966	2,981	-7
" Radiators	( " ) x	1,930	1,934	2,238	-4
" Water Heaters	( " ) x	78	77	66	1
" Miscr. Appliances	( " ) x	167	167	167	-
H.P. of Motors	( " ) x	14,150	14,151	14,484	- 1

∅ Includes Refrigerators installed in Western District Power Company Area.

x These figures include Appliances hired by Western District Power Co. of Shanghai.

CONNECTED LOAD

K.W. Lighting	103,284	102,969	100,388	315
" Heating: Comprising	(31,821)	(31,819)	(32,248)	(2)
" Cookers	18,308	18,308	18,285	-
" Radiators	9,828	9,837	10,664	-9
" Water Heaters	152	152	121	-
" Miscellaneous	3,533	3,522	3,178	11
" Motors	232,014	231,645	229,890	369
" Industrial Heating	4,608	4,574	4,204	34
" W.D.P.C.	54,600	54,600	54,600	-
" Total	426,327	425,607	421,331	720

MONTHLY MOVEMENT IN CUSTOMERS

	<u>Total All Classes</u>
Total Customers Reconnected	38
Total Customers Disconnected	50
Loss	12
Total New Customers Connected	395
Total Increase During Month	381

SHANGHAI POWER COMPANY

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GENERAL COMMENTS

Rates - As mentioned in last month's Report, revised rates were approved on October 20, 1947, and put into effect retroactively to October 1st. Immediately following approval of these rates (in fact while we still awaited approval), there were further drastic changes in costs which made it imperative to again apply for an increase in rates. From the time that our former application (with supporting data) was submitted for October rate revision until we again applied for increase in rates, the following variations took place in the salient factors which directly influence our costs:

- (A) Exchange rate advanced from CN\$50,100 to CN\$60,300 per US\$1. This of course specifically affected our cost of oil fuel and other items directly related to foreign exchange.
- (B) A 50% duty has been levied on the market value of oil and not on the contract price as previously assumed.
- (C) Coal price increased from CN\$850,000 to CN\$1,140,000 per ton.
- (D) C.C.L. Index increased from 49,100 to 53,100.

After requisite negotiations, revised rates were approved on November 22nd and put into effect as from that date. The revised rates for the various services are set out hereunder together with the previous two revisions:

	Effective July 1, 1947 CN\$/KWH	Effective Oct. 1, 1947 CN\$/KWH	Effective Nov. 22, 1947 CN\$/KWH
Residential Lighting, Cooking & Power	1,130	2,700	4,650
Commercial Lighting, Cooking & Power	1,130	2,700	4,650
Industrial Power - up to 50,000 KWH/Month	1,130	2,700	4,650
" " - excess over 50,000 KWH/Month	1,190	2,760	4,710
Public Street Lighting & Traffic Signals	580	1,365	2,340
Private Street Lighting	1,085	2,655	4,605
Shanghai Waterworks	805	1,905	2,815
Shanghai Tramways	805	1,905	1,905
Chapei Co. - usage up to allotment	570	1,355	2,330
" " - excess usage	1,039	2,440	4,195
French Co. - usage up to allotment	570	1,355	2,330
" " - excess usage	1,039	2,440	4,195
Reactive KV AH	350	850	1,460

With the frequent acute variations in costs, etc., experienced in past months, which condition is likely to continue, the question of an automatic formula to cover all variables is being pressed and it is expected that a complete agreement will be reached on this all important subject before the beginning of 1948.

Restrictive Measures - There has been no easing off in the work resulting from the imposition of the restrictive measures. Letters in quantity are still being received mainly requesting upward revision of allotment and preferential treatment with regard to restrictive charges.

It is rather difficult to ascertain what effect these measures have really had on the system load. Various plant outages with resultant shedding of industrial load make it impossible to see from the Riverside daily load curve how much the residential and commercial load has been reduced. Furthermore, the weather has been mild and there has been little or no necessity for using electric radiators.

SHANGHAI POWER COMPANY

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REF ID: A67404

COMMENTS: TOTAL KILOWATT-HOUR SALES -

The meter reading months were as follows:

	<u>November</u>	<u>October</u>	<u>Difference</u>
Schedule Rate Consumers	30.15	32.04	- 5.8%
Bulk Supply Consumers	30.80	30.60	+ 0.7%
Municipal Consumers	31.00	28.00	+10.7%

Total Kilowatt-Hour Sales for November were 80,651,528 KWH compared with 78,455,128 KWH in October, an increase of 2,200,000 KWH or 2.8%. The weighted reading months were almost equal so the increase is real and mainly due to the seasonally higher generating capacity of the Riverside Plant. Sales to Schedule Rate Consumers decreased while Bulk Supply Consumers took more except the Shanghai Waterworks whose usage was seasonally down.

Residential & Commercial Lighting Sales were 8,212,900 KWH as against 9,240,000 KWH last month, a decrease of 1,000,000 KWH or 11.1%, although a seasonal gain is normal. The shorter reading month accounted partly for the decrease; the very much higher energy costs and the restrictive charges for the remainder.

Residential & Commercial Heating Sales amounted to 1,230,000 KWH only as compared with 1,580,000 KWH in October. This is a difference of 350,000 KWH or 22.3%. Seasonal increase is normal, but higher rates and exceptionally warm weather coupled with a 5.8% shorter month reduced usage.

Effect of Restrictive Charges - The restrictive charges were applied mainly to the Residential Consumers. It was estimated that they would effect a saving of approximately 1,000,000 KWH and this appears to have been barely reached, although industrial usage increased by merely 300,000 KWH.

Industrial Bulk Supply took 30,700,000 KWH, 1% over the October total. Sales to Flour and Rubber Mills, Ice & Cold Storage Factories and Tobacco Factories were down, while Sales to the other groups gained.

Commercial Bulk Supply - This month's consumption was 1,120,000 KWH or 9.9% less than last month. Higher rates and exceptionally warm and clear weather accounted for the decrease.

Small Power Sales declined by 1.9% to 4,930,000 KWH. In view of the shorter reading month sales actually increased by 4% which is normal and mainly due to seasonally increased lighting usage.

Shanghai Trams took 1.8% less than in October, while

French Trams increased their usage by 6.1% to 882,000 KWH, a little over their allotment of 850,000 KWH.

Shanghai Waterworks - Sales totalled 1,254,660 KWH or 4.1% less than last month. This is a normal seasonal decline.

Sales to Chapel Co. were 6.5% over last month and reached 9,700,000 KWH.

Intercompany Sales increased by 16.3% to 20,840,000 KWH, mainly due to the longer reading month.

Public & Private Street Lighting remained unchanged.

Municipal Others Sales were 3.4% up.



SHANGHAI POWER COMPANY

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REF ID: A6617471

ANALYSIS OF LARGE INDUSTRIAL SALES

Cotton Mills - Sales increased by 6% to 21,860,000 KWH, a new post-war high. With two or three exceptions all mills increased their usage.

UNRRA cotton has been allotted to the mills. The price has not been published but is reported "reasonable". The heavy increase of the rate of foreign exchange has further stimulated prices, while the official rate has remained unaltered for many months. According to recent newspaper reports no more cotton and rice will be made available at this official rate but will be calculated at the "official open market" rate, which is far more realistic. If these reports are correct - it has not been possible to verify them - profits are likely to be cut considerably, but hardly to a degree that will reduce operations.

Flour Mills took 985,000 KWH compared with 1,650,000 KWH last month. Arrivals of domestic grain have been slow and imported grain erratic, so an acute shortage developed towards the end of the month. All the three mills reverted to the operating level of May - June, i.e., before the local crop was harvested.

Rubber Products - Sales were down by 7.0% to 997,000 KWH. Exceptionally dry weather reduced the demand for rubber shoes while the tyre business remained good. Many dealers have overstocked on footwear and recovery will depend to a large extent on the weather.

Paper Mills - Sales remained at the same level as last month with a total of 1,218,000 KWH. Central Print & Engraving Factory took 256,500 KWH - a postwar high - compared with only 127,000 KWH last month. The other mills barely maintained operations.

Lumber Mills - Sales increased by 13.8% to 29,190 KWH. At present only 720 H.P. motors are connected by Bulk Supply Consumers, while over 3,200 H.P. is connected by Small Power users, this entirely reversing the picture of pre-war times when most of the lumber was processed by the big mills.

Recent developments have decreased building costs as expressed in sound currency by probably over 50%. While last year (1946) a cost of US\$250 per foong (100 sq. ft.) was considerable reasonable for one-storied Chinese style houses, the cost now is around US\$110.

The extraordinarily rapid fluctuations of exchange and prices vary building costs as quickly, but generally construction costs now are not unreasonably high. A fairly lively activity is at present noticeable. Unfortunately, only private residences and staff quarters can be built due to the now well established custom which prevents house-owners from obtaining reasonable rentals, while evictions due to non-payment are practically always refused by the courts, at least in effect.

Egg Produce continued idle. Reputed efforts to revive the industry are current. With present high food prices in the United States and the low value of the Chinese Dollar, there may be some prospect of success. Prices of eggs in Shanghai which before the war were about 6-10 cents (U.S.) per dozen are now about 20 cents (U.S.) per dozen locally but further inland they are reputed as low as 10-15 cents (U.S.) per dozen.

Oil Mills - Production of the Ta Yu Yue Oil Mill which specializes in bean cakes for fuel and fertilizer jumped from 47,000 KWH to 93,000 KWH. The total for both mills in this class increased by 47.2% and reached 137,000 KWH.

SHANGHAI POWER COMPANY

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REF ID: A66177

Ice & Cold Storage Factories - Usage was seasonally down by 31.9% to 765,000 KWH.

Tobacco Factories - Sales dropped expectedly by 8.9% to 201,000 KWH. Small import quotas, decreased earning power, and high prices contributed to the decline. Prospects are not good.

Silk Mills showed some recovery as sales mounted by 16.1% to reach 55,300 KWH.

Miscellaneous Textile Sales totalled 2,188,000 KWH, a 5.3% gain over last month. Increased yarn prices and slightly lower demand have reduced the margin of profit, which however is still good. Increased sales may be expected with the approach of cold weather and the Chinese Lunar Festival.

Metal Working Sales were 6.3% over last month with a total of 1,155,000 KWH. Steel Rolling, Aluminium and Nail Factories did very well; Textile Machinery Supplies not so good.

Woolen Mills maintained activities with a usage of 342,000 KWH compared with 337,000 KWH last month.

Miscellaneous Others - Breweries and Aerated Water Factories' usage was seasonally down while Coal Briquette Factories did not show the normal seasonal gain due to the warm weather. Soap and Printing Works, on the other hand, registered small increases. The total was 9.4% down from last month.

#### POWER SECTION

Applications for power service, for night operation only, accepted during the month totalled 62, bringing the total to the end of November up to 299 for an aggregate load of 5,623 H.P. in both S.P.C. and W.D.P.C. areas. As explained in previous Reports, connection of a considerable part of this load is necessarily slowed up due to the present limitations of the low voltage distribution system and as a result it has only been possible so far to connect up about 40% of the total load.

With a view to deterring consumers from operating outside the regulation hours of 11 p.m. to 7 a.m., the Shanghai Electricity Supply Regulating Committee decided that as from November 6th each application for power supply for night operation only must be accompanied by guarantees from two other power supply consumers. In the event of it being necessary to penalize a consumer for operating outside the prescribed hours for night operation only, the two guarantors will suffer the same penalty, namely temporary disconnection of supply for a first offence and permanent disconnection for a second violation of the regulation.

The following applications for power service were accepted during November:

Reconnections:	4 Applications totalling	37 H.P.
New Load	: 51 " " "	1,361 H.P.
Total	: 55 Applications totalling	1,398 H.P.

The above load includes 7 H.P. and 15 H.P. for lifts, 7 H.P. for Shanghai Bus Company's repair shop, 60 H.P. for a Government controlled machine shop and temporary supply for 127 H.P. for building construction, all of which were authorized by the Bureau of Public Utilities. The remainder of the applications were for

SHANGHAI POWER COMPANY

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night service only and include 200 H.P. for a new worsted mill, 100 and 110 H.P. for brass rolling mills, 100 and 150 H.P. for machine shops and loads of from 1 - 60 H.P. covering the following industries: lumber, metals, printing, battery charging, paper, chemicals, silk weaving and food.

The change from Daylight Saving Time to Standard Time was made at midnight on October 31st and as a result there was a sharp increase in load demand about 5:00 p.m. due to the lighting load being superimposed on the industrial load. In order to eliminate as far as possible the necessity to shed load, a revised working schedule for cotton mills was prepared and became effective as from November 1st.

For comparison the old and new schedules are shown below:

Mills	Daily Stopping Period		Change of Shifts	
	New Schedule	Old Schedule	New Schedule	Old Schedule
2 groups	4:30 p.m. - 7:30 p.m.	5:30 p.m. - 8:30 p.m.	6:00 a.m.	7:00 a.m.
2 "	5:30 p.m. - 8:30 p.m.	6:30 p.m. - 9:30 p.m.	7:00 a.m.	8:00 a.m.
2 "	7:00 p.m. - 10:00 p.m.	7:30 p.m. - 10:30 p.m.	8:30 a.m.	9:00 a.m.

The earlier times for changing from night to day shift help to reduce to some extent the load demand during the period of rapid load increase between 7:00 a.m. - 9:00 a.m. and as a result there is now less possibility of having to shed load at what is very often a critical time. This point is illustrated on the attached Station load curves for October 31st (Daylight Saving Time) and November 4th (Standard Time). On the latter day the group of mills, due to shut down voluntarily, was off load at 6:00 a.m. whereas on October 31st this group did not stop operating until 9:00 a.m. The effect on load demand of the reversion to Standard Time is shown by comparing these curves. Enforced load reduction was not applied on either day and similar weather conditions prevailed.

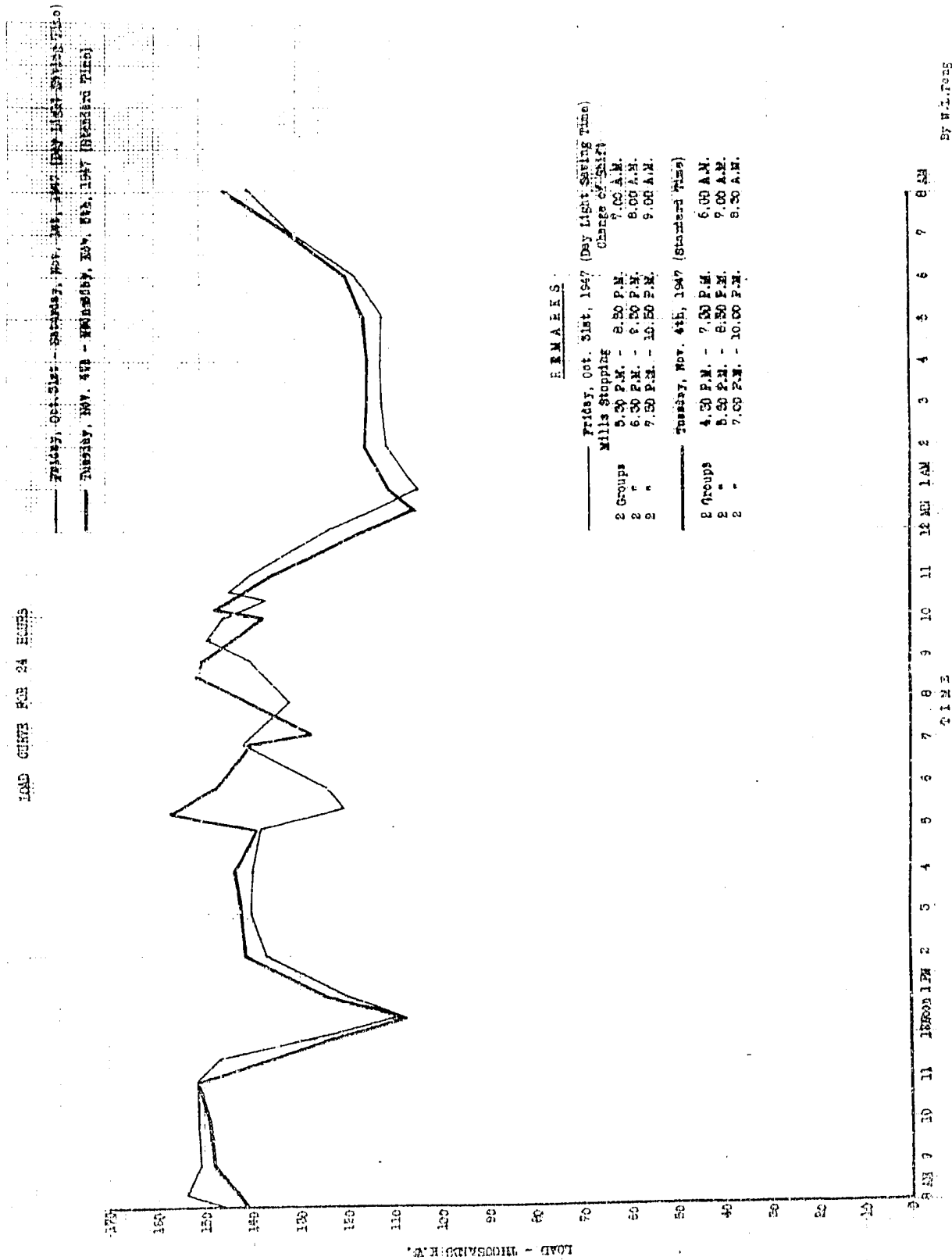
The improved load conditions existing at Riverside towards the end of last month continued until the 17th of this month and as a result enforced load reduction was applied only on three days during this period. However, from the 18th - 30th inclusive "C" Station and T.G. 5 were out of commission and consequently extensive load reduction was necessary.

In the early part of November the C.T.I.I. Cotton Mills put on load generating plant aggregating 6,000 KW which resulted in their load demand on our system being reduced by approximately 3,500 KW. These generators only operate during day shift and the total night shift load demand is still supplied from S.P.C. or W.D.P.C. systems.

The following tabulation gives some details of T.G. capacities, present outputs, etc.

Location	T.G. capacity in KW	Date on load	Output in KW	Mill Demand in KW	Balance in KW supplied from SPC or WDPC
C.T.I.I. Mill No. 19	2,000	Nov. 3rd	approx. 1,500	1,900	400
-do- No. 1	1,000	" 4th	" 750	2,350	1,600
-do- No. 6	2,000	" 5th	" 1,500	1,800	300
-do- No. 17A	1,000	" 8th	" 750	2,250	1,500

LOAD CHART FOR 24 HOURS



Friday, Oct. 31st - Saturday, Nov. 1st, 1947 (Day Light Saving Time)  
 Tuesday, Nov. 4th - Wednesday, Nov. 5th, 1947 (Standard Time)

REMARKS

Friday, Oct. 31st, 1947 (Day Light Saving Time)  
 Mills Stopping  
 Change of Shift  
 2 Groups 5:30 P.M. - 8:50 P.M. 7:00 A.M.  
 2 " 6:30 P.M. - 8:50 P.M. 8:00 A.M.  
 2 " 7:50 P.M. - 10:50 P.M. 9:00 A.M.

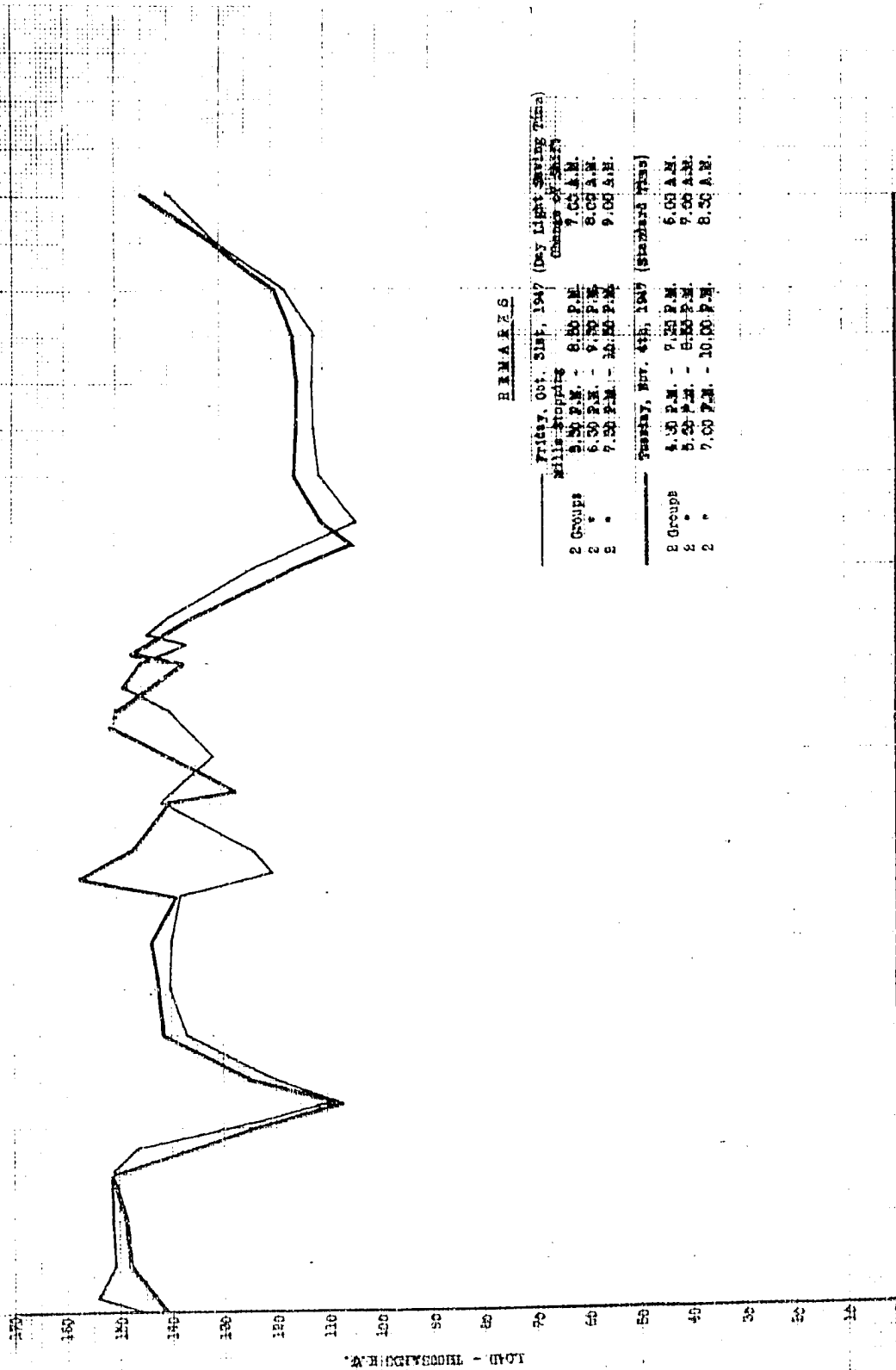
Tuesday, Nov. 4th, 1947 (Standard Time)  
 2 Groups 4:50 P.M. - 7:50 P.M. 6:00 A.M.  
 2 " 8:50 P.M. - 10:00 P.M. 7:00 A.M.  
 2 " 7:00 P.M. - 10:00 P.M. 8:50 A.M.

0 1 2 3 4 5 6 7 8 9 10 11 12 AM 1 PM 2 3 4 5 6 7 8 AM

ST W.L. 1947

LOAD CURVE FOR 24 SERIES

Friday, Oct. 25, 1947 (Standard Time)  
 Tuesday, Nov. 4, 1947 (Day Light Saving Time)



REMARKS

Friday, Oct. 25, 1947 (Day Light Saving Time)  
 Mills stopping  
 2 Groups 8:30 P.M. - 8:50 P.M.  
 2 " 7:00 A.M. - 7:05 A.M.  
 2 " 6:30 P.M. - 6:50 P.M.  
 2 " 8:00 A.M. - 8:05 A.M.  
 2 " 7:50 P.M. - 8:00 P.M.  
 2 " 9:00 A.M. - 9:05 A.M.

Tuesday, Nov. 4, 1947 (Standard Time)  
 2 Groups 4:30 P.M. - 7:20 P.M.  
 2 " 5:00 P.M. - 5:50 P.M.  
 2 " 7:00 P.M. - 10:00 P.M.  
 2 " 6:00 A.M. - 7:00 A.M.  
 2 " 8:30 A.M. - 8:50 A.M.

0 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24  
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 TIME  
 By H.L. Post

SHANGHAI POWER COMPANY

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NOV. 1947  
OF 1947

As can be seen from the above table, the daytime load demand on our system of Nos. 6 and 19 Mills is comparatively small and it has therefore been agreed that, when the generating plant at those Mills is operating, enforced load reduction will only be applied in extreme emergency. Otherwise operating conditions at the Mills would become difficult if a small part of the machinery was rendered inoperative through lack of power supply.

At the end of October it was anticipated that we might soon be able to discontinue the voluntary load reduction scheme as applied to miscellaneous industries. However, there is now little likelihood of this being possible as outages of generating plant for necessary repairs will considerably reduce the available capacity for some time to come.

During November the large textile mills suffered an average loss per mill of approximately 48 production hours which is about the same as the October figure.

The estimated loss of sales potentiality during the month due to load reduction was as follows:

Cotton Mills	5,090,000 KWH
Miscellaneous Industries	687,000 "
Chapei & French Power Companies	700,000 "
Total	6,477,000 KWH

When allowance is made for the gain of approximately 1,830,000 KWH as a result of the Sunday working schedule, the total loss of sales potentiality, due to insufficient generating capacity, was approximately 4,647,000 KWH as compared with 4,407,000 KWH for October and 3,092,000 KWH for September. All voluntary load reduction is still calculated as lost sales.

In the course of the month the average potential demand showed a very slight decrease as compared with October and was approximately 161,000 KW in the forenoon and 192,000 KW in the afternoon. This is due almost entirely to the operation of the C.T.I.I. Mills generating plant referred to earlier in this Report, as the application of restrictive charges on the rates has so far had no appreciable effect in reducing the load demand. The maximum sustained demand that could be negotiated by Riverside varied between approximately 125,000 KW and 150,000 KW, depending on outages of generating plant, and the highest instantaneous peak demand recorded was 161,800 KW.

Reference was made in our September Report to the considerable concern being caused by the heavy loading of transmission cables. With a view to applying load reduction proportionately to all transmission sub-stations, the cotton mills were re-grouped and the revised scheme put into effect with the whole-hearted co-operation of the Cotton Mills' Association as from November 2nd. It is anticipated that by reducing the peak loading on the primary sub-stations, the necessity for load reduction, due to transmission cable outages, will be reduced to a minimum.

No new load prospects were recorded during November but supply was given to the following new load:

Boston Worsted No. 2 Mill - 8 Dixrell Road.

This prospect was first referred to in our Report for May 1947. It is estimated that the load demand of this factory will ultimately be 750 KW and supply

SHANGHAI POWER COMPANY

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11/12/47  
10/20/47

for this load will be given at 23 KV. However, owing to late deliveries of new machinery, the load demand is not expected to exceed 200 kW for some time to come and as a temporary measure supply at low voltage has been given from a 325 KVA transformer on hire from S.P.C. The expected yield in annual revenue from this load is expected to be CN\$2,700,000,000.

The above revenue is based on current net rates of:

CN\$4,410 for consumption of electricity up to 50,000 kWh per month  
and CN\$4,450 " " " " " in excess of this amount.

Power Installation Inspections:

The following inspections were made during the month:

<u>No. of Inspections</u>	<u>Unauthorized Additions</u>
148	21

HIRED PLANT INSTALLATION & MAINTENANCE SECTION

Summary of Workshop jobs:

Motors repaired .....	8	pcs.
Switches & Starters overhauled .....	12	"
Cookers tested & overhauled .....	13	"
Radiators repaired .....	150	"
Water Heaters tested & overhauled .....	6	"
Hot Plates fabricated .....	164	"
Service Calls attended .....	970	"

Miscellaneous jobs and interdepartmental work accounted for 320 man-days. The electrical installations in all Collecting Offices have now been thoroughly overhauled.

Hired Motors:

Connections: 9 motors aggregating 274½ H.P. (Night operation)  
Disconnections: 3 motors aggregating 67½ H.P.

Breakdowns for the month were 2 motors of 20 H.P. each. In both cases the stator and rotor coils were burnt out.

ADVERTISING SECTION

Newspapers - A "Revised Rate" notice was inserted in all the English, Russian and Chinese language newspapers on November 22, 1947.

Due to the Company's desire to take on additional newspapers for the insertion of Company's notifications, a list (information gathered from respective dailies) comprising of the more widely read Chinese dailies was submitted for consideration. It was decided to include the two following dailies:

Chung Yen Pao - Established in 1939, suspended publication in 1941 and resumed publication in 1945 - has an approximate circulation of 60,000 copies (daily) - 4 pages - carries a fair amount of advertising.

SHANGHAI POWER COMPANY

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REF ID: A66117

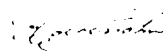
Sung Pao (Commercial Journal) - First published in 1931. Its publication was suspended in December 1941 and resumed in 1946. The Sung Pao has a daily column devoted to the Chinese Chamber of Commerce. Its daily circulation is approximately 55,000 copies. Carries a fair volume of advertising.

Articles appeared in the North China Daily News, China Press, Shanghai Evening Post and Sin Wan Pao headlined: "100% Utilities Hike Pending", "New Utility Rates Get Gov't Okay", "Utility Charges", "Companies Express Difficultly In Carrying Out City Council's Resolution on Retroactive Charges", "Electricity Taxes", "Electric Shock".

General - More turbine and boiler charts were completed and work on other charts is steadily being carried on.

Many graphs and small cards were painted as required.

The D.D.E. Safety Committee requested us to paint a series of "Safety Posters" but due to this section being extremely busy and will be for a long period, the work is being withheld.

  
A. E. Colterjohn  
Assistant Consumers' Engineer

cpo



WESTERN DISTRICT POWER COMPANY OF SHANGHAI FEDERAL INC. U.S.A.

REF. REP. DIV.  
AP 48 (11-48)

December 30, 1947

WESTERN DISTRICT POWER COMPANY OF SHANGHAI,  
FEDERAL INC. U.S.A.

NOVEMBER STATISTICS

Analysis of K.W.H. Sales

	<u>This Year</u>	<u>Last Year</u>	<u>Increase</u>	<u>Increase</u> <u>%</u>
Residential Lighting)	1,629,326	1,357,594	271,732	20.0
Commercial Lighting )				
Residential Heating & Cooking)	448,653	516,555	-67,902	-13.1
Commercial Heating & Cooking )				
Bulk Supply Industrial	12,870,774	8,812,113	4,058,666	46.1
Bulk Supply Commercial	58,498	11,810	46,688	395.3
Small Power	3,017,236	2,691,816	325,420	12.1
<u>Public Utility:</u>				
Chapel Co.	1,089,609	1,125,000	-35,400	-3.1
Private Street Lighting	11,891	10,670	1,221	11.4
Municipal Street Lighting	24,354	23,782	572	2.4
Municipal Others	220,023	190,745	29,278	15.3
Total	19,370,355	14,740,090	4,630,265	31.4
Total Units Sold (12 months ending November 1947)	194,043,267	118,593,941	75,539,326	63.7
Total Units Purchased (12 months ending November 1947)	206,381,310	126,568,000	79,813,310	63.1
Distribution Losses (12 months average)	6.0%	6.4%	-0.4%	-6.2
Maximum Demand for Purchased Power - KW	34,944	27,240		

Analysis of Large Industrial Sales in KwH

	<u>This Month</u>	<u>Last Month</u>	<u>Last Year</u>	<u>Increase</u> <u>% over</u> <u>last year</u>
Chinese Cotton Mills	7,837,950	6,615,260	5,935,280	32.0
Other Cotton Mills	3,900	3,000	-	-
Total Cotton Mills	7,841,850	6,618,260	5,935,280	72.1
Flour Mills	411,700	416,150	195,325	111.3
Rubber Products	431,057	357,594	163,475	163.7
Paper Mills	769,900	707,130	168,775	356.2
Tobacco Factories	-	-	-	-
Ice & Cold Storage Factories	29,800	37,400	32,000	-6.9
Silk Mills	242,625	227,905	226,630	7.1
Miscellaneous Textiles	2,249,849	1,885,309	1,549,634	45.2
Metal Working	158,800	133,620	107,793	47.3
Woolen Mills	384,045	343,315	310,860	23.5
Miscellaneous Other	350,148	319,972	122,356	86.2
Total	12,870,774	11,046,655	8,812,118	46.1

WESTERN DISTRICT POWER COMPANY OF OHIO INC. FEDERAL INC. U.S.A.

SEP. 30, 1957  
APR. 30, 1958

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CONNECTIONS

	<u>This Month</u>	<u>Last Month</u>	<u>Last Year</u>	<u>Increase during month</u>
No. of Customers	21,804	21,522	20,462	282
" Refrigerators	2,305	2,298	2,221	7
" Cookers (Hired) x	786	787	781	-1
" Radiators ( " ) x	266	267	350	-1
" Water Heaters ( " ) x	29	28	25	1
" Misc. Appliances ( " ) x	29	29	29	-
H.P. of Motors ( " ) x	4,925	4,925	3,514	-

x Hired from S.P.C. and included in S.P.C. Statement.

CONNECTED LOAD

K.W. Lighting	15,416	15,325	14,669	91
" Heating: Comprising	(7,383)	(7,378)	(7,464)	(5)
" Cookers	5,714	5,714	5,609	-
" Radiators	1,258	1,261	1,507	-3
" Water Heaters	65	62	56	3
" Miscellaneous	346	341	292	5
" Motors	69,711	69,711	64,226	-
" Industrial Heating	1,099	1,071	1,036	28
" Total	93,609	93,485	87,395	124

MONTHLY MOVEMENT IN CUSTOMERS

	<u>Total All Classes</u>
Total Customers Reconnected	8
Total Customers Disconnected	24
	Loss 16
Total New Customers Connected	298
Total Increase During Month	282

WESTERN DISTRICT POWER COMPANY OF SIAM. (SINGAPORE, S.S.A.)

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COMMENTS: TOTAL KILOWATT-HOUR SALES

The reading month was as follows:

	<u>November</u>	<u>October</u>	<u>Difference</u>
Schedule Rate Consumers	31.35	29.53	+ 5.9%
Bulk Supply Consumers	31.80	29.90	+ 6.4%
Municipal Consumers	31.00	28.00	+10.7%

Total Kilowatt-Hour Sales for November were 19,370,000 Kwh or about 2,300,000 Kwh, corresponding to 13.4%, over the October total of 17,087,000 Kwh. The reading month was only about 6% longer, so actually sales increased by nearly 8%. Most of the increase was due to larger sales to Bulk Supply Consumers.

Residential & Commercial Lighting Sales increased by 4.5% to 1,630,000 Kwh.

Residential & Commercial Heating Sales decreased by 10.7% to 450,000 Kwh. The proportion of Residential to Commercial usage is considerably larger in the Western District than in the S.P.C. Area and the effect of the restrictive charges, which are primarily directed against residential users, is therefore more noticeable.

As the residential usage is comparatively small, the actual kilowatt-hour saving is not impressive. The part which is due to restrictive charges may be around 200,000-300,000 Kwh.

Industrial Bulk Supply took 12,870,000 Kwh as compared with 11,044,000 Kwh in October, an increase of 1,800,000 Kwh or 16.5%. All industries increased their activities except Flour Mills and Ice Factories.

Commercial Bulk Supply usage gained 22.9% to reach 58,498 Kwh.

Small Power Sales increased by 8.9% and reached 3,017,236 Kwh compared with only 2,780,000 Kwh last month.

Chapel Co. took 1,089,000 Kwh, a gain of 17.2%.

Private & Municipal Street Lighting showed no change, while

Municipal Others Sales increased by 12.9% to 230,000 Kwh.

ANALYSIS OF LARGE INDUSTRIAL SALES

Cotton Mills - Sales to this group increased by 18.5% to 7,841,000 Kwh. Of the 11 Mills 9 reached post-war highs, one (Ewo Cotton Mills Ltd.) is practically idle, while China Cotton Mills Ltd. exceeded current month's usage slightly in June.

Flour Mills took 412,000 Kwh, the same as the last two months.

Rubber Products - Sales were 20.5% over last month with a total of 431,000 Kwh. Actually, sales dropped in line with corresponding sales in S.P.C. but two new consumers, formerly on Schedule Rate, were added to the group as follows:

Yih Chuy Rubber Factory	Consumption -	62,320 Kwh
The Dah Foo Rubber Factory	"	21,950 "

Ice Factories - Sales were seasonally down to 29,800 Kwh compared with 37,400 Kwh last month.

WABIAN QUINCY POWER COMPANY OF HONG KONG FEDERAL INC. U.S.A.

REV. 12.2.57  
AP 40 (11-54)

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Silk Mills took 6.5% more than in October and totalled 243,000 kWh. The Spinning Mills gained most.

Miscellaneous Textiles - Sales to this group increased by 19.3% to reach 2,250,000 kWh. More than half of the mills reached post-war highs, indicating continued favourable market conditions.

Metal Working Sales increased by 18.8% to 158,800 kWh, a new post-war high.

Woolen Mills took 11.9% more than last month with a total of 384,000 kWh.

Miscellaneous Others - Sales to this group increased by 9.4% to reach 350,000 kWh.

POWER SECTION

Applications accepted during the month for connection of power supply were as follows:

New Load: 21 Applications totalling 717 H.P.

These applications include 134 H.P. for Kuang Sing Dyeing & Weaving, formerly known as Jing Kung Dyeing & Weaving and referred to in our Report for January 1947, and 60 H.P. for water pumping in connection with the S.M.G. Water Supply Planning Department's scheme for improving the domestic water supply in the Western District. The remainder, for night operation only, include 200 H.P. for a new rubber factory, 92 H.P. for a weaving factory and loads of from 1 - 50 H.P. covering the following industries: rubber, weaving, rice polishing, metals, paint, aluminium and thread manufacture.

No new load prospects were recorded and no new connections to bulk supply consumers were made during the month.

Power Installation Inspections

Inspections made during November were as follows:

<u>No. of Inspections</u>	<u>Unauthorized Additions</u>
29	11

*A. E. Colterjohn*  
A. E. Colterjohn

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SHANGHAI POWER COMPANY

SHANGHAI POWER COMPANY  
RIVERSIDE STEAM ELECTRIC STATION  
MONTHLY GENERATION REPORT  
NOVEMBER 1947

OUTPUT & PERFORMANCE DATA -

	A	B	C		D		E
	Total Station Net Output Kwh	Short Time Peak Demand Kw	St B Gross Generation Kwh	% of Total	St C Gross Generation Kwh	% of Total	Overall Heat Consumption Btu/net Kwh
Nov 1947	82,191,502	161,835	40,603,782	45.92	12,579,000	14.22	19,389
Oct 1947	84,141,395	159,319	40,579,518	44.57	18,678,000	20.51	19,599
Nov 1946	71,950,270	140,558	28,103,778	36.52	-	-	20,879
Nov 1941	54,564,443	143,003	34,807,719	58.50	-	-	19,062
% increase over							
Oct 1947	-	1.58	0.06	-	-	-	-
Nov 1946	14.23	15.33	44.48	-	-	-	-
Nov 1941	50.63	13.17	16.65	-	-	-	1.72
% decrease from							
Oct 1947	2.32	-	-	-	32.65	-	1.07
Nov 1946	-	-	-	-	-	-	7.14

	Hourly Station Net Output Kwh	St B Hourly Generation Kwh	St C Hourly Generation Kwh
Nov 1947 (720 hr)	114,155	56,394	17,471
Oct 1947 (745 hr)	112,941	54,469	25,071
Nov 1946 (720 hr)	99,931	39,033	-
Nov 1941 (745 hr)	73,241	46,721	-
% increase over			
Oct 1947	1.07	3.70	-
Nov 1946	14.23	44.48	-
Nov 1941	55.99	20.70	-
% decrease from			
Oct 1947	-	-	30.31

Remarks:

The better economy compared with October 1947 due to  
(1) higher load factor; (2) higher percentage of St B generation;  
(3) higher vacuum resulting from lower river water temperature.

