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I N D E X

T O

INTERNATIONAL CHINA EMBARGO LIST

This document tells which item number or numbers on the International China Embargo List covers each item listed on

- (1) the China Special List;
- (2) The International List as of August 15, 1954 (CoCom Doc. 700.1, .2 and .3 and amendments 1-16 thereto);
- (3) the revised International List (CoCom Doc. 1700.1, .2 and .3, as amended).

It will be noted that some items appear only on the International China Embargo List (ICEL) while other items appear both on ICEL and on the appendix. Where part or all of an item which appears on ICEL also appears on the Appendix, the ICEL number is marked with an asterisk. This technique was adopted as a simple method of indicating which items are subject to CoCom Doc. 471 (Revised) exceptions procedure. Actually, therefore, the appendix covers all items for which the source is either CoCom Doc. 700.1, 700.2, as amended, or CoCom Doc. 1700.1 or 1700.2, as amended.

Conversely, no item which is covered only by CoCom Doc. 700.3, CoCom Doc. 1700.3 or the China Special List, appears on the appendix. (Items which appear on Doc. 1700.3 Amendment 17 which were formerly on Doc. 700.1 or 700.2, however, will appear on the appendix since they are still subject to Doc. 471 (Revised) exceptions procedure).

DOC Exempt Letter On File

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Metalworking Machinery

<u>CoCom Doc. 700.1</u> <u>as amended</u>	<u>ICEL</u>	<u>ICEL</u> <u>Appendix</u>	<u>CoCom Doc. 700.2</u> <u>as amended</u>	<u>ICEL</u>	<u>ICEL</u> <u>Appendix</u>
1001	CO01*	CO01.29	2002	CO01*	CO01.36
1002	CO01*	CO01.30	2006	CO01*	CO01.37
1003	CO01*	CO01.31	2007	CO01*	CO01.38
1006	CO01*	CO01.32	2015	CO01*	CO01.14
1007	CO01*	CO01.33	2016	CO01*	CO01.28
1008	CO01*	CO01.34	2017	CO01*	CO01.15
1009	CO01*	CO01.35	2019	CO01*	CO01.16
1015	CO01*	CO01.13	2035	CO01*	CO01.10
1016	CO01	CO01.14	2036	CO01*	CO01.11
1017	CO01*	CO01.15	2050	CO01*	CO01.40
1018	CO01*	CO01.16	2051	CO01*	CO01.39
1019	CO01*	CO01.17	2052	CO01*	CO01.39
1020	CO01*	CO01.18	2060	CO01*	CO01.50
1021	CO01*	CO01.19	2066	CO01*	CO01.63
1022	CO01*	CO01.20	2070	CO01*	CO01.52
1023	CO01*	CO01.21	2071	CO01*	CO01.61
1024	CO01*	CO01.22	2072	CO01*	CO01.54
1025	CO01*	CO01.23	2085	CO01*	CO01.51
1026	CO01*	CO01.28	2086	CO01*	CO01.62
1027	CO01*	CO01.24			
1035	CO01*	CO01.1			
1036	CO01*	CO01.12	CoCom Doc. 700.3 <u>as amended</u>		
1037	CO01*	CO01.2			
1038	CO01*	CO01.3	3001	CO01*	--
1040	CO01*	CO01.4	3006	CO01*	--
1041	CO01*	CO01.5	3015	CO01*	--
1042	CO01*	CO01.6	3016	CO01*	--
1043	CO01*	CO01.7	3035	CO01*	--
1044	CO01*	CO01.8	3066	CO01*	--
1050	CO01*	CO01.42	3070	CO02	--
1051	CO01*	CO01.43	3071	CO01*	--
1052	CO01*	CO01.39	3072	CO01*	--
1053	CO01*	CO01.41			
1060	CO01*	CO01.44			
1061	CO01*	CO01.46			
1065	CO01*	CO01.55			
1070	CO01*	CO01.52			
1071	CO01*	CO01.53			
1072	CO01*	CO01.54			
1073	CO01*	CO01.59			
1074	CO01*	CO01.45			
1085	CO01*	CO01.60			
1086	CO01*	CO01.58			
1087	CO01*	CO01.47			
1088	CO01*	CO01.48			
1089	CO01*	CO01.26			
1090	CO01*	CO01.49			
1091	CO01*	CO01.27			

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Metalworking Machinery.