SHANGHAI POWER COMPANY

The lower heat rate compared with November 1946 due to (1) i/c of St C; (2) higher percentage of St B generation; (3) better operating conditions.

As has been the case for some months, the higher heat rate (despite better load factor and i/c of St C) compared with November 1941 is due entirely to the fact that a great part of the increased load demand has to be carried by less efficient (almost obsolete) units in St A.

STEAM-GENERATORS -

SG No	Date		Hours o/c	Type of Inspection & Work Done	Operating Hr since Last o/c	Total Hours during the month	
	o/c	i/c				Not Available	Operated
31	17		317	Repairs to leaky Ec tube, main generating tube bank header expansion and welding up leaky Fw valve body progressing (IDU).	986	317	403
30	9	13	93	Routine cleaning after 2658 hr operation (IMS) - Unit soot cleaned, press tested. Hylift safety valve examined, ground in. 56 Sh cap joints renewed. Sh outlet examined, 5 tubes re-expanded. Baffles repaired. 2 SB reducing valves overhauled. 4 blowdown pipes cleaned. Part of main tubes and return tubes turbo-cleaned. RH side gauge glass water and steam cocks overhauled. PAF bearings, IDF, FDF and Copes valve examined. Tubes in bottom headers examined. Soft mud deposit in drum washed. Feeder gear inspected. Safety valves tested, water alarm checked. Aux motors and starters cleaned.	714		
	22	22	1	IDF starting switch overhauled (IMS).	219	94	624
29	-	-	0	---	860	0	720
28	3	3	2	IDF motor terminal socket re-weldered (IDA). Connections tightened, motor cleaned.	368	2	710
27	8	9	15	Ec soot cleaned & press tested (IMS).	689		
	15	18	73	Routine cleaning after 4637 hr operation (IMS) - Unit soot cleaned, press tested. 1 wall tube renewed. 76 Sh cap joints renewed. One Hylift safety valve overhauled. RH side air cock changed. Sh drain valve joints remade. Stop valve motor overhauled. PAF motor overhauled, outer bearing renewed. Feeder gear examined. Frick wall patched, air dampers adjusted. Ph washed. SB overhauled. Safety valves tested. Aux motors and starters cleaned.	150	88	623

SHANGHAI POWER COMPANY

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UG No	Date		Hours o/c	Type of Inspection & Work Done	Operating Hr since Last o/c for Maint	Total Hours during the month	
	v/c	i/c				Hot Available	Oper- ated
26	10/28		720	General overhaul (after 8413 hr operation) progressing (IMS).	168	720	0
25	15	16	25	Burnt out FDF motor changed (IDA).	1,033	25	693
24	2	2	7	Grate inspected (IDA) - 100 tuyeres, 14 ash pusher plates renewed. Stoker gear inspected; one connecting rod, 6 stroke adjuster bolts, 8 adjusters renewed. RH ashpit wall rebuilt. Aux motors and starters cleaned.	523		
	15	16	11	Leaky Ec repair (IDA) - 5 caps rejointed. 3 mud box re-expanded. Sh drains, LH Sh master valve and ash water cock overhauled. 4 ash sprayers changed. Ec press tested.	228		
	23	23	5	SD motor change for overhaul (IMS) - One broken crank shaft replaced.	149	23	565
23	10/24	6	124	Routine cleaning after 1566 hr operation completed (IMS) - Ec relief valve reset. Copes valve and 1 master SB valve overhauled. 153 main tube caps, 15 Sh caps and 4 Ec caps rejointed. Flexible FO pipes fitted to burners. Burner wall patched, wind box installed. SB system overhauled. Unit press tested. Aux motors and starters cleaned.	562		
	11	11	3	FW valve B23/F6 overhauled (IMS).	101	127	578
22	28	28	2	Lubrication pipe fitted (IDA) - RH Sh drain pipe patched.	686	2	583
21	2	2	2	Aux motors and starters cleaned (IMS).	263		
	4	4	3	Ph washed (IMS).	55		
	26	26	2	Ph washed (IMS).	627	7	705
20	22	23	12	Grate washed and inspected (IDA) - 30 tuyeres and 10 ash pusher plates changed. Stoker gear inspected; 1 connecting rod, 8 stroke adjusters and 5 bolts renewed. 4 Sh drain valves changed. SB master valve cover rejointed. Ph washed. Aux motors and starters cleaned.	679		
	28	28	1	Stoker greasing pipe cleaned (IMS).	119	13	562
19	2	4	44	Leaky main tubes repaired (IDU) - 2 pitted return tubes renewed. 5 tubes re-expanded, 10 tube caps rejointed, 2 stop valve by-pass valves rejointed. Unit press tested. SB valve overhauled. Aux motors and starters cleaned.	197	44	662

SHANGHAI POWER COMPANY

SG No	Date		Hours o/c	Type of Inspection & Work Done	Operating Hr since Last o/c for Maint	Total Hours during the month	
	o/c	i/c				Not Available	Operated
18	7	9	38	Grate inspection (IDA) - 160 tuyeres, 10 ash pusher plates renewed. Ashpit water service cleaned, inspected, 3 sprayers renewed. Stoker gear inspected; 2 connecting rods, 5 stroke adjusters and 10 bolts renewed. LH ashpit wall and front wall partly rebuilt. Aux motors and starters cleaned.	507		
	27	27	4	Lubrication pipe cleaned (IDA).	368		
	29	30	12	Grate and stoker repaired (IDA). Sh and Ec cap rejointed. Drum manhole cover joint renewed.	47	54	548
17	4	9	113	Routine cleaning (IMS) - Unit soot cleaned, press tested. 4 Ec caps, 62 main tube caps, 34 Sh caps rejointed. 2 leaky return tubes renewed. One holed Sh tube cut, plugged. LH mixing valve cover rejointed. LH main stop valve by-pass overhauled. 1 gauge glass, 2 ash doors, 2 sets of levers, 5 ash water sprayers and 2 drum manhole cover gaskets renewed. SB system cleaned, inspected, lubricated and defective parts renewed. Grate cleaned, inspected. Aux motors and starters cleaned.	620		
	19	19	8	Defective rivets on LH steam leg replaced (IDU).	185	121	465
16	10/10	18	416	Partial overhaul after 16,422 hr operation completed (IMS) - Boiler and Ec soot cleaned. Drum opened, examined, soft scale removed and wire brushed. Steam drier cleaned internally. Part of tubes turbo-cleaned. Several leaky Ec caps rejointed. Chemical and sample water valves overhauled. Brickwork repaired. Unit press tested, safety valves and water alarm checked.	1,059		
	23	23	5	IDF engine bearings adjusted (IMS).	111	421	298
15	13	14	7	Defective RH water gauge overhauled (IDA) - 2 leaky Ec caps rejointed. Jammed grates cleaned.	335	7	699
13	10/9		720	Partial overhaul after 3249 hr operation progressing (IMS).	466	720	0
14	23	23	5	IDF engine bearings adjusted (IMS).	521	5	712
12	1	2	15	Ashpit wall repaired (IDA).	349		
	23	24	14	Drum examined and cleaned (IMS).	358		
	29	30	m12	Aux motors and starters cleaned (IMS) - LH mixing valve cover rejointed.	91	41	473



SHANGHAI POWER COMPANY

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SG No	Date		Hours o/c	Type of Inspection & Work Done	Operating Hr since Last o/c for Maint	Total Hours during the month	
	o/c	i/c				Not Available	Operated
11	16	16	7	Drum examined (I&S) - Thin soft scale observed. Longer sample water pipe fitted in drum. 2 leaky caps rejoined.	1,064	7	679
10	8 29	9 30	18 12	Rear ashpit wall repaired (IDA). Aux motors and starters cleaned (I&S) - jammed LH grate cleaned.	364 306	30	462
9	-	-	0	---	453	0	453

Notes:- 1. Unscheduled Outages -

(a) Units taken out immediately (IDU)

SG No:	21	19	17	Total
Times o/c	1	1	1	3
Hours o/c	317	44	8	(369 hr)

(b) repairs done on a deferred date (IDA)

SG No:	28	25	24	22	20	18	15	12	10	Total
Times o/c	1	1	2	1	1	3	1	1	1	12
Hours o/c	2	25	18	2	12	54	7	15	18	(153 hr)

2. Tube renewals -

SG No:	27	19	17	Total
Boiler Tubes	-	2	2	4
Wall Tubes	1	-	-	1

BOILER HOUSE AUXILIARIES -

1 - Feed Water Pumps (FWP) -

- FWP 22 - Emergency trip valve cleaned. Steam joint remade.
- FWP 21 - Shaft straightened, 3 bearings reinstalled.
- FWP 17 - General overhaul (after 8881 hr operation) progressing.
- FWP 3 - General overhaul (after 6474 hr operation) completed. Bedplate re-levelled. Both bearings reinstalled. Balance disc and seat ring skimmed up. Shaft in poor condition, new shaft ordered for next overhaul. Fibre washers in coupling renewed. All stage bodies good but skimmed out at joint faces, same ground in. 4 guide passages found good, other two renewed. Impeller condition poor, brazed up to size, machined and rebalanced. Shaft sleeve and oil rings renewed. Suction, Nil and discharge valves overhauled. Motor overhauled, starter examined.

SHANGHAI POWER COMPANY

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1 - Feed Water Pumps (FWP) - (continued)

FWP 1 - Pump frozen due to scale jamming between impeller and guide passages, also between sleeves and wearing rings. Shaft bent, bearing metal damaged. All pump parts cleaned, shaft straightened, coupling end reinstalled, discharge end sleeve renewed.

FWP 20, 2 & 1 - Motors cleaned and starters overhauled.

2 - Gas (Flue) Washer Pumps (GWP) -

GWP 3 & 4 - Motor and starters routine cleaned.

3 - Auxiliary Fans in 3H 2 -

SG 14-16 - IDF engine bearings adjusted.

RAW COAL HANDLING PLANT -

Tr 1 - Operating brake gear overhauled, worn pin holes welded and machined; pins, brake lining, hoisting brake lever bar and links renewed. Hoisting wire rope renewed. Defective control wiring renewed.

Tr 3 - Four trod wheels examined, one wheel rebushed. Cover for agitator gears renewed. Hoisting limit switch re-adjusted.

RT 2 - Operating brake lever and lining renewed. Trolley wires along the wall of coal storage 'B' re-installed.

BT 3 - Belt drive motor removed, tested and re-installed.

BC 11,12,21,22,26,41 - Motors and starters routine cleaned.

BC 26 - One belt drum renewed.

BC 27 - Interlock contacts made, motor removed for overhaul.

BC 31 - One ball bearing renewed.

BC 43 - 26 ft. belt and 8 belt fasteners renewed.

BE 1 - 10 links, 6 shafts and 1 bucket renewed.

FUEL OIL HANDLING PLANT -

1 - FOB cleaned; installation of compressed air point progressing.

2 - Installation of duplicate steam line for FO system progressing.

PULVERIZED FUEL HANDLING PLANT -

PM 3 - General overhaul completed.

PM 5,6,7 - Motors cleaned, control circuit checked.

PM 6 & 7 - Auxiliary contacts of O/L relay changed.

ASH HANDLING PLANT -

1 - Electric Locomotives (LE) -

LE 1 - Overhaul progressing.

LE 2,3,4 - Drum controllers cleaned, examined.

2 - Ash Trucks -

8 trucks repaired and defective parts renewed.

SHANGHAI POWER COMPANY

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- 3 - Ash Chute on Ash Wharf -  
2 steel wire rope renewed.
- 4 - Ash Tracks -  
Maintenance work progressing.

TURBINE-GENERATORS -

TG No	o/c		Hours o/c	Type of Inspection & Work Done	Operating Hr since Last o/c for Maint	Total Hours during the month	
		i/c				Not Available	Operated
18	17		318 $\frac{1}{2}$	Unit o/c for leaky Ec repairing to SG 31 (D.S) - Air and oil coolers cleaned. Brush holder on pilot exciter re-adjusted.	975	318 $\frac{1}{2}$	401
16	15	16	14	Routine cleaning (I.S) - Overspeed trip mechanism cleaned, tested, operated at 3270 rpm. Servo motor repaired. Cam shaft examined and governor valves No. 2 & 4 overhauled. Oil coolers cleaned.	657	14	706
15	-	-	0	Oil coolers cleaned.	920	0	714
14	4	4	4	Condenser tested (I.D.A) - 4 leaky tubes plugged.	545	4	709
13	23	23	2 $\frac{1}{2}$	Brush gear routine cleaned (I.S) - Exciter brushes changed. Gland steam valve repacked.	1,134	2 $\frac{1}{2}$	715
12	4	4	5	Routine cleaning (I.S).	759		
	13		432	General overhaul after 14,730 hr operation progressing.	186	437	272
10	8	9	12	Routine cleaning (I.S) - Condenser tested, 4 tubes plugged. Overspeed trip mechanism cleaned, tested, operated at 1640 rpm. Steam trap and valves overhauled. 23 kv and neutral CCB and TP starting switch overhauled.	551	12	704
9	19	19	1	Slipping brushes changed (I.S) - Brush gears cleaned and examined.	563		
	25	25	3	- Ditto -	141	4	702
8	1	2	16	Routine cleaning (I.S) - Minor repairs made. Main and neutral CCB overhauled. Main transformers cleaned, insulators examined. TP starting switch overhauled.	482		
	16	16	1 $\frac{1}{2}$	Condenser tested for leaks (I.S) - No leaks found.	310		
	28	28	2 $\frac{1}{2}$	Slipping brushes changed (I.S) - Brushes cleaned, examined.	295	20	683

SHANGHAI POWER COMPANY

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TG No	Date		Hours o/c	Type of Inspection & Work Done	Operating Hr since Last o/c for Maint	Total Hours during the month	
	o/c	1/c				Not Available	Operated
7	2	2	9	Routine cleaning (IMS).	250		
	25	25	2	Brush gears cleaned, examined (IMS).	537		
	27	28	28½	Unit tripped account 6.6 kv cable box explosion (IDU) - All burnt insulators renewed. 3 new through insulators installed. Cable joint remade.	15	39½	602
5	5	5	1½	Condenser tested (IDA) - One tube plugged.	389		
	11	12	11½	Routine cleaning (IMS).	148		
	16	16	3	Governor valve platform tightened (IMS) - Condenser CW drain pipe cleaned.	87		
	18	-	312	Partial overhaul and realignment of unit progressing (IMS).	122	327½	370
4	23	23	6	Routine cleaning (IMS) - 6.6 kv and neutral OCB cleaned.	643	6	692
2	5/28	-	720	Work on rotor winding progressing.	8	720	0
1	8	9	13	Routine cleaning (IMS) - Ground in gland steam valve.	287		
	30	30	7	Routine cleaning (IMS).	397	20	514

Notes:- Unscheduled Outages -(a) Unit taken out immediately (IDU) -  
TG 7 o/c for 28½ hr.(b) Repairs done on a deferred date (IDA) -  
TG 14 o/c for 4 hr.  
TG 5 o/c for 1½ hr.TURBINE HOUSE AUXILIARIES -1 - Circulating Water Pumps (CWP) -

- CWP 12 - Starting switch cleaned, examined. Motor cleaned.  
 CWP 13 - General overhaul after 9941 hr operation completed. Impeller in very good condition. Wearing rings skimmed up on impeller and new rings made for casing. All bearings on pump and shaft remounted. Sleeve bush on impeller shaft and carrier plate for pump thrust bearing renewed. Shaft truth tested. All ball and roller bearings in good condition. Mv valve completely overhauled. Motor and OCB overhauled.  
 CWP 14 - General overhaul after 19,360 hr operation progressing.  
 CWP 15 - Motor and starting switch cleaned, examined.  
 CWP 16 - Piece of bamboo removed from impeller.

SHANGHAI POWER COMPANY

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- 1 - Circulating Water Pumps (CWP) - (continued)
  - CWP 21 - Impeller removed out, wood obstacle removed, patch brazed into vane, vanes built up as required and impeller rebalanced. New valve plate fitted in Nit valve.
  - CWP 22 - Gland repacked.
  - CWP 24 - CW valve No 43 examined. Starting switch oil changed, contacts cleaned and examined.
  - CWP 27 - Gland repacked.
  - CWP 28 - Gland packing added. Starting switch examined, motor cleaned.
- 2 - Service Water Pumps (SWP) -
  - SWP 6 - Motor cleaned. Both main and starting switches overhauled, oil changed, contacts cleaned and examined.

FLOATING EQUIPMENT -

- 1 - Tow Boats (TB) -
  - TB 'Reactor' - Boiler soot and scale cleaned, painted. Valves overhauled, tested. Engine bearings adjusted, 2 piston rings renewed. Main feed pump plunger and gland bushes renewed, valves ground in. Air pump examined. Various parts cleaned, overhauled, defective parts renewed.
- 2 - Coal & Ash Lighters (CL & AL) -
  - AL 2 & CL 14 - General overhaul completed.
  - AL 3 - Lifting chain repaired.

MISCELLANEOUS EQUIPMENT -

- 1 - Cross Over Heater (COH) -
  - Discharge pipe after NR valve welded up.
- 2 - Feed Range -
  - Valve FP 3/D 2 replaced after overhaul.
- 3 - Deaerator D#1 -
  - Steam pipe to Deaerator examined, restriction found when steam enters Deaerator. Steam pipe and Deaerator elements chipped clean. Branch steam pipe to relief valve altered to protect Deaerator from excessive pressure, relief valve set at 6 psi. Steam isolating valve relocated.
- 4 - Ex TG 11 Condensate Heater -
  - Feed pump exhaust line tapped to this heater through a new relief valve for the purpose of utilizing the excess exhaust steam not required by Deaerator and the condensate from the same.

SEVERN POWER COMPANY

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- 5 - BH 4 Lift -  
Examined and greased.
- 6 - SG 28 & 30 Blowdown -  
2 lengths of pipe renewed.
- 7 - SW Line to SG 21-26 IDF Bearing -  
Preparation of new supplying line progressing.
- 8 - Valve MB 1/4 -  
Spindle guide piece renewed.
- 9 - HP/LP Isolating Valve -  
Leaky joint overhauled.

ELECTRICAL EQUIPMENT -

- 1 - 23 kv SH Equipment -  
AC 5, AD 11/12-13-14-22 - OCB overhauled, O/L protection tested.  
AD 7 - O/L protection tested.  
AD 57 - OCB overhauled after cable fault tripping.  
BP 7, BS 6-7, AM 80 - OCB routine cleaned, trip tested.
- 2 - 6.6 kv SH Equipment -  
6.6 kv Main B/B - routine cleaned.  
A 5, 10, 8/13, 11/12 - OCB overhauled.
- 3 - Station Transformers -  
ST 11, 15 - HT & LT OCB overhauled.
- 4 - Station 'C' Equipment -  
All auxiliary motors - routine cleaned.  
(a) IDF 'B' - New bushes installed.  
(b) Ph 'A' & 'B' - O/L relay contacts changed. Switch trip annunciator contacts installed.  
(c) FWP 27 - 2.3 kv OCB 'B' phase switch can changed for overhaul.  
(d) ST 20,21 - Neoprene gaskets installed on 2.3 kv OCB.  
(e) V 2 - Limit switch readjusted.  
(f) Lift 3 - Hoisting rope renewed, floor controller readjusted.  
(g) Single line diagram board for auxiliary supply installed.
- 5 - Miscellaneous -  
(a) Making of smoke signalling device terminal boards and boxes progressing.  
(b) Making of BH 5 soot blowing signal lump boxes progressing.  
(c) Re-installation of T1 16 basement lighting progressing.  
(d) Battery room MG sets routine cleaned.

BNAHSECOI POWER COMPANY

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RIVERSIDE WORKSHOP -

- 1 - Overhauled 18 motors, 1 DC generator, 1 Syn rotor, 6 transformers, 2 potential transformers; machined 1 line switch handle gear, traffic signal switch contacts, 22 brass cable potheads, 2 motor shafts, 30 copper insulator terminals, 48 grid type fuses, 14 sparking contacts; made 50 fuse holders, 268 grid type fuses, 50 earth wire back plates, 200 tinned copper tubular sockets, 7 fixed sparking contacts, 1000 lb type metal, 50 bolted knee brackets, 4 flexible copper connectors, 4 copper morganite brushes; repaired 1 short circuit gear contact.
- 2 - Machined 6 HD brass impellers, 2 HD brass gland sleeves, 20 brass dogs, 2 CI sprocket pinion wheels, 2 CI fire door worm wheels, 580 bolts, studs and screws, 11 shafts, 10 valves, 152 nipples, 331 rods and hexagon bars, 16 brass impellers, 10 CI pump bodies, 441 miscellaneous articles of different material for various purposes; emieried 80 dc caps, 80 dc nuts; ground 112 rubber plugs, 6 steel liners, 2 steel knives; made 16 CI cones with vanes for oil burners, 12 double connecting links, 10 MS trays, 7 MS buckets, 5 brass floats, 2 MS pipes, 2 steel rings; repaired 70 spring handles, 2 platform scales, 10 valves, 2 fire extinguishers, 3 copper tubes, 2 MS pockets, 2 steel roller bars, 3 brass impellers, 6 brass bushes, 1 pump body, 2 motor shafts and bushes, 5 CI liners, 2 brass strainers, 1 coal crusher; overhauled 3 valves; remetalled 4 bearings; balanced 6 brass impellers; reconditioned 50 sets square stay clamps, 27 wall brackets.
- 3 - Made 3 riddling chutes, 9 MS plates, 6 MS gratings, 2 baffles; bent 52 lengths MS pipes, 43 Sh tubes, 5 blowdown pipes, 240 feet MS plates; straightened 19 stroke adjusters, 2 shafts; annealed 48 MS pipes, 3 copper tubes; forged 48 flanges, 1 driving minion shaft, 550 MS 'U' bolts, 40 brackets, 22 flanges, 6 steel rings, 15 rope pulleys, 124 clamps, 12 levers, 14 shackles, 30 hooks, 22 hinges, 300 nails, 120 bolts and studs; repaired and sharpened 140 steel chisels.
- 4 - Electric welded 8 MS pipes, 32 pipe flanges, 7 pipe tees, 4 ash chutes, 1 MS centre ring, 6 grit chutes, 2 steam heaters, 2 MS lockers, 4 MS shafts, 1 valve spindle, 2 valve bodies, 1 CS valve casing, 2 dc headers, 1 MS gear wheel, 1 cab wheel, 50 pole base frames; gas welding 7 MS buckets, 1 drain tank, several flanges; gas brazed 1 brass impeller, 1 brass pump casing, 1 brass valve plate, 1 brass cock, 3 brass spindles, 1 brass strainer, 20 copper tube ends, 168 grid type fuses; gas facing with stoddite 30 IDF blades, 6 valve seats; galvanized 878 pieces various articles; tinned 280 tubular cable sockets, 120 link fuses, 50 grid fuses.
- 5 - Foundry produced the following castings:-
 

28,927 lb CI.	9 lb Aluminium.
630 lb HD brass.	5 lb Cast copper.
27 lb GP brass.	640 lb Brass ingots.
171 lb SB brass.	730 lb Copper ingots.

SHANGHAI POWER COMPANY

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- 6 - Building and Wharf Maintenance:
- (a) Maintenance work to all plumbing and pipework progressing, also renovation of Staff quarters in progress.
  - (b) Made steam heaters in Service Building; repaired windows for BH 4, and Station 'C', corrugated GI sheetings on roof of Stores No. 3.
  - (c) Repaired windows in Policemen's quarters and Wharf Coal Office, gangways on Tr 3; replaced window glasses on south end of Tr.
  - (d) Repaired door in Trade Apprentices' Bath room, concrete gutters near TG 11 foundation; white washed walls and ceilings in Mechanical Testing office.
  - (e) Repairing of TH walls of Station 'B' progressing.
  - (f) Glazing TH steel window frames completed.
  - (g) Rebuilding bomb-damaged wall of Storage 'B' completed.
  - (h) Construction of retaining walls on 3 sides of Coal Storage 'A' progressing.
  - (i) Re-roofing of TH progressing.
  - (j) Reconditioning and decoration of New Conference room progressing.
  - (k) Extension of Workmen's Service Building progressing.

MISCELLANEOUS NOTES

The labour roll at Riverside totals 1321 including 19 Foreign and 83 Local Agreement, 39 Russians, 9 Subsidiary Staff (Foreign Watchmen), 23 Chinese Apprentice Engineers, 1 Student Engineer, 1 Engineer-Trainee and 1146 Chinese Staff.

Since the dissolution of the Old Union, the New Union is still in the process of reorganisation and the workmen have now commenced the election of their new representatives by ballot, these elections will not be completed until the end of the year. Meanwhile, the labour situation has remained tranquil although certain sections are still experiencing certain amount of trouble due to the sickness/overtime racket. The management have recently issued an order to the effect that employees granted sick leave or given light duty will not be required to do overtime work within 7 days after they return to duty, this order has met with some opposition on the part of the workmen and the Company have been requested to cancel same by the Labour Union.

The turning down of their request for a certain commodity has also been taken by the men to be an attack against the Union and in consequence, the labour attitude toward the end of the month has tended to deteriorate slightly.



SHANGHAI POWER COMPANY

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On November 26, a serious accident occurred to one of the men who was working on BH 5 Preheater. The workmen took a very strong attitude against the supervisor involved in this case, claiming wilful negligence, incompetence, etc, and demanded that the management do not in future employ inexperienced engineers. An enquiry was held, one result of which was that educational talks on Safety Measures were deemed necessary for both the Supervisory Staff and workmen; a meeting was held with all the Leading Hands and they were requested to submit suggestions for improving safety measures and also how best to educate the workmen in regard to safety regulations.

The average % of absenteeism due to sickness and/or other causes of the regular Chinese Staff amounted to 6.50% for the monthly rate, and 5.87% for the daily rate; the sickness % being 2.22% and 3.32% respectively

GENERAL -Staff:

During the month we suffered the loss of one Workshop Supervisor and we have unfortunately to record that the Machine Shop Supervisor is leaving shortly.

The cumulative effect of personnel leaving is now being seriously felt and is causing us no little concern owing to the difficulty if not impossibility of finding suitable replacements.

Twenty successful applicants for the newly created position of Boiler House Attendants have reported for duty and training; this experiment is being given every opportunity to succeed and the results will be closely watched.

Operation:

Record Daily Generation - The plant continued to be operated at maximum output of available equipment, the maximum generation for the month occurred on November 14, ie, 3,152,501 Kwh.

Our total station net output decreased by 2.32% from last month, namely 82,191,502 Kwh as against 84,141,395 Kwh, this decrease being due to (1) less Station 'C' generation; (2) less operating hours, namely 720 hours as against 745 hours.

The hourly station net output increased slightly by 1.07% from 112,941 Kwh to 114,155 Kwh.

The load factor based on gross generation increased from 78.26% in October to 78.95% for November.

SG UNITS -SG 31:

After a continuous run of 986 hours this unit was taken off load on November 17. Whilst the unit was taken off load at urgent notice

SHANGHAI POWER COMPANY

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due to an Economiser tube leak, the unit would have had to be taken off load very soon and was in fact actually scheduled for November 22 due to heavy slagging of the generating tube bank.

This excessive slagging was the main operating difficulty encountered and all efforts to prevent same had failed, reduction of load on several occasions with the idea of lowering furnace temperature and thus precipitating the ash had failed.

On subsequent inspection of the furnace and gas passages, the former was found to be quite clean, ie, no sign of slagging, but the generating tube bank in the superheater gas pass was 80% clogged by brittle ash which was easily removable by hand. This accumulation of ash extended from the bottom row up to the fifth row, the last two rows being kept clean by hand steam-lancing.

This would indicate that the five small soot blowers installed in the rear wall below the generating tube bank are not capable of maintaining these tubes in a clean state, thus the necessity for some constructional changes in order to provide more effective means of cleaning these tubes is apparent.

Whilst the need for relocation of soot blowing equipment is obvious, the manner in which this relocation is to be accomplished is not easily determined owing to constructional reasons, therefore Messrs Babcock & Wilcox, Limited, are to be approached regarding this matter.

The leaky economiser tube has been fitted with a new short connecting nipple, same being welded to existing economiser tube, then a sleeve fitted over weld and sleeve then welded to tubes.

The faulty Feed Water Valve V-10 $\frac{1}{2}$  was successfully welded up and unit hydraulically pressure tested to 1350 psi, the repaired economiser tube and V-10 $\frac{1}{2}$  were found to be OK but 30 main tube expansions on generating bank, front and rear, were found to be leaking at expansions; these are now being re-expanded and it is hoped to have the unit back in commission shortly. Joints on RH & LH side of superheater outlet headers were remedied.

General:

A considerable amount of repair work and cleaning was carried out on SG units, a total of 2,868 hours being spent upon repairs for all units.

Unfortunately we have to record that pipe flange rivets in BH 3 are showing advanced signs of metal fatigue, several having broken off, it would appear that we have to institute an immediate program for replacement; in the case of SG 17 where careful inspection and test were made nearly all rivets were found to be defective.

The unscheduled outages show a decrease from previous month, namely 3 as against 4, the deferred outages however are the same as for previous month, namely 11 in number.

SHANGHAI POWER COMPANY

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The total hours SG were o/c for unscheduled and deferred outages show a considerable increase, namely 522 hours as against 134 for previous month, and were made up as follows:-

Unscheduled Outages - 369 hours as against 35 hours.  
Deferred Outages - 153 hours as against 99 hours.

Tube renewals registered a considerable decrease, namely 5 as against 44 for previous month.

Major maintenance work for the month consisted of the following:-

SG 31 - o/c 317 hours for Economiser leak, V-104 repairs and general cleaning work progressing.  
SG 30 - o/c 93 hours for routine cleaning and general repairs, completed.  
SG 27 - o/c 73 hours for routine cleaning and general repairs, completed.  
SG 26 - o/c 720 hours for complete overhaul and re-headering and economiser, work progressing.  
SG 23 - o/c 124 hours for routine cleaning and general repairs, completed.  
SG 17 - o/c 113 hours for routine cleaning, renewing of rivets in all flange joints and general repairs, completed.  
SG 16 - o/c 416 hours for partial overhaul after 16,422 hours operation, completed.  
SG 13 - o/c 720 hours for partial overhaul after 3294 hours operation, work progressing.

#### TG UNITS -

TG 18 was taken off load on November 17 due to SG 31 outage, a leaky tube was located in GSLO header; this unit had performed very satisfactorily during 986 hours continuous operation, valve gear difficulties appear to have been cured.

Apart from TG 12 o/c for general overhaul and TG 5 o/c for partial overhaul, all work on TG units was of a routine nature this month, and as in previous months, practically all such work has been carried out at week-ends and other off peak periods, thereby necessitating considerable overtime payments.

Apart from TG 18, TG 12 and TG 5, the total hours TG units were o/c for all causes, amounted to 842½ hours only.

Unscheduled Outages - 1 - totalling 28½ hours.  
Deferred Outages - 2 - totalling 5½ hours.

#### CALTEX CONSTRUCTION -

The calibration tables for FOT 4 were finally approved and this tank put into commission on November 3; several small jobs have to be carried out, eg, pipe supports, steps for valve operation, also extension to valve spindles, etc; these will be put in hand shortly.

SHANGHAI POWER COMPANY

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ELECTRICAL -

Apart from a major electrical fault occurring on 6.6 kv main connections to TG 7 main transformer bank (see electrical report) work during the month was generally speaking of a routine nature.

A great deal of work requires to be carried out on the general lighting circuits, this work being retarded due to both available staff and equipment.

FUEL OIL SUPPLY -

Fuel oil consumption for the month totalled 28,549 long tons, the maximum daily consumption being 1,051 tons and average daily consumption 951.63 tons.

WORKSHOPS -

The Workshop continues to be loaded with work, necessitating considerable overtime, in addition we are losing the services very shortly of an excellent machinist who has only been with us a very short while; we find it practically impossible to acquire locally suitable workshop personnel.

The Winding Shop also continues to be overloaded, the workmen's efficiency in this section whilst showing a slight improvement still continues to be low. Several jobs have been placed out on contract owing to our inability to tackle same due to pressure of work.

REHABILITATION & CONSTRUCTION -

Repairs to Turbine House Walls, 'B' Station, progressing.

Glazing steel window frames, Turbine House, completed.  
Number of panes set 3875 pieces.

Repairing bomb damaged East Retaining Walls of Storage 'B' and laying new drains; blocking existing drains - 100% completed.

Construction of 11' high x 352.5 lineal feet reinforced retaining walls on three sides of the existing Coal Storage 'A'.  
Progressing. 50% completed.

Repairs and general overhaul to Coal Lighter No. 14 and Ash Lighter No. 2 - 100% completed.

Re-roofing of Turbine House. Work above Pump Bay No. 2 - 95% completed. Work above Control Room - 95% completed. Work above TG 11 - 40% completed.

Conference Room. Reconditioning and decoration progressing.  
50% completed.

SHANGHAI POWER COMPANY

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Supply of labour only for the manufacturing of 4 pieces Ash Chutes and general overhaul of steel structure including painting. Progressing, 35% completed.

South Wing Extension, Workmen's Service Building, Drawing 21/342, Sheet 40 - 41 - 42. Progressing.

FUEL -

Coal receipts were 14,424 tons during November, made up of two kinds of coal (Formosan and Kailan), 17,426 tons were burned and 91 tons issued by Stores making a total of 17,517 tons. Total stocks on December 1, 1947 (8.00 am) were 24,183 tons, consisting of 21,597 tons on mechanical storage and 2,586 tons in bunkers. Coal deliveries during the period were 3,093 tons less than burned plus issued, and stocks were decreased a like amount.

Oil receipts were 30,080.27 tons during November and 28,549 tons were burned and 6 tons issued for Head Office Heater, thus increasing stocks on December 1, 1947 (8.00 am) to 2,443.12 tons. (Note:- Additional FOT has been placed i/c).

MUD DREDGING -

During the month 4,320 cubic yards of mud (27 lighters of 160 cubic yards per lighter) dredged from in front of cur wharves and pump houses.

COKE & BRIQUETTES -

During the month no coarse coke was recovered from ashes, and 46,400 lb issued for Company use, leaving 762,094 lb in Stores on December 1, 1947.

During the month 200 metric tons of anthracite coal were received from local suppliers and 124.8 metric tons of anthracite issued for the manufacture of briquettes for sale to employees. Total amount of briquettes made was 356.95 metric tons, of which 344.05 metric tons was issued.

*C. J. Pleace*  
C J Pleace

CJP/S  
Encl: SG Water Report  
TG Oil Report  
Characteristic Curves

Shanghai, December 29, 1947

OPERATION ENGINEER  
 CHEMICAL ENGINEER  
 INSTRUMENTAL ENGINEER  
 OPERATION EMPLOYEE  
 OFFICE  
 LUBRICATION SECTION

RIVERSIDE STEAM ELECTRIC STATION  
 TURBINE OIL SERVICE DATA

November 1947

DATE December 4, 1947

TG No.	OPERATION TIME HR	MAKE-UP		CENTRIFUGE OPERATION				LABORATORY REPORT			REMARKS
		GAL	DESCRIPTION	HR	SOY SOLIDS MM	SOLIDS LB PER 1000 HR	WATER LB	VISCOSITY 100° F/AST/ST	ACIDITY MG/100 GM	DEMULSIVITY MIN	
10	401								0.12	3	
10	706	26	DTE Lt 797						0.063	2 1/2	
15	714								0.95	3 1/2	
14	709	25	DTE Lt 797						1.05	2	
13	715	10	DTE Lt 797						0.060	2	
12	272	5	DTE Lt 797						0.43	5	
11											
10	704								0.32	3 1/2	
9	702	27	Tycol Lt						0.20	5 1/2	
8	683	27	Tycol Lt						1.51	4 1/2	
7	602	40	DTE Lt 797						0.039	6	
6											
5	370	15	Tycol Lt	306	-	-	7 1/2		0.075	2 1/2	
4	692			715	-	-	9 1/2		0.073	2	
2											
1	514	20	ex TG 7 Tycol Lt						0.40	6	

HISTORY OF OIL BATCHES

TG No.	LAST FULL CHARGE			TOTALS TO DATE				MAKE-UP DATA			OPERATING HRS SINCE LAST OVS/HAUL	
	DATE	GAL	DESCRIPTION	OPERATING HR	SOLIDS LB/1000 HR	SOLIDS LB	WATER LB	WATER LB/1000 HR	TOTAL GALLONS	GAL PER 1000 HR		TO HR PER GAL
10	Nov 46	576	Rio Tycol Lt	4290	-	-	-	-	82	20	52	4290
16	Nov 46	940	DTE Lt 797	689 1/2	494	72	1A85	216	260	38	27	689 1/2
15	Aug 38	846	DTE Lt	45302	2149	33	9128	139	2266	35	29	17013
14	June 37	927	Shell B 8A	40357	3776	56	13330	195	2649	39	26	17312
13	Mar 47	103	DTE Lt 797	4678	-	-	4	1	55	12	85	4678
12	Apr 37	111	DTE Lt	42226	36	-	12	-	610	10	102	4678
11												4678
10	June 36	1280	Tycol Lt	69360	685	10	1242	18	2089	30	32	14885
9	May 46	590	Rio Tycol Lt	12626	227	18	495	41	317	25	40	1645 1/2
8	Sept 36	580	Tycol Lt	68742	3113	45	5240	76	2241	33	31	13957
7	July 47	339	DTE Lt 797	2397	-	-	-	-	92	40	26	2397
6												
5	July 46	250	Rio Tycol Lt	10731	248	2 1/2	578	5 1/2	199	19	54	10731
4	June 46	250	Rio Tycol Lt	11708	442	40	3354 1/2	2867	146	13	80	11708
2												
1	Aug 36	296	Old Shell	7338	-	-	-	-	342	44	23	2515

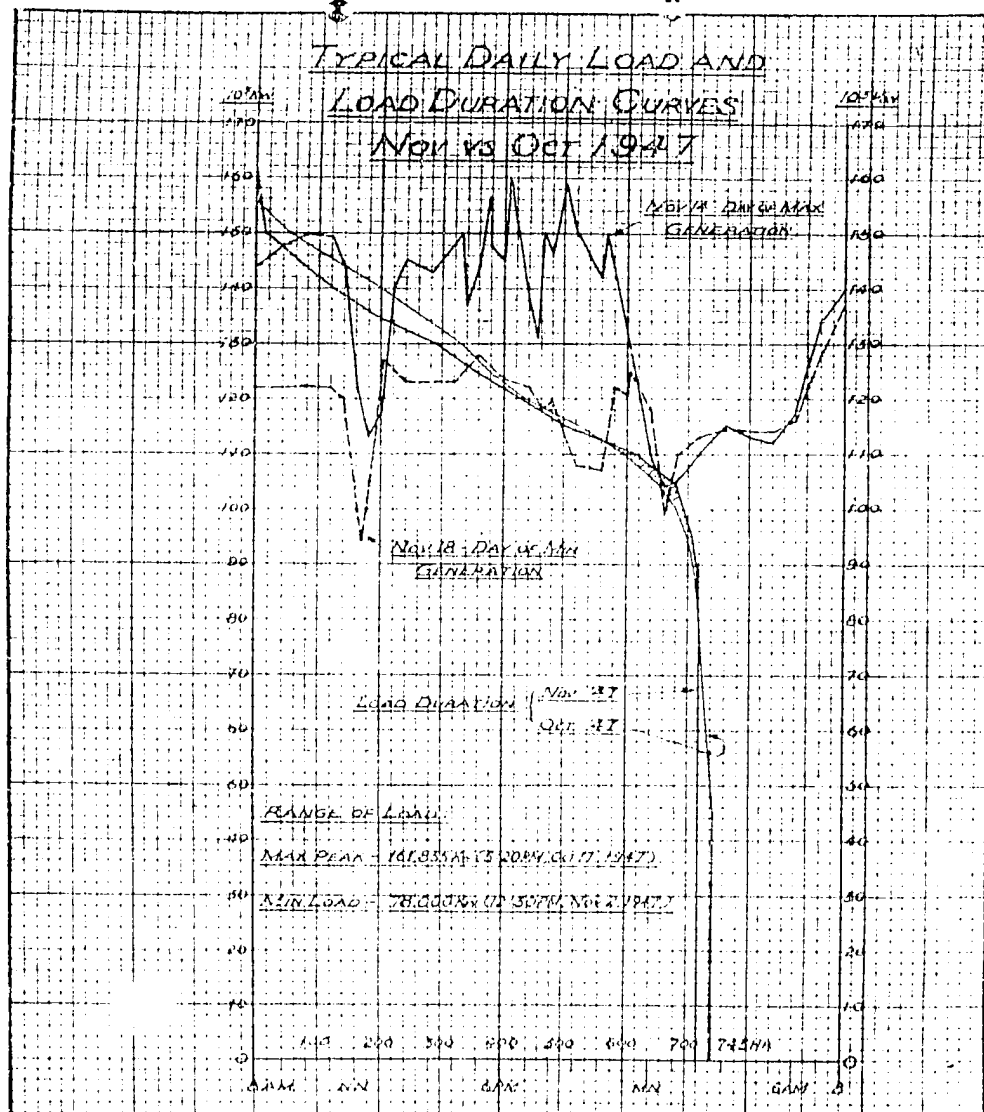
*J. C. Baker*  
 J. C. Baker      A. Liven

RIVERSIDE STEAM ELECTRIC STATION  
SHANGHAI POWER COMPANY  
CHEMICAL LABORATORY

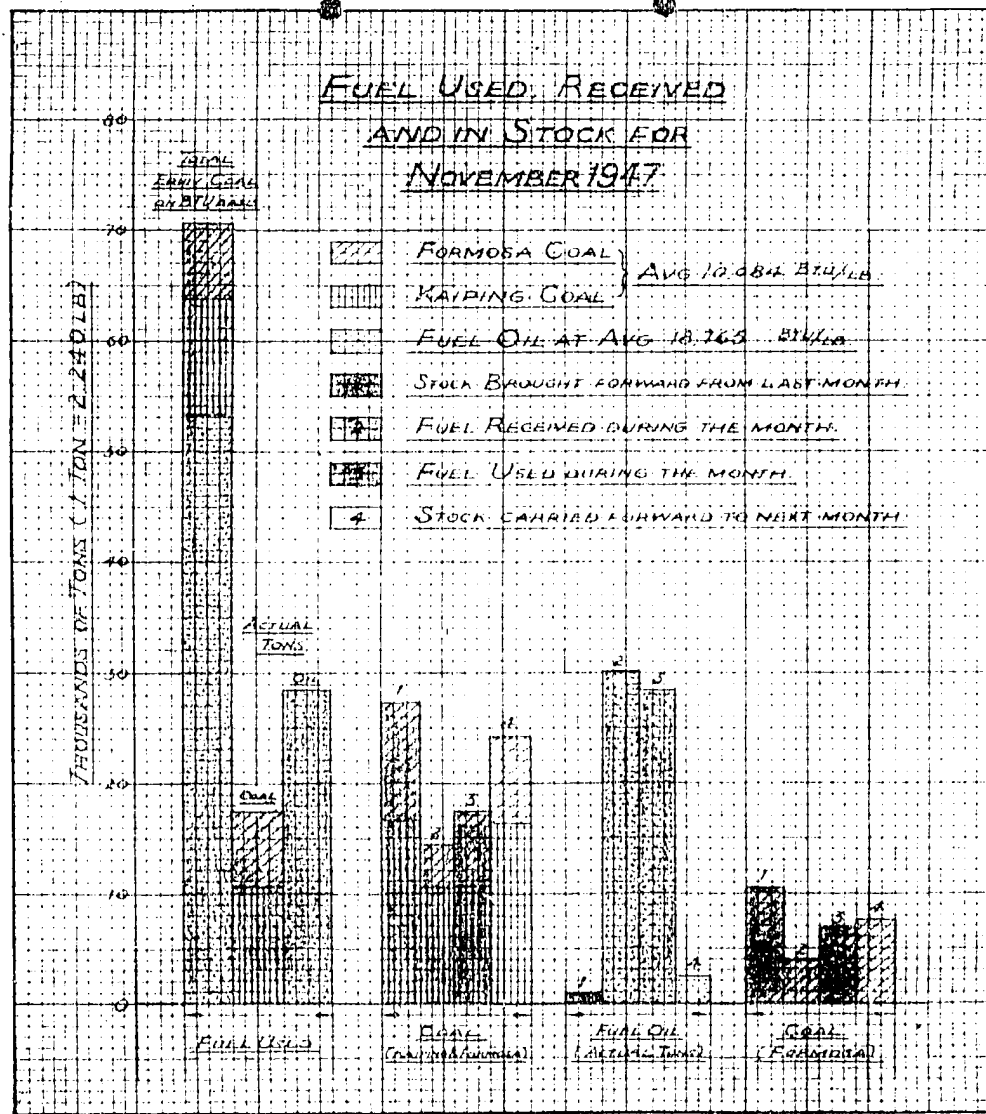
ANALYSIS  
BOILER WATER ANALYSIS

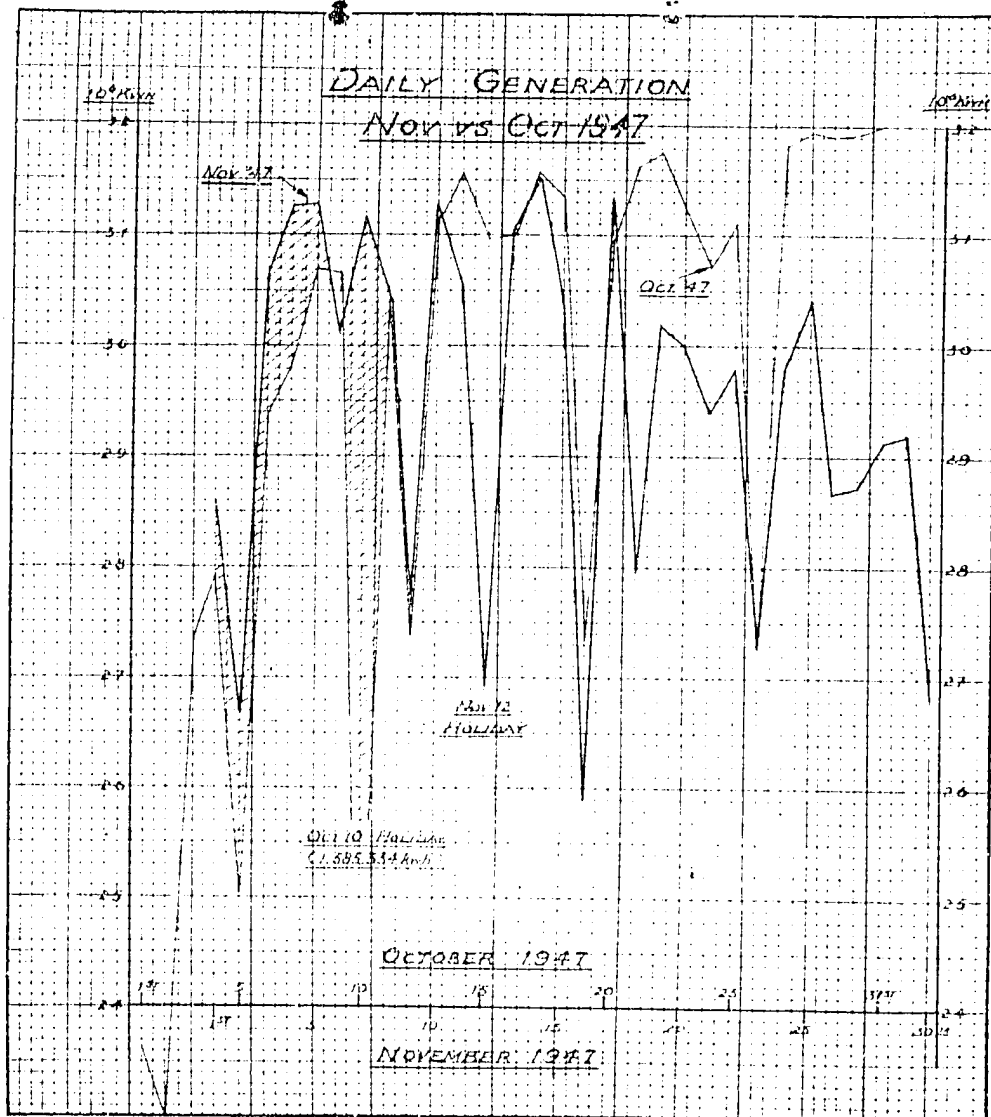
DATE 194

RUN TIME	ALKALINITY - PARTS PER MILLION		SODIUM SULPHATE		MgCl	MgSO <sub>4</sub>	SiO <sub>2</sub>	pH	K	CHEMICALS ADDED LB				REMARKS
	SHARP	TOTAL	PPM	PPM						CaCl <sub>2</sub>	CaSO <sub>4</sub>	NaOH	Na <sub>2</sub> CO <sub>3</sub>	
1														
2														
3														
4														
5														
6														
7														
8														
9	20	180	187	275	1.2			10.5	2053				15	05
10	25	185	190	285	1.2			10.5	2053				20	05
11	30	190	195	295	1.2			10.5	2053				25	05
12	35	195	200	305	1.2			10.5	2053				30	05
13	40	200	205	315	1.2			10.5	2053				35	05
14	45	205	210	325	1.2			10.5	2053				40	05
15	50	210	215	335	1.2			10.5	2053				45	05
16	55	215	220	345	1.2			10.5	2053				50	05
17	60	220	225	355	1.2			10.5	2053				55	05
18	65	225	230	365	1.2			10.5	2053				60	05
19	70	230	235	375	1.2			10.5	2053				65	05
20	75	235	240	385	1.2			10.5	2053				70	05
21	80	240	245	395	1.2			10.5	2053				75	05
22	85	245	250	405	1.2			10.5	2053				80	05
23	90	250	255	415	1.2			10.5	2053				85	05
24	95	255	260	425	1.2			10.5	2053				90	05
25	100	260	265	435	1.2			10.5	2053				95	05
26	105	265	270	445	1.2			10.5	2053				100	05
27	110	270	275	455	1.2			10.5	2053				105	05
28	115	275	280	465	1.2			10.5	2053				110	05
29	120	280	285	475	1.2			10.5	2053				115	05
30	125	285	290	485	1.2			10.5	2053				120	05
31	130	290	295	495	1.2			10.5	2053				125	05
AVG														









SHANGHAI POWER COMPANY

November 30, 1947

SHANGHAI POWER COMPANY AND  
WESTERN DISTRICT POWER COMPANY OF SHANGHAI  
FEDERAL INC., USADISTRIBUTION DEPARTMENT  
MONTHLY LETTER FOR NOVEMBER 1947I N D E X

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The following outlines the activities in connection with operation, maintenance and construction work in this Department.

I OPERATION

(A) SERVICE FAILURES AND TROUBLE CALLS

(1) Major Service Failures

(a) Load Reduction due to insufficient electrical(E) and/or steam(S) generating capacity at Riverside

Date	Nov 11	Nov 13	Nov 17	Nov 18	Nov 19	
Area affected	SPC WDPC	SPC	SPC WDPC	SPC WDPC	SPC WDPC	
Supply from substation	5 sub-stations	Tonquin	Riverside Yangchow Robison	7 sub-stations	Yangchow Tonquin Colnaught Robison	
Feeder	9 feeders	CC 101	Japan China A 6 G 3 DF 73	19 feeders	10 feeders	
Customer	8 customers & LV networks	Sung Sing 9	5 customers	23 customers & LV networks	13 customers & LV networks	
Duration of supply interruption	49 mins to 3 hrs 37 mins	15 mins	4 mins to 32 mins	1 hr 15 mins to 5 hrs 55 mins	2 mins to 2 hrs 55 mins	
Estimated kVA-hrs load	Company's area	AM 37,370	PM 1,070	PM 5,670	AM 128,893 PM 35,325	AM 9,040 PM 28,100 Ev 9,304
	Chapel					
	French					
	Total	37,370	1,070	5,670	164,218	46,524
Insufficient electrical and/or steam generating capacity	S	S	E	S	S	
Remarks	AM - refers to morning peak load period (8 am to 12 noon) PM - " " afternoon " " " (12 noon to 7 pm) Ev - " " evening " " " (after 7 pm)					

SIAMMAI POWER COMPANY

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(a) Load Reduction due to insufficient electrical(E) and/or steam(S) generating capacity at Riverside (continued)

Date	Nov 20	Nov 21	Nov 22	Nov 23	Nov 24
Area affected	SPC	SPC WDPC	SPC Chapel	SPC	WDPC
Supply from substation	Yangchow	Riverside Yangchow Tonquin Robison	Riverside Yangchow Connaught	Yangchow	Robison
Feeder	G 16 GG 201 G 6	7 feeders	4 feeders	G 9	DF 73
Customer	Wing On 1 Hunfoon Wing On 5	9 customers & LV net- works	4 customers	Sung Sing 6	Sung Sing 1 Toyoda
Duration of supply interruption	52 mins to 2 hrs 32 mins	14 mins to 3 hrs 36 mins	37 mins to 1 hr 34 mins	1 hr 5 mins	23 mins
Estimated kVA-hrs load	Company's area	AM 7,090	AM 5,790 PM 13,762 Ev 3,700	AM 2,340	AM 2,740
	Chapel			AM 7,050	
	French				
	Total	7,090	23,252	9,390	2,740
Insufficient electrical and/or steam generating capacity	S	S & E	S	S	S
Remarks	AM - refers to morning peak load period (8 am to 12 noon) PM - " " " afternoon " " " (12 noon to 7 pm) Ev - " " " evening " " " (after 7 pm)				

SHANGHAI POWER COMPANY

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(a) Load Reduction due to insufficient electrical(E) and/or steam(S) generating capacity at Riverside (continued)

Date	Nov 25	Nov 26	Nov 27	Nov 28	Nov 29	
Area affected	SPC WDFC Chapel	SPC WDFC Chapel	SPC WDFC Chapel	SPC WDFC Chapel	SPC WDFC Chapel	
Supply from substation	Riverside Yangchow Tonquin Robison	16 sub-stations	11 sub-stations	5 sub-stations	6 sub-stations	
Feeder	6 feeders	23 feeders	23 feeders	9 feeders	16 feeders	
Customer	8 customers & LV networks	23 customers & LV networks	23 customers & LV networks	20 customers & LV networks	20 customers & LV networks	
Duration of supply interruption	17 mins to 4 hrs 10 mins	5 mins to 4 hrs 27 mins	5 mins to 4 hrs 15 mins	2 mins to 3 hrs 36 mins	33 mins to 4 hrs 24 mins	
Estimated kVA-hrs lost	Company's area	AM 1,260 PM 7,360 Ev 4,900	AM 3,998 PM 7,255 Ev 21,070	AM 41,060 PM 22,850 Ev 10,860	AM 12,620 PM 10,667	AM 6,090 PM 47,160 Ev 6,156
	Chapel	AM 10,800	AM 11,570 PM 213	PM 1,860	AM 10,255	AM 3,140 Ev 2,860
	French					
	Total	34,420	44,106	76,330	33,542	65,406
Inadequate electrical and/or steam generating capacity	S	S	E	S & E	S & E	
Remarks	AM - refers to morning peak load period (8 am to 12 noon) PM - " " afternoon " " " (12 noon to 7 pm) Ev - " " evening " " " (after 7 pm)					

SHANGHAI POWER COMPANY

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(a) Load Reduction due to insufficient electrical(E) and/or steam(S) generating capacity at Riverside (continued)

Date	Nov 30	
Area affected	SFC WDPC	
Supply from substation	Riverside Tonquin Robison	
Feeder	DF 73 C 20, 19/21 A 10	
Customer	6 customers & LV net- works	
Duration of supply interruption	9 mins to 25 mins	
Esti- mated kVA-hrs lost	Company's area	Ev 3,650
	Chapel	
	French	
	Total	3,650
Insufficient electrical and/or steam generating capacity	S	
Remarks	AM - refers to morning peak load period (8 am to 12 noon) PM - " " afternoon " " " (12 noon to 7 pm) Ev - " " evening " " " (after 7 pm)	

SHANGHAI POWER COMPANY

(b) Other Causes

Date	Nov 1	Nov 13	Nov 17	Nov 22	Nov 25
Area affected	WDPC	SFC Chapei	SFC	WPC	WDPC
Supply from substation	Robison	Connaught	Yangchow	China P/M Pao Shan P/M	China P/M Pao Shan P/M
Feeder	D 3 O/H line	E 11	G 16	-	-
Customer	9 customers & LV net- works	Chapei Chang An	Wing On 1	-	-
Cause of failure	Undeter- mined	Overload	Cable fault	Pole hit by truck	Pole hit by truck
Fault cleared by	D 3 OCB	E 11 OCB	G 16 OCB	Master D/O fuse	Master D/O fuse
Damage to equipment	None	None	U/G cable fault	None	None
Duration of supply inter- ruption	1 hr 2 mins	28 mins	1 hr 52 mins	20 mins	1 hr 45 mins
Load affected kVA	Company's area	2,420	2,860	200	300
	Chapei		3,300		
	French				
	Total	2,420	3,300	2,860	200
Remarks				Preventive measures are under preparation by Engineering Department	



SHANGHAI POWER COMPANY

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(b) Other Causes (continued)

Date	Nov 26	Nov 28	Nov 29	Nov 30	
Area affected	Chapei	SPC	WDPC	SPC	
Supply from substation	Fearon	Wayside	Robison	Wayside	
Feeder	B 11/16	B 3 & B 2	D 3 O/H line	B 3 & B 1	
Customer	Chapei Paotung	11 customers & LV net- works	9 customers & LV net- works	16 customers & LV net- works	
Cause of failure	Fault on Chapei system	Cable fault	HV mains fouled by foreign matter	Cable fault	
Fault cleared by	B 11/18 OCB	B 2 & B 3 OCBs	D 3 OCB	B 1 & B 3 OCBs	
Damage to equipment	None	B 3 cable fault	None	B 3 cable fault	
Duration of supply interruption	Supply not restored from SPC system until December 1	44 mins to 1 hr 10 mins	1 hr 13 mins	12 mins to 32 mins	
Load affected kVA	Company's area	3,100	1,800	3,800	
	Chapei	3,600			
	French				
	Total	3,600	3,100	1,800	3,800
Remarks					

SHANGHAI POWER COMPANY

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(2) Classified Service Failures (including item 1)(a) Caused by Defective Equipment

Equipment	Number of Failures	
	This Month	Last Month
Overhead lines: HV	-	-
LV	-	-
Underground lines: Cables	-	-
Joints	3	-
Potheads	-	-
Transformers and voltage regulators	-	1
Switchgear	-	-
Power fuses	-	-
Protective equipment	-	1
Traction equipment	-	-
Metering equipment	-	-
Current and potential transformers	-	-
Street lighting: Series	1	1
Multiple	10	4
Other Company's equipment	-	-
Total (a)	14	7

(b) Other Causes

Cause of Failure	Number of Failures	
	This Month	Last Month
Foreign agencies: Overhead lines	4	8
Street lighting	-	-
Underground lines	-	-
Tram trolleys: Overhead lines	-	-
Street lighting	9	5
Theft of equipment	-	-
Typhoons and storms	-	-
Lightning	-	-
Flood	-	-
Fire	-	-
Vermine and birds	-	-
Overload	1	-
Customers' equipment failures:		
Company's area	-	1
Ex Franchise area	1	1
Company's staff: Misoperation	-	1
Fouled by workmen	-	-
Generating station trouble	16	23
Undetermined	2	1
Total (b)	33	40
Total (a & b)	47	47

SHANGHAI POWER COMPANY

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(3) Trouble Calls attended to by System Trouble Section

Company's Installation	Number of Calls					
	This Month			Last Month		
	SPC	WDPC	TOTAL	SPC	WDPC	TOTAL
23 kV overhead and underground lines	-	-	-	1	-	1
6.6 kV overhead and underground lines	5	4	9	6	1	7
380 volt overhead and underground lines	4	4	8	10	4	14
Street lighting lines and equipment	33	7	40	28	4	32
Traffic signals	137	11	148	112	9	121
House service connections and wires	30	20	50	71	39	110
Substation equipment	-	-	-	2	1	3
DC Traction equipment and lifts	-	-	-	-	-	-
Fire calls	32	1	33	49	7	56
False alarms	1	-	1	3	-	3
Miscellaneous	6	3	9	6	2	8
<u>Customers' premises</u>						
Lighting	711	192	903	810	216	1026
Power	110	42	152	86	65	151
Heating	26	11	37	50	11	61
Total Trouble Calls attended to	1095	295	1390	1234	359	1593
Average per day	36.5	9.3	46.3	39.8	11.6	51.4

(B) TRANSFORMERS AND REGULATORS

(1) Connected and/or Disconnected from Service

SPC

Location	Capacity in kVA		Remarks
	Connected	Disconnected	
Meichow-Chaoyang PT	325	225	Load increase
Hailar-Urga PT	225		New installation
Hailar-Tungchow PT		62 <sup>1</sup>	PT dismantled
E Seward-Chaoufoong PT		225	PT dismantled
Boston Worsted Mill No.2	325		New installation
Ferry-Macao PT	325	125	Load increase
Japanese Naval Yard PT		37 <sup>2</sup>	PT dismantled

SHANGHAI POWER COMPANY

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WDPC

Location	Capacity in kVA		Remarks
	Connected	Disconnected	
MacLeod-Nichols PT	20	20	Replaced due to minor damage suffered during lightning.
Robison-Kiaochow PT	325		New installation
Husi Club PT	2 x 10	10	Transformer overloaded
Lincoln Branch H 500 PT	35		New installation

U N I T S

SPC      WDPC

- (2) Taps changed for network voltage regulation
- (3) Switched on or off load for operational purposes
- (4) Under observation due to overload or overheating

3      1

SFC

Location	Capacity kVA	Type	Max Load		Max oil top temp	Ambient temp	Temp rise	Remarks
			%	Hours duration				
Patons & Baldwin W/M	625	Indoor	119	1	43	22	26	WO under preparation in Engineering Department
Weinan	125	Outdoor	147	1	53	14	39	
Yangtzepeco-Dalny PT	125	"	116	1	31	15	16	50 amps load were transferred to adjacent network
Avenue Edward VII-Chungking PT	225	"	109	1	40	15	24	
Ton Tobacco Company	225	"	117	1	60	21	39	
Da An R/F OT	225	"	120	1	46	15	30	
Robison-Gordon PT	325	"	107	1	56	14	42	
Yates PT	225	"	135	1	31	5	26	Shanghai China Merchants Stock Exchange
Shanghai China Merchants Stock Exchange	125	"	110	1	33	13	20	
Sung Sing No. 6 Tr No.2	940	Indoor	122	1	54	17	37	" " " Tr No.3 " " " Tr No.4
" " " Tr No.3	940	"	111	1	54	17	36	
" " " Tr No.4	940	"	111	1	55	17	37	
Pingliang-Tinghai PT	125	Outdoor	132	1	43	13	30	Chinese Aluminum Rolling Mill
Chinese Aluminum Rolling Mill	940	Indoor	109	1	53	25	33	
Chaoufoong C/M	325	"	112	1	48	13	35	

SHANGHAI POWER COMPANY

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## WDFC

Location	Capacity kVA	Type	Max Load		Max oil top temp	Ambi- ent temp	Temp rise	Remarks
			%	Hours duration				
Yih Chong R/F OT	325	Outdoor	138	1	68	19	49	320 amps load were trans- ferred to Yung Loh D&K.
Chun Kuang Fang	1,000	Indoor	113	1	75	28	47	Exhaust fan installed and also informed ED to take immediate action.
Soo Ka Koh PT	225	Outdoor	102	1	29	10	19	
Columbia-Great western PT	125	"	116	1	43	17	26	
Yu Yuen "C" PT	325	"	114	1	46	16	30	
Dah Yuen W/M PT	325	"	122	1	45	15	30	
Zao Ka Sie PT	225	"	117	1	44	13	26	
Ming Sung PT	225	"	106	1	40	20	20	
E Tse An Pang "E" PT	50	"	151	2	47	21	26	WD in hand.
Tse Chong Hsin Glue Factory PT	625	"	122	1	42	25	17	
Columbia Club PT	225	"	106	1	50	23	27	
Yu Yuen "D" PT	325	"	118	1	41	12	29	
St John's PT	225	"	107	1	43	11	32	
Dah Chung Wua F/M	625	Indoor	131	2	66	16	30	Informed ED &
China P/M OT	225	Outdoor	155	1	74	12	62	CKD to ask
Dah Doong C/M	625	Indoor	130	1	59	14	45	the consumers
Chung Woo F/M	325	"	130	1	72	13	59	to reduce
Hai Loong F/M	225	Outdoor	123	1	56	17	39	load.
Wah Foong Rubber Factory OT	225	"	114	1	45	21	24	

SHANGHAI POWER COMPANY

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## (C) MISCELLANEOUS TESTS

Units	Equipment	Voltage	Nature of test	Reason for test
2	Current transformer, 400/5 A, 15 VA, compound filled, make BTH	6,600	Pressure and ratio	Prior to installation
1	Bus coupler OCB and Bus Bar up to Bus section links, Brennan Substation	6,600	Overvoltage	New installation
2	Induction motors, 120 HP, 3 $\phi$ , make Mitsubishi. Property of National Resource Commission	3,300	No load run, blocked rotor, stator copper resistance, pressure and insulation resistance	Consumers' Engineers Department request
1	Lightning arrester, type auto valve, make Japanese. Property of Central Coal Administration	3,300	Overvoltage and puncture	Consumers' Engineers Department request
3 + 3	Transformers, 120 + 180 kVA, 1 $\phi$ , make ICE	$\frac{6,600}{225}$	Insulation resistance and pressure	After conversion from 6300/2200 V, 150 + 225 kVA by Wha Tung Electric works
3	Water fog nozzles	-	Electrical conductivity of water fog produced	Investigation
1	Auto battery charger, 65 watts, make Kingston	$\frac{115 AC}{6 DC}$	Heat run	Acceptance
12	Fluorescent lamps, 30 and 40 watts, make Sylvania and Champion	220	Check operation of starters, lamps and ballasts, IR of condensers, and heat run of local make ballasts and condensers	Acceptance

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Units	Equipment	Voltage	Nature of test	Reason for test
1	16 pair telephone cable	48	Phasing	After repair of cable fault
2	D 4 and D 5 pilot cable	-	Investigation	Possible inductive effect between cores
1	Transformer, 225 kVA, 3 $\phi$ , make SEM	$\frac{6,300}{370}$	Continuity, insulation resistance, pressure, ratio and phasing	After overhaul
1	Transformer, 225 kVA, 3 $\phi$ , make Ferranti	$\frac{6,300}{370}$	Continuity, insulation resistance, pressure	After overhaul
4	Exhaust fans, make Wood of Colchester, Ltd	$\frac{380}{440}$	Continuity, insulation resistance, current, power, heat run and draft	Acceptance
1	Exhaust fan, make Wha Tung	$\frac{360}{220}$	Continuity, insulation resistance, current, power and draft	Acceptance
5	Lightning arrester, type auto valve, make Japanese	3,300	Insulation resistance, overvoltage and spill-over voltage	Consumers' Engineers Department request
1	Transformer, 225 kVA, 3 $\phi$ , make Ferranti	$\frac{6,300}{370}$	Continuity, insulation resistance, pressure, ratio and phasing	After overhaul
-	Tinned copper fuse wire, SWG 24, make GEC	-	Fusing current	Acceptance
2	Bus Bar and disconnect insulator, make GEC, for AG 15/18 cell, Yangchow Substation	23,000	Pressure	Prior to installation

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Units	Equipment	Voltage	Nature of test	Reason for test
1	MG 2, 850 HP, make Westinghouse at Yangchow Substation	6,300	Insulation resistance, continuity, pressure and protection	Prior to commissioning
2	Pin insulator	6,600	Overvoltage and flash-over	Investigation
1	Transformer, 1,000 kVA, 3 $\phi$ , make Ferranti	$\frac{6,300}{370}$	Continuity, insulation resistance, pressure, ratio and phasing	After overhaul

II MAINTENANCE

Routine inspection, maintenance and testing of plant on the transmission and distribution system have proceeded according to programme.

(A) TRANSFORMERS AND REGULATORS

- (1) Overhauled (Core lifted, windings and connections examined, lit tested, and oil changed)

SPC

Location	Capacity in kVA	Workshop	Reason for overhaul
E Seward-Chaoufoong PT	225	Fearon Substation	Over 10 years in service.
Tongshan-Dent PT	225	"	" " " " "
Point-Kunping PT	225	"	" " " " "

WDPC

Location	Capacity in kVA	Workshop	Reason for overhaul
Kung Jung W/M	200	Fearon Substation	Drain valve damaged.
Chine Dyeing & Weaving PT	62 $\frac{1}{2}$	Riverside	Transformer failed in service.

U N I T S

	<u>SPC</u>	<u>WDPC</u>
(2) <u>Inspected on site</u> .....	3	1
(3) <u>Oil-Dielectric tested</u> .....	11	7



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(B) OIL CIRCUIT BREAKERS

(1) Overhauled and Tripping Mechanism Tested

Reason for test	Number of OCBs tested			
	SPC		WDPC	
	Company's property	Customer's property	Company's property	Customer's property
Routine and special maintenance	14	11	-	-
Oil circuit breakers tripped	4	-	-	-
New installation or operation resumed	1	9	-	1
Total	19	20	-	1

U N I T S

	SPC	WDPC
(2) <u>Oil-Dielectric strength tested</u> .....	15	2
(3) <u>Oil changed</u> .....	22	-

(C) OIL TREATMENT PLANT

Location	Transformer Oil				Switch Oil			
	Issued	Returned	Filtered	Stock	Issued	Returned	Filtered	Stock
	US gallons							
Fearon Oil Depot	1,032	1,002	2,898	959	792	745	2,077	714
On Site - SPC	-	-	-	-	-	-	-	-
WDPC	-	-	-	-	-	-	-	-
Total	1,032	1,002	2,898	959	792	745	2,077	714

Sample of Oil Tested for Breakdown ..... 107

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(D) PROTECTION, BATTERIES AND TELEPHONES

(1) Protection Tests

Type of Protection	Number of Panels where tests carried out	
	SPC	WDPC
Overload and/or Earth Leakage	19	-
Feeder or Transformer Balance	8	-
Total	27	-

(2) Relays

Type	Number of Relay Elements			
	SPC		WDPC	
	Circuit tested	Changed	Circuit tested	Changed
Inverse Time	2	-	-	-
Instantaneous	6	-	-	-
Total	8	-	-	-

(3) Batteries

Work done	Lead-Acid & Edison Types		Ni-Fe Type	
	110 V in Primary Substations	Telephone Exchange	30 V in Secondary Substations	
	SPC		SPC	WDPC
Inspected, cleaned and topped up	22	9	33	15
Equalizing charges conducted	3	1	1	-
Charged and discharged	1	-	-	-
Electrolyte changed	-	-	1	-

(4) Auto-Telephone Equipment and Lines

Instruments installed	4
" disconnected	-
" changed	-
" moved	2
" overhauled	-
" faults repaired	22
Line faults located and repaired	7
Switches overhauled	2
Exchange equipment faults repaired	3
Miscellaneous equipment overhauled	-

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## (E) PRIMARY SUBSTATIONS

Regular and Special Maintenance

Substation	Company	Equipment	Work done	% completed
Fearon, Yangchow and Tonquin	SPC	Switchgear	Inspection of heavy duty oil circuit breakers	100
Fearon	SPC	Rotary Plant	Overhaul of three 3,600 kVA synchronous motor generators and starting gears	40
Tonquin			Inspection of two synchronous condenser starting gears and separate exciters	30
Tonquin			Dismantling one 3,600 kVA synchronous motor generator	100
Park			Inspection of three rotary converters starting gears	100
Clock Tower	SPC	Rectifier Plant (Tramway Company's property)	Inspection and cleandown of traction rectifier equipment	100
Primary Sub-stations	SPC	Power transformers	Inspection of all transformer breathers and change of sorbell	100
Yangchow			Inspection of main transformers and connecting up spare transformer for one week	100
Tonquin			Inspection of main transformers and connecting up spare transformer for one week	50
Oil Depot	SPC	Oil Plant	Overhaul of oil plant	10
Fearon, Tonquin and Yangchow	SPC	Various substation equipment	Inspection of lightning arresters	60
Park, Fearon and Connaught			Overhaul 4 exhaust fans	30
Primary Sub-stations	SPC & WDPC		Checking of all tools	20
			Protecting of water pipe, hydrants and pumping connection against frost	100
			Testing of all rubber gloves	50
Primary Sub-stations	SPC & WDPC	Batteries	Routine maintenance	To programme
Safety devices inspection and check on artificial respiration practice carried out according to programme.				

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(F) SECONDARY SUBSTATIONSRegular and Special Maintenance

Location	Company	Work done	% completed
Taepoo	SFC		25
Bubbling Well	"		85
Range	"	<u>Biannual Regular Maintenance</u>	75
Kiaochow	"		25
Wing On 3	"	Overhaul of switchgear, testing of automatic protective equipment,	15
Chusan	"	inspection of transformers and regulators, inspection of all	100
International P/M	"	electrical equipment and cleaning.	100
Shanghai 5	"		100
Shanghai 2 and 3	"		100
Edinburgh	WDPC		50
Eastern District		Overhaul of three power transformers at Fearon Substation	100
All districts		Overhaul overload testing gear	100
All districts		Overhaul lightning arresters	95
All districts		Checking of standard auxiliary equipment in substations	100
Central District		Overhaul of exhaust fans	100
All districts		Inspection of pole transformers	To programme
All districts		Inspection of safety devices and check on artificial respiration practice	To programme



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(5) Traffic Signal Switches

Location	Installed	Removed	Replaced	Overhauled
Eastern District	-	-	-	1
Central District	-	-	3	48
Western District	-	-	2	4

(H) UNDERGROUND LINES

	<u>% completed</u>	
	<u>SFC</u>	<u>WDPC</u>
(1) <u>Inspection and Maintenance</u>		
Idle cable risers .....	100	100
Road condition along cables in Eastern District .....	100	-
Central District duct line and manholes .....	100	-
Underground cables on bridge crossings .....	100	-
	<u>Units</u>	
	<u>SFC</u>	<u>WDPC</u>
Cable potheads and joints: 23 kV .....	4	1
(including standardization) 6.6 kV .....	23	32
380 V .....	3	-
Feeder pillars .....	1	-
	<u>Location</u>	
	<u>SFC</u>	<u>WDPC</u>
Underground cables slung and protected: .....	-	Robinson Road W of Kiao- chow Road

SHANGHAI POWER COMPANY

(2) 23 kV Underground Cable Failure Located and Repaired ..... 3

SPC

Feeder name	Type of failure	Location of failure	Faulty cores	Cause of failure	Repairs
AC 33	Service	Cable (Lay Road corner of Hochien Bridge)	B	Undetermined	Length of 18 feet single core cable replaced by new cable and two new single core joints
	Test	Joint 7 (Yangtzepoo Road W of Ningwu Road)	W	Obsolete design	Remade in position
AD 57	Service	Joint 57, Manhole No. 12	B	Obsolete design	Length of 532 feet between M/H 12-13 replaced by new cable and two new joints

WDPC Nil

(3) 6.6 kV Underground Cable Failure Located and Repaired ..... 1

SPC

Feeder name	Type of failure	Location of failure	Faulty cores	Cause of failure	Repairs
G 16	Service	Joint 3 (Chemulpo Road N of Funing Road)	B,W	Obsolete design	Length of 9 feet replaced by new cable and two new joints

WDPC Nil

(4) 380 V Underground Cable Failure Located and Repaired ..... Nil

(5) Pilot, PL and Telephone Cable Failure Located and Repaired ..... 1

SPC

Feeder name	Location of failure	Faulty cores	Cause of failure	Repairs
Old Park-Tonquin, 16 pair telephone	Cable (Park Road corner of Avenue Road)	All pairs	Ground subsidence	Length of 279 feet replaced by new cable. Cable run overhead and two new joints made in ground

WDPC Nil

SHANGHAI POWER COMPANY

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(6) 23 kV Underground Cable Preventive Repairs ..... 1

SFC

Feeder name	Location of weakness	Cause of weakness	Repairs
KD 56	Joint 4 (Singapore Road corner of Haiphong Road)	Ground subsidence	Remade in position

WDPC Nil

(7) 6.6 kV Underground Cable Preventive Repairs ..... Nil

(8) 380 V Underground Cable Preventive Repairs ..... Nil

(I) BUILDINGS

	<u>Location</u>	<u>Work Done</u>	<u>% completed</u>
SFC	1. Fearon Underground trench gear shed	Repairs to roof and building	100
	2. Fearon Constiuction Substation Workshop	Repair roof	100
	3. Fearon Constiuction Substation Workshop	Alterations to building	30
	4. Dent Substation	Raising concrete floor	50
	5. Yangchow Depot	Repair roof	60
	6. Fearon Transport Workshop	Repairs doors	100
	7. Fearon DD office	Installation of oil stoves	100
WDPC	Nil		



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III CONSTRUCTION

(A) SERVICES

	<u>SFC</u>	<u>WDPC</u>
(1) <u>House Services</u>		
Connections .....	440	296
Disconnections .....	68	20
Net increase .....	372	276
 (2) <u>Municipal Street Lighting</u>		
Connections .....	22	16
Disconnections .....	-	-
Net increase .....	22	16
 (3) <u>Private Lighting</u>		
Connections .....	11	15
Disconnections .....	18	4
Net increase .....	- 7	11

(B) OVERHEAD LINES

(1) <u>Erection</u>	<u>Area</u>	<u>Location</u>	<u>Route length yards</u>	<u>Number of poles</u>
380/220 V 4-wire	SFC	613/30 Yangchow Road	79	-
"	WDPC	Brenan Road in front of House No. 2675	20	-
 (2) <u>Salvage</u>				
380/220 V 4 wire	SFC	Kiangso S of Nanking Road	59	1
 (3) <u>Poles</u>			<u>SFC</u>	<u>WDPC</u>
Erected .....			15	27
Removed .....			5	3
Moved at the request and expense of the Municipality .....			-	-

SHANGHAI POWER COMPANY

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(C) UNDERGROUND LINES

(1) Installation

Cable -

SPC 12 yds, .057 sq in, 3-core, 6.6 kV cable for supply to Hailar-Urga PT

WDPC 12 yds, .057 sq in, 3-core, 6.6 kV cable for supply to Robison-Kiaochow PT

Joints and potheads -

SPC 1. Two 23 kV potends installed on Kx-AC 11, AC 12 feeders on Garden Road

2. One 6.6 kV pole pothead and one 6.6 kV transformer pothead for supply to Hailar-Urga PT

3. One 6.6 kV pole pothead for supply to Kiu Lung W & D Factory, Paoing Road

4. One 6.6 kV indoor pothead for supply to Boston Wersted No. 2, Dixwell Road

5. One 6.6 kV potend installed on Kx-E Seward-Chuafucong PT feeder

WDPC One 6.6 kV pole pothead and one 6.6 kV transformer pothead for supply to Robison-Kiaochow PT

(2) Salvage

Cable -

SPC 1. 11 yds, .06 sq in, 3-core, 6.6 kV cable salvaged from Tongshan-Bent PT

2. 21 yds, .1 sq in, 3-core, 6.6 kV cable salvaged from Local Transformer No. 1, Tonquin Substation

3. Lengths of 4 yds and 16 yds each, .3 sq in, 3-core, 6.6 kV cable salvaged from KC No. 3, Tonquin Substation

WDPC Nil

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Joints and  
potheads -

SPC 1. One 6.6 kV pole pothead and one 6.6 kV transformer pothead salvaged from Tongshan-Dent PT

2. Four 6.6 kV indoor potheads salvaged from MG No. 3, Tonquin Substation

3. One 6.6 kV transformer pothead salvaged from East Seward-Chaoufoong PT

WDPC Nil

(3) Deviation

SPC 1. Due to rearrangement of MG No. 2 switchgears, three 6.6 kV indoor potheads position interchanged, Yangchow Substation

2. Due to supply to new consumer, Ex Dixwell-Market Street PT cable cut and deviated into Boston Worsted No. 2 Substation, Dixwell Road

WDPC Nil

(D) SUBSTATIONS

	<u>Substation</u>	<u>Work Done</u>	<u>% completed</u>
SPC	1. Sing Yue No. 1, West Seochow Road	Installation of 6.6 kV bus couple gang operated links	30
	2. Kiu Lung W & D Factory, Poting Road	Installation of a 225 kVA transformer	75
	3. Yangchow	Restoration of AG 16 and conversion of AM 80 to radial feeder	30
	4. Boston Worsted No. 2, Dixwell Road	Installation of a 325 kVA transformer	100
	5. Sing Fong D & N Factory, Whashing Road	Installation of 6.6 kV supply	75
	6. Pioneer Steel Rolling, Pingliang Road	Installation of 6.6 kV supply	40
WDPC	1. Union Syndicate, off Connaught Road	Installation of 6.6 kV supply	20
	2. Kwang Sing P & D, Koswick Road	Conversion to 6.6 kV metering	30
	3. Brennan	Installation of bus section OCB	100

SIANGHAI POWER CONTRACT

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(E) BULK SUPPLY METERING

<u>Work Done</u>	<u>SPC</u>	<u>WDPC</u>	<u>Total</u>
Metering equipment installed	1	-	1
" " removed	-	-	-
" " changed	1	-	1

(F) VARIOUS WORK

	<u>Nature of work</u>	<u>Location</u>	<u>% completed</u>
SPC	1. Clean tools and equipment	Fearon Substation Workshop	100
	2. Shifting Underground Emergency stock to new store room	Fearon Underground Emergency Store	100
	3. Making reinforcing clamps for 4'-0" copper sleeves	Fearon Substation Workshop	75
	4. Redrumsing of cables from rotten to good reels and repair to cable drums	Fearon Depot	65
	5. Change transformer pothead to standard type	Point-Kungping PT Meienow-Chaoyang PT Ferry-Macno PT	100
	6. Installation of reinforcing clamps on AD 57 and ED 56 joints in manholes	Manholes 1-25	25
	7. Restoration of AG 16 and conversion of AM 80 to radial feeder	Yangchow	15
	8. Repairing Hon Bridge PL cable fault	Honan Bridge	100
	9. Installation of wooden frames for batteries	Tonquin	100
	10. Prepare material for Under-ground Emergency Store	Fearon Underground Workshop	-
	11. Remake MG 2 cable potheads	Yangchow	100
	12. Repair and level ground	Haiphong Depot	100
WDPC	1. Change transformer pothead to standard type	Brenan-Jessfield PT	100
	2. Laying a concrete pipe duct for cable road crossing	Edinburgh Road	100

SHANGHAI POWER COMPANY

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IV WORK DONE FOR CONSUMERS

	<u>Location</u>	<u>Nature of work</u>	<u>% completed</u>
SPC	1. Tonquin Substation	Removal of temporary traction supply and reinstallation to Yangchow Substation	100
	2. " "	Salvage of 6.6 kV and 550 V underground cable connections used for temporary traction supply	100
	3. Gordon Road, corner of Robison Road	Salvage of DC cable and installation of two 550 V DC joints	100

V STAFF

Engineering and Office Staff

(A) CHANGES

SPC

Pomishkin, A C	Assistant Engineer	Resigned
Kostrometnikov, S J	Secretary	Resigned
Syborg, L	Department Head	Transferred to Administration

WDPC

None

Monthly Rate Staff

SPC

None

WDPC

None

Daily Rate Staff

SPC

EMX 8	Labourer	engaged
CMX 15	"	"
CMX 2	"	"
CMX 15	"	"
CUX 23	"	"
EMX 20	"	"
CMX 1	"	"
COL 37	Lineman	"
EMX 30	Labourer	Transferred to Head Office Correspondence Office
CMX 2	"	Invalided
COL 17	Lineman	"
EOL 6	"	Resigned

SHANGHAI POWER COMPANY

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SFC (continued)

CSXZ 1	Labourer (Temporary)	Engaged
CSXZ 4	" ( " )	"
EMFZ 2	Fitter ( " )	"
EMFZ 1	" ( " )	"
CMFZ 1	" ( " )	"

WDPC

WCX 2	Labourer	Engaged
WCX 10	"	"
WCX 3	"	"
WSX 7	"	Resigned
WOLZ 9	Lineman (Temporary)	Transferred to regular staff

(B) ACCIDENTS

Date	Employee injured	Location of accident	Description of accident	Fatal or permanent injured	Disabled for the period of
Nov 10	CUQ 1b	Opposite House 3710, Robison Road (in front of Lai Poong Sing D W feeder)	Was asked to inspect a pothead insulator, received a shock as the feeder was already made alive unknown to the supervisor in charge	No	5 days

VI MISCELLANEOUS

(A) Theft of Materials Nil  
(In SFC and WDPC Areas)

SYSTEMS POWER COMPANY

VII TRANSPORT

The following outlines the activities of the Transport Division during the month.

(A) MOTOR VEHICLES

(1) Summary

Vehicles	Passenger cars	Pick-ups	Station wagons	Vans	Trucks	Special vehicles*	Trailers
In Operation	55	10	2	5	15	3	4
In Storage	-	-	-	-	-	-	4

\* Oil tanker and 20-ton lorries

(2) Operating Data on Motor Vehicles

Type	No. in service		GASOLINE							
			Issue (gallons)		Usage (gallons)		Mileage run		Average mpg	
			Nov	Oct	Nov	Oct	Nov	Oct	Nov	Oct
Passenger cars	55	55	6,096	5,871	6,006	5,882	73,201	69,006	12.0	11.7
Station wagons	2	2	115	137	115	137	1,563	1,654	13.6	12.1
Pick-ups	10	10	1,113	962	1,113	962	14,255	11,762	12.8	12.2
Trucks (1 1/2-ton)	2	2	189	150	188	150	2,076	1,651	11.0	11.0
Trucks (3 1/2-ton)	9	9	1,222	1,073	1,222	1,073	9,299	8,439	7.6	7.8
Lorries (6-ton)	2	2	273	233	273	233	1,097	1,034	4.0	4.4
Lorries (20-ton)	2	2	79	68	79	68	133	111	1.7	1.6
Oil tanker truck	1	1	4	9	4	9	17	11	4.2	1.2
Motor vans	2	2	134	131	134	131	1,130	1,050	8.4	8.3
Trouble Section van	1	1	152	112	152	112	868	674	5.7	6.0
Cooker vans	2	2	302	372	302	372	2,764	3,148	9.1	8.5
Bus	2	2	516	333	516	323	3,408	1,989	6.6	6.1
Trailers	8	8	-	-	-	-	-	-	-	-
<b>Total</b>	<b>98</b>	<b>98</b>	<b>10,194</b>	<b>9,451</b>	<b>10,184</b>	<b>9,452</b>	<b>109,810</b>	<b>100,569</b>	<b>10.8</b>	<b>10.6</b>

SHANGHAI POWER COMPANY

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(3) Maintenance Works on Motor Vehicles

Type	General Overhaul completed		Emergency Overhaul completed		Minor adjustments and repairs		Repairs after			
	Nov	Oct	Nov	Oct	Nov	Oct	Accident		Breakdown	
							Nov	Oct	Nov	Oct
Passenger cars	2	2	62	60	35	42	4	3	4	6
Station wagons	-	-	3	2	1	1	1	-	-	-
Pick-ups	-	-	18	19	5	10	-	-	2	6
Trucks (1½-ton)	-	-	4	4	3	3	-	-	1	1
Trucks (3½-ton)	-	-	13	18	6	7	-	-	1	2
Lorries (6-ton)	-	-	1	2	2	1	-	-	-	-
Lorries (20-ton)	-	-	-	1	-	-	-	-	-	-
Oil tanker	-	-	-	-	-	-	-	-	-	-
Motor vans	-	-	8	8	2	1	-	-	-	-
Trouble Section van	-	-	1	1	1	-	-	-	-	-
Cooker van	-	-	-	-	-	-	-	-	-	-
Bus	-	-	1	4	1	1	-	-	-	-
Trailers	-	-	-	-	-	-	-	-	-	-
Total	2	2	111	119	55	66	5	3	8	15

(4) Motor Vehicle Engine Lubricating Oil

Description	Issue (US gallons)		
	Nov	Oct	
Cars	145	144	Fearon stock at the end of this month: 2,439 US gallons of SAE 30
Trucks	162	128	
Other purposes	11	6	
Total	318	278	

(5) Motor Vehicle Breakdowns

Classification	Cases	%
Electrical equipment	3	27.3
Engine	-	-
Chassis	4	36.4
Fuel system	1	9.0
Tire and tubes	3	27.3
Total	11	100.0

Frequency: 9,983 miles per breakdown.



SHANGHAI POWER COMPANY

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(B) MAJOR HAULAGE JOBS

Units	Equipment			Moved		Size of truck	Man-days
	Capacity kVA	Weight lbs	Description	From	To		
1	325	4,665	Transformer	Fearon Substation	Brenan-Jessfield PT	20	24
1	225	5,690	"	Brenan-Jessfield PT	Riverside Workshop		
1	325	8,160	"	Market Street S/S	Boston Worsted No.2	20	12
1	225	4,750	"	Tongshan-Dent PT	Fearon Substation	20	8
1	225	5,417	"	K Soward-Chuacfoong PT	Fearon Substation	6	7
1	850 HP	25,000	MG 3	Tonquin Substation	Yangchow Substation	20, 6	21
1	set	9,680	Concrete structure	Haiphong Depot	Robison Road west of Kiaochow Road	3 1/2	11
1	200	5,900	Transformer	Fearon Substation	Kiu Loong W & D OT	20	10
1	325	4,665	"	Fearon Road Stores	Robison-Kiaochow PT	20, 6	24
1	325	4,665	"	Sing An Elec Mfg	Riverside Workshop		
1	325	4,665	"	Wua Tung Factory	Riverside Workshop	20	24
1	325	4,665	"				
1	62 1/2	2,500	"	Riverside Workshop	Fearon Road Stores	20	24
1	325	6,075	"				
1	225	5,130	"				
1	225	5,417	"	Fearon Substation	Hailar-Urga PT	6	10
1	225	4,750	"	Fearon Substation	Kiu Loong W & D OT	20	20
1	200	5,900	"	Kiu Loong W & D OT	Kiaochow Substation		
1	4,200	17,400	"	Riverside Transformer House	Riverside Workshop	20	20
1	4,200	17,400	"	Riverside Transformer House	Riverside Workshop	20	20
1	set	7,650	Concrete structure	Riverside Stores	Boone Road north of N Fokien Road	6	14
1	65 HP	2,500	Motor	Fearon Road Stores	Ewo Cotton Mill	6	14
1	62 1/2	4,480	Transformer	Hailar-Tungchow PT	Fearon Substation		
1	set	10,778	Concrete structure	Fearon Road Stores	Boone Road north of N Fokien Road	3 1/2	11
1	set	7,650	Concrete structure	Riverside Stores	Haiphong Road Stores	3 1/2	14
1	225	5,417	Transformer	Fearon Substation	Five Star Metal OT	3 1/2	10
1	225	5,180	"	Fearon Road Stores	Boone Road north of N Fokien Road	6	9
1	set	7,650	Concrete structure	Haiphong Depot	Yu Yuen Road near Lane No. 608	3 1/2	22
Total		203,849					329

SHANGHAI POWER COMPANY

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(C) BICYCLES

(1) Taxi Bicycle and Tricycle Service

Department	Type	No. in service	Issued for temp use	Issued as taxi	Remarks
Transport Division	Bicycles	54	21	12	
	Tricycles	7	7	-	
Meter Department	Bicycles	22	-	-	
	Tricycles	-	-	-	

(2) Bicycle and Tricycle Maintenance

Type	No. in service	General overhaul		Minor adjustments and repairs		Routine inspection		Repairs after accident	
		Nov	Oct	Nov	Oct	Nov	Oct	Nov	Oct
Company's bicycles	244	3	-	88	97	14	12	-	1
Employees' bicycles	25	-	-	8	4	3	2	-	-
Tricycles	10	-	-	4	6	-	-	-	-
Pedicabs	3	-	-	4	7	-	-	-	1
Trailers	2	-	-	-	1	-	-	-	-
Total	284	3	-	104	115	17	14	-	2

(D) HANDCARTS

Type	No. in service	No. in Storage	No. in Construction	Number in repair	
				Maintenance	After Accident
Large 2-ton	1	2	-	-	-
Standard 1-ton	7	13	-	2	-
House Service	3	1	-	-	-
Balancing	3	1	-	-	-
Total	14	17	-	2	-

SPANISH POWER COMPANY

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## (E) TRANSPORT WORKSHOP

Shop	WORK DONE		
	For Transport Division - 87.4%	For Other Divisions - 12.6%	
		Manhours	% of total
Vulcanizing	Repaired for - Motor vehicles: 20 tires; 137 tubes Bicycles: 29 tires; 16 tubes	-	-
Tailor	Repairs to 30 seat covers 38 upholstery 25 uniforms	Manufacture of 10 seat covers	48 6.4
Paint	Repainted: 2 motor cars; 3 bicycles Touched up: 89 motor car jobs; 92 bicycle jobs	412	54.7
Welding	Repaired by welding 43 motor vehicle bodies 22 engine parts 28 chassis parts	141	18.7
Battery	Replaced: 6 batteries Repaired: 22 " Charged: 150 "	-	-
Blacksmith	Forged: 45 new parts Repaired: 127 damaged parts	16	2.1
Whitesmith	Repaired - 35 vehicle radiators 22 bumpers 20 bodies 28 doors 17 windows 55 various small parts	8	1.1

SIAMSWA POWER COMPANY

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Shop	WORK DONE		
	Transport Division	Other divisions	
		Manhours	% of total
Electrical	Repaired or overhauled - 16 starters 15 dynamos 54 horns	-	-
Carpenter	Repairs to 32 vehicle bodies	Repairs to: 9 chairs 2 revolving chairs 7 desks 6 extension ladders	
		Minor repairs: 112	14.9
Machine	Repairs to 74 engine parts 225 other parts  Manufacture of 56 engine parts 245 other parts	16	2.1
Lubrication Centre	Motor vehicles: Oil changed: 52 General inspection: 55 General lubrication: 55	-	-

SHANSHAI POWER COMPANY

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## (F) ACCIDENTS

## (1) Motor Vehicles

Date	Vehicle		Location of accident	Description of accident	Damage to SPC vehicle			SPC driver to blame?	Persons injured	
	Type	No.			Major	Minor	None		Staff	Out-siders
Nov 1	Pass car	54453	Bubbling Well Road	Scratched by pedicab	-	x	-	No	No	No
Nov 1	Pass car	54127	Tiendong Road	Collided with car	-	x	-	No	No	No
Nov 3	6-ton lorry	30034	Chemulpo Road	Truck nearly overturned in creek	-	-	x	Yes	No	No
Nov 4	Pass car	50502	The Bund	Collided with tram-car	-	x	-	Yes	No	No
Nov 5	Pass car	10645	Haining Road	Hit a street light pole	-	x	-	No	No	No
Nov 6	Pick-up	32768	Tatung Road	Boy tried to alight from vehicle	-	-	x	No	No	Yes
Nov 6	1 1/2-ton van	30056	Broadway	Collided with truck	-	x	-	No	No	No
Nov 7	Pick-up	30055	Chekkiang Road	Collided with tram-car	-	x	-	Yes	No	No
Nov 7	Pass car	17347	Route de Siewoa	Collided with car	-	-	x	Yes	No	No
Nov 8	Pass car	54452	Kiangso Road	Damaged by rickshaw	-	x	-	No	No	No
Nov 10	Pass car	17802	Pingliang Road	Door handle caught the sleeve of a coolie	-	-	x	No	No	Yes
Nov 11	1 1/2-ton wagon	30042	Robison Road	Smashed by a handcart	-	x	-	No	No	No
Nov 14	Pass car	13547	Szechuen Road	Damaged by rickshaw	-	x	-	No	No	No
Nov 16	Pass car	54452	Garden Bridge	Collided with truck	-	x	-	No	No	No
Nov 17	3 1/2-ton truck	30059	Edinburgh Road	Collided with car	-	-	x	No	No	No
Nov 18	Pass car	50502	Glen Road	Hanged by gate door	-	x	-	No	No	No
Nov 19	Pass car	17346	Kiangso Road	Collided with truck	-	x	-	No	No	No
Nov 20	Pass car	10648	Rue Remi	Collided with handcart	-	x	-	No	No	No
Nov 21	Bus	33652	Kiangso Road	Damaged by handcart	-	x	-	No	No	No
Nov 25	Pass car	10648	Kiukiang Road	Collided with pedicab	-	x	-	No	No	No
Nov 26	Pass car	54127	Zingliang Road	Collided with cart	-	x	-	No	No	No
Nov 27	Pass car	54127	Broadway East	Collided with truck	-	x	-	No	No	No

Frequency: 4,991 miles per accident.

SHANGHAI POWER COMPANY

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(2) Bicycles and Tricycles

None

(3) Details of Accidents involving general public

Date	Location of accident	Damage to outside vehicle			Injury to outsiders			Remarks
		Major	Minor	None	Major	Minor	None	
Nov 1	Bubbling Well Road	-	x	-	-	-	x	
Nov 1	Tiendong Road	-	-	x	-	-	x	
Nov 4	The Bund	-	x	-	-	-	x	
Nov 6	Tatung Road	-	-	-	-	x	-	
Nov 6	Broadway	-	-	x	-	-	x	
Nov 7	Chekkiang Road	-	x	-	-	-	x	
Nov 7	Route de Sleyos	-	x	-	-	-	x	
Nov 8	Kiangsoe Road	-	-	x	-	-	x	
Nov 10	Pingliang Road	-	-	-	-	x	-	
Nov 11	Robinson Road	-	-	x	-	-	x	
Nov 14	Saochuen Road	-	-	x	-	-	x	
Nov 16	Garden Bridge	-	-	x	-	-	x	
Nov 17	Edinburgh Road	-	x	-	-	-	x	
Nov 19	Kiangsoe Road	-	-	x	-	-	x	
Nov 20	Rue Romi	-	x	-	-	-	x	
Nov 21	Kiangsoe Road	-	-	x	-	-	x	
Nov 25	Kjukiang Road	-	x	-	-	-	x	
Nov 26	Pingliang Road	-	x	-	-	-	x	
Nov 27	Broadway East	-	x	-	-	-	x	

STANDARD POWER COMPANY

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(4) Staff

Date	Employee injured	Location of accident	Description of accident	Fatal or permanent injured	Disabled for the period of
Nov 10	TK 60	Riverside Stores	A carboy containing acid broke when shifted, and the man was badly burnt	No	7 days

(C) STAFF

(1) Supervisory Staff

Cheng, Owan                      Transport Assistant                      Engaged

(2) Clerical Staff

No change

(3) Monthly Rate Staff

TDT 29                      Truck driver                      Engaged  
 TDT 30                      "                      "                      "

(4) Daily Rate Labour

No change

*S. L. Dong*  
 S L Dong  
 Distribution Engineer

SHANGHAI POWER COMPANY

Shanghai, December 4th, 1947.

The General Manager :

METER & TESTING DEPARTMENT  
LARCENY OF ELECTRICITY  
MONTHLY REPORT FOR NOVEMBER, 1947.

Accounts Office Queries :

One case of larceny was detected, and revenue amounting to CN\$4,220,000 has been recovered.

Two cases of damaged meters were found. The cost of repairs, etc. amounting to CN\$1,013,000 has been paid by the consumers.

Meter Readers' Reports :

Seven cases of damaged meters were found when following up these reports. The cost of repairs, etc. amounting to CN\$2,367,000 has been paid by the consumers.

Route Meter Investigation :

One case of damaged meter was found. The cost of repairs, etc., amounting to CN\$467,000 has been paid by the consumer.

Small Area Investigation :

One case of larceny was detected, and revenue amounting to CN\$15,517,000 has been recovered.

Two cases of damaged meters were found. The cost of repairs, etc., amounting to CN\$390,000 has been paid by the consumers.

Miscellaneous :

Sixteen cases of damaged meters were reported by Installation Section's staff. The cost of repairs, etc. amounting to CN\$13,032,000 has been paid by the consumers.

Damaged or Missing Main Fuse Box Lead Seals :

Twenty-five cases of above infringement of Company's Regulations have been handled by the Installation Section. Fees paid by consumers total CN\$1,500,000.

SUMMARY :

Two cases of larceny have been detected and settled during the month together with twenty-eight cases of damaged meters and/or associated equipment.



CHINA NATIONAL POWER COMPANY

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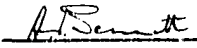
Revenue amounting to CN\$40,047,000 has been recovered, of which :

- a. CN\$19,537,000 represent recovered revenue.
- b. CN\$17,269,000 represent an estimated cost of repairs to damaged meters and associated equipment.
- c. CN\$ 1,741,000 represent payments on cases settled in October 1947.
- d. CN\$ 1,500,000 represent fees paid for damaged or missing main fuse box lead seals.

Estimated Unmetered Consumption :

Eighty-five cases of unmetered consumption due to defective or damaged meters were dealt with on Consumers' Accounts Inspect Orders during the month. The consumption was estimated at 10,313 Kwhrs., and revenue amounting to CN\$29,982,300 was recovered.

NOTE:- Two cases of unmetered supply taken by various units of the Chinese Armed Forces have been reported by the Installation and Investigation Sections' staff and Meter Readers during the month. These have been passed to the Installation Section for action in concert with Consumers' Engineer's Department.

  
E. Jacobs,  
Meter & Testing Engineer

NOVEMBER 1947

NOVEMBER 1947

ANALYSIS OF CASH RECOVERED FOR ESTIMATED LOSS OF REVENUE FROM CONSUMERS INVOLVED IN LARCENY OF ELECTRICITY AND FOR DAMAGED OR MISSING METERS AND BROKEN MAIN FUSE SEALS.

S.P.C. & W.D.P.C.

NATURE OF INVESTIGATION	Jumpers Ct\$	Tampered Meters Ct\$	Damaged Meters Ct\$	Missing Meters Ct\$	Part Payment Ct\$	Broken Main Fuse Seals Ct\$	TOTAL Ct\$
Accounts Office Queries	-	4,220,000	1,013,000	-	-	-	5,233,000
Meter Readers' Reports	-	-	2,767,000	-	-	-	2,767,000
Route Meter Investigation	-	-	667,000	-	1,741,000	-	2,408,000
Small Area Investigation	15,317,000	-	290,000	-	-	-	15,707,000
Carroll Visits - Day	-	-	-	-	-	-	-
Carroll Visits - Evening	-	-	-	-	-	-	-
Miscellaneous	-	-	13,072,000	-	-	1,400,000	14,472,000
<b>T o t a l</b>	<b>15,317,000</b>	<b>4,220,000</b>	<b>17,269,000</b>	<b>-</b>	<b>1,741,000</b>	<b>1,500,000</b>	<b>40,047,000</b>

W.D.P.C. (Included in above figures):

Accounts Office Queries	-	-	-	-	-	-	-
Small Area Investigation	-	-	74,000	-	-	-	74,000
Route Meter Investigation	-	-	390,000	-	-	-	390,000
Miscellaneous	-	-	1,318,000	-	-	600,000	1,918,000
<b>T o t a l</b>	<b>15,317,000</b>	<b>-</b>	<b>1,802,000</b>	<b>-</b>	<b>-</b>	<b>600,000</b>	<b>17,726,000</b>

	S.P.C. & W.D.P.C.	W.D.P.C. (only)
Month ending November 30th, 1947	Ct\$ 140,047,000.-	Ct\$ 17,726,000.-
12 months ending November 30th, 1947	Ct\$ 1,197,723,256.-	Ct\$ 987,430.-

NOVEMBER 1947.

S.P.C. W.D.P.C.

NATURE OF INVESTIGATION	PREMISES INSPECTED	METERS INSPECTED	IRREGULARITIES FOUND	LARCENY CASES			TOTAL CASES
				Jumpers	Tapped Meters	Damaged and/or Missing Plant.	
Accounts Office Queries	671	693	226	-	1	2	3
Meter Readers' Reports	7	8	7	-	-	7	7
Route Meter Investigation	1927	2478	732	-	-	1	1
Small Area Investigation	442	648	106	1	-	2	3
Casual Visits - Day	6	8	3	-	-	-	-
Casual Visits - Evening	-	-	-	-	-	-	-
Informers' Letters	6	7	4	-	-	16	16
Miscellaneous	38	39	16	-	-	28	28
<b>T o t a l</b>	<b>3987</b>	<b>3881</b>	<b>1094</b>	<b>1</b>	<b>1</b>	<b>28</b>	<b>30</b>

W.D.P.C. (Included in above figures) :

Accounts Office Queries	120	131	44	-	-	-	-
Meter Readers' Report	3	3	3	-	-	1	1
Route Meter Investigation	165	196	60	-	-	-	-
Small Area Investigation	442	648	106	1	-	2	3
Casual Visits - Day	-	-	-	-	-	-	-
Casual Visits - Evening	-	-	-	-	-	-	-
Informers' Letters	3	4	2	-	-	2	2
Miscellaneous	2	2	2	-	-	2	2
<b>T o t a l</b>	<b>735</b>	<b>984</b>	<b>217</b>	<b>1</b>	<b>-</b>	<b>5</b>	<b>6</b>

	S.P.C. W.D.P.C.		W.D.P.C. (only)	
	Premises Meters	Irregularities Cases	Premises Meters	Irregularities Cases
Month ending Nov. 30, 1947	3,087	1,821	735	217
12 Months ending Nov. 30, 1947	43,287	51,005	11,344	4,819

SHARDAIPOWER COMPANY



25X1A

SHANGHAI POWER COMPANY  
AND  
WESTERN DISTRICT POWER COMPANY OF SHANGHAI  
FEDERAL, INC., U.S.A.

MONTHLY REPORT

FOR

DECEMBER 1947

ILLEGIB

25X1A

SHANGHAI POWER COMPANY  
AND  
WESTERN DISTRICT POWER COMPANY OF SHANGHAI  
FEDERAL INC., U.S.A.

MONTHLY REPORT

FOR

DECEMBER 1947

ILLEGIB

SHANGHAI POWER COMPANY

MONTHLY REPORT  
FOR  
DECEMBER 1947

I N D E X

<u>REPORT:</u>	<u>Section</u>	<u>Page</u>
Letter of Transmittal		
Revenues & Expenses (Compared with 1946)	1	1
Electric Demand, Output, Sales & Losses	2	1
Maximum Hour in KWH	2A	1
Net Output or Purchase in MWH	2B	1
Units Sold & Accounted for in MWH	2C	1
Transmission & Distribution Losses in % of Net Output or Purchase	2D	1
Customers, Service Inspections	3	1
Customers	3A	1
Service Inspections	3B	2
Employees	4	2
Reverse Operations	5	2
 <u>CHARTS:</u>		
Max. Hour Generation & Output		A
Units Generated, Delivered & Sold		B
Employees		C
 <u>APPENDIX:</u>		
<u>Reports</u>		
Secretarial & Accountancy - S.P.C. & W.D.P.C.		I
Consumers' Monthly Report - S.P.C.		II
Consumers' Monthly Report - W.D.P.C.		III
Generation Report		IV
Distribution Operation Division - S.P.C. & W.D.P.C.		V
Larceny of Electricity		VI

SHANGHAI POWER COMPANY

S U M M A R Y

1. REVENUES & EXPENSES COMPARED WITH 1946(C\$):

<u>Operating Revenues</u>	(C\$ Figures in thousands)	<u>Month of December:</u>	
		<u>1947</u>	<u>1946</u>
S.P.C.		C\$ 311,630,295	C\$ 7,812,350
W.D.P.C.		" 76,917,730	" 2,041,070
Combined ++		<u>C\$ 388,548,025</u>	<u>C\$ 9,853,420</u>
<u>Operating Expenses</u>			
S.P.C.		C\$ 375,215,647	C\$ 6,312,079
W.D.P.C.		" 70,079,603	" 1,481,724
Combined ++		<u>C\$ 445,295,250</u>	<u>C\$ 7,793,803</u>
<u>Net from Operation</u>			
S.P.C.		C\$ -63,585,352	C\$ 1,500,261
W.D.P.C.		" 5,058,127	" 549,346
Combined ++		<u>C\$ -58,527,225</u>	<u>C\$ 2,049,607</u>

++ Inter-Company Items Eliminated.

2. ELECTRIC DEMAND, OUTPUT, SALES & LOSSES:

2A. Maximum hour in AWH

S.P.C. Riverside max. hr. Generation	157,893	136,878
W.D.P.C. Max. hr. Demand in AWH	34,466	23,740

2B. Net Output or purchase in MWH (M=1000)

S.P.C. Net Output	89,263	77,614
W.D.P.C. Purchase from S.P.C.	18,866	16,166

2C. Units Sold & Accounted for in MWH

S.P.C. (including sales to W.D.P.C.)	80,528 x	70,325
W.D.P.C.	17,740	15,205

2D. Transmission & Distribution Losses in percent of Net Output

S.P.C. (W.D.P.C. considered as one customer)	9.8	9.4
W.D.P.C.	6.0	5.9

3. CUSTOMERS, SERVICE INSPECTIONS:

3A. Customers

S.P.C.	99,700	97,015
W.D.P.C.	88,165	20,637
Combined ++	<u>187,865</u>	<u>117,652</u>

++ Inter-Company Items Eliminated.

x Including 1,163 MWH losses in synchronous plant for power factor improvement.



SHANGHAI POWER COMPANY

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<u>3B Service Inspections</u>		<u>month of December</u>	
		<u>1947</u>	<u>1946</u>
<u>Number</u>	(C\$ Figures in thousands)		
	S.P.C.	5,897	5,051
	W.D.P.C.	2,911	2,255
	Total	8,808	7,306
<u>Irregularities</u>	S.P.C.	1,096	1,308
	W.D.P.C.	555	716
	Total	1,651	2,024
<u>Cash recovered (C\$)</u>	S.P.C.	59,343	2,500
	W.D.P.C.	5,165	1,240
	Total	44,508	3,880
<u>No. of recoveries</u>	S.P.C.	34	36
	W.D.P.C.	9	21
	Total	43	57

4. EMPLOYEES:

<u>Number</u>		1947	1946
S.P.C.		3,087	3,044
W.D.P.C.		124	127
Total	+(including staff on leave)	3,211 +	3,171

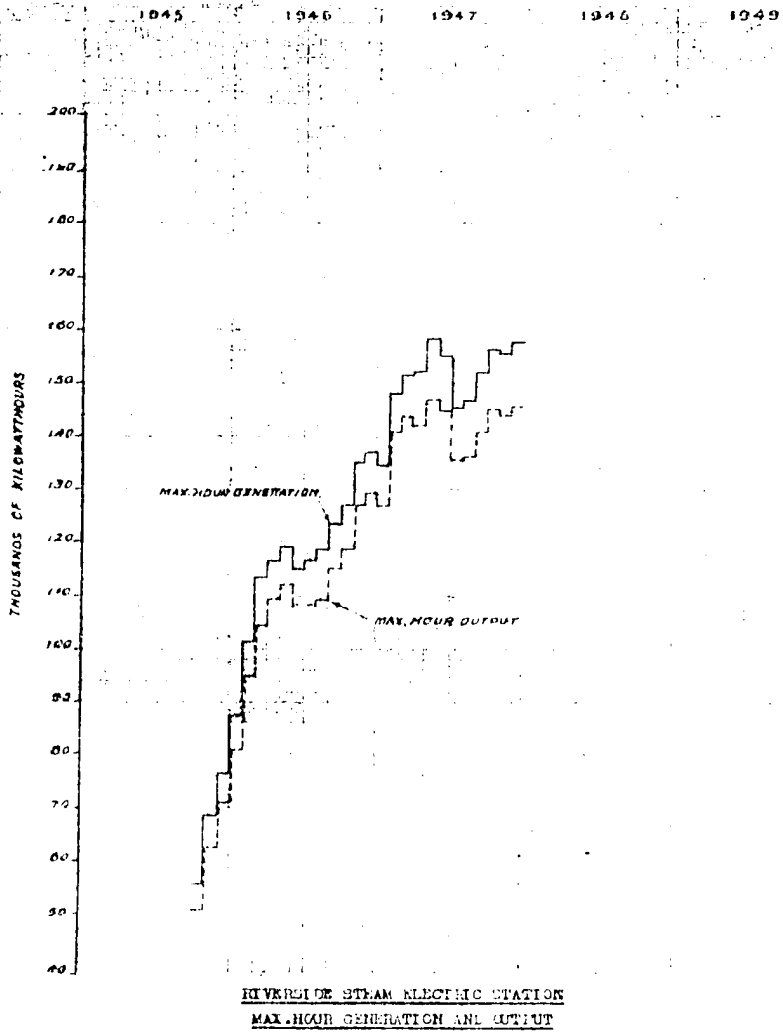
5. REVERSE SIDE OPERATIONS:

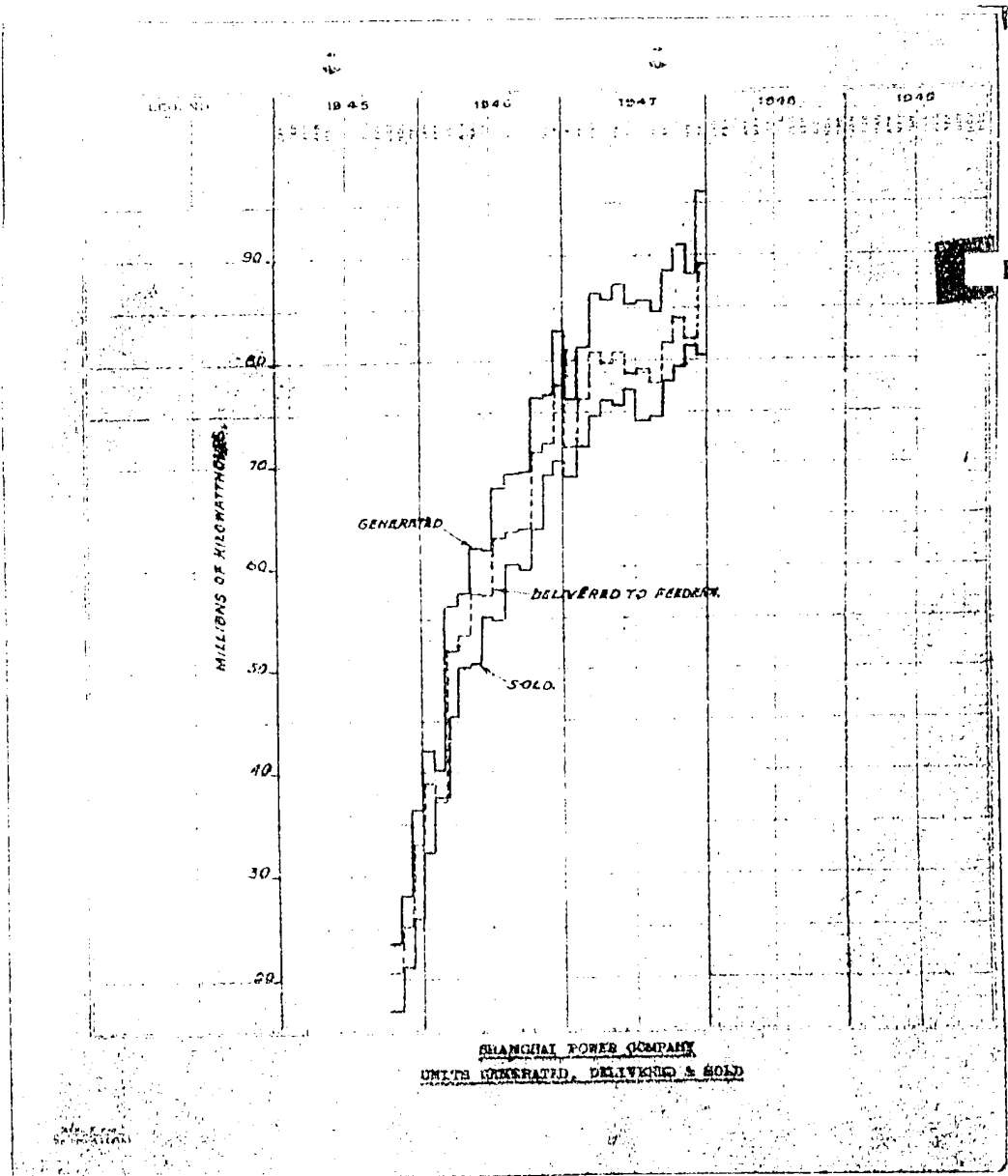
<u>(1) Generating Capacity</u>		<u>1947</u> $\phi$	<u>1946</u>
Name plate rating	(MW)	171,500	158,000
Name plate rating	(KVA)	210,150	195,000
Working rating - Winter	(KVA)	215,080	198,370
Working rating - Summer	(KVA)	190,690	176,160

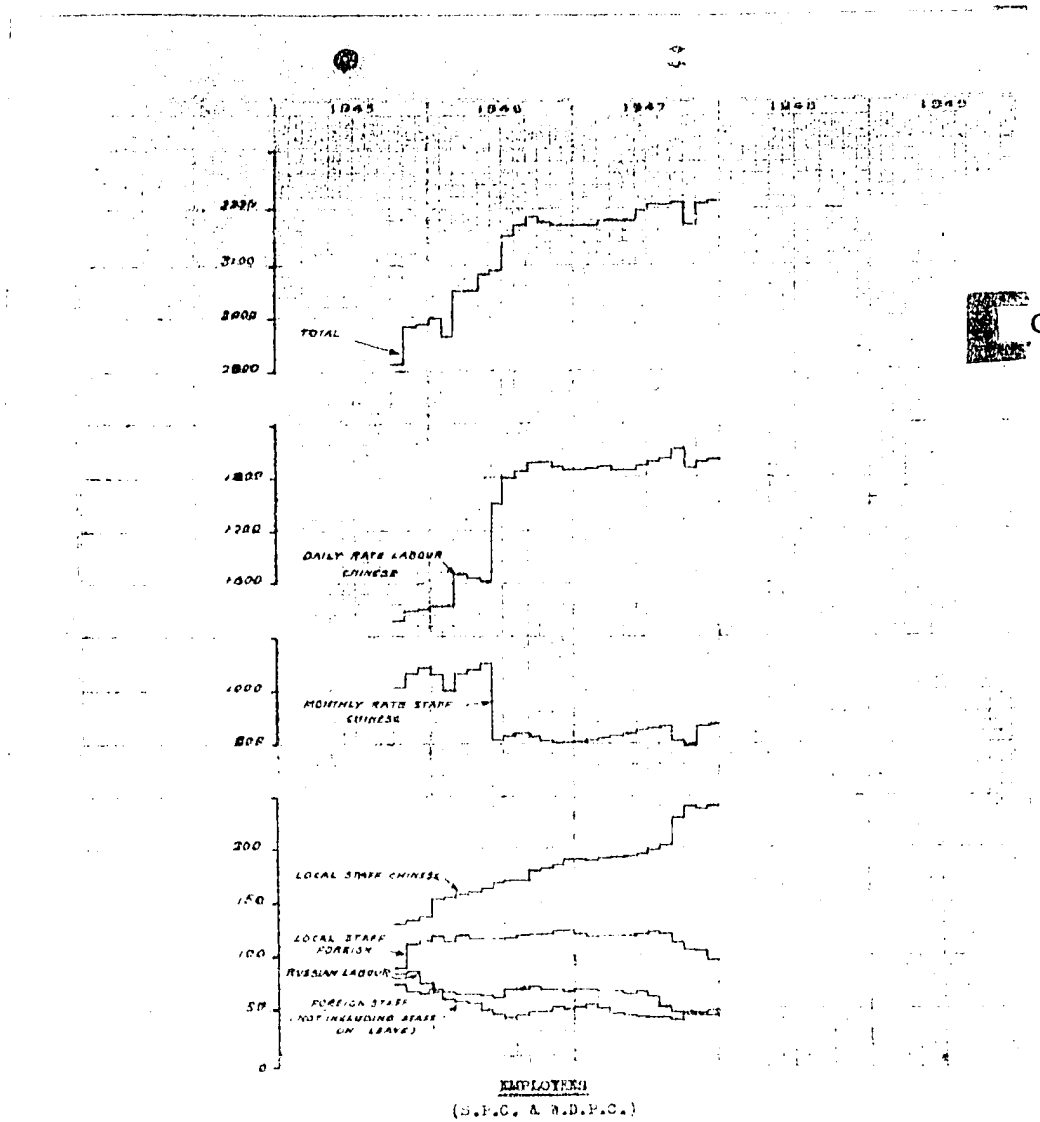
$\phi$  Excludes TG-8, TG-6 and TG-11.

(2) Instantaneous peak generation (MW)	164,368	148,503
(3) Efficiency (MW per MW Output)	19,080	20,078
(4) Load factor (Based on Output & Max.Hr. Output)	82.54	80.98

	<u>1947</u>		<u>1946</u>	
	<u>Coal</u>	<u>Oil</u>	<u>Coal</u>	<u>Oil</u>
In stock at end of November	24,163	2,445	16,917	1,874
Received during month	17,850	30,507	27,520	24,793
Used during month (including Sundries)	20,653	30,434	25,161	24,653
In stock at end of December	21,360	2,516	19,282	2,014







SHANGHAI POWER COMPANY

Secretary and Accountancy

December 1947

Shanghai Power Company and Western District Power Company

Cash on Hand and in Banks - Shanghai

The balance of cash on hand and in our bank accounts in Shanghai on December 31, 1947, was as follows:

	<u>Current Bank Accounts</u>	
	<u>S.P.C.</u> <u>CN\$</u>	<u>W.D.P.C.</u> <u>CN\$</u>
Secretary & Treasurer	-	193,094,409.34
Hongkong & Shanghai Banking Corporation		
General Fund Account	11,862,279,036.55	-
Fixed Deposit Account	5,523,692,000	-
CN\$4,523,692,000 due 1.29.48		
CN\$1,000,000,000 " 1.31.48		
Chase Bank - Fixed Deposit a/c due 1.28/48	10,000,000,000	-
National City Bank of New York	25,021,276,147	-
The Bank of China	10,779,386	-
The Chekiang Industrial Bank, Ltd.		
General Fund Account	137,925,382,657.55	36,989,497,229.46
Fixed Deposit Account due 1.12.48	20,000,000,000	-
Compradore Cash on Hand	4,734,874,882.24	605,609.84
	<u>215,078,284,109.34</u>	<u>37,183,197,248.64</u>

Remittances

During December 1947 the following remittances were obtained by us at the official open market rate of exchange:

<u>Remittances to New York Office</u>		
<u>Date</u>	<u>Amount</u>	<u>Remarks</u>
December 1 - 31	US\$46,027.90	For various materials purchased in New York through Ebasco International Corporation.
<u>Remittance to London Agent</u>		
<u>Date</u>	<u>Amount</u>	<u>Remarks</u>
December 1 - 31	£377.0.0	For various materials purchased in London through Matheson & Co. Ltd.

The following statement shows the supervision fee payable to you with U.S. dollar equivalent at the open market rate of the Central Bank of China.

	<u>Thousand CN\$</u>	<u>Exchange Rate</u>	<u>US\$</u>
Balance of account at November 30, 1947	33,040,082	74,000	446,487.60
Add December Fee	1,800,000	90,000	20,000.00
	<u>34,840,082</u>		<u>466,487.60</u>
Balance at open market exchange rate of 90,000	41,983,884		466,487.60
Difference in exchange	<u>7,143,802</u>		-

The difference in exchange amounting to Thousand CN\$7,143,802 was charged to Miscellaneous Suspense - Exchange Adjustment and subsequently transferred to Exchange - Net.

SHANGHAI POWER COMPANY

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Accounts Payable

Unpaid fuel bills as at December 31, 1947, were as follows:

Fuel Oil: Unpaid bills for December CN\$5,096,247,300 (equivalent US\$56,624.97).  
Estimated unpaid import duty on fuel oil CN\$18,914,000,000.

Accounts Receivable and Collections

The total amount due from consumers, as at December 31, 1947, excluding Municipal and CN\$66,334,530,000 intercompany sales due from Western District Power Company of Shanghai, was CN\$365,961,150,000. The amount due from the Municipal Government to both companies was CN\$12,475,867,000.

During the month, a total of 111,776 bills were sent out and the total amount billed for both companies was CN\$394,701,589,000. Our total cash collections during the month amounted to CN\$393,629,778,000, which could be considered as quite satisfactory. So far as collections are concerned, our chief difficulty lies in the handling of the very large quantity of banknotes tendered in payment of our bills, many of which are for quite low denominations - \$1,000, \$500 and \$100, worth, at official open market rates, from a U.S. cent down to one-tenth of a cent.

Customers' Deposits

Deposits collected during the month for both companies amounted to CN\$43,198,000 and refunds to CN\$4,978,000. The balance of deposits held against service charges for both companies amounted to CN\$7,638,071,000, of which the amount of CN\$27,897,000 (nominal value) was in the form of securities segregated as follows:

	S.P.C. CN\$	W.D.P.C. CN\$
S.M.C. Debentures	12,620	-
Bank Guarantees	56,800	25,027,600
S.P.C. #6 Silver Preferred Stock	2,050,720	573,860
Shanghai Telephone Co. Share	2,100	-
S.P.C. First Mortgage Debentures, 5 1/2% Dollar Series, due 1973	131,300	42,000
	<u>2,253,540</u>	<u>25,643,460</u>

Payroll

Our payroll for the month with high cost of living index 68,200 times basic (scaled down in accordance with Municipal Government formula) totalled CN\$31,456,155,000 segregated as follows:

	CN\$
Foreign and Executive	7,552,396,000
Local	7,145,236,000
Chinese	15,452,577,000
Leave Pay	1,305,948,000
	<u>31,456,155,000</u>

Dividend Equalization Reserve and General Reserve

During the month we set aside CN\$18,396,000,000 for Dividend Equalization Reserve and CN\$9,198,000,000 for General Reserve due to the revision of the official open market rate of exchange from CN\$74,000 on November 30 to CN\$90,000 on December 31, 1947. The computation of the reserves followed the same method as last month.

SHANGHAI POWER COMPANY

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Material Replacement Reserve

A total CN\$11,494,466,000 was charged to this reserve based upon the comparison between issues at original and replacement costs as suggested by your letter of September 5, 1947.

Contingency Reserve Exchange

During the month, we charged off CN\$20,136,337,000 from suspense to current month operating expenses based upon the following calculation:

Balance in Suspense at November 30, 1947	CN\$21,822,995,000
Less credit in December	<u>1,686,658,000</u>

Balance charged to Operating Expenses in December CN\$20,136,337,000

Employee Pension and Retirement Reserve

A total of CN\$6,749,000,000 was set aside as provision for this reserve in the current month and charged to operating expenses. This represented an increase of CN\$1,399,000,000 over the November figure due to revised open market rate of exchange and high cost of living index.

Casualty and Insurance Reserve

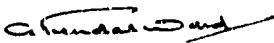
It was decided to increase the balance of this reserve to CN\$5,400,000,000, equivalent to US\$60,000 at the exchange rate of CN\$90,000 to US\$1.

Chinese Government Profits Tax

The problem of Chinese Government Profits Tax was again considered in the light of the revision of the official open market exchange rate. It was found that our past accruals were sufficient to meet this tax. The increase of exchange rate to CN\$90,000 to one U.S. dollar has increased the Chinese dollar equivalent of our U.S. dollar capital stock and hence it was estimated that the rate applicable to our taxable income would be reduced to 10%. Consequently, no provision was made for this tax in the current month.

Compensation for Increase in Coal Cost from Surplus Fund Safekeeping Committee

During the month we received CN\$7,344,435,000 from the Surplus Fund Safekeeping Committee, being compensation for the increase in the price of coal from CN\$1,140,000 to CN\$1,490,000 per metric ton on 20,904.1 metric tons consumed in December as this increase in coal cost was not provided for in our estimates for the rate revision effective November 22, 1947. The total amount received was credited to Earned Surplus Account.

  
A. Kendal Ward  
Secretary & Treasurer

January 27, 1948

SHANGHAI POWER COMPANY

February 3, 1948

REF. 10 20  
OF 400 (1948)

CONSUMERS' MONTHLY REPORT FOR DECEMBER

SHANGHAI POWER COMPANY

DECEMBER STATISTICS

Analysis of K.W.H. Sales

	<u>This Year</u>	<u>Last Year</u>	<u>Increase</u>	<u>Increase</u>
				<u>%</u>
Residential Lighting)	7,636,461	7,512,911	123,550	1.6
Commercial Lighting )				
Residential Heating & Cooking)	999,160	1,579,160	-580,000	-36.7
Commercial Heating & Cooking )				
Bulk Supply Industrial	30,587,236	25,499,007	5,088,229	20.0
Bulk Supply Commercial	1,186,457	1,211,355	-24,898	-2.1
Small Power (Incl. D.C. Lifts)	4,882,043	4,336,541	545,502	12.6
Public Utility:				
Shanghai Trams	1,179,036	1,078,138	100,898	9.4
French Trams	874,500	1,105,500	-231,000	-20.9
Shanghai Waterworks	1,388,880	946,890	441,990	46.7
Chapel Co.	10,782,654	9,079,152	1,703,502	18.8
Intercompany - W.D.P.C.	18,866,400	16,166,400	2,700,000	16.7
Private Street Lighting	77,489	72,507	4,982	6.9
Municipal Street Lighting	196,544	192,955	3,589	1.9
Municipal Others	407,888	418,189	-10,301	-2.5
T.otal	<u>79,064,748</u>	<u>69,198,705</u>	<u>9,866,043</u>	<u>14.3</u>
Total Units Sold (12 Months ending December 1947)	201,176,510	637,632,411	263,544,099	41.3

Analysis of Large Industrial Sales in K.W.H.

	<u>This Month</u>	<u>Last Month</u>	<u>Last Year</u>	<u>Increase</u>
				<u>% over</u>
			<u>Last Year</u>	
Chinese Cotton Mills	20,581,822	21,466,965	18,081,700	13.8
Other Cotton Mills	411,650	394,300	197,000	109.0
Total Cotton Mills	20,993,472	21,861,265	18,278,700	14.9
Flour Mills	984,600	985,500	591,180	10.5
Rubber Products	1,163,045	997,505	840,845	38.3
Paper Mills	1,118,066	1,218,242	804,060	39.1
Lumber Mills	39,590	29,190	23,853	66.0
Egg Produce	-	-	-	-
Oil Mills	206,500	137,150	106,400	94.1
Ice & Cold Storage Factories	344,645	764,545	590,725	-7.8
Tobacco Factories	267,326	201,271	235,093	13.7
Silk Mills	55,000	55,300	48,391	13.7
Miscellaneous Textiles	2,747,663	2,188,893	1,957,802	40.3
Metal Working	1,305,743	1,155,545	973,263	34.2
Woolen Mills	392,760	342,330	246,050	59.6
Miscellaneous Other	768,826	769,484	502,645	53.0
Total	30,587,236	30,706,220	25,499,007	20.0



SHANGHAI POWER COMPANY

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REF. 20 1-2  
SP. 200 (17.4)

CONNECTIONS

No. of Customers		<u>This Month</u>	<u>Last Month</u>	<u>Last Year</u>	<u>Increase during Month</u>
		99,700	99,469	97,015	231
"	Refrigerators	8,585	8,563	8,399	22
"	Cookers (Hired) x	2,954	2,959	2,970	-5
"	Radiators ( " ) x	1,761	1,930	2,166	-169
"	Water Heaters ( " ) x	78	78	68	-
"	Misc. Appliances ( " ) x	167	167	167	-
H.P. of Motors	( " ) x	14,184	14,150	14,116	34

∅ Includes Refrigerators installed in Western District Power Company Area.  
x These figures include Appliances hired by Western District Power Co. of Shanghai.

CONNECTED LOAD

K.W. Lighting	103,505	103,284	100,688	221
" Heating: Comprising	(31,643)	(31,821)	(31,993)	(-178)
" Cookers	18,299	18,308	18,282	-9
" Radiators	9,636	9,828	10,401	-192
" Water Heaters	152	152	123	-
" Miscellaneous	3,556	3,533	3,187	23
" Motors	232,270	232,014	228,995	256
" Industrial Heating	4,625	4,608	4,199	17
" W.D.P.C.	54,600	54,600	54,600	-
" Total	426,643	426,327	420,475	316

MONTHLY MOVEMENT IN CUSTOMERS

	<u>Total All Classes</u>
Total Customers Reconnected	53
Total Customers Disconnected	26
Gain	17
Total New Customers Connected	214
Total Increase During Month	231

SHANGHAI POWER COMPANY

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REF. ID: A66727

GENERAL COMMENTS

A formula for automatic rate revision has finally been approved and will be put into effect in early January 1948. Mention has been made from time to time of negotiations proceeding to arrive at a fair and equitable rate computation formula which would automatically compensate for the various factors directly influencing operating costs. These variables are:

Cost of Fuel - (Coal priced in Chinese dollars)  
- (Oil priced in U.S. dollars)

Cost of Living Index

Variation in Exchange

The formula authorized by the Ministry of Economic Affairs is:

$$\text{Average Rate} = a_1 x_1 + a_2 x_2 + b \left( \frac{n}{100} y + \frac{n^1}{100} w \right)$$

where  $a_1$  = Basic coal consumption in Kg/Kwh  
 $x_1$  = Coal price  
 $a_2$  = Basic Oil consumption in Kg/Kwh  
 $x_2$  = Oil cost including duty  
 $b$  = Basic operating expenses in \$/Kwh (excluding fuel)  
 $n$  = % of operating expenses proportional to Cost of Living  
 $n^1$  = % of operating expenses proportional to exchange  
 $y$  = Cost of Living Index  
 $w$  = Metal Index (follows closely exchange variations)

Of the foregoing,  $x_1$ ,  $x_2$ ,  $y$  and  $w$  are the variable components mentioned above, while the remainder are constants. Consequently, following agreement to the general form of the formula, it was necessary to fix values for the constants  $a_1$ ,  $a_2$ ,  $b$ ,  $n$  and  $n^1$ . For this purpose, detailed monthly cost statements were submitted to the authorities for analysis. Needless to say, considerable controversy took place before agreement was reached on what constants should be adopted to represent a normal operating standard. Following agreement with the local authorities, further differences of opinion arose with the Ministry of Economic Affairs in Nanking, and representatives from the local supply companies and the Bureau of Public Utilities proceeded to Nanking for conferences where eventually mutual agreement was reached. Mr. K.Y. Whang took an active and creditable part in all negotiations with the local authorities and represented the company at the two conferences held in Nanking.

The following are the constants approved for the Shanghai Power Company rate formula:

SHANGHAI POWER COMPANY

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- $a_1 = .37$  = Highest monthly average - Nov. 1946 to Sept. 1947 inclusive.  
 $a_2 = .43$  = " " " " " " " " " "  
 $b = .044$  = Slightly less than the October 1947 figure - .048 - which figure was the highest previously recorded up to October 1947. The September 1947 figure was .035. Therefore, the figure decided upon is in reality a compromise.  
 $n = 60\%$  - See following remarks.  
 $n^1 = 40\%$  - " " "

It was no easy matter to agree on the percentage of operating expenses tied to C.O.L. Index "y" and that affected by variations in the Metal Index "w" (Foreign Exchange). However, after much discussion, the above ratios were agreed upon, namely, 60% and 40% respectively.

Inserting these constants in the approved general formula shown above, we have:

$$\text{Average Rate} = 0.37x_1 + 0.43x_2 + 0.044\left(\frac{60}{100}y + \frac{40}{100}w\right)$$

This is the formula in its completed form that will be used in future to compute our rates.

NOTES:

Coal Cost - Fixed by the Fuel Control Commission.

Exchange Rate - Fixed by the Equalization Board.

Cost of Living Index - Fixed at the end of each month by the local government.

Metal Index - Fixed by the local government. (As mentioned before, this index follows closely the variations in exchange and therefore is to all intents and purposes an Exchange Index.)

Applications for future rate revisions:

Limited to not more than one revision monthly and will be effective as from the first day of the month.

Requests for rate revision must be accompanied by full supporting data.

The local authorities reserve the right to increase or decrease the rate calculated according to the formula by an amount not exceeding 10%.

SHANGHAI POWER COMPANY

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REF. 12 5-5  
12 5-5COMMENTS: TOTAL KILOWATT-HOUR SALES

The meter reading months were as follows:

	<u>December</u>	<u>November</u>	<u>Difference</u>
Schedule Rate Consumers	27.98	30.15	-6.2%
Bulk Supply Consumers	30.30	30.80	-1.6%
Municipal Consumers	29.00	31.00	-6.5%

Total Kilowatt-hour Sales for December were 79,064,748 KWH compared with 80,651,528 KWH in November, a decrease of 1,580,000 KWH or 2%. The loss was due mainly to the 2.8% shorter weighted reading month. Units generated at Riverside reached a new high of 96,189,312 KWH which will be reflected on January sales.

Residential & Commercial Lighting Sales amounted to 7,636,461 KWH as against 8,212,900 KWH last month, a difference of 576,000 KWH or 7%. A seasonal gain is normal, but the shorter reading month and restrictive charges reduced sales.

Residential & Commercial Heating Sales showed a further drop to 999,160 KWH as compared with 1,228,081 KWH in November. This was a decrease of 330,000 KWH or 18.6%. The shorter month accounted partly for the decrease; the restrictive measures and the exceptionally warm weather for the remainder.

Industrial Bulk Supply took 30,600,000 KWH, 0.4% below the November total. Taking the shorter reading month into consideration, the current month's sales to this class actually increased by 1.2%. Most industries maintained or increased their activities but sales to Paper Mills and Ice & Cold Storage Factories decreased slightly.

Commercial Bulk Supply usage increased by 6.1% to 1,186,457 KWH as compared with 1,118,454 KWH last month, a normal seasonal gain. U.S. Army (Broadway Mansions), Administration Building (Shanghai Municipal Government), Hongkong & Shanghai Banking Corporation and several other large buildings, particularly hotels, showed heavy increases due mainly to increased usage during the festive season.

Small Power Sales registered 4,882,043 KWH or 1% below last month's figure. In view of the shorter reading month, sales actually increased by 5.2%.

Shanghai Trams took 5.3% over last month's total, while

Sales to French Trams declined by 0.9% to 874,500 KWH, slightly over their allotment of 850,000 KWH.

Shanghai Waterworks - Sales totalled 1,388,880 KWH or 10.7% over last month's figure and 45% over the usage in December 1946.

Sales to Chapel Co. were 11.1% over last month's and reached a new post-war high of 10,790,000 KWH.

Intercompany Sales decreased by 9.5% to 18,866,400 KWH, mainly due to the shorter reading month.

Public & Private Street Lighting showed only a small change.

Municipal Others Sales were 11.9% up.

SHANGHAI POWER COMPANY

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SEP 19 1949

ANALYSIS OF LARGE INDUSTRIAL SALES

Cotton Mills - Sales declined by 4% to 20,993,472 KWH. The reading month was 1.6% shorter, so the actual decrease was 2.4%. Out of the 39 mills in this group, all but 8 or 9 reduced their usage slightly due to load reduction.

It is reported that the recently released UNRRA cotton is being sold to private mills at US\$0.35 per lb. at the official rate (which is about 60% of the "open" market rate) while American cotton is usually sold around US\$0.45 - US\$0.50 per lb. ("open" market rate). The mill owners, however, have to sell finished yarn back to the Government at lower than the market price. Needless to say, this transaction is by no means popular with the mill owners.

It is difficult to see the advantages of this pseudo-subsidy policy. If left to themselves, the mills would no doubt make fair profits for there is a good demand for their products, and the sale of cotton at the open market prices would give the Government much needed extra revenue. At present a small amount of piecegoods is sold in specially designated shops at some 40% less than the price ruling elsewhere. Sales are made to special classes only, like Government Employees and Teachers, and against coupons. This results of course in a lively black market trade in coupons and goods. Efforts to suppress such trading have so far proved highly ineffective.

The raw material situation seems otherwise to be satisfactory, while the political situation has forced the authorities to maintain a highly diffident attitude towards labour.

Flour Mills took 984,600 KWH, the same as last month. The supply of grain has been fairly regular but prices are of course influenced by the rising level in the United States.

Rubber Products - Sales to this group increased again to 1,163,000 KWH, another post-war high. All mills increased their activities. Allotments of rubber continue but in reduced quantities. Prices have risen but in spite of this there is still a heavy demand for the finished products.

Sales to Paper Mills declined by 8.2% to 1,118,000 KWH due to reduced consumption by the China Fibre Container Co. This, it is understood, is only of a temporary nature and sales may recover next month.

Lumber Mills increased their activities and sales reached 39,600 KWH - 35.6% over last month's total.

The desperate housing situation has at last forced itself upon the attention of the local authorities and feeble, but nevertheless welcome, efforts to alleviate it has been made. A lottery was sponsored and a number of dwellings built from the proceeds, but the scale is too small to have much effect.

Egg Produce continued idle. The first cargo of frozen eggs after the war - about 2,500 tons - was recently shipped from Hankow, but was reputed unprofitable due to the costly transshipment in Shanghai.

Oil Mills used 206,500 KWH compared with 137,000 KWH in November. This is a 50.6% increase and a post-war high. Government orders for oil for rationing purposes caused the increase, and a continued high level of operations is expected.

Ice & Cold Storage Factories - Usage was seasonally down by 28.8% to 544,000 KWH.

SHANGHAI POWER COMPANY

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REF. 12 7 2  
17 000 17 2 1

Tobacco Factories - Sales increased by 52.8% and reached a total of 267,000 KWH. Stock piling to meet the Chinese New Year demand contributed to the gain.

Silk Mills showed no change. With the American market definitely converted to nylon and rayon, export possibilities are practically nil. Although it is prohibited to import nylon stockings into China, they are sold freely and openly everywhere and at reasonable prices, so local stocking manufacturers find it hard to compete.

Metals Working Sales were 13.0% over last month with a total of 1,306,000 KWH. Steel Rolling and Aluminium Mills continued to do very well; Textile Machinery Supplies also improved.

Woolen Mills increased activities seasonally and sales reached 393,000 KWH as compared with 342,000 KWH last month.

Miscellaneous Other - Sales remained at the level of last month with a total of 768,000 KWH. Breweries and Aerated Water Factories usage was seasonally down, Coal Briquette Factories showed no change, while Soap and Printing Works registered further slight increases.

Miscellaneous Textile Sales totalled 2,748,000 KWH as compared with 2,190,000 KWH in the previous month, an increase of 560,000 KWH or 25.5%.

Increased demand from the retail trade due to the approach of the Chinese New Year accounted for the gain.

#### POWER SECTION

The Power Supply Regulating Committee passed the following resolutions at a meeting held on December 3rd:-

- 1) Consumers in the S.P.C. and W.D.P.C. franchise areas restricted to night operation only will be permitted to operate 24 hours per day, provided spare distribution capacity is available.
- 2) S.P.C. and W.D.P.C. may accept applications for power service for daytime operation in locations where spare distribution capacity is available and the load applied for does not exceed 25 H.P.

In view of the foregoing, a list of "night operation consumers" has been submitted to Distribution Department Engineering to investigate the possibility of transfer to daytime operation. Generally speaking, loads of 25 H.P. and under can be readily connected for daytime operation, whereas the extension of the operating hours for larger loads must be very carefully considered to prevent overloading of distribution transformers. Up to and including December 31st, 64 consumers aggregating 1,030 H.P. had been advised in writing of the decision regarding extension of operation to the daytime period.

Owing to uncertain deliveries of polyphase meters on order, the present stock is becoming seriously depleted. This applies particularly to meters suitable for loads of from 10 - 40 H.P. In order that an adequate reserve stock of meters may be retained, arrangements have been made with the Meter Department to supply this Section with a weekly record of meters in stock, so that the acceptance of applications for power service may be regulated according to the supply of meters available.

SHANGHAI POWER COMPANY

REF. 2000.2  
APR 1947

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Applications for power service for night operation only accepted during December totalled 30, bringing the total to the end of the month up to 329, for an aggregate load of 6,313 H.P. Of this total, supply has already been given to 244 consumers for an aggregate load of about 2,600 H.P., while connection of supply to the remainder for loads of from 25 - 200 H.P. is necessarily slow owing to the limitations of the low voltage distribution system.

The following applications for power service were accepted during December:

New Load: 17 applications totalling 684 H.P.

The above load includes 300 H.P. for Hoong Dah Rubber Factory No. 3, 355 Ching Road - this prospect was referred to in our Report for June 1947 - and 15 H.P. for S.M.C. Bureau of Public Works machine shop. The remainder of the applications, for night operation only, include 100 H.P. for a copper rolling mill, 80 H.P. for a nail factory, 40 H.P. and 50 H.P. for rubber factories and loads of 3 - 30 H.P. covering the following industries: food, rubber, metals, printing, battery-charging and stationery.

Owing to the progressive shortening of the daylight period and to reduce to a minimum enforced load reduction during the evening peak periods, the working schedule for cotton mills was again revised as from December 14th.

For comparison the old and revised schedules are shown below:

Mills	DAILY STOPPING PERIOD		Loss of Operating Time
	Revised Schedule	Old Schedule	
2 groups	* 4.00 p.m. - 7.30 p.m.	4.30 p.m. - 7.30 p.m.	30 Min.
2 "	5.00 p.m. - 9.00 p.m.	5.30 p.m. - 8.30 p.m.	1 Hour
2 "	7.00 p.m. - 10.00 p.m.	7.00 p.m. - 10.00 p.m.	-

\* The Cotton Mills Association was advised that these Mills could start night shift operation at 7.00 p.m. which would mean that there would be no loss of operating time for mills in the groups affected. However, only the C.T.I.I. Mills were able to advance the night shift starting time, the private mills being unable to do so owing to labour difficulties.

The estimated loss of sales potentiality during the month, due to the change of operating schedule, was approximately 190,000 KWH.

Average load conditions at Riverside throughout the month were approximately the same as during November. "C" Station was again in commission on the evening of the 4th, but T.G. 5 was frequently off load for varying periods and as it was decided to carry out urgent repair work on "B" Station boilers, there was an appreciable reduction in available S.G. capacity during part of the month.

On December 9th, representatives from the Bureau of Public Utilities, Chapei Power Company, Nantao Power Company, Pootung Power Company and Shanghai Power Company met to discuss future arrangements regarding supply from S.P.C. to the aforementioned Supply Companies. At present there are seven metering points and it was agreed that allotments and grouping of feeders would in future be as indicated below:

SHANGHAI POWER COMPANY

REF. 14.2.2  
WP 2000 111 177

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	Metering Points	Summation of Simultaneous Feeder Readings Allotment in KW	Summation of Simultaneous Feeder Readings Allotment in KW
		from 7.00 P.M.-7.00 A.M.	from 7.00 A.M.-7.00 P.M.
Chapai Co.	Fearon S/S Barroch S/S Stonebridge S/S Connaught S/S Tiendong S/S	8,500	7,420
Nantao & Poetung Co's	Yangtzeppoo S/S.S/S Tonquin S/S	10,400	9,080

The above arrangement will facilitate the checking of these Companies' load demand on S.P.C. system.

Owing to the acute shortage of electricity supply in the Nantao Company's franchise area, it was agreed to temporarily increase the allotment by 2,000 KW.

It is proposed to investigate the feasibility of operating the C.T.E.I. Mills generators (referred to in our November Report) in parallel with S.P.C. system during the evening peak period. If this proposition proves practicable, the power thus imported to S.P.C. system will permit an equivalent increase in export to Nantao Power Company and so improve supply facilities in that area.

The estimated loss of sales potentiality during the month due to load reduction was as follows:

Cotton Mills	5,578,000 KWH
Chapai & French Power Companies	400,000 "
Miscellaneous Industries	687,000 "
Total	6,665,000 KWH

To the above total should be added the estimated loss of 190,000 KWH due to the change of operating schedule for cotton mills, making the total for the month 6,855,000 KWH. When allowance is made for the gain of approximately 1,830,000 KWH as a result of the Sunday working schedule, the total loss of sales potentiality, due to insufficient generating capacity, was approximately 5,025,000 KWH as compared with 4,647,000 KWH last month. Voluntary load reduction, as applied to cotton mills, is still calculated as lost sales.

The weather during December was average for the time of year, with occasional cold spells, causing an increase in demand due to heating load despite the operation of restrictive charges on the electricity rates. In the course of the month, the average potential demand was approximately 170,000 KW in the forenoon and 162,000 KW in the afternoon, while the maximum sustained demand that Riverside could cope with varied from approximately 134,000 KW to 152,000 KW according to the availability of generating plant. The highest instantaneous peak demand recorded was 159,900 KW.



SHANGHAI POWER COMPANY

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REF 1000  
SP 200 (11/27)

The following load prospect was recorded during the month:

Name: Da An Vi Sing Rubber Factory.  
Address: 969 Wetmore Road.  
Additional Load: 220 H.P.  
Estimated Additional Maximum Demand: 120 KW  
Estimated Additional Annual Revenue: CN\$1,150,000,000.-

This consumer plans to install additional machinery consisting of 2 rubber rollers and auxiliaries. Supply - for night operation only to start with - will be given at 6.6 KV and consumer has already ordered a 500 KVA transformer and 6.6 KV O.C.B. from a local manufacturer.

During December supply was given to the following new load:

Sing Feng Printing & Dyeing Factory - 1127 Whashing Road.

This prospect was first referred to in our Report for January 1947. Supply is given at 6.6 KV and consumer has installed his own 500 KVA transformer and 6.6 KV O.C.B. The expected yield in annual revenue from this load is expected to be CN\$1,910,000,000.-.

All revenues mentioned in this Report are based on current net rates of:

CN\$4,410 for consumption of electricity up to 50,000 KWH per month  
and CN\$4,450 for consumption of electricity in excess of this amount.

Power Installation Inspection:

Inspections made during the month were as follows:

<u>No. of Inspections during December</u>	<u>Unauthorized Additions</u>
82	10

HIRED PLANT INSTALLATION & MAINTENANCE SECTION

Workshop output:

Cookers overhauled & tested	26
Motors repaired & tested	12
Oil Circuit Breakers & Starters repaired	9
Water Heaters repaired	5
Radiators repaired	20
Hot Plates fabricated	228
Service Calls attended	1,012
Miscellaneous & Interdepartmental jobs totalled	263 man-days

Hired Motors:

New connections: 4 motors aggregating 132.5 H.P.  
Disconnections: 3 " " 70.5 "  
Six breakdowns occurred.

In view of the ban on the use of electric radiators for space heating,

SHANGHAI POWER COMPANY

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REF ID: A66011

Return Orders have been issued for all hired radiators. To date approximately 30% of these have been brought back from service or accounted for. It is found that many radiators are missing, presumably having disappeared during PCSO.

Of the 300 cookers lying in Stores, the workshop has now started to salvage from those cookers beyond repair parts which can still be used as spares; what is left of the body and frame will be scrapped. Later on when time and labour is available, the same procedure for radiators will be put into operation.

ADVERTISING SECTION

Newspapers - Three "position vacant" (Personnel Office) advertisements were inserted in the English and Chinese language newspapers.

In order to carry out accrued maintenance work on overhead supply lines in the near Western and Northern districts, it was necessary to interrupt supply for eight hours. Sunday - January 4, 1948 - was set as the most suitable day, and press notices to this effect were published in the local press on December 31, 1947 and January 1, 1948.

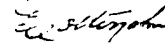
Articles appeared in the China Press and Shanghai Evening Post under the following headings: "Public Utility Rates To Be Adjusted On C.O.L. Index Figures"; "City Utility Rate Hike Not Decided"; "Power quotas Not Applied To Diplomats".

General - More stencils were made for the workshop, thus completing the batch required.

Painting on charts for the "Student Training Course" is progressing smoothly. A set of six turbine charts have so far been completed.

STAFF NOTES

Mr. McKinroy is now on his way back from leave and is due to arrive here in early February. He is returning via Suez from England where he has spent practically all his vacation.



A. E. Colterjohn  
Assistant Consumers' Engineer

cpo

WESTERN DISTRICT POWER COMPANY OF SHANGHAI FEDERAL INC. U.S.A.

February 3, 1948

REF. 12 P. 00  
AP 00 100-001

WESTERN DISTRICT POWER COMPANY OF SHANGHAI,  
FEDERAL INC. U.S.A.

DECEMBER STATISTICS

Analysis of K.W.H. Sales

	<u>This Year</u>	<u>Last Year</u>	<u>Increase</u>	<u>Increase</u>
				<u>%</u>
Residential Lighting)	1,521,570	1,432,960	88,610	6.2
Commercial Lighting )				
Residential Heating & Cooking)	340,257	557,439	-217,182	-39.0
Commercial Heating & Cooking )				
Bulk Supply Industrial	11,374,177	8,702,747	2,671,430	30.7
Bulk Supply Commercial	53,308	15,381	38,427	249.8
Small Power	2,871,357	2,828,541	42,816	1.5
<u>Public Utility:</u>				
Chapei Co.	1,330,400	1,407,600	-77,200	-5.5
Private Street Lighting	11,694	11,126	568	5.1
Municipal Street Lighting	24,385	23,782	603	2.5
Municipal Others	208,831	218,025	-9,194	-4.2
<u>Total</u>	<u>17,736,479</u>	<u>15,197,601</u>	<u>2,538,878</u>	<u>16.7</u>
Total Units Sold (12 months ending December 1947)	196,582,145	129,273,344	67,308,801	52.1
Total Units Purchased (12 months ending December 1947)	209,081,310	137,473,800	71,607,510	52.1
Distribution Losses (12 months average)	6.0%	6.0%	-	0.0
Maximum Demand for Purchased Power - KW	34,456	28,740		

Analysis of Large Industrial Sales in K.W.H.

	<u>This Month</u>	<u>Last Month</u>	<u>Last Year</u>	<u>Increase</u>
				<u>% over</u>
				<u>Last Year</u>
Chinese Cotton Mills	6,696,180	7,837,950	5,791,310	15.6
Other Cotton Mills	3,300	3,900	-	-
Total Cotton Mills	6,699,480	7,841,850	5,791,310	15.7
Flour Mills	284,250	412,700	184,625	54.0
Rubber Products	405,504	431,057	132,500	206.0
Paper Mills	767,987	769,900	144,710	430.7
Tobacco Factories	-	-	-	-
Ice & Cold Storage Factories	4,300	29,800	20,500	-79.1
Silk Mills	242,420	242,625	263,145	-7.9
Miscellaneous Textiles	2,093,548	2,249,849	1,627,890	28.6
Metal Working	164,790	158,800	114,492	43.9
Woolen Mills	380,025	384,045	347,960	9.2
Miscellaneous Other	331,873	350,148	75,615	338.9
<u>Total</u>	<u>11,374,177</u>	<u>12,870,774</u>	<u>8,702,747</u>	<u>30.7</u>

MEXICAN DISTRICT POWER COMPANY OF SHARAL FEDERAL INC. U.S.A.

SEC. 22. F.P.C.  
AP. 400 (11-5-57)

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CONNECTIONS

	<u>This Month</u>	<u>Last Month</u>	<u>Last Year</u>	<u>Increase during Month</u>
No. of Customers	22,165	21,804	20,637	361
" Refrigerators	2,318	2,305	2,227	13
" Cookers (Hired) x	783	786	782	-3
" Radiators ( " ) x	170	266	327	-96
" Water Heaters ( " ) x	29	29	26	-
" Misc. Appliances ( " ) x	29	29	29	-
H.P. of Motors ( " ) x	4,939	4,925	4,345	14

x Hired from S.P.C. and included in S.P.C. Statement.

CONNECTED LOAD

K.W. Lighting	15,565	15,416	14,735	149
" Heating: Comprising	(7,114)	(7,383)	(7,408)	(-269)
" Cookers	5,715	5,714	5,617	1
" Radiators	984	1,258	1,440	-274
" Water Heaters	65	65	58	-
" Miscellaneous	350	346	293	4
" Motors	69,943	69,711	64,846	232
" Industrial Heating	1,099	1,099	1,036	-
" Total	93,721	93,609	88,025	112

MONTHLY MOVEMENT IN CUSTOMERS

	<u>Total All Classes</u>
Total Customers Reconnected	16
Total Customers Disconnected	<u>18</u>
	Loss 2
Total New Customers Connected	<u>363</u>
Total Increase During Month	<u>361</u>

WESTERN DISTRICT POWER COMPANY OF SINGAPORE GENERAL INC. U.S.A.

REF ID: A67440

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COMMENTS: TOTAL KILOWATT-HOUR SALES

The meter reading months were as follows:

	<u>December</u>	<u>November</u>	<u>Difference</u>
Schedule Rate Consumers	28.83	31.36	-8.1%
Bulk Supply Consumers	29.20	31.80	-8.2%
Municipal Consumers	29.00	31.00	-6.5%

Total Kilowatt-Hour Sales for December were 17,736,479 Kwh or about 1,630,000 Kwh, corresponding to 8.4%, below the November total of 19,370,000 Kwh. The weighted reading month was about 8.1% shorter, so sales actually declined by only 0.3%. Sales to Industrial Bulk Supply consumers decreased but the loss was compensated by the increased sales to Chapei Co.

Residential & Commercial Lighting Sales showed a seasonal gain of 1.5% to reach 1,520,000 Kwh. This is considerably less than normal and reflects the effect of the Restrictive Charges.

Residential & Commercial Heating Sales decreased by 24.2% to 340,000 Kwh due to the Restrictive Charges in force; a seasonal gain is normal.

Sales to Industrial Bulk Supply were 11,370,000 Kwh as compared with 12,870,000 Kwh in November, a decrease of 1,500,000 Kwh or 11.6%. Several industries reduced their activities, particularly Flour Mills and Ice Factories.

Commercial Bulk Supply usage remained at last month's level with a total of 54,000 Kwh.

Small Power Sales registered a total of 2,870,000 Kwh or 4.8% less than last month's figure. Considering the shorter reading month, sales showed a monthly gain of 3.2%.

Chapei Company took 1,330,000 Kwh, an increase of 22.1% over the November total.

Private & Municipal Street Lighting showed small changes only.

Municipal Others Sales increased by 1.4% to 200,000 Kwh.

ANALYSIS OF LARGE INDUSTRIAL SALES

Cotton Mills - Sales to this group decreased by 14.6% to 6,700,000 Kwh. The usage of all the 11 mills in this area show a decrease during the current month due directly to enforced load reduction.

Flour Mills took 284,000 Kwh as compared with 412,000 Kwh last month, a difference of 128,000 Kwh or 31.1%. The difference was chiefly due to reduced operations in the Hwa Poong Flour Mill whose usage dropped from 268,000 Kwh to 156,000 Kwh.

Rubber Products - Sales were 2.3% up to 405,000 Kwh. Of the 8 consumers, two - Sun Woo Rubber Factory and Chiao Tang Lee Kee Rubber Co. - recorded gains and five reduced their operations. The Uah Foo Rubber Factory, which was added to this group in November, remained idle due to labour troubles.

NATIONAL DISTRICT POWER COMPANY OF SHANGHAI GENERAL INC. U.S.A.

REF. 10 P. 97.  
AP 400 (11-48)

- 4 -

Sales to Paper Mills decreased slightly to 768,000 KWH as compared with 770,000 KWH in November. The China Paper Mill and Dah Foong Paper Co. reached post-war highs.

Ice Factories - Sales were seasonally down to 4,300 KWH as against 29,800 KWH last month.

Silk Mills - Considering the shorter reading month, sales increased by 8.1% to 242,000 KWH.

Miscellaneous Textiles took 6.9% less than last month and totalled 2,090,000 KWH. The loss was chiefly due to the shorter reading month, as most mills maintained last month's level of operations.

Metal Working Sales increased by 3.8% to 164,000 KWH, a new post-war high.

Woolen Mills took 1.0% less than last month with a total of 380,000 KWH.

Miscellaneous Others - Sales totalled 331,000 KWH, an increase of 3.0% over the previous month, taking the shorter month into consideration. Most of the factories maintained their activities at a steady level.

#### POWER SECTION

Applications accepted during the month for connection of power supply were as follows:

New Load: 21 Applications totalling 860 H.P.

The above applications include 500 H.P. for Union Syndicate, 1007 Connaught Road, 12 H.P. and 15 H.P. for water pumping. The remainder, for night operation only, includes 100 H.P. for a brass rolling mill and loads of from 2 - 30 H.P. covering the following industries: cotton, rubber, paper, silk, metals, electrical repairs, food and needle manufacture.

The following load prospects were recorded during December:

#### Additional Load

Name: China Portland Cement Co. (Ex - Hua Luen Paper Mills)  
Address: Lane 232, House 154, Rockhill Avenue.  
Additional Load: 1,300 H.P.  
Estimated Additional Maximum Demand: 650 KW.  
Estimated Additional Annual Revenue: CN\$6,750,000,000.-.

This consumer has recently taken over Hua Luen Paper Mill No. 1 Mill, Rockhill Avenue and No. 2 Mill, Hart Road, and will carry on the business of paper manufacture. It is planned to develop this project in three stages as follows:

1st Stage: No. 2 Mill will be transferred and combined with No. 1 Mill at above location.

Supply for a load demand of approximately 350 KW will be given at L.V. and the S.P.C. 625 kVA transformer at present installed at No. 2 Mill will be transferred to No. 1 Mill to supply this load.

2nd Stage: Additional machinery to be installed will create an estimated increase in load demand of 150 KW, bringing the total demand up to 500 KW. At this stage the supply voltage will be changed to 20 KV.

WESTERN DISTRICT POWER COMPANY OF SHANGHAI FEDERAL IPC U.S.A.

REV. 12.7.57.  
AP 404 (11-48)

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3rd Stage: Further extensions will bring the final demand up to approximately 1,000 KW.

The consumer has been advised regarding the purchase of suitable 23 KV equipment.

Name: Not yet decided - formerly Shanghai Leather Co.  
Address: 1133 Brennan Road.  
Additional Load: 660 H.P.  
Estimated Additional Maximum Demand: 370 KW.  
Estimated Additional Annual Revenue: CN\$6,270,000,000.-.

This factory has recently changed ownership and is now being operated as a woollen worsted mill, with an estimated maximum demand of 180 KW.

Extensions are now planned to take place in two stages as follows:

1st Stage: Additional machinery to be installed about June 1948 will create an increase in demand of approximately 100 KW.

2nd Stage: Further extensions early in 1949 will bring the estimated final demand up to approximately 550 KW. Supply for the 1st stage of development will be given at L.V., but when the 2nd stage materializes the supply voltage will be changed to 23 KV. The consumer has been advised regarding the purchase of suitable equipment.

Name: Hai Loong Paper Mill.  
Address: 45 Columbia Road.  
Additional Load: 150 H.P.  
Estimated Additional Maximum Demand: 80 KW.  
Estimated Additional Annual Revenue: CN\$50,000,000.-.

At present there is a connected load at above address of 510 H.P., about 40% being unauthorized additions. Owing to the serious overloading of the 225 KVA transformer installed at the factory, the consumer has been requested to restrict his load demand to 170 KW and advised that as the supply voltage will have to be changed to 6.6 KV it will be necessary for him to purchase suitable equipment.

Further extensions planned at this factory will bring the estimated load demand up to approximately 350 KW.

Regarding the aforementioned load prospects, new load will be connected for night operation only, until additional generating plant is installed at Riverside, probably early 1949.

Above revenues are based on current net rates of:

CN\$4,410 for consumption of electricity up to 50,000 KWH per month  
and CN\$4,460 for consumption of electricity in excess of this amount.

Power Installation Inspection

The following inspections were made during the month:

<u>No. of Inspections during December</u>	<u>Unauthorized Additions</u>
20	4

cpo

*A. E. Colter*  
A. E. Colterjohn

SHANGHAI POWER COMPANY

SHANGHAI POWER COMPANY  
 RIVERSIDE STEAM ELECTRIC STATION  
 MONTHLY GENERATION REPORT  
 DECEMBER 1947

OUTPUT & PERFORMANCE DATA -

	A	B	C		D		E
	Total Station Net Output Kwh	Short Time Peak Demand Kw	St B Gross Generation Kwh	% of Total	St C Gross Generation Kwh	% of Total	Overall Heat Consumption Btu/net Kwh
Dec 1947	89,282,846	164,368	41,002,116	42.63	20,574,000	21.39	19,090
Nov 1947	82,191,502	161,835	40,603,782	45.92	12,579,000	14.22	19,389
Dec 1946	77,613,754	140,558	29,924,589	36.32	-	-	20,076
Dec 1941	48,439,749	140,008	32,328,747	61.15	-	-	18,688
% increase over							
Nov 1947	8.63	1.57	0.98		63.56		-
Dec 1946	15.03	16.94	37.02		-		-
Dec 1941	84.32	17.40	26.83		-		2.15
% decrease from							
Nov 1947	-	-	-		-		1.54
Dec 1946	-	-	-		-		4.91
Dec 1941	-	-	-		-		-

	Hourly Station Net Output Kwh	St B Hourly Generation Kwh	St C Hourly Generation Kwh
Dec 1947 (744 hr)	120,004	55,110	27,653
Nov 1947 (720 hr)	114,155	56,394	17,471
Dec 1946 (744 hr)	104,320	40,221	-
Dec 1941 (720 hr)	67,217	44,901	-
% increase over Nov 1947	5.12	-	58.29
Dec 1946	15.03	37.02	-
Dec 1941	78.37	22.74	-
% decrease from Nov 1947	-	2.28	-



SHANGHAI POWER COMPANY

Remarks:

The better economy compared with November 1947 due to  
 (1) higher percentage of St C generation; (2) better load factor;  
 (3) higher vacuum resulting from lower river water temperature.

The lower heat rate compared with December 1946 due to  
 (1) i/c of St C; (2) higher per centage of St B generation;  
 (3) better load factor; (4) better operating conditions.

The higher heat rate compared with December 1941 due  
 entirely to the fact that a great part of the increased load  
 demand has to be carried by less efficient (almost obsolete)  
 units in St A (despite better load factor and i/c of St C).

STEAM-GENERATORS -

SG No	Date		Hours o/c	Type of Inspection & Work Done	Operating Hr since Last o/c for Maint	Total Hours during the month		
	o/c	1/c				Not Available	Oper-ated	
31	11/17		3	53	150 main generating tube expansions which leaked when first hydraulic test was applied after welding up Feed Valve V-104 body and faulty economiser tube, were re-expanded, also on Baffle Box one tube expansion was re-rolled. To re-expand Baffle Box tube entailed renewing blind nipple which is installed in lieu of header cap, new nipple was machined from solid bar, fitted and welded to box. On completion, all outstanding work on boiler unit was again pressure tested to 1350 psi, and was found bottle-tight. All safety valves were removed, inspected and refitted and unit handed over to OD, a.m. Wednesday, December 3. Pressure was gradually raised to 1100 psi by a.m. December 4. At this pressure all boiler and superheater safety valves were hand operated by the valve easing gear. Easing gear removed and unit brought to pressure for setting safety valves, all six valves were individually tested and set to blow at superheater 1275 psi, 4 drum valves, 2 at 1330 psi and 2 at 1350 psi. This was completed at 3.45 p.m. December 4.	671	53	671
30	-	-		0	---	958	0	744
29	12	12		3	IDF motor bearing renewed (IDA).	1,139	3	732

SHANGHAI POWER COMPANY

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SG No	Date		Hours o/c	Type of Inspection & Work Done	Operating Hr since Last o/c for Maint	Total Hours during the month	
	o/c	i/c				Not Available	Over-stated
28	7	17	232	Routine cleaning after 2080 hr operation (IMS) - Front steam drum wire brushed, painted. Rear and mud drum wire brushed. Boiler tubes and arch, wall, screen and cross tubes turbo-cleaned. 30 Sh cap joints renewed. Ec washed externally, one cap joint renewed, press tested. Ph washed, sealing renewed. IDF, FDP and PAF inspected and bearings examined, oil changed. Feeder gear examined. Aux motors and switches cleaned. Unit press tested, safety valves and water level alarm checked.	807	232	511
27	-	-	0	---	1,032	0	743
26	10/28		744	General overhaul after 8413 hr operation progressing (IMS).	0	744	0
25	-	-	0	One length of IDF bearing cooling water pipe renewed.	1,072	0	
24	1	1	2	Stoker repair (IDA) - 9 connecting rods and 1 stroke adjuster renewed. Stoker gear box repaired, 1st. motion shaft clutch and bush changed.	183		
	20	21	12	FDP motor bearings cleaned and examined (IMS).	106		
	13	14	12	Miscellaneous repairs (IDA) - Lower coal chutes patched, IDF bearings cleaned, examined, casing patched. Ec relief valve overhauled, reset. Ph washed. 5 Ec caps rejointed, Ec press tested. Stoker and grate repaired. Aux motors and starters cleaned.	234	26	434
23	-	-	0	Blowdown pipe patched.	1,313	0	735
22	6	7	20	Leaky Ec repair (IDA) - One distributor tube changed, 7 Ec caps rejointed. Sh drains overhauled. Stoker repaired, 10 stroke adjusters and one coal ram changed. Grate washed, inspected, 40 tuyeres and 8 ash pusher plates changed. Ash water system cleaned, 4 sprayers and 1 set ash door levers renewed. Ph washed, examined. idl & LH ash pit wall partially rebuilt. SB system checked, lubricated. Ec press tested. Aux motors and starters cleaned.	178		
	26	26	0	One jammed coal ram changed.			

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SG No	Date		Hours o/c	Type of Inspection & Work Done	Operating Hr since Last o/c for Maint	Total Hours during the month	
	o/c	i/c				Not Available	Oper- ated
22	(continued)						
	27	28	12	Grate repair (IDA) - Grate washed; 12 dumping bar racks, 18 dumping bars, 24 ash pusher plates, 1 set ash doors and levers changed. Stoker gear inspected; 2 connecting rods, 8 stroke adjuster bolts and 10 stroke adjusters changed. Ph washed, examined, center bearing cover rejointed and liner fitted. Ash pit water service system cleaned. Brickwork repaired. Blowdown pipe repaired.	321	32	483
21	17	17	2	Ph washed, examined (IMS).	516		
	27	28	8	Aux motors and starters cleaned, examined (IMS) - Blowdown pipe repaired.	245	10	722
20	6	7	21	Ec repair (IDA) - 1 distributor re-expanded, 5 Ec caps rejointed. Ec press tested. Stoker repaired, 2 connecting rods renewed. 9 ash water sprayers and 3 sets ash door levers renewed. Aux motors and starters cleaned.	199	21	461
19	20	21	15	FD damper cleaned and oiled (IMS) - Aux motors and starters cleaned.	1,111	15	718
18	27	28	15	30 sets of coal hopper agitators renewed. Coal chutes and hoppers patched (IDA).	452	15	495
17	23		200	Repairing of steam legs and leaky tube caps progressing (IDU).	652	200	437
16	27	28	5	Aux motors and starters cleaned (IMS).	797	5	698
15	27	28	9	Aux motors and starters cleaned (IMS).	1,018		
	28	30	32	Leaky Ec repair (IDU) - 3 holed Ec tubes renewed. Drum examined, a light mud and deposit at LH extreme side.	13	41	671
14	6	7	17	Examination of furnace brickwork (IMS) - Brickwork examined. RH front safety valve reset. Water alarm tested. Drum opened, examined, condition good.	300		
	27	28	5	Aux motors and starters cleaned (IMS).	486	22	683
13	10/9		744	Partial overhaul after 3249 hr operation progressing (IMS).	466	744	0
12	5	12	157	Leaky Ec repair (IDU) - 3 holed Ec tubes plugged. Unit soot cleaned, safety valves and water alarm tested.	20	157	314

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SG No	Date		Hours o/c	Type of Inspection & Work Done	Operating Hr since Last o/c for Maint	Total Hours during the month	
	o/c	1/c				Not Available	Operated
11	17	18	15	Jammed center grate repair (IDU) - 2nd motion MS shaft and thrust ball bearing renewed.	736		
	20		286	Unit examination and tube washing progressing (IMS).	9	301	393
10	2	25	556	Partial overhaul after 1847 hr operation (IMS) - Drum opened, examined, soft scale deposit cleaned and wire brushed. Part of main tubes turbo-cleaned, 4 corroded tubes renewed. Down comer tubes turbo-cleaned, one corroded down comer tube renewed. 5 pitted Ec tubes renewed. 4 Sh tubes plugged. Brickwork repaired, ash door frame renewed. All feed, sample water and chemical valves overhauled. Safety valves tested, water alarm checked.	332	556	95
9	-	-	0		1,037	0	584

Notes:- 1. Unscheduled Outages -

(a) Units taken out immediately (IDU)

SG No:	31	17	15	12	11	Total
Times o/c	1	1	1	1	1	5
Hours o/c	53	200	32	157	15	(457)

(b) Repairs done on a deferred date (IDA)

SG No:	29	24	22	20	18	Total
Times o/c	1	2	2	1	1	7
Hours o/c	3	14	32	21	15	(85)

2. Tube Renewal -

SG No:	15	10	Total
Main Tubes	-	4	4
Ec "	3	5	8
			12

BOILER HOUSE AUXILIARIES -

1 - Feed Water Pumps (FWP) -

- FWP 20 - Discharge end stuffing box repacked.
- FWP 18 - General overhaul after 8633 hr operation. Both bearings and balance disc good, balance seat ring renewed. Coupling, casing and guide passages good, except 1st stage orifice plate renewed. Shaft and impellers good, 1st stage renewed. All wearing rings, packings and shaft sleeves renewed. Suction and discharge valves good.

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- 1 - Feed Water Pumps (FWP) - (continued)  
 NR valve overhauled. Electrical equipment overhaul progressing.  
 FWP 17 - General overhaul after 8861 hr operation completed. Suction end bearing reinstalled, delivery end good. Balance disc renewed, balance seat ring skimmed. Coupling and casing good, suction body cracked and steel liner fitted. All guide passages, orifice plate and impellers good. All wearing rings renewed. Shaft, keys, shaft sleeves renewed. Motor changed, starter overhauled.  
 FWP 5 - Motor and starter cleaned, short circuit gear adjusted.  
 FWP 2 - General overhaul after 8549 hr operation progressing.
- 2 - Auxiliary Fans in BH 2 -  
 SG 14-16 - FDF engine bearing adjusted.

RAW COAL HANDLING PLANT -

- Tr 1 - Traversing wire rope renewed, coal grab repaired. Renewal of hoist limit switch wiring progressing.  
 Tr 3 - Hoisting motor dismantled for ball bearing inspection. Hoisting wires renewed, 4 sleeves rebushed on hoisting gear, shaft renewed.  
 BE 3 - BE motor reinstalled after repairs.  
 BC 2 & 41 - Motors changed for bearing repair. All trolley equipment cleaned.  
 BC 11 - 3 gear wheels and 2 ball bearings renewed.  
 BC 26 - One head pulley and one ball bearing renewed.  
 BC 43 - Motor pinion renewed.  
 Riddling BC - 2 MS covers, 3 idle rollers, 2 pulleys renewed.

FUEL OIL HANDLING PLANT -

- BH 3-4-5 - FOM cleaned twice.  
 FOP 14 - Delivery Mt valve cleaned, cased.

PULVERIZED FUEL HANDLING PLANT -

- SC A - Faulty motor winding repaired.  
 PMF 6 - Broken secondary terminal of control transformer repaired.

ASH HANDLING PLANT -

- 1 - Electric Locomotives (LE) -  
 LE 1 - General overhaul completed. All trolley equipment routine cleaned.  
 2 - Trucks & Tracks - Maintenance work progressing.

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## TURBINE-GENERATORS

TG No	Date		Hours o/c	Type of Inspection & Work Done	Operating Hr since Last o/c for Maint	Total Hours during the month	
	o/c	i/c				Not Available	Operated
18	11/17	4	82½	Unit o/c for leaky Ea repairing to SG 31 (IMS) - Joint in steam pipe to aux oil pump renewed.	662	82½	662
16	8	8	0	Main oil coolers cleaned in turn.	1,089	0	733
15	8 13	8 14	0 12½	Main oil coolers cleaned in turn. Routine cleaning (IMS) - Overspeed trip mech cleaned, tested, operated at 3270 rpm. HP heater isolated to replace FWP 17 discharge valve. Transformer oil cooler cleaned. CP & CF motors and switches cleaned. VM switches overhauled.	1,224		
	31		5½	Main B/B links cleaning progressing (IMS).	420	17½	724
14	7	7	1½	Brush gear cleaned (IMS).	691		
	8	8	0	Main oil coolers cleaned.			
	17	17	3½	Condenser tested for water leaks (IMS) - Two tubes plugged.	245		
	20	21	13½	Routine cleaning (IMS) - Brush gear cleaned, examined.	67		
	30	30	2½	Condenser tested (IMS) - 3 tubes plugged.	224	21	712
13	5	6	20½	Routine cleaning (IMS).	292		
	12	12	1½	Drain valve changed; governor links adjusted (IDA).	138	22½	718
12	11/13		744	General overhaul after 14,730 hr operation progressing (IMS) - Exciter field windings cleaned, re-varnished. Main CCB for auxiliaries overhauled.	186	744	0
10	-	-	0	---	1,242	0	722
9	12 29	12 29	2 2	Bearing water jackets flushed (IMS). Brush gear cleaned (IMS) - Worn brushes changed.	397 392	4	723
8	27	28	6½	Routine cleaning (IMS) - CP 'A' made. New parts in governor installed. Governor adjusted, overspeed trip tested, operated at 1680 rpm. All coolers cleaned and leaky steam valves overhauled. Aux motors and switches cleaned. Transformers megger tested.	799	6½	715
7	6	9	56	Unit tripped account of transformer grounded (IDU) - Spare transformer for IT 1 & IT 2 replaced. Defective transformers sent to Wha Tung Co. for repair.	153		
	10	11	7½	Routine cleaning (IMS) - Exciter armature changed.	42	63½	647

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TG No	Date		Hours o/c	Type of Inspection & Work Done	Operating Hr since Last o/c for Maint	Total Hours during the month	
	o/c	1/c				Not Available	Operated
5	11/18	9	197 $\frac{1}{2}$	Partial overhaul after 10,731 hr operation and realignment of unit completed (IMS) - Total time o/c = 509 $\frac{1}{2}$ hr. Cylinder cover removed, cover bolts annealed, diaphragms and nozzle blocks examined, conditions found: Nozzle blocks - good. 2nd to 5th stage - slight erosion on both sides of blades. 6th to 10th stage - good, except slight erosion on inlet edge of 10th stage. Steam rotor blading examined, conditions found: 1st stage - Both rows good. 2nd & 3rd stages - Inlet edges thinned and ragged. 4th & 5th stages - Inlet & outlet edges slightly ragged, but still good for 3 years. 6th to 8th stages - Blades and shrouds badly worn, should be renewed within 2 years. 9th to 10th stages - Fairly good. Spindle found out of truth as follows: HP .003", after Curtis wheel .014" and LP .002". Main bearings metal good, oil clearances readjusted. Shaft realigned, stator air gap improved. Various parts and aux overhauled, defective parts renewed. Bad vibration occurred (IDU) - Rebalance tried.			
	10	10	4 $\frac{1}{2}$	Rebalancing after trial run (IDU).	122		
	12	12	1 $\frac{1}{2}$	Rebalancing after trial run (IDU).	19		
	13	14	12 $\frac{1}{2}$	Rebalancing after trial run (IDU).	46		
	16	17	23	Rebalancing after trial run (IDU).	38		
	18	18	2	Rebalancing after trial run (IDU).	50		
	19	27	186	Rattling noise heard in the vicinity of last stage (IDU) - Cover lifted, last stage top diaphragm holding bolts found fractured. All holding bolts renewed, top half cylinder vertical joint remade.			
	30	31	9	LP end block grouting examined (IDU) - Bedplate wedges tightened up, extra wedges driven home where grout had come loose account of poured during POJO and consisted of mud.	69	436	241

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TG No	Date		Hours o/c	Type of Inspection & Work Done	Operating Hr since Last o/c for Maint	Total Hours during the month	
	o/c	1/c				Not Available	Operated
4	1	1	2	Valve between drain tank and condenser renewed (IMS).	200		
	10	10	2	Condenser tested (IMS) - 4 tubes plugged.	199		
	11	11	3	Condenser tested (IMS) - 2 tubes plugged.	33		
	17	17	1/2	Brushgear cleaned (IMS) - 2 slipping brushes changed.	132		
	24	24	2	Condenser tested (IMS) - 1 tube plugged.	155		
	31	31	2 1/2	Brushgear cleaned (IMS).	174	12	710
2	5/28		7 1/4	Governor valve, spindle and hanger removed for TG 1.	8	744	0
1	3	3	5	Governor valve hanger worn badly (IDA) - Valve replaced from TG 2.	49		
	12	12	4 1/2	Routine cleaning (IMS).	173		
	17	18	16 1/2	Relay piston eased (IMS) - Brushgear cleaned.	104		
	27	28	14	Governor valve repaired (IDA).	189		
	31	31	9 1/2	Brush renewal progressing (IMS).	80	49 1/2	588

Notes:- Unscheduled Outages -

(a) Units taken out immediately (IDU) -

TG No:	7	5	Total
Times o/c	1	7	8
Hours o/c	56	238 1/2	(294 1/2)

(b) Repairs done on a deferred date (IDA) -

TG No:	13	1	Total
Times o/c	1	2	3
Hours o/c	1 1/2	19	(20 1/2)

TURBINE HOUSE AUXILIARIES -

1 - Circulating Water Pumps (CWP) -

- CWP 24 - Main and starting switches and motor routine cleaned.
- CWP 23 - Starting switch and motor cleared. Motor rotor clearance checked, grease pipe repaired.
- CWP 21/22 - Starting switches routine cleaned. Motors cleaned externally. CWP 22 Main OCB overhauled.
- CWP 15 - Bottom race of motor ball bearing renewed. Roller bearing carrier soldered up for reducing radial movement of rotor shaft.



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- 2 - Service Water Pumps (SWP) -  
 SWP 3 - Discharge valve to LP bus changed.  
 SWP 4 - Pressure governor repaired.  
 SWP 12 - Discharge valve renewed.
- 3 - Air Compressors (Cp) -  
 Cp 1 - Routines cleaned. Two valve seats and discs renewed.  
 Relief valve tested.  
 Cp 3 - Diaphragm in unloading valve renewed, bearings  
 tightened, overload valve rejointed.

FLOATING EQUIPMENT -

Usual inspection and minor repairs made.

MISCELLANEOUS MECHANICAL EQUIPMENT -

- 1 - BH 3 FW Line: Porous body valve FB 3/26 renewed.  
 2 - Office Hot Water Pipes: All pipes cleaned from scale,  
 2 lengths of 1½" pipe renewed.

ELECTRICAL EQUIPMENT -

- 1 - 23 kv SH Equipment -  
 AM 80 - Definite time O/L relays installed and feeder now  
 named AG 16.  
 AD 22 - OCB main fuse and indicator coil replaced.  
 BP 4, Re 4, BSA - OCB overhauled.  
 Sections 1, 2 & 7 Main B/B - B/B routine cleaned. Following  
 cells and isolating links cleaned and examined:  
 IT 1, IT 2, TG 7, AK 36, AB 1/2, ST 7, ST 8,  
 AB 3, AB 4, AK 38, Re 1, BS 2-1, Re 2, TG 8,  
 Re AS, AC 5, Re 7, AG 19, TG 15.
- 2 - 6.6 kv SH Equipment -  
 Main & Aux B/B - B/B routine cleaned. Following cells and  
 isolating links cleaned and examined:  
 IT 1, IT 2, A 1/2, A 3/4, A 5, A 6, A 7, A 8/13,  
 A 9, A 10, A 11/12, TG 4, TG 18, TG 1/ST 17.  
 A 5 - OCB overhauled after operating on cable fault.
- 3 - Transformers and Converters -  
 HST 1 - 2 - TP starters overhauled. O/L protection  
 tested. Motors cleaned.  
 ST 4 - HT & LT OCB overhauled. Transformer cleaned.  
 HG 1, 2 & HG 4 - Brushgear cleaned, examined.  
 HC 3 - Armature removed for skinning; commutator.

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4 - St 'C' Equipment -

BCB & BIB - Broken cable earth clamps replaced.  
 VF 5, 6 & 7 - O/L relay contacts connected in switch holding coil circuit. Switch trip annunciator contacts installed and connected to annunciator system.  
 Installation of emergency stop button on motor switch progressing.  
 AS 6 - Cable room automatic shutter installed.  
 SR 5, OP 1 & 2 - Motor switch O/L relay heater coil changed.  
 Aux motors and switches routine cleaned.

5 - Miscellaneous -

(a) Smoke signalling relay boards and boxes prepared.  
 (b) TG 16 basement wiring re-installed.  
 (c) Tr, BC & LC 1 cabinet door repaired.  
 (d) Installation of Conference Room lighting and wiring progressing.  
 (e) WS 6 motor re-installed after overhaul.

RIVERSIDE WORKSHOP -

- 1 - Overhauled 11 motors, 5 transformers, 1 DC generator, 1 synchronizing motor, 2 regulators; machined 36 fixed sparking contacts, 2 copper link blades, 150 flag sockets, 6 compound expansion chamber, 40 grid type fuses; made 1 line switch handle gear, 5 sets line switch, 50 lead jointing sleeves, 100 copper tubular cable sockets, 24 carbon contacts, 24 fixed sparking contacts, 30 cable pothead insulator and terminals, 30 copper contacts, reconditioned 20 LT outrigger brackets, 50 alloy lighting brackets, 2 GE links, 1 knife switch.
- 2 - Machined 3 worm shafts, 12 flanges, 12 coal burner fish tails, 12 worm bushes, 8 impellers, 636 bolts and studs, 59 pins and keys, 22 shafts, 18 spindles, 98 pipes, 96 nipples, 112 rods, 25 unions and couplings, 200 ferrules, 87 Ec tubes, 933 miscellaneous articles for various purposes; ground 5 steel ball races, 4 steel knife edges; made 9 strainer boxes, 2 pothead waterproof covers, 17 cones with vanes, 14 oil tins, 1 MS box, 2 sets brass universal balls and body, 4 nozzles, 1 oil baffle, 20 clamps, 1 float, 20 sets oil rings; repaired 3 POB tubes, 2 lubricant gun handles, 1 coal briquette machine, overhauled 3 valves.
- 3 - Made 8 MS plates, 1 air duct, 1 grid hopper support, 4 tube baffle headers, 2 MS racks, 6 MS ductings, 3 oil pans; repaired 1 pitch boiler, 6 MS casing doors, 8 steam pipes, 1 ash hopper; bent 30 Ec tubes, 65 MS pipes, 1 MS angle; straightened 4 MS pipes, 2 MS shafts, 2 MS rods, 2 angle iron pcs, 7 stroke adjusters; annealed 10 main tubes, 11 pipes, 127 bolts and studs, 1 copper expansion; tempered 22 steel rollers, 12 steel cutters; reconditioned 150 MS braces;

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forged 500 'U' bolts, 260 washers, 87 tube caps, 4 Ec headers, 4 jacks, 198 square head bolts and screws, 92 rag bolts, 344 MS various articles; renewed 400 hook bolts; sharpened 240 chisels.

- 4 - Electric and gas welded 26 pipes flanges, 5 pipes, 3 pipe tees; electric welded 2 steam heaters, 1 MS expansion, 1 pitch boiler, 2 shafts, 31 crank shafts, 2 gear wheels, 2 blower spindles, 4 valve bodies and seats; gas welded 8 steam pipe flanges, 2 CI pump bodies, 15 stroke adjusters; gas brazed 2 sets transformer tails, 5 copper jointing sleeves, 15 copper tube ends, 7 brass impellers; faced with stoddite 32 IDF blades, 3 steel valve seats; galvanized 993 miscellaneous articles for Distribution Department.
- 5 - Foundry produced the following castings:
- |        |    |            |
|--------|----|------------|
| 29,128 | lb | cast iron. |
| 653    | lb | HD brass.  |
| 68     | lb | GP brass.  |
| 6      | lb | JP brass.  |
- 6 - Building & Wharf Maintenance:
- Repaired windows and frames for BH 3 & 4, corrugated GI sheetings for BH 2.
  - Maintenance work to all plumbing and piping in Station progressing.
  - Replaced window glasses for 5th floor in Station 'C', BH 4 office and BT 3 M/C cabin.
  - Construction of retaining walls on 3 sides of Coal Storage 'A' progressing (75% completed).
  - Re-roofing of TH progressing.
  - Reconditioning and decoration of Conference Room progressing (75% completed).
  - Extension of Workmen's Service Building progressing (60% completed).
  - Renovation of parts of BH 4 walls progressing.
  - Glazed 700 window panes in Station.
  - Repairing of TH walls of Station 'B' completed.

#### MISCELLANEOUS NOTES

The labour roll at Riverside totals 1321 including 19 Foreign and 81 Local Agreement, 39 Russians, 9 Subsidiary Staff (Foreign Watchmen), 23 Chinese Apprentice Engineers, 1 Student Engineer, 1 Engineer-Trainee and 1148 Chinese Staff.

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There were no major labour troubles throughout the month. Whilst the issue of notices to each of the monthly employees informing him of his grade and the rule imposing restrictions to overtime work for those who have been sick were viewed with suspicion.

A meeting held with the No. 1's to discuss safety measures made a very good impression with the men, these talks are to be expanded with a view to adopting the most efficient method whereby the workmen can be made safety minded.

During the month the men held frequent meetings to elect new representatives of the Union; these meetings did not encroach on the Company's time.

The Winding Shop men had queried our right to send certain transformer repairs to outside contractors, and they were informed such had to be done due in part to the slowness of their work and overloading of Winding Shop, moreover it was entirely within the Company's right to place any work with outside contractors if they thought fit.

Considerable agitation against the Supervisor who was concerned with the BH 5 Preheater accident on November 26 was experienced at the beginning of the month. This agitation has died down somewhat, but the Supervisor concerned is still being pressed to make some monetary grant to the injured person's family.

The average % of absenteeism due to sickness and/or other causes of the regular Chinese Staff amounted to 3.80% for the monthly rate, and 3.45% for the daily rate; the sickness % being 2.39% and 1.90% respectively.

#### GENERAL -

##### Staff

During the month we lost the services of one Assistant Charge Engineer (Operation) and one Assistant Engineer (Machine Shop), and one new Maintenance Assistant was engaged.

The training of BH attendants is proceeding very satisfactorily, the physical limitations of the trainees is however apparent, the handling of heavy slicing bars is proving a difficult problem.

##### Operation -

Record Daily Generation - The plant continued to be operated at maximum output of available equipment, the maximum generation for the month occurred on December 30, 1947, i.e. 3,318,559 Kwh, which is an All Time Record, the max Peak Load 164,368 Kw occurred on December 29, at 5.20 pm, this also is an All Time Record.

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Our total station net output increased by 8.63% over last month, namely 89,282,846 Kwh as against 82,191,502 Kwh, this increase being due to 63.56% increase in Station 'C' generation, better load factor and general improvement in efficiency.

The hourly station net output increased by 5.12% from 114,155 Kwh to 120,004 Kwh.

The load factor based on gross generation increased from 78.95% in November to 81.88% for December.

#### SG UNITS -

##### SG 31:

This unit was recommissioned on December 3 after an outage of 370 hours. Welding of Feed Valve V-104 body and faulty Economiser tube successfully withstood hydraulic pressure tests, however it was found necessary to re-expand 150 main generating tube expansions and one tube expansion in Baffle Box. Upon completion SG unit hydraulically pressure tested to 1350 psi and found bottle tight. All safety valves were removed, inspected and refitted, after unit was commissioned and pressure raised to 1100 psi, all boiler and superheater safety valves were hand operated by valve easing gear, finally all six Safety Valves were individually tested and set to blow at Superheater 1275 psi, 4 drum valves, 2 at 1330 psi and 2 at 1350 psi, the unit then being handed over to the operation Division on December 3.

Unfortunately we have to record that on December 5 the RH-Superheater outlet safety valve opened at subnormal pressure, and a further tightening of its spring was effected; however the valve again opened at subnormal pressure and it was decided to lower boiler pressure to 1100 psi in the interest of safety, as the close proximity of this valve to the soot blowing control valves forms a definite hazard to operating personnel. Protective Barriers were erected around both superheater outlet safety valves and pressure restored to normal 1200 psi.

As there is some indication of collapse of Safety Valve springs, 2 sets of springs, valve seats and discs have been ordered.

The performance of this unit since recommissioning has been very satisfactory, the increased quantity of coal burned (the fuel ratio now being 50% coal, 40% oil on Btu basis), plus lower CO<sub>2</sub> (between 11-12%) has unquestionably improved furnace conditions, only the lower rows of generating tubes are showing a slight formation of birdnesting.

As a matter of interest, during the nine months ending December 31, 1947, 'C' Station has during this initial period of commercial operation, been on load for approx 5,150 hours out of 6,548 hours, generated over 150,000,000 Kwh and thus giving an availability factor of 78.6%.

#### General:

As usual, a considerable amount of maintenance and repairs were carried out on SG units, a total of 3,177 hours being spent upon repairs and overhauls of all SG units.

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The unscheduled outages show an increase over previous month, namely 5 as against 3, the deferred outages show a decrease, namely 7 as against 12 for previous month.

The total hours SG were o/c for unscheduled and deferred outages show an increase, namely 542 hours as against 522 for previous month, and were made up as follows:-

Unscheduled Outages - 457 hr as against 369 hr.  
Deferred Outages - 85 hr as against 153 hr.

Tube renewals registered a considerable increase, namely 12 as against 5 for previous month.

Major maintenance work for the month consisted of the following:-

SG 31 - o/c 53 hr for Ec leak repair; completed.  
SG 28 - o/c 232 hr for routine cleaning; completed.  
SG 26 - o/c 744 hr for general overhaul; work progressing.  
SG 17 - o/c 200 hr for steam legs repair; work progressing.  
SG 13 - o/c 744 hr for partial overhaul; work progressing.  
SG 12 - o/c 157 hr for leaky Ec repair; work completed.  
SG 11 - o/c 286 hr for examination; work progressing.  
SG 10 - o/c 556 hr for partial overhaul; work completed.

#### TG UNITS -

Major overhaul of TG 12 progressing, this work being interrupted on several occasions due to pressure of work on other units.

TG 5 unit partial overhaul completed, rebalancing found necessary, results obtained however not entirely satisfactory due to poor LP end foundation, extra wedges inserted, etc, and unit i/c; lifting and regrouting of turbine necessary at a later date.

Apart from TG 5 and TG 12, all work on TG units was of a routine nature this month, and as in previous months, practically all such work has been carried out at week-ends and other off peak periods thereby necessitating considerable overtime payments.

Apart from TG 13 which was o/c on account of SG 31, the total hours TG units were o/c for all causes, amounted to 1376½ hr only.

Unscheduled outages - 8 - totalling 294½ hr.  
Deferred outages - 3 - totalling 20½ hr.

#### CALTEX CONSTRUCTION -

Fabrication of concrete supports for main oil pipe lines, also concrete steps and extension of valve spindles progressing.

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ELECTRICAL -

Electrical work during the month was mostly of a routine nature.

Installation of Smoke Inspectors signalling equipment progressing.

Two 4,200 Kva Westinghouse Transformers were put out on contract for repairs including complete re-insulation of windings.

FUEL OIL SUPPLY -

Fuel oil consumption for the month totalled 30,434 long tons, the maximum daily consumption being 1,034 tons and average daily consumption 981.74 tons.

WORKSHOPS -

The Workshop continues to be loaded with work, necessitating considerable overtime. Several jobs have been given to outside contractors with a view to expedition of work.

The Winding Shop also continued to be overloaded, with repair work, so much so that the repair of two 4,200 Kva Westinghouse Transformers had to be placed with an outside contractor, supervision however to be undertaken by SPC engineers.

REHABILITATION & CONSTRUCTION -

Erection of 4 platforms above stoker cranks shafts at boiler fronts - SG 18, 20, 22 & 24: progressing. 90% completed.

Construction of Reinforced Concrete Retaining Walls on three sides of Coal Storage 'A': progressing. 75% completed.

Concrete cover slabs: progressing. Of the 1500 pieces ordered by Pearson Road, 1200 pieces have been completed.

Erection of new roofing to Roof 'A' - Control Room; Roof 'B' - TH 1912-1920 Building; Roof 'C' - Pump Bay No. 2; Roof 'D' - Pump Bay No. 3: progressing. Roof 'B' 30% completed; additional roofing material arrived from abroad.

Conference Room - reconditioning and Decorating: progressing. 80% completed, awaiting arrival of masonite flooring, all efforts to expedite laying of flooring has failed to date.

Renewal of 4 Ash Chutes and general overhaul of Steel Structure including painting: progressing. 90% completed.

Supply of labour only for the manufacturing of 50 pcs Concrete Pole Bases 8" x 8"; 100 pcs Pole Bases 10" x 10"; 32 pcs Concrete Joint Boxes No. 206; 52 pcs Concrete Joint Boxes No. 309: progressing. 50 pcs Pole Bases 8" x 8" completed. 78 pcs Pole Bases 10" x 10" completed. 18 pcs Joint Boxes No. 206 completed. 30 pcs Joint Boxes No. 309 completed.

SHANGHAI POWER COMPANY

17

South Wing Extension - Workmen's Service Building as per Drawing No. 21/342, Sheets 40-41-42: progressing. 63% completed.

Renovation of parts of North, South, East & West Walls of Boiler House No. 4, as shown on Drawings: Erection of staging completed.

Glazing of windows for Station Buildings: progressing. A total of 774 panes have been set in BH 3 East Wall.

Repairs to Office Building Skylight: 100% completed.

General overhaul and repairs to Coal Lighters No. 21 & 23: progressing.

Renovation of Riverside Enquiry Office, Installation of Barriers and a Turnstile: progressing. 5% completed.

New Brick Housing at the foot of Incline belts No. 41 & 42: progressing. 25% completed.

FUEL -

Coal receipts were 17,950 tons during December, made up of one kind of coal; 20,533 tons were burned and 119 1/2 tons issued by Stores and 1/2 ton issued for US Navy use, making a total of 20,653 tons. Total stocks on January 1, 1948 (8.00 am) were 21,380 tons, consisting of 18,941 tons on mechanical storage and 2,439 tons in bunkers. Coal deliveries during the period were 2,803 tons less than burned plus issued, and stocks were decreased a like amount.

Oil receipts were 30,507.37 tons during December and 30,434 tons were burned, thus increasing stocks on January 1, 1948 (8.00 am) to 2,516.49 tons.

MUD DREDGING -

During the month 4,320 cubic yards of mud (27 lighters of 160 cubic yards per lighter) dredged from in front of our wharves and pump houses.

COKE & BRIQUETTES -

During the month 198,711 lb of course coke were recovered from ashes, of which 49,678 lb issued to the coke recovery contractor and 83,800 lb issued for Company use, leaving 827,327 lb in Stores on January 1, 1948.

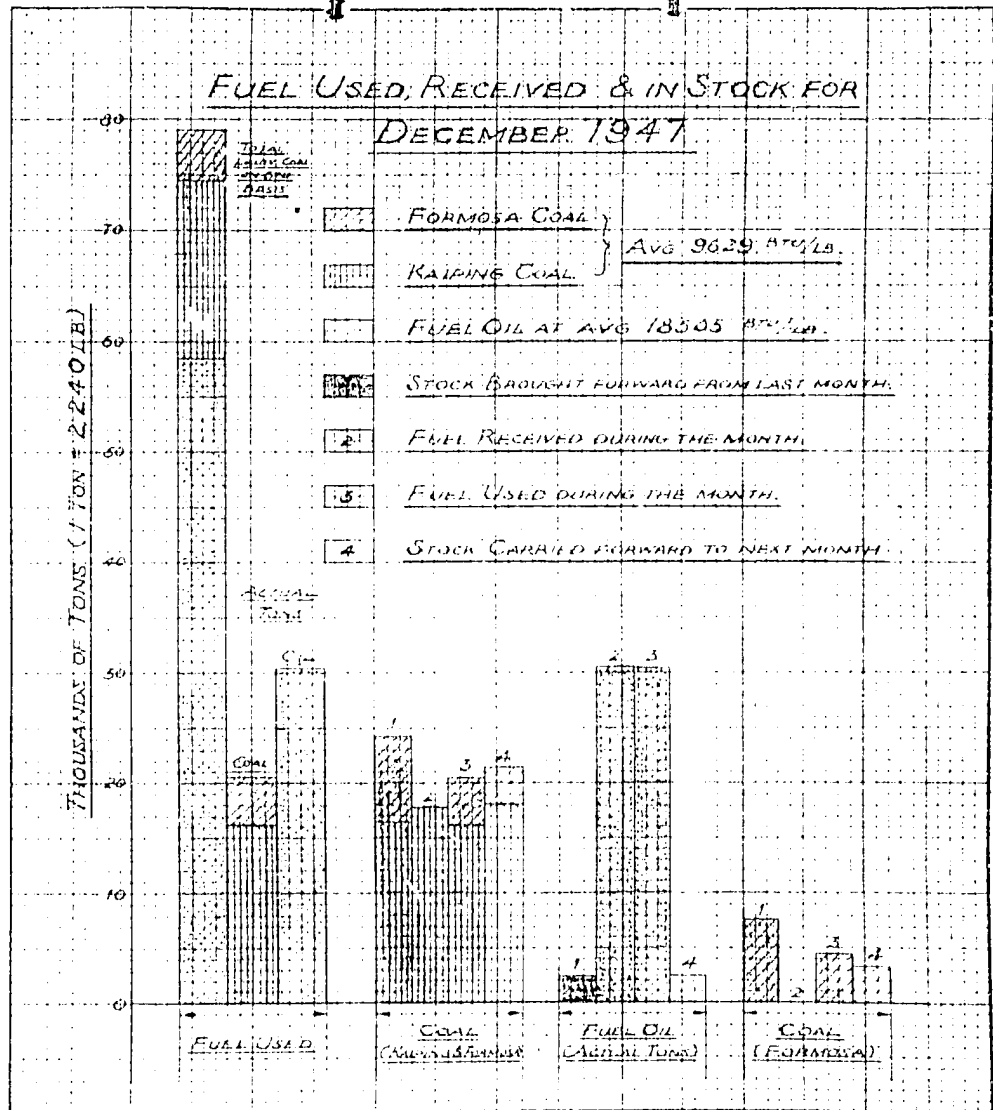
During the month 93.33 metric tons of anthracite coal were received from local suppliers and 124.8 metric tons of anthracite issued for the manufacture of briquettes for sale to employees. Total amount of briquettes made was 366.35 metric tons, of which 366.25 metric tons were issued.

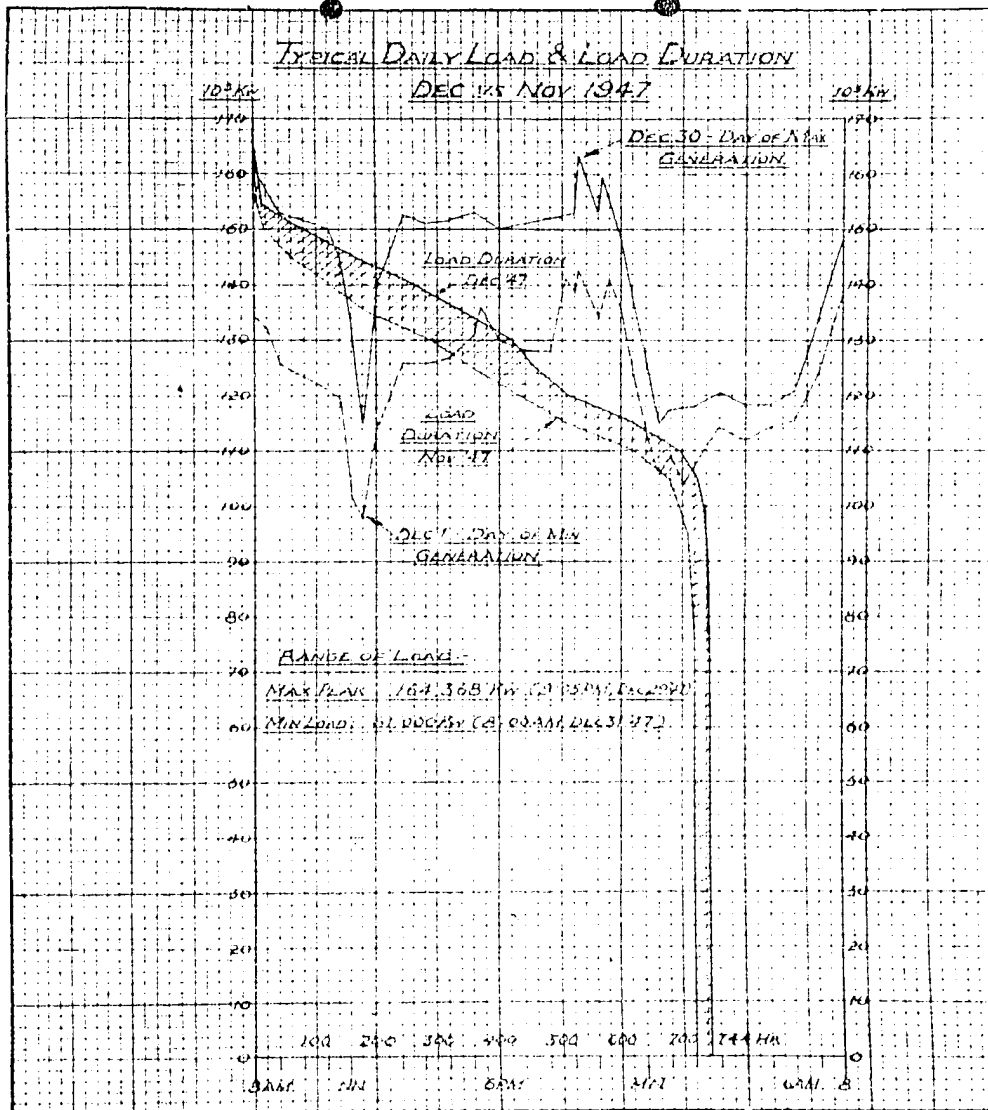
*C. J. Pleace*  
C J Pleace

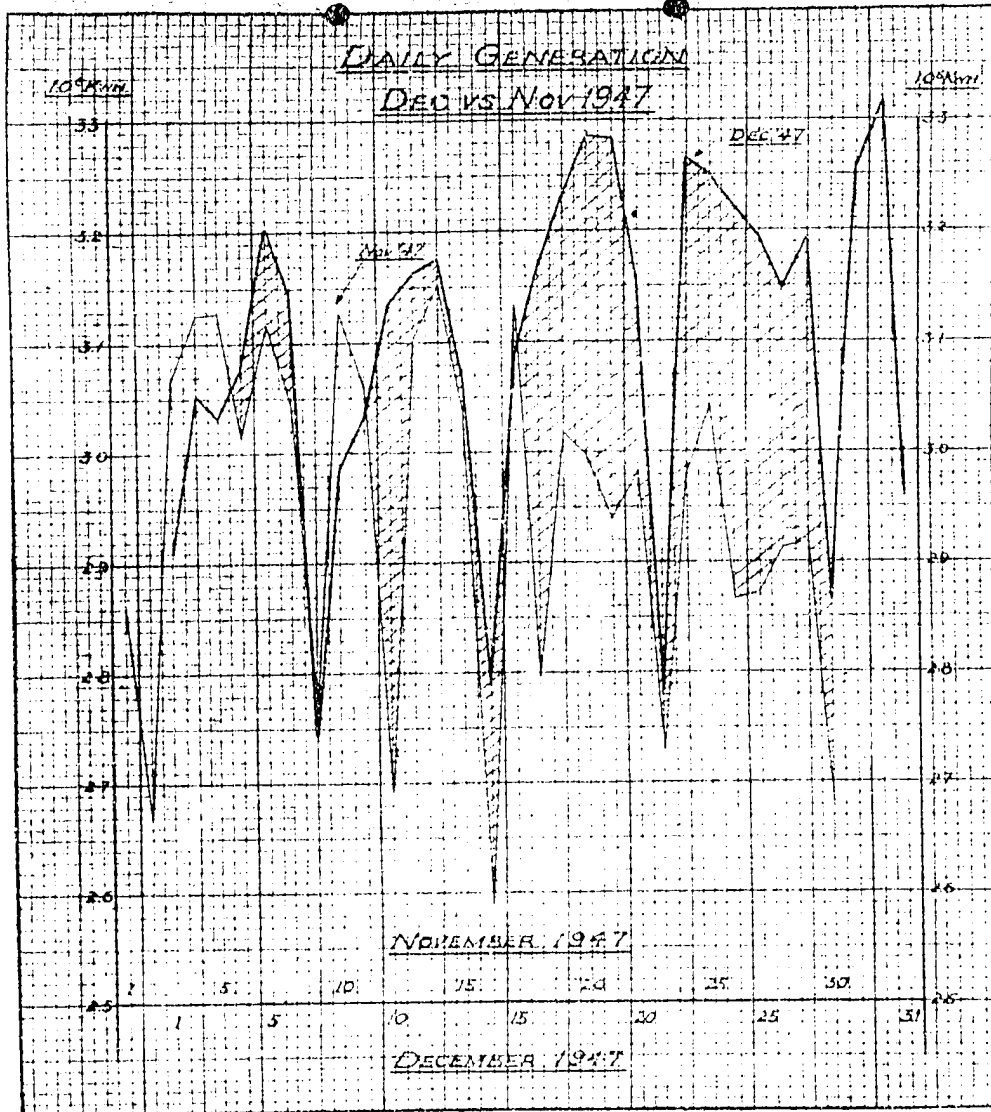
Shanghai, January 23, 1948

CJP/S  
Encl: SG Water Report  
TG Oil Report  
Characteristic Curves









PLEASE STAMP ELEMENTS STATION  
**SHANGHAI POWER COMPANY**  
 CHEMICAL LABORATORY

**AVERAGE**  
**BOILER WATER ANALYSIS**  
**FOR THE MONTH OF DECEMBER 1947**

DATE 194

NO	TIME	TOTAL		SODIUM SULPHATE		MAGNESIUM		CALCIUM		SILICA		PH		CHEMICALS ADDED LB		REMARKS	
		CHLORIDE	SULPHATE	CHLORIDE	SULPHATE	CHLORIDE	SULPHATE	CHLORIDE	SULPHATE	CHLORIDE	SULPHATE	CHLORIDE	SULPHATE	CHLORIDE	SULPHATE		
1																	
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9	18	85	108	815	5.4	3485						4	10.7	4365	8	536 Hr @ 116°	
10	21	80	101			4700						6	10.7	1835	8	84 Hr @ 85°	
11	25	91	116	518	3.0	4578						5	10.8	4543	86	518 Hr @ 120°	
12	10	78	68	500	3.8	10183						6	10.7	4578	2	48 Hr @ 60°	
13																	
14	20	159	178	156	1.5	815						5	10.8	1708	15	72 Hr @ 48°	
15	18	58	76	145	3.5	5850						5	10.7	4594	88	480 Hr @ 136°	
16	20	90	110	294	2.9	215						7	13	10.9	1577	1	84 Hr @ 84°
17	9	57	48	118	6.2	25						6	16	10.5	356	29	
18	15	68	80	328	2.9	62						21	19	10.7	603	9	
19	19	70	86	499	7.5	65						16	14	10.8	903	6	
20	23	81	104	516	3.1	84						25	25	10.8	793	7	
21	18	45	84	493	6.4	149						16	20	10.8	1056	4	
22	15	65	81	204	2.1	60						20	25	10.7	500	8	
23	14	63	76	453	4.7	170						19	18	10.8	850	4	
24	18	76	94	185	3.3	70						27	28	10.8	617	5	
25	18	64	84	378	4.1	140						8	24	10.9	986	7	
26																	
27	18	55	69	283	3.1	375						23	16	10.6	761	20	
28	18	66	74	167	2.8	244						28	17	10.6	700	14	
29	16	84	70	186	2.7	191						17	15	10.7	891	15	
30	17	65	80	144	1.8	237						21	16	10.7	649	16	
31	14	60	74	64	0.9	21						23	25	10.8	394	56	
AVG												2497	10	3674	99	133	

OPERATION ENGINEER  
 CHEMICAL ENGINEER  
 MAINTENANCE ENGINEER  
 GENERATION SUPT  
 PLS  
 IN OFFICE  
 LUBRICATION DIVISION

RIVERSIDE STEAM ELECTRIC STATION  
 TURBINE OIL SERVICE DATA

December 1947

DATE: 12/1/47

TG No.	OPERATING HR	MAKE-UP		CENTRIFUGE OPERATION				LABORATORY REPORT			REMARKS
		GAL	DESCRIPTION	HR	DRY SOLIDS LB	SOLIDS LB PER 1000 HR	WATER LB	VISCOSITY 100°F / 300 RPM	ACIDITY MG SULF/EM	DEWATERING MTD	
10	652	20	Tycol Lt					93	0.019	3	
16	733	26	DTE Lt	71			28	90	0.047	21	
15	724	27	DTE Lt	71	9	12	432	93	0.95	38	
14	712	26	DTE Lt					93	0.91	2	
13	718	5	DTE Lt					94	0.076	8	
12											
11											
10	722			22	5	7	20	90	0.18	32	
9	723							91	0.089	51	
8	715							96	1.99	42	
7	647	40	DTE Lt					95	0.052	6	
6											
5	241	57	Tycol Lt		29	120	43	91	0.11	21	
4	710	10	Tycol Lt		46	65	1939	90	0.066	2	
2											
1	588	20	ex TG 7 Tycol Lt					101	0.80	6	

HISTORY OF OIL BATCHES

TG No.	LAST FULL CHANGE			TOTALS TO DATE					MAKE-UP DATA			OPERATING HRS SINCE LAST OVERHAUL
	DATE	GAL	DESCRIPTION	OPERATING HRS	SOLIDS LB/1000 HR	SOLIDS LB	WATER LB	WATER LB/TION/HR	TOTAL GALLONS	GAL PER 1000 HR	TG HR PER GAL	
10	Nov 46	576	Rio Tycol Lt	4952	-	-	-	-	102	20	49	4952
16	Nov 46	940	DTE Lt 797	7627	494	65	1513	199	286	38	27	7627
15	Aug 38	946	DTE Lt	66026	2158	33	9540	145	2293	35	29	17737
14	June 37	927	Shell 88A	59069	3776	55	13330	193	2675	39	26	18624
13	Mar 47	103	DTE Lt 797	5396	-	-	4	1	60	12	90	5396
12	Apr 37	111	DTE Lt	62226	36	-	12	-	610	10	102	11740
11												
10	June 36	1280	Tycol Lt	70082	690	10	1262	18	2089	30	34	1280
9	May 46	590	Rio Tycol Lt	13349	227	17	495	40	317	24	42	13349
8	Sept 36	580	Tycol Lt	69457	3113	44	5240	75	2241	32	31	69457
7	July 47	336	DTE Lt 797	3044	-	-	-	-	132	44	23	3044
6												
5	July 46	250	Rio Tycol Lt	10972	277	25	621	57	256	23	43	10972
4	June 46	250	Rio Tycol Lt	12418	487	39	35483	2862	156	13	80	12418
2												
1	Aug 36	295	Old Shell	8426	-	-	-	-	352	42	24	8426

TG 5 - Overhaul completed this month. Oil Batch drained off, centrifuged and settled. All oil piping dismantled and cleaned. Main Oil Tank and Bearing sumps cleaned. Oil Cooler tube plates renewed and retubed - pressure tested at 50 psi. Batch press-filtered and recharged into system - added 39 gal. Tycol Lt - Oil lost due to leaky cooler tubes.

TG 12 - General Overhaul progressing.

AP 100 (6-47)

J C Baker

A Livan

SHANGHAI POWER COMPANY

December 1947.

SHANGHAI POWER COMPANY AND  
WESTERN DISTRICT POWER COMPANY OF SHANGHAI  
FEDERAL INC. USA

DISTRIBUTION DEPARTMENT  
MONTHLY REPORT FOR DECEMBER 1947

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SHANGHAI POWER COMPANY

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The following outlines the activities in connection with operation, maintenance and construction work in this Department.

I OPERATION

(A) SERVICE FAILURES AND TROUBLE CALLS

(1) Major Service Failures

(a) Load Reduction due to insufficient electrical (E) and/or steam (S) generating capacity at Riverside

Date	Dec 1	Dec 2	Dec 3	Dec 4	Dec 6	
Area affected	SPC	SPC WDPC Chapei	SPC WDPC Chapei	SPC WDPC Chapei	SPC	
Supply from Substation	Riverside Yangchow Tonquin S'hai 2/3	Riverside Yangchow Tonquin Zonnaucht	6 sub-stations	6 sub-stations	Yangchow Tonquin	
Feeder	7 feeders	24 feeders	19 feeders	24 feeders	C 20, 19/21 C 3 201 C 6	
Customer	6 customers & LV networks	25 customers & LV networks	19 customers & LV networks	23 customers & LV networks	5 customers & LV networks	
Duration of supply interruption	16 mins to 40 mins	4 mins to 3 hrs 19 mins	7 mins to 3 hrs 39 mins	24 mins to 5 hrs 3 mins	1 hr 28 mins to 1 hr 45 mins	
Estimated KVA-HRS Lost	Company's area	Ev 5,048	AM 4,826 PM 23,640 Ev 4,164	AM 3,098 PM 24,048 Ev 4,570	AM 33,453 PM 42,110	AM 10,270
	Chapei		AM 5,340 PM 5,960	AM 9,310 PM 26,300	PM 31,050	
	French					
	Total	5,048	43,930	67,926	106,613	10,270
Insufficient electrical and/or steam generating capacity	E	E	E	E	E	
Remarks		AM - refers to morning peak load period ( 8 am to 12 noon) PM - " " afternoon " " " (12 noon to 7 pm) Ev - " " evening " " " (after 7 pm)				

SHANGHAI POWER COMPANY

- 3 -

(a) Load Reduction due to insufficient electrical (E) and/or steam (S) generating capacity at Riverside (continued)

Date	Dec 8	Dec 9	Dec 10	Dec 11	Dec 12	
Area affected	SPC WDPC Chapel	SPC WDPC Chapel	SPC WDPC Chapel	SPC WDPC	SPC WDPC	
Supply from substation	6 substations	6 substations	6 substations	9 substations	13 substations	
Feeder	29 feeders	27 feeders	25 feeders	32 feeders	24 feeders	
Customer	31 customers & LV networks	29 customers & LV networks	25 customers & LV networks	41 customers & LV networks	27 customers & LV networks	
Duration of supply interruption	13 mins to 5 hrs 32 mins	24 mins to 4 hrs 35 mins	8 mi. to 3 hrs 41 mins	7 mins to 4 hrs 34 mins	4 mins to 3 hrs 10 mins	
Estimated KVA-HRS Lost	Company's area	AM 77,560 PM 66,545 EV 21,270	AM 71,520 PM 73,560 EV 3,148	AM 22,740 PM 60,998 EV 2,663	AM 40,260 PM 34,120 EV 15,549	AM 51,140 PM 18,875 EV 6,950
	Chapel	AM 8,440 PM 14,600	AM 17,580 PM 11,300	AM 4,820 PM 11,590		
	French					
	Total	168,415	177,108	102,811	149,929	76,965
Insufficient electrical and/or steam generating capacity	E	E	E	E	E	
Remarks	AM - refers to morning peak load period (8 am to 12 noon) PM - " " afternoon " " " (12 noon to 7 pm) EV - " " evening " " " (after 7 pm)					



SHANGHAI POWER COMPANY

- 4 -

(a) Load Reduction due to insufficient electrical (E) and/or steam (S) generating capacity at Riverside (continued)

Date	Dec 13	Dec 14	Dec 17	Dec 18	Dec 19	
Area affected	SPC WDPC	SFC WDPC	SPC WDPC	SPC WDPC	SPC WDPC	
Supply from substation	12 sub-stations	Tonquin Japan China NWK 1 & 2 Sung Sing 1 Toyoda 1,2,3	Yangchow Tonquin Robison	5 sub-stations	Yangchow Robison	
Feeder	12 feeders	6 feeders	5 feeders	14 feeders	G 9 DF 73	
Customer	12 customers	7 customers & LV networks	6 customers & LV networks	17 customers & LV networks	Sung Sing 6 Sung Sing 1 Toyoda 1,2,3	
Duration of supply interruption	6 mins to 1 hr 46 mins	6 mins to 37 mins	1 hr 1 min to 2 hrs 20 mins	31 mins to 2 hrs 23 mins	2 hrs 03 mins to 2 hrs 35 mins	
Estimated KVA-HRS Lost	Company's area	AM 7,580 EV 7,234	PM 480 EV 5,063	AM 8,630 PM 6,210	AM 18,254 PM 19,560	AM 18,560
	Chapei					
	French					
	Total	14,814	5,143	14,840	37,814	18,560
Insufficient electrical and/or steam generating capacity	E	S	E	E	E	
Remarks	AM - refers to morning peak load period ( 8 am to 12 noon) PM - " " afternoon " " " (12 noon to 7 pm) EV - " " evening " " " (after 7 pm)					

SHANGHAI POWER COMPANY

- 5 -

(a) Load Reduction due to insufficient electrical (E) and/or steam (S) generating capacity at Riverside (continued)

Date	Dec 22	Dec 23	Dec 24	Dec 25	Dec 27	
Area affected	SFC	SFC WDPC	SFC WDPC	SFC	WDPC	
Supply from substation	Tonquin Yangchow	Yangchow Tonquin Connaught Robison	Yangchow Robison	Yangchow Tonquin	Robison	
Feeder	CC 103 G 16	9 feeders	G 9 Japan China	G 16 C 24	NWK 1 & 2	
Customer	New China Textile Wing On 1	11 customers & LV net- works	Sung Sing 6 Japan China	Wing On 1 Sing Yue 2	NWK 1 & 2	
Duration of supply interruption	17 mins to 1 hr 24 mins	5 mins to 2 hrs 12 mins	1 hr 18 mins to 2 hrs 18 mins	12 mins	54 mins	
Estimated KVA-Hrs Lost	Company's area	AM 3,980	AM 19,286 PM 3,930	PM 17,010	PM 830	AM 2,700
	Chapel					
	French					
	Total	3,980	23,216	17,010	830	2,700
Insufficient electrical and/or steam generating capacity	E	E	E	E	E	
Remarks	AM - refers to morning peak load period (8 am to 12 noon) PM - " " afternoon " " " (12 noon to 7 pm) Ev - " " evening " " " (after 7 pm)					

SHANGHAI POWER COMPANY

- 6 -

(a) Load Reduction due to insufficient electrical (E) and/or steam (S) generating capacity at Riverside (continued)

Date	Dec 30	
Area affected	SPC WDPC	
Supply from substation	Yangchow Tonquin Robison	
Feeder	6 feeders	
Customer	6 customers	
Duration of supply interruption	29 mins to 2 hrs 38 mins	
Esti- mated KVA-HRS Lost	Company's area	AM 21,770
	Chapel	
	French	
	Total	21,770
Insufficient electrical and/or steam generating capacity	E	
Remarks	AM - refers to morning peak load period ( 8 am to 12 noon) PM - " " afternoon " " " (12 noon to 7 pm) EV - " " evening " " " (after 7 pm)	

SHANGHAI POWER COMPANY

- 7 -

(b) Other Causes

Date	Dec 5	Dec 7	Dec 8	Dec 9	
Area affected	SPC	SPC	SPC WDPC	SPC	
Supply from substation	Connaught	Workshop	Connaught	Tonquin	
Feeder	All feeders from Ferry Substation	A 9 A 7	C 3 E 8	C 20 C 19/21	
Customer	9 customers & LV networks	10 customers & LV networks	13 customers & LV networks	Hoong Chang C.M. Wing On 3 N.W.K. 9	
Cause of failure	6.6 KV equipment fouled by cleaner	6.6 KV Pole pothead fouled by China Fibre	Corroded clamp of flying jumper	C.21 cable failure	
Fault cleared by	Connaught E5 & E6 OCB's	A9 & A7 OCB's	C3 & E8 OCB's	C20 and C19/21 OCB's	
Damage to equipment	V. R. loads damaged	Pole pot-head faulty	None	C21 cable faulty	
Duration of supply interruption	19 mins	12 mins to 19 hrs	22 mins to 2 hrs 21 mins	31 mins	
Load affected KVA	Company's area	2600	715	5620	4800
	Chapel				
	French				
	Total	2600	715	5620	4800
Remarks					

SHANGHAI POWER COMPANY

- 8 -

(b) Other Causes (continued)

Date	Dec 11	Dec 17	Dec 23	Dec 23	
Area affected	SPC	WDPC	SPC Chapel	SPC	
Supply from substation	Chunien Heavy Industry	Brenan L 4 O/H line	Connaught	Riverside	
Feeder	- " -	- " -	E 4	A 5	
Customer	- " -	Chiao Tung Rubber Alound S.A.W. Jessfield Park P.T. Jessfield R.Stn.P.T.	Chapel Kwang Foh	9 customers & LV networks	
Cause of failure	Fault on consumer's equipment	Power contact on line switch	Overload	A 5 cable failure	
Fault cleared by	D/O fuses	Manual	E 4 OCB	A 5 OCB	
Damage to equipment	None	Lineswitch Brenan E of Edinburgh faulty	None	A 5 cable faulty	
Duration of supply interruption	24 mins	57 mins	1 hr 21 mins	55 mins	
Load affected KVA	Company's area	350	300	2150	1300
	Chapel				
	French				
	Total	350	300	2150	1300
Remarks					

SHANGHAI POWER COMPANY

- 9 -

(b) Other Causes (continued)

Date	Dec 25	Dec 29	Dec 29	Dec 29	
Area affected	WDPC	SPC	SPC Chapel	SPC Chapel	
Supply from substation	HWK 3-4	Tonquin	Connaught	Connaught	
Feeder	C 4	T 2 6.6 KV	E 11	E 11	
Customer	5 customers & LV networks	7 customers & LV networks	Chapel Chang An	Chapel Chang An	
Cause of failure	Cracked insulator at Tou Substation	Main contact on B0 overheated	Overload	Overload	
Fault cleared by	C 4 OCB	Manual	E 11 OCB	E 11 OCB	
Damage to equipment	Bushing insulator at Tou Substation	T2 6.6 KV OCB contacts	None	None	
Duration of supply interruption	1 hr 30 mins	2 mins to 2 hrs 25 mins	20 mins	12 mins	
Load affected KVA	Company's area	800	10800	3200	3400
	Chapel				
	French				
	Total	800	10800	3200	3400
Remarks					

SHANGHAI POWER COMPANY

- 10 -

(2) Classified Service Failures (including Item 1)(a) Caused by Defective Equipment

Equipment		Number of Failures	
		This Month	Last Month
Overhead lines:	HV	1	-
	LV	1	-
Underground lines:	Cables	1	-
	Joints	1	3
	Potheads	1	-
Transformers and voltage regulators		1	-
Switchgear		1	-
Power fuses		1	-
Protective equipment		-	-
Traction equipment		-	-
Metering equipment		-	-
Current and potential transformers		-	-
Street lighting:	Series	-	1
	Multiple	10	10
Other Company's equipment		2	-
Total (a)		20	14

(b) Other Causes

Causes of Failure		Number of Failures	
		This Month	Last Month
Foreign agencies:	Overhead lines	3	4
	Street lighting	-	-
	Underground lines	-	-
Tram trolleys:	Overhead lines	-	-
	Street lighting	7	9
Theft of equipment		-	-
Typhoons and storms		-	-
Lightning		-	-
Flood		-	-
Fire		-	-
Vermin and birds		-	-
Overload		4	1
Customers' equipment failures:			
	Company's area	3	-
	Ex franchise area	-	1
Company's staff:	Misoperation	-	-
	Fouled by workmen	1	-
Generating station trouble		22	16
Undetermined		2	2
Total (b)		42	33
Total (a & b)		62	47

SHANGHAI POWER COMPANY

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(3) Trouble Calls attended to by System Trouble Section

	Number of Calls					
	This Month:			Last Month		
	SFC	WDPC	TOTAL	SFC	WDPC	TOTAL
<u>Company's Installation</u>						
23-KV overhead and underground lines	12	2	14	5	4	9
6,600-volt overhead and underground lines	4	9	13	4	4	8
380-volt overhead and underground lines	62	10	72	33	7	40
Street lighting lines and equipment	150	5	155	137	11	148
Traffic signals	121	35	156	30	20	50
House service connections and wires	1	-	1	-	-	-
Substation equipment	1	-	1	-	-	-
D.C. Traction equipment and lifts	1	-	1	-	-	-
Fire calls	42	4	46	32	1	33
False alarms	3	-	3	1	-	1
Miscellaneous	10	3	13	6	3	9
<u>Customers' premises</u>						
Lighting	928	249	1177	711	192	903
Power	122	56	178	110	42	152
Heating	44	16	60	26	11	37
<b>Total Trouble Calls attended to</b>	<b>1500</b>	<b>389</b>	<b>1889</b>	<b>1095</b>	<b>295</b>	<b>1390</b>
<b>Average per day</b>	<b>48.5</b>	<b>12.3</b>	<b>60.9</b>	<b>36.5</b>	<b>9.8</b>	<b>46.3</b>

(B) TRANSFORMERS AND REGULATORS

(1) Connected and/or Disconnected from Service

S P C.

Location	Capacity in KVA		Remarks
	Connected	Disconnected	
Tonquin		2500	MG removed to Yangchow
Wayside-Lay P.T.	325	225	Load increase
Kiaochow	200	125	Load increase
Yu Ya Ching P.T.	325	225	Load increase
Boone - H. Fokien P.T.	225		New installation
Ferry Voltage Regulator	188	188	Slight damages due to flash over caused by cleaner
Embankment House	3 x 180	325	Load increase
Kiu Lung W & D O.T.	225		New installation
Yangchow	2500		MG removed from Tonquin



SHANGHAI POWER COMPANY

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W D P C

Location	Capacity in KVA		Remarks
	Connected	Disconnected	
Yung Hwa O.T.	325	225	Load increase
Yung Lon D & W O.T.	225		New installation
Wha Foong R. O.T.	325	225	Load increase
Rubicon H 100 PT	30	10	Load increase
Tien Fong O.T.		125	O.T. dismantled
Five Star Metal O.T.	225		New installation

U N I T S  
SPC WDP C

- (2) Taps changed for Network Voltage Regulation 2 -
- (3) Switched on or off for loading or other operational purposes - -
- (4) Under observation due to overload or overheating

S P C

Location	Capacity KVA	Type	Max Load		Ambi-ent temp	Temp rise	Remarks
			Hours duration	oil top temp			
Robison-Gordon PT	325	Outdoor	130	65	8	27	Load transferred to adjacent network
Ave. Edward VII Chungking PT	225	Outdoor	115	34	7	26	
Widow's-Monument PT	225	Outdoor	107	26	6	20	
Kung Dah No.1	50	Outdoor	105	60	17	43	
Da An Rubber Sac. O.T.	225	Outdoor	137	51	14	36	Work in ED's hand
Tou Tobacco Co.	225	Outdoor	115	56	23	32	
Meichow-Chaoyang PT	325	Outdoor	107	37	9	27	
Tung Yih Tr.No.1	940	Indoor	93	61	17	43	
" " Tr.No.2	940	Indoor	93	50	17	32	
" " Tr.No.3	940	Indoor	93	62	17	44	
Tseepoo-Kansuh PT	225	Outdoor	114	44	2	41	
Pingliang-Tinghai PT	125	Outdoor	147	39	1	38	Transformer to be enlarged
Yangtseepoo-Dalny PT	125	Outdoor	121	27	3	24	
Sung Sing & Tr.No.2	940	Indoor	119	45	5	39	Under study by ED
" " Tr.No.3	940	Indoor	106	44	5	38	Under study by ED
Wuting PT	225	Outdoor	120	35	6	28	
Jonsfield Yu Yuen PT	125	Outdoor	145	41	1	40	Load will be relieved after B'well transformer is enlarged
Tatung PT	225	Outdoor	109	34	4	29	

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W D P C

Location	Capacity KVA	Type	Max Load		Max oil temp	Ambi- ent temp	Temp rise	Remarks
			⚡	Hours dura- tion				
Gt. Western-Riding School	325	Outdoor	140	2	42	13	29	
Yu Yuen "C" PT	325	Outdoor	118	2	30	7	27	
Yu Yuen "D" PT	325	Outdoor	114	2	33	7	26	
Edinburgh-Lucerne PT	225	Outdoor	106	2	41	8	33	
Wah Foong Rubber Factory OT	225	Outdoor	107	2	36	9	27	
Soo Ka Koh PT	225	Outdoor	106	2	32	7	25	
St. John's PT	225	Outdoor	123	2	51	14	37	
Hai Loong PM OT	225	Outdoor	120	2	64	5	59	Consumer warned
Chung Woo PM	325	Outdoor	110	2	53	8	45	
West Tse An Peng PT	325	Outdoor	118	1	61	20	41	W.O. under preparation Transformer to be enlarged
Tse Chong Hsin Glue Factory OT	625	Outdoor	137	2	30	9	21	
Don Chung Hwa PM	625	Indoor	104	2	46	9	37	
Gt. Western-Lincoln Avenue PT	35	Outdoor	114	2	19	12	7	

(C) MISCELLANEOUS TESTS

Units	Equipment	Voltage	Nature of test	Reason for test
1	Bushing insulator, make Chee Hsin	6,600	Overvoltage	Acceptance
3	Current transformer, 150/5 make IGE, type K9	22,000	Continuity, insu- lation resistance, pressure and ratio	Prior to install- ation
-	11 & 18 cables and OCBs at Chapel Photung Substation	6,600	Insulation re- sistance, phasing, DC trip of OCBs, and pressure	Now installation
3	Current transformer, 150/5 make IGE, Type Y325	6,600	Continuity, insu- lation resistance, pressure and ratio	Prior to install- ation
3	66kV reactor, make IGE	22,000	Insulation re- sistance, pressure, Impedance	Prior to install- ation

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Units	Equipment	Voltage	Nature of test	Reason for test
-	Consumer's installation at Sing Fong P & D Co.	$\frac{6,600}{340}$	Overload, pressure, insulation resistance, oil break down and continuity	Addition of load
6	DC Generator Shunt Field Coils, make Westinghouse for Yangchow MGE	550	Coil resistance	Prior to installation
1	MGE 3,600 KVA, 600 KW, Yangchow Substation	550	Insulation resistance, shunt field coil resistance	Synchronous motor rotor reported smoking
3	Transformer, 1 $\phi$ make IGE, 180 KVA	$\frac{6,600}{220}$	Insulation resistance, pressure, polarity, ratio and phasing	Prior to installation
1	Transformer 62.5 KVA, 3 $\phi$ , make Wha Tung	$\frac{6,600}{395}$	Insulation resistance, continuity, pressure, ratio and phasing	After overhaul
-	Transformer, OCB and Bus Bar in Embankment House Substation	6,600	Insulation resistance and pressure	New installation
1	MGE, 3,600 KVA, 600 KW, at Fearon Substation	6,600	Pressure, insulation resistance, and resistance measurement	After motor stator wedges and shunt field coils of DC generator changed
1	Transformer, 500 KVA, 3 $\phi$ , make Central Elect. Eng. Werk, property of Sing Fong P & D	$\frac{6,600}{400}$	Phasing and ratio	New installation
2	Through the wall bushing, property of Sing Fong P & D	6,600	Overvoltage and flashover	New installation
1	Neon element for Test Stick, make Eastern Neon Light Co.	6,600	Striking voltage	Acceptance
1	C 21 cable	6,600	Copper resistance	Check cable route length by resistance

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Units	Equipment	Voltage	Nature of test	Reason for test
-	Cable and metering cubicle at Sing Feng P & D Co.	6,600	Overvoltage and insulation resistance	New installation
2	Neon element for Test Stick, make Eastern Neon Light Co.	6,600	Striking voltage	Acceptance
1	Transformer 40 KVA, 3 $\phi$ , make Sing An Elec. & Mfg. Co., property of S'hai W.W. Kinchow Road	$\frac{6,600}{380}$	Insulation resistance, continuity, pressure, ratio and phasing	Prior to installation
4	LV Bushing insulators outdoor type, make GIP	380	Overvoltage and flashover	Acceptance
6	Shunt field coils of DC generator make Westinghouse for Yangchow MGE	-	DC resistance measurement	Coils newly installed
-	Consumer's installation at Pioneer Steel	6,600	Insulation resistance and overvoltage	New installation
1	Induction voltage regulator, 188 KVA, make ICE at Ferry Substation	6,600	Insulation resistance and overvoltage	Prior to commissioning
1	Transformer, 325 KVA 3 $\phi$ make Ferranti	$\frac{6,300}{370}$	Continuity, insulation resistance, pressure, ratio and phasing	After routine overhaul
1	Transformer, 125 KVA 3 $\phi$ , make Ferranti	$\frac{6,300}{370}$	Continuity, insulation resistance, pressure, ratio and phasing	After routine overhaul
1	Synchronous Motor Stator, 3,600 KVA, 850 HP, Fearon MGI	6,600	Overvoltage	After faulty coil has been re-insulated by Riverside w/shop and who's winding dried out
1	MGI, 3,600 KVA at Fearon Substation	6,600	Pressure, insulation resistance and resistance measurement	After motor stator repaired and the whole machine assembled

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Units	Equipment	Voltage	Nature of test	Reason for test
-	INSL-X No. 11, make INSL-X Co.	-	Insulation resistance, breakdown voltage, heat run and chemical properties	Acceptance
1	C.4 OCB, at NWK 3 & 4 Substation	6,600	Insulation resistance, overload, continuity	Investigation
1	OCB, make Iha Tung at Tien Yuen Substation	6,600	No voltage release, overload, overvoltage	New installation
1	MGS, 600 KW, make Westinghouse at Fearon Substation	6,600	Copper resistance of DC generator shunt field coils	Investigation
3	Overcurrent indicator, Kou Hsing Steel Substation	-	Overcurrent	New installation
6	MGI generator shunt field coils make Westinghouse at Yangchow Substation	-	DC resistance measurement	Investigation

II MAINTENANCE

Routine inspection, maintenance and testing of plant on the transmission and distribution system have proceeded according to programme.

(A) TRANSFORMERS AND REGULATORS

- (1) Overhauled (Core lifted, windings and connections examined, IR tested and oil changed)

SPC

Location	Capacity in KVA	Workshop	Reason for overhaul
Ferry Substation (Voltage Regulator)	183	Fearon Substation	Outgoing leads suffered slight damage due to flash over caused by cleaner
Fearon Substation (Street Lighting Regulator)	15	Riverside Substation	Windings burnt
Embankment House	325	Fearon Substation	Over 10 years in service

NDPC

Location	Capacity in KVA	Workshop	Reason for overhaul
Wah Foong Rubber Factory OT	325	Fearon Substation	Returned from service
Tunsin H 146 PF	125	"	"

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		U N I T S	
		SPC	WDPC
(2)	<u>Inspected on site</u> .....	2	10
(3)	<u>Oil-Dielectric tested</u> .....	34	4

(B) OIL CIRCUIT BREAKERS

(1) Overhauled and Tripping Mechanism Tested

Reason for test	Number of OCBs tested			
	SPC		WDPC	
	Company's property	Customer's property	Company's property	Customer's property
Routine and special maintenance	23	28	6	-
Oil circuit breakers tripped	4	-	1	-
New installation or operation resumed	-	17	-	7
<b>Total</b>	<b>27</b>	<b>45</b>	<b>7</b>	<b>7</b>

		U N I T S	
		SPC	WDPC
(2)	<u>Oil-Dielectric strength tested</u> .....	12	6
(3)	<u>Oil changed</u> .....	15	2

(C) OIL TREATMENT PLANT

Location	Transformer Oil				Switch Oil			
	Issued	Returned	Filtered	Stock	Issued	Returned	Filtered	Stock
	U. S. gallons							
Fearon Oil Depot	1,647	1,180	3,215	388	474	525	1,712	906
On Site-SPC	-	-	-	-	-	-	-	-
WDPC	-	-	-	-	-	-	-	-
<b>Total</b>	<b>1,647</b>	<b>1,180</b>	<b>3,215</b>	<b>388</b>	<b>474</b>	<b>525</b>	<b>1,712</b>	<b>906</b>

Samples for Oil Tested for Breakdown ..... 152

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(D) PROTECTION, BATTERIES AND TELEPHONES

(1) Protection Tests

Type of Protection	Number of Panels where tests carried out	
	SPC	WDPC
Overload and/or Earth Leakage	27	7
Feeder or Transformer Balance	4	-
Total	31	7

(2) Relays

Type	Number of Relay Elements			
	SPC		WDPC	
	Circuit tested	Changed	Circuit tested	Changed
Inverse Time	-	1	-	-
Instantaneous	6	-	-	-
Total	6	1	-	-

(3) Batteries

Work done	Lead-Acid & Edison Types		Ni-Po Type	
	110 V in Primary Substations	Telephone Exchange	30-v in Secondary Substations	
	SPC		SPC	WDPC
Inspected, cleaned and topped up	22	10	25	-
Equalizing charges conducted	4	-	-	-
Charged and discharged	1	1	-	-
Electrolyte changed	-	-	-	-

(4) Auto-Telephone Equipment and Lines

Instruments installed	-
" disconnected	-
" changed	-
" moved	1
" overhauled	-
" faults repaired	31
Line faults located and repaired	2
Switches overhauled	1
Exchange equipment faults repaired	6
Miscellaneous equipment overhauled	-

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(E) PRIMARY SUBSTATIONSRegular and Special Maintenance

Substation	Com- pany	Equipment	Work done	% completed
Bubbling Well	SPC	Rectifier plant (Tramway Com- pany's property)	Inspection and clean-down of traction rectifier equip- ment	100
Fearon	SPC	Rotary plant	Overhaul of three 3,600 KVA synchronous motor generators and starting gears	60
Primary Sub- station			Changing of oil in the machine	70
Fearon Sub- station			Overhaul battery motor generator	100
Yangchow			Overhaul of two 3,600 KVA synchronous motor generator and starting gear	30
Tonquin			Inspection of two synchronous condenser starting gears and separate exciters	30
Tonquin	SPC	Power trans- former	Inspection of main trans- former and connecting up spare transformer for one week	50
Oil Depot	SPC	Oil plant	Overhaul of oil plant	70
Fearon, Tonquin Yangchow & Robison	SPC & WDPC	Various sub- station equipment	Inspection of lighting arresters	100
Park, Fearon & Connaught			Overhaul 4 exhaust fans	100
Primary Sub- station			Checking of all tools	40
			Testing of all rubber gloves	100
			Inspection of all gas mask	100
Primary Sub- station	SPC & WDPC	Batteries	Routine maintenance	To programme
Safety devices inspection and check on artificial respiration practice carried out according to programme.				



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(F) SECONDARY SUBSTATIONSRegular and Special Maintenance

Location	Com- pany	Work done	% completed
Tsepo	SPC		25
Bubbling Well	"		85
Range	"	<u>Biannual Regular Maintenance</u>	75
Kiaochow	"		100
Wing On 3	"	Overhaul of switchgear, testing	90
Yangtze Egg & Cold Storage	"	of automatic protective equip-	100
Chin Foong Brass	"	ment, inspection of transformers	100
Shanghai Brass	"	and regulators, inspection of	100
Wah Ching Canvas	"	all electrical equipment and	100
Sing Dah D & W	"	cleaning.	100
Kwang Ching C.M.	"		100
Fuh Jong D & W	"		100
Kiangnan Brass	"		100
Mai Wen Silk	"		100
Dah Tuck	"		100
Park (old)	"		60
Grand Theatre	"		100
China United Assurance	"		100
Hoong Chang C.M.	"		100
NWK 9	"		100
Kashing	"		5
Carlton Apt.	"		100
Hwa Hai Cold Storage	"		100
S'hai Warehouse & Trust Co.	"		100
Hoil Lumber	"		100
Pioneer Steel Rolling	"		100
SEC Abattoir	"		100
Workshop	"		100
Edinburgh	WDPC		70
All districts		Inspection of all wooden pole in depot yards	20
All districts		Protect water pipe and fire hydrant against frost	100
All districts		Overhaul lightning arresters	100
Eastern districts		Overhaul of three power transformers at Pearson Substation	100
Eastern districts		Overhaul of one voltage regulator at Pearson Substation	100
All districts		Inspection of pole transformers	To programme
All districts		Inspection of safety devices and check on artificial respiration practice	To programme



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(H) UNDERGROUND LINES

	<u>% completed</u>	
	<u>SPC</u>	<u>WHPC</u>
(1) <u>Inspection and Maintenance</u>		
Idle cable risers .....	100	100
Road condition along cables in Eastern District .....	100	-
Central District duct line and manholes .....	100	-
Underground cables on bridge crossings .....	100	-
	<u>Units</u>	
	<u>SPC</u>	<u>WHPC</u>
Cable potterds and joints: 23 KV .....	-	-
(including standardization) 6.6 KV .....	15	27
380 V .....	2	2
Feeder pillars .....	3	-
	<u>Location</u>	
	<u>SPC</u>	<u>WHPC</u>
Underground cables along and protected.	1.	-
	S Soochow Rd- Szechuen Rd Bridge	
	2.	-
	Fingliang Rd corner Yang- chow Rd	
(2) <u>23 KV Underground Cable Failure Located and Repaired</u>	.....	111
(3) <u>6.6 KV Underground Cable Failure Located and Repaired</u>	.....	6

SPC

Feeder Name	Type of failure	Location of failure	Faulty cores	Cause of failure	Repairs
B 3 Wayside- Tungchow	Service	Joint 10 (Wayside Road W of Chusan Rd)	R, B	Obsolete design	Length of 7 feet replaced by new cable and two new joints
		Joint 13 (Mcgregor Rd S of Baikal Rd)		Ground subsidence	Remade in position
		Joint 13 (Mcgregor Road corner of Yulin Road)		Ground subsidence	Remade in position
	Service	Joint 11 (Wayside Road corner of Mcgregor Road)	R, W, B	Obsolete design	Length of 15 feet replaced by new cable and two new joints

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Feeder Name	Type of failure	Location of failure	Faulty cores	Cause of failure	Repairs
Kwennang-Chusan Tie Line	Service	Joint 2 (Chusan Road S of Yulin Rd)	R, B	Ground subsidence	Remade in position
China Fibre Container Company	Service	Pole pothead (Haichow Rd E of Glen Road)	W	Moisture, subsequent to lightning damage	Length of 26 feet replaced by new cable, one new joint and one new pothead
C 21 Tonquin-Wing On 3	Service	Joint 3 (Tonquin Road S of Macao Road)	B	Obsolete design	Length of 17 feet replaced by new cable and two new joints
A 5 Riverside Delhi	Service	Cable (Yang-tszepoo Rd W of Glen Road)	R	Mechanical damage	Length of 63 feet replaced by new cable and two new joints

WDPC

Nil

- (4) 380 V Underground Cable Failure Located and Repaired ..... Nil
- (5) Pilot, PL and Telephone Cable Failure Located and Repaired..... Nil
- (6) 23 KV Underground Cable Preventive Repairs ..... Nil
- (7) 6.6 KV Underground Cable Preventive Repairs ..... 2

SPC

Feeder Name	Location of weakness	Cause of weakness	Repairs
Wuchow IT	Wipe of transformer pothead	Mechanical damage	Moisture penetrated, cable of 3 feet cut and pothead remade in same position
B 2 Wayside-Tungchow	Joint 18 (Macgregor Road corner of Yulin Road)	Ground subsidence	Remade in position

WDPC

Nil

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(B) 380 V Underground Cable Preventive Repairs ..... 1

SPC

Feeder Name	Location of weakness	Cause of weakness	Repairs
Kiaochow LV No. 2	Wipe of pole pothead	Mechanical damage	Moisture penetrated, cable of 8 feet cut and pothead remake in same position

WDPC

Nil

(I) BUILDINGS

	<u>Location</u>	<u>Work Done</u>	<u>% completed</u>	
			<u>Last Month</u>	<u>This Month</u>
SPC	1. Fearon Underground Workshop	Build cupboard for workmen's mess room	-	30
	2. Fearon Construction Sub-station Workshop	Alterations to building	30	40
	3. Dent Substation	Raising concrete floor	50	100
	4. Yangchow Depot	Repair roof	60	70
WDPC	Nil			

III CONSTRUCTION

(A) SERVICES

	<u>SPC</u>	<u>WDPC</u>
(1) <u>House Services</u>		
Connections .....	254	215
Disconnections .....	79	18
Net increase .....	215	197
(2) <u>Municipal Street Lighting</u>		
Connections .....	80	-
Disconnections .....	-	-
Net increase .....	80	-
(3) <u>Private Lighting</u>		
Connections .....	57	-
Disconnections .....	20	1
Net increase .....	37	- 1

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(B) OVERHEAD LINES

(1) Erection	Area	Location	Route length yards	Number of poles
6.6 KV 3-wire	WDPC	Lane 701 in LA Tunxin Road	14	-
380/220 V 4-wire	"	Rubicon Road near N 100 PT	82	-
"	"	Kewick Road E of Sanghai Road	153	-
"	"	In front of Lane 490 Sanghai Road	29	-
(2) Salvage				
6.6 KV 3-wire	SPC	Kinchoy N of Kwensiang (Japanese Naval Yard)	55	-
(3) Poles			SPC	WDPC
Erected			14	20
Removed			5	7
Moved at the request and expense of the Municipality			1	-

(C) UNDERGROUND LINES

(1) Installation		Area	Location	
Feeder pillar	-	SPC	Location: Boone Road, East of North Fokien Road	
		WDPC	Nil	
Cable	-	SPC	1. 24 yds, .06 sq in, 3-core, 6.6 KV cable for supply to Kiu Lung D & W Factory, Paction Road	
			2. 42 yds, .057 sq in, 3-core, 6.6 KV cable for supply to Sing Feng D & W Factory, Washing Road	
			3. 31 yds, .057 sq in, 3-core, 6.6 KV cable for supply to Boone-N Fokien PT	
			4. 9 yds, .025 sq in, 3-core, 6.6 KV cable for looping Elgin PT into Boone E of N Fokien PT	
			5. 26 yds, .057 sq in, 3-core, 6.6 KV cable for modification of supply to Pioneer Steel Rolling Mill, Pingliang Road	
		WDPC	1. 47 yds, .2 sq in, 3-core, ESL Split conductor, 23 KV cable for tee off LF 73 overhead line into Edinburgh Substation	
			2. 16 yds, .057 sq in, 3-core, 6.6 KV cable for supply to Yung Loh D & W Factory, Tunxin Road	

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- |                       |      |  |  |
|-----------------------|------|--|--|
|                       |      |  | 2. 18 yds, 1057 sq in, 3-core, 6.6 KV cable for modification of supply to Five Star Metal Rolling Mill, Great Western Road                     |
| Joints and potheads - | SPC  |  | 1. One 6.6 KV transformer pothead for supply to Kiu Lung D & W Factory, Pootung Road   |
|                       |      |  | 2. One 6.6 KV pole pothead and one 6.6 KV pothead in metering cubicle for supply to Sing Fung D & W Factory, Washington Road                   |
|                       |      |  | 3. One 6.6 KV transformer pothead and one 6.6 KV pothead in FP for supply to Soonei Fokien PT  |
|                       |      |  | 4. One 6.6 KV straight joint and two 6.6 KV potheads in FP for looping 11.4in PT feeder from Tsapoo Substation into Soonei E of H Fokien PT    |
|                       |      |  | 5. One 6.6 KV straight joint and one 6.6 KV pothead in metering cubicle for modification of supply to Pioneer Steel Rolling Mill, Pootung Road |
|                       | NDPC |  | 1. Two 11 KV pole potheads for tee off DF 73 overhead line into Edinburgh Substation   |
|                       |      |  | 2. One 6.6 KV pole pothead and one 6.6 KV transformer pothead for supply to Yung Loh D & W Factory, Tansin Road                                |
|                       |      |  | 3. One 6.6 KV pole not end and one 6.6 KV transformer pothead for modification of supply to Five Star Metal Rolling Mill, Great Western Road   |
| (2) <u>Salvage</u>    |      |  |  |
| Cable                 | SPC  |  | Nil  |
|                       | NDPC |  | 25 yds, 100 sq in, 3-core, 6.6 KV cable salvaged from Five Star Metal Rolling Mill, Great Western Road   |
| Joints and potheads - | SPC  |  | Nil  |
|                       | NDPC |  | One 6.6 KV pole pothead and one 6.6 KV transformer pothead salvaged from Five Star Metal Rolling Mill, Great Western Road                      |
| (3) <u>Deviation</u>  | SPC  |  | Due to restoration of A116 and conversion of AM90 to radial feeder, the following cables were deviated in Yungchow Substation:                 |
|                       |      |  | 1. AG 18 deviated into AG 18 cell and doubled up with AG 18  |
|                       |      |  | 2. AM 80-Riverside deviated into AG 18 cell and restored as AM 80  |
|                       |      |  | 3. AM 80-Edinburgh deviated into AM90-Riverside cell and renamed EM 80   |
|                       | NDPC |  | Nil  |

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(D) SUBSTATIONS

<u>SPC</u>	<u>Substation</u>	<u>Work Done</u>	<u>% completed</u>	
			<u>Last Month</u>	<u>This Month</u>
	1. Sing Yue No. 1, West Soochow Road	Installation of 6.6 KV bus couple gang operated links	30	45
	2. Kiu Lung D & W Factory, Paoting Road	Installation of a 225 KVA transformer	75	100
	3. Yangchow	Restoration of AG 16 and conversion of AG 90 to radial feeder	30	100
	4. Sing Feng D & W Factory, Whashing Road	Installation of 6.6 KV supply	75	100
	5. Pioneer Steel Rolling, Pingliang Road	Installation of 6.6 KV supply	40	100
	6. Standard Shirts Factory, Tongshan Road	Installation of 6.6 KV supply	-	30
	7. Embankment House	Replacement of transformer bank from one 3 $\phi$ 325 KVA to three 1 $\phi$ 180 KVA units	-	100
	8. Dan Kong Mill, Tangyueh Road	Change A 1 & A 2 OCB from 300 A to 600 A	-	25
<u>WDPC</u>	1. Union Syndicate, off Connaught Road	Installation of 6.6 KV supply	30	30
	2. Kwang Sing P & D, Kerwick Road	Conversion to 6.6 KV metering	30	45
	3. Yung Loh D & W, Tunshin Road	Installation of a 225 KVA OT	-	100
	4. Five Star Metal Rolling, Great Western Road	Replacement of a 125 KVA transformer with a 225 KVA unit	-	100

(E) BULK SUPPLY METERING

<u>Work Done</u>	<u>SPC</u>	<u>WDPC</u>	<u>Total</u>
Metering equipment installed	6	1	7
" " removed	-	-	-
" " changed	3	1	4



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(P) VARIOUS WORK

	<u>Nature of Work</u>	<u>Location</u>	<u>% completed</u>	
			<u>Last Month</u>	<u>This Month</u>
<u>SPC</u>	1. Making reinforcing clamps for 4'-0" copper sleeve	Fearon Substation Workshop	75	100
	2. Redrumsing of cables from rotten to good reels and repair to cable drums	Fearon Depot	65	75
	3. Installation of reinforcing clamps on AD 57 and ED 56 joints	Munclies 1-25	25	100
	4. Prepare material for Underground Emergency Store	Fearon Underground Workshop	-	-
	5. Change transformer pot-head to standard type	Yu Yu Ching PT Wayside-Lay PT Wuesow PT	-	100
	6. Cleaning 75 18 6.6 KV potheads	Riverside Generating Station	-	100
	7. Reconnect PL for MFU	Pontoons 6 & 14	-	100
	8. Repair barbed wire barricades	Fearon Underground Workshop	-	100
	9. Making 23 KV "H" type .4 sq in sample duct joint	Fearon Underground Workshop	-	50
	10. Resoldering LV cable terminal sockets	Eastern Sewage	-	100
	11. Wiring for lighting and power lines in Engineering Model Workshop	Ferry Substation	-	90
	12. Remake two potheads on voltage regulator	Ferry Substation	-	100
<u>MLPC</u>	1. Reinstallation of pot-heads on new transformers	Yung she OT Wha Poong OT	-	100

IV WORK DONE FOR CONSUMERS

	<u>Location</u>	<u>Nature of Work</u>	<u>% completed</u>
<u>SPC</u>	1. Pioneer Steel Rolling, Pingliang Road	Installation of consumer's switchgear and accessories	100
	2. Pioneer Steel Rolling, Pingliang Road	Supply labour and material for consumer's underground cable work	100
<u>WDPC</u>	M41		

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V STAFF

(A) CHANGES

Engineering and Office Staff

SPC None  
WDPC None

Monthly Rate Staff

SPC  
Chou Shang Chung Junior Clerk Resigned  
WDPC None

Daily Rate Staff

SPC  
COY 2 Leap Trimmer's Helper Engaged  
EOY 14 Labourer "  
CSPL 8 Fitter (Temporary) "  
CSML 4 Labourer (Temporary) Services terminated  
JSC 3 Carpenter Transferred from Temporary Staff  
CSP 1 Painter " " " "  
CSX 4 Labourer " " " "  
WDPC  
WEX 1 Labourer Engaged

(b) ACCIDENTS

Date	Employee Injured	Location of accident	Description of accident	Fatal or permanent injured	Disabled for the period of
Dec 5	CMX 6	Ferry Sub-station Transformer Room	CMX 6 assisted in lowering a derrick pole. While he was bending down, a guide rope on the top touched the wall of a nearby building, causing bricks to fall down. One of the bricks injured his back.	No	4 weeks
Dec 6	WOX 4	In front of House 22 E Tso An Fang Edinburgh Ra	WOX 4 went to clean a voltage regulator and drew an arc when doing so with a feather duster.	No	1 week

VI MISCELLANEOUS

(A) Theft of Materials Nil  
(In SPC and WDPC Areas)

SHANGHAI POWER COMPANY

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VII TRANSPORT

The following outlines the activities of the Transport Division during the month.

(A) MOTOR VEHICLES

(1) Summary

Vehicles	Passenger cars	Pick-ups	Station wagons	Vans	Trucks	Special vehicles*	Trailers
In Operation	55	10	2	5	15	3	4
In Storage	-	-	-	-	-	-	4

\* Oil tanker and 20-ton lorries

(2) Operating Data on Motor Vehicles

Type	No. in service		GASOLINE							
			Issue (gallons)		Usage (gallons)		Mileage run		Average mpg	
			Dec	Nov	Dec	Nov	Dec	Nov	Dec	Nov
Passenger cars	55	55	6,499	6,096	6,489	6,086	75,945	73,201	11.7	12.0
Station wagons	2	2	171	115	171	115	1,974	1,563	11.5	13.6
Pick-ups	19	10	1,029	1,113	1,029	1,113	12,723	14,255	12.4	12.8
Truck (1 1/2-ton)	2	2	233	188	233	188	2,222	2,076	9.5	11.0
Truck (3 1/2-ton)	9	9	1,296	1,222	1,296	1,222	8,886	9,298	6.8	7.6
Lorries (6-ton)	2	2	299	273	299	273	1,251	1,097	4.2	4.0
Lorries (20-ton)	2	2	109	79	109	79	149	133	1.4	1.7
Oil tanker truck	1	1	3	4	2	4	2	17	1.0	4.2
Motor vans	2	2	141	134	141	134	1,082	1,130	7.7	8.4
Trouble Section van	1	1	221	152	221	152	1,137	868	5.1	5.7
Cooker vans	2	2	365	302	365	302	3,361	2,764	9.0	9.1
Bus	2	2	567	516	567	516	3,719	3,408	6.5	6.6
Trailers	8	8	-	-	-	-	-	-	-	-
Total	98	98	10,935	10,194	10,922	10,184	112,391	109,810	10.3	10.8

SHANGHAI POWER COMPANY

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(3) Maintenance Works on Motor Vehicles

Type	General Overhaul completed		Emergency Overhaul completed		Minor adjustments and repairs		Repairs after			
							Accident		Breakdown	
	Dec	Nov	Dec	Nov	Dec	Nov	Dec	Nov	Dec	Nov
Passenger cars	1	2	61	62	37	35	10	4	11	4
Station wagons	-	-	2	3	2	1	-	1	-	-
Pick-ups	-	-	19	18	7	5	1	-	3	2
Trucks (1½-ton)	-	-	7	4	4	3	-	-	3	1
Trucks (3½-ton)	-	-	16	13	9	6	3	-	5	1
Lorries (6-ton)	-	-	4	1	1	2	-	-	1	-
Lorries (20-ton)	-	-	1	-	-	-	-	-	-	-
Oil tanker	-	-	-	-	-	-	-	-	-	-
Motor vans	-	-	6	8	1	2	-	-	-	-
Trouble Section van	-	-	1	1	-	-	-	-	-	-
Cooker van	-	-	-	-	-	-	-	-	-	-
Bus	-	-	3	1	2	1	2	-	2	-
Trailers	-	-	1	-	-	-	-	-	-	-
Total	1	2	121	111	63	55	16	5	26	8

(4) Motor Vehicle Engine Lubricating Oil

Description	Issue (US gallons)		
	Dec	Nov	
Cars	142	145	Feron stock at the end of this month: 2,438 US gallons of SAE 30
Trucks	179	162	
Other purposes	18	11	
Total	339	318	

(5) Motor Vehicle Breakdowns

Classification	Cases	%
Electrical equipment	13	48.2
Engine	1	3.7
Chassis	6	22.2
Fuel system	6	22.2
Tire and tubes	1	3.7
Total	27	100.0

Frequency: 4,162 miles per breakdown

SHANGHAI POWER COMPANY

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(B) MAJOR HAULAGE JOBS

Units	Equipment			Moved		Size of truck	Man-days
	Capacity kVA	Weight lbs	Description	From	To		
1	4,200	17,400	Transformer	Riverside TG 5	Riverside TG 7	20	20
2	180	13,800	"	Wha Tung Factory	Embankment Building	6	20
1	1,000	12,500	"	Fearon Substation	Tonquin Substation	20	30
1	125	3,310	"	Kiaochow Substation	Fearon Substation		
1	325	6,075	"	Fearon Stores	Yung Wha Factory	20	24
1	225	5,417	"	Yung Wha Factory	Yung Loh D & W OT		
1	325	6,075	"	Riverside Workshop	Wayside Substation	20	23
1	set	9,028	Concrete structure	Haiphong Depot	E Tse An Pang	3 1/2	22
1	set	9,028	"	Riverside Stores	E Tse An Pang	3 1/2	14
1	180	6,970	Transformer	Wha Tung Factory	Embankment Building	20	24
1	325	4,665	"	Embankment Building	Fearon Substation		
1	4,200	17,400	"	Riverside TG 5	Riverside Workshop	20	20
1	4,200	17,400	"	R'side Switch House	Riverside Workshop	20	20
1	188	15,000	"	Ferry Substation	Fearon Substation	20	15
1	325	6,075	"	Wayside Substation	Wayside-Lay PT	20	24
1	225	5,350	"	Wayside-Lay PT	Riverside Workshop		
1	125	3,310	"	Tien Fong OT	Fearon Stores	3 1/2	14
1	4,200	17,400	"	Riverside Workshop	Wha Tung Factory	20	20
1	200 HP	4,480	Motor	Fearon Stores	Shanghai Waterworks (Sinz)	6	20
1	200 HP	4,480	"	Shanghai Waterworks (Sinz)	Riverside Workshop		
1	4,200	17,400	Transformer	Riverside Winding Shop	Wha Tung Factory	20	10
1	325	4,665	"	Fearon Stores	Wha Fong Rubber Co OT	20	24
1	225	5,417	"	Wha Fong Rubber Co OT	Fearon Substation		
1	125	3,530	"	Fearon Substation	Fearon Stores	20	24
1	325	4,665	"	Fearon Stores	Yu Ya Ching PT		
1	225	5,417	"	Yu Ya Ching PT	Fearon Substation	6	14
2	sets	18,086	Concrete structure	Riverside Stores	Haiphong Stores		
1	625	16,800	Transformer	Tonquin Substation	Ferry Substation	20	40
1	120 HP	3,360	Motor	Riverside Workshop	Tien Chang Paper Mill	6	8
9	pieces	6,300	Concrete pole	Riverside Stores	Haiphong Stores	6	8
13	"	16,500	"	Riverside Stores	Haiphong Stores	6	8
Total		287,673					466

SHANGHAI POWER COMPANY

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(C) BICYCLES

(1) Taxi Bicycle and Tricycle Service

Department	Type	No. in service	Issue for temp use	Issued as taxi	Remarks
Transport Division	Bicycles	54	21	12	
	Tricycles	7	7	-	
Meter Department	Bicycles	22	-	-	
	Tricycles	-	-	-	

(2) Bicycle and Tricycle Maintenance

Type	No. in service	General overhaul		Minor adjustments and repairs		Routine inspection		Repairs after accident	
		Dec	Nov	Dec	Nov	Dec	Nov	Dec	Nov
Company's bicycles	243	2	3	74	83	16	14	-	-
Employees' bicycles	25	-	-	5	8	4	3	-	-
Tricycles	10	-	-	2	4	-	-	-	-
Pedicabs	3	-	-	3	4	-	-	-	-
Trailers	2	-	-	-	-	-	-	-	-
Total	283	2	3	84	104	22	17	-	-

(D) HANDCARTS

Type	No. in service	No. in Storage	No. in Construction	Number in repair	
				Maintenance	After Accident
Large 2-ton	1	2	-	-	-
Standard 1-ton	7	13	-	-	-
House Service	3	1	-	-	-
Balancing	3	1	-	-	-
Total	14	17	-	-	-

SHANGHAI POWER COMPANY

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(E) TRANSPORT WORKSHOP

Shop	WORK DONE		
	For Transport Division - 82.0%	For other divisions - 18.0%	
		Manhours	% of total
Vulcanizing	Repaired for - Motor vehicles: 21 tires; 133 tubes Bicycles: 17 tires; 15 tubes	146	11.8
Tailor	Repairs to                      Manufacture of 34 seat covers                      11 seat covers 45 upholstery 22 uniforms	73	5.9
Paint	Repainted: 1 motor car;                      2 bicycles Touched up: 92 motor car jobs; 77 bicycle jobs	572	46.0
Welding	Repaired by welding 45 motor vehicle bodies 19 engine parts 24 chassis parts	96	7.7
Battery	Replaced: 6 batteries Repaired: 25                      " Charged: 185                      "	-	-
Blacksmith	Forged: 43 new parts Repaired: 132 damaged parts	18	1.5
Whitewsmith	Repaired - 38 vehicle radiators 24 bumpers 19 bodies 31 doors 16 windows 57 various small parts	-	-

SHANGHAI POWER COMPANY

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Shop	WORK DONE	
	For Transport Division - 82.0%	For other divisions - 18.0%
		Manhours % of total
Electrical	Repaired or overhauled - 18 starters 12 dynamos 63 horns	-
Carpenter	Repairs to 26 vehicle bodies	Repairs to 8 chairs 1 revolving chair 5 desks 11 extension ladders  Minor repairs: 304 24.5
Machine	Repairs to 89 engine parts 248 other parts  Manufacture of 75 engine parts 299 other parts	32 2.6
Lubrication Centre	Motor vehicles: Oil changed: 62 General inspection: 63 General lubrication: 63	-



SHANGHAI POWER COMPANY

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## (F) ACCIDENTS

## (1) Motor Vehicles

Date	Vehicle		Location of accident	Description of accident	Damage to SPC vehicle			SPC driver to blame?	Persons injured	
	Type	No.			Major	Minor	None		Staff	Out-riders
Dec 1	Pass car	13306	Pingliang Road	Collided with car	-	x	-	Yes	No	No
Dec 1	Pass car	10645	Ezra Road	Smashed by car	-	x	-	No	No	No
Dec 4	Pass car	14618	Miller Road	Collided with truck	-	x	-	No	No	No
Dec 5	Pass car	10650	Boono Road	Smashed by truck	-	x	-	No	No	No
Dec 6	Pass car	14618	Gordon Road	Collided with SPC pick-up No. 30055	-	x	-	Yes	No	No
Dec 6	1½-ton van	30131	Sinza Road	Struck by pedicab	-	x	-	No	No	No
Dec 8	Pass car	17800	Nanking Road	Collided with truck	-	x	-	No	No	No
Dec 10	Pass car	17519	Fearon Depot	Hit against a wall	-	x	-	No	No	No
Dec 11	1½-ton van	30056	Garden Bridge	Struck by truck	-	x	-	No	No	No
Dec 11	Pass car	14619	Dalny Road	Collided with truck	-	x	-	No	No	No
Dec 12	3½-ton truck	30036	Avenue Road	Collided with truck	-	x	-	No	No	No
Dec 16	Pass car	54456	Route pere Robert	Struck by car	-	x	-	No	No	No
Dec 16	3½-ton van	30068	Fokien Road	Collided with truck	-	x	-	No	No	No
Dec 17	3½-ton truck	30040	Thibat Road	Collided with truck	-	x	-	No	No	No
Dec 17	Pass car	52784	Chapoo Road	Struck by car	-	x	-	No	No	No
Dec 18	Pass car	52464	Avenue Edward VII	Collided with car	-	x	-	No	No	No
Dec 19	3½-ton truck	32657	Riverside Station	Touched trolley wire	-	x	-	Yes	No	No
Dec 19	Pass car	13547	Chakiana Road	Hit by tram car	-	x	-	No	No	No
Dec 19	Pick-up	30052	Foochow Road	Collided with car	-	-	x	No	No	No
Dec 20	3½-ton truck	30040	Dent Road	Collided with Fire engine	-	x	-	No	No	No
Dec 22	Pass car	17800	Tongting Road	Collided with truck	-	x	-	Yes	No	No
Dec 31	Pass car	54452	Race Course Road	Struck by car	-	x	-	No	No	No

Frequency: 5,109 miles per accident

SIANGHAI POWER COMPANY

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(2) Bicycles and Tricycles

None

(3) Details of Accidents involving general public

Date	Location of accident	Damage to outside vehicles			Injury to outsiders			Remarks
		Major	Minor	None	Major	Minor	None	
Dec 1	Pingliang Road	-	-	1	-	-	1	
Dec 1	Kafa Road	-	-	1	-	-	1	
Dec 4	Miller Road	-	-	1	-	-	1	
Dec 5	Boone Road	-	-	1	-	-	1	
Dec 5	Sinza Road	-	1	-	-	-	1	
Dec 8	Nanking Road	-	-	1	-	-	1	
Dec 11	Garden Bridge	-	-	1	-	-	1	
Dec 11	Dalvy Road	-	-	1	-	-	1	
Dec 13	Avenue Road	-	1	-	-	-	1	
Dec 16	Route pere Robert	-	-	1	-	-	1	
Dec 16	Fokian Road	-	-	1	-	-	1	
Dec 17	Thibet Road	-	-	1	-	-	1	
Dec 17	Chapoo Road	-	-	1	-	-	1	
Dec 18	Avenue Edward VII	-	1	-	-	-	1	
Dec 19	Chesheng Road	-	1	-	-	-	1	
Dec 19	Footow Road	-	1	-	-	-	1	
Dec 20	Dart Road	-	1	-	-	-	1	
Dec 22	Tongling	-	-	1	-	-	1	
Dec 31	Road Gourao Road	-	-	1	-	-	1	

(3) Bluff

None

SHANGHAI POWER COMPANY

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(G) STAFF

(1) Supervisory Staff

No change

(2) Clerical Staff

No change

(3) Monthly Rate Staff

No change

(4) Daily Rate Labour

No change

*S. L. Dong*

S L Dong  
Distribution Engineer

SHANGHAI POWER COMPANY

Shanghai, January 5th, 1948.

The General Manager :

METER & TESTING DEPARTMENT  
LARCENY OF ELECTRICITY  
MONTHLY REPORT FOR DECEMBER 1947.

Accounts Office Queries :

Four cases of damaged meters were found. The cost of repairs, etc., amounting to CN\$1,424,000 has been paid by the consumers.

Meter Readers' Reports :

One case of larceny was detected, and revenue amounting to CN\$9,221,000 has been recovered.

Seven cases of damaged meters were found when following up these reports. The cost of repairs, etc. amounting to CN 2,368,000 has been paid by the consumers.

Route Meter Investigation :

Five cases of damaged meters were found. The cost of repairs, etc., amounting to CN\$1,784,000 has been paid by the consumers.

Power Meter Investigation :

One case of larceny was detected, and revenue amounting to CN\$15,925,000 has been recovered.

Small Area Investigation :

Two cases of damaged meters were found. The cost of repairs, etc., amounting to CN\$971,000 has been paid by the consumers.

Miscellaneous :

Five cases of larceny were detected when following up reports from Installation Section's staff, and revenue amounting to CN\$1,066,000 has been recovered.

Eighteen cases of damaged meters were reported by Installation Section's staff. The cost of repairs, etc. amounting to CN\$9,829,000 has been paid by the consumers.

Damaged or Missing Main Fuse Box Lead Seals :

Thirty-two cases of above infringement of Company's regulations have been handled by the Installation Section. Fees paid by consumers total CN\$1,920,000.

SHANGHAI POWER COMPANY

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SUMMARY :

Seven cases of larceny have been detected and settled during the month together with thirty-six cases of damaged meters and/or associated equipment.


Revenue amounting to CN\$4,508,000 has been recovered, of which :

- a. CN\$26,212,000 represent recovered revenue.
- b. CN\$16,376,000 represent an estimated cost of repairs to damaged meters and associated equipment.
- c. CN\$ 1,920,000 represent fees paid for damaged or missing main fuse box lead seals.

Estimated Unmetered Consumption :

Seventy cases of unmetered consumption due to defective or damaged meters were dealt with on Consumers' Accounts Inspect Orders during the month. The consumption was estimated at 3,016 kWhrs., and revenue amounting to CN\$37,274,400 was recovered.

NOTE:- Five cases of unmetered supply taken by various units of the Chinese Armed Forces have been reported by the Installation and Investigation Sections' staff and Meter Readers during the month. These have been passed to the Installation Section for action in concert with Consumers' Engineer's Department.

  
E. Jacobs,  
Meter & Testing Engineer

DECEMBER 1947.

ANALYSIS OF CASH ALLOWED FOR ESTIMATED LOSS OF ALTERNATE  
 FUEL CONSUMERS INVOLVED IN LARGELY OF ELECTRICITY AND FOR  
 DAMAGED OR MISSING METERS AND BROKEN MAIN FUSE SEALS.

S.P.C. & W.D.P.C.

NATURE OF INVESTIGATION	Jumpers Ct.	Tempered Meters Ct.	Damaged Meters Ct.	Missing Meters Ct.	Part Payment Ct.	Broken Main Fuse Seals Ct.	TOTAL Ct.
Accounts Office Queries	-	-	1,424,000	-	-	-	1,424,000
Meter Readers' Reports	2,221,000	-	2,368,000	-	-	-	11,589,000
Route Meter Investigation	-	-	1,784,000	-	-	-	1,784,000
Small Area Investigation	15,925,000	-	971,000	-	-	-	971,000
Power Meter Investigation	1,055,000	-	6,889,000	2,960,000	-	-	15,925,000
Miscellaneous	-	-	13,416,000	2,960,000	-	1,920,000	12,815,000
<b>T o t a l</b>	<b>26,212,000</b>	<b>-</b>	<b>13,416,000</b>	<b>2,960,000</b>	<b>-</b>	<b>1,920,000</b>	<b>44,508,000</b>

W.D.P.C. (Included in above figures):

Meter Readers' Reports	-	-	450,000	-	-	-	450,000
Route Meter Investigation	-	-	450,000	-	-	-	450,000
Small Area Investigation	-	-	971,000	-	-	-	971,000
Miscellaneous	-	-	2,374,000	-	-	900,000	3,274,000
<b>T o t a l</b>	<b>-</b>	<b>-</b>	<b>4,255,000</b>	<b>-</b>	<b>-</b>	<b>900,000</b>	<b>5,165,000</b>

Month ending December 31st, 1947	S.P.C. & W.D.P.C.	W.D.P.C. (only)
12 months ending December 31st, 1947	Ct. 44,508,000.-	Ct. 5,165,000.-
	Ct. 518,611,230.-	Ct. 911,970.-

SMARSHAL POWER COMPANY

S.P.C. + W.D.P.C.

DECEMBER 1947.

NATURE OF INVESTIGATION	PREMISES INSPECTED	METERS INSPECTED	IRREGULARITIES FOUND	LARCENY CASES		Damaged and/or Missing Plant.	TOTAL CASES
				Jumpers	Tampered Meters		
Accounts Office Queries	746	750	298	-	-	4	4
Meter Readers' Reports	10	10	8	1	-	7	8
Route Meter Investigation	2472	3239	1245	-	-	5	5
Power Meter Investigation	61	146	18	1	-	-	1
Small Area Investigation	313	787	36	-	-	2	2
Casual Visits - Day	31	52	12	-	-	-	-
Informers' Letters	1	1	-	-	-	-	-
Miscellaneous	24	23	23	5	-	18	23
<b>Total</b>	<b>3330</b>	<b>4976</b>	<b>1451</b>	<b>7</b>	<b>-</b>	<b>36</b>	<b>43</b>

W.D.P.C. (included in above figures) :

Accounts Office Queries	119	127	74	-	-	-	-
Meter Readers' Reports	2	2	1	-	-	1	1
Route Meter Investigation	515	746	308	-	-	1	1
Small Area Investigation	213	727	88	-	-	2	2
Casual Visits - Day	2	6	1	-	-	-	-
Miscellaneous	5	3	5	-	-	2	5
<b>Total</b>	<b>1258</b>	<b>1553</b>	<b>555</b>	<b>-</b>	<b>-</b>	<b>9</b>	<b>9</b>

	S.P.C. + W.D.P.C.			W.D.P.C. (only)			
	Premises	Meters	Irregularities	Cases	Premises	Meters	Irregularities
1 Month ending Dec. 31, 1947	2,830	4,778	1,451	73	1,258	1,653	355
12 Months ending Dec. 31, 1947	43,582	61,193	17,903	420	11,280	15,817	4,458