<u>CoCom Doc. 1700.1</u> <u>as amended</u>	<u>ICEL</u>	<u>ICEL</u> <u>Appendix</u>	<u>CoCom Doc. 1700.3</u> <u>as amended</u>	<u>ICEL</u>	<u>ICEL</u> <u>Appendix</u>
1001	CO01*	CO01.29	3008	CO01*	CO01.34
1002	CO01*	CO01.30	3010	CO01*	CO01.13
1006	CO01*	CO01.32	3011	CO01*	CO01.14
1016	CO01*	CO01.14	3012	CO01*	CO01.28
1017	CO01*	CO01.15	3017	CO01*	CO01.15
1019	CO01*	CO01.17	3018	CO01*	CO01.16
1021	CO01*	CO01.19	3034	CO01*	CO01.1
1022	CO01*	CO01.20	3050	CO01*	CO01.40
1023	CO01*	CO01.21	3055	CO01*	CO01.50
1025	CO01*	CO01.23	3067	CO01*	CO01.63
1027	CO01*	CO01.24	3068	CO01*	CO01.63
1039	CO01*	CO01.10	3072	CO01*	CO01.54
1040	CO01*	CO01.4			
1041	CO01*	CO01.5			
1042	CO01*	CO01.6			
1043	CO01*	CO01.7			
1044	CO01*	CO01.8			
1050	CO01*	CO01.42			
1051	CO01*	CO01.43			
1052	CO01*	CO01.39			
1053	CO01*	CO01.41			
1065	CO01*	CO01.55			
1070	CO01*	CO01.52			
1072	CO01*	CO01.54			
1073	CO01*	CO01.59			
1075	CO01*	CO01.9			
1080	CO01*	CO01.56			
1081	CO01*	CO01.57			
1084	CO01*	CO01.25			
1086	CO01*	CO01.58			
1087	CO01*	CO01.47 and CO01.63			
1088	CO01*	CO01.48			
1089	CO01*	CO01.26			
1090	CO01*	CO01.49			
<u>CoCom Doc. 1700.2</u> <u>as amended</u>					
2001	CO01*	CO01.29			
2002	CO01*	CO01.36			
2003	CO01*	CO01.31			
2050	CO01*	CO01.40			
2052	CO01*	CO01.39			
2070	CO01*	CO01.52			
2074	CO01*	CO01.53			

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Chemical and Petroleum Equipment

<u>COCOM Doc. 700.1</u> <u>as amended</u>	<u>ICEL</u>	<u>ICEL</u> <u>Appendix</u>	<u>COCOM Doc. 700.2</u> <u>as amended</u>	<u>ICEL</u>	<u>ICEL</u> <u>Appendix</u>
1101	C101*	C101	2101	C120*	C120
1102	C102*	C102	2110	C335*	C335
1103	C103*	C103	2130	C339*	C339
1106	C104*	C104	2131	C340*	C340
1107	C105*	C105	2132	C340*	C340
1109	C106*	C106	2136	C338*	C338
1110	C107*	C107	2141	C118*	C118 .2
1112	C109*	C109	2142	C119*	C119
1113	C110*	C110			
1116	C111*	C111	<u>COCOM Doc. 700.3</u> <u>as amended</u>		
1118	C112*	C112			
1120	C114*	C114			
1123	C115*	C115	3101	C120	--
1124	C116*	C116	3102	C122	--
1127	C336*	C336	3105	C121	--
1130	C337*	C337	3110	C104*	--
1131	C338*	C338	3127	C336*	--
1132	C339*	C339	3131	C338*	--
1133	C340*	C340	3140	C118*	--
1134	C340*	C340	3143	C123	--
1135	C340*	C340	3144	C124	--
1140	C108*	C108	3150	C309*	--
1141	C118*	C118.1			
1145	C553*	C553			
1146	C327*	C327			
1150	C126*	C126			
1151	C128*	C128.1			
1152	C127*	C127			
1153	C128*	C128.2			
1154	C602*	C602.5			
1155	C128*	C128.3			

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<u>COCOM Doc. 1700.1</u> <u>as amended</u>	<u>ICEL</u>	<u>ICEL</u> <u>Appendix</u>
1101	C101*	C101
1103	C103*	C103
1106	C104*	C104
1110	C107*	C107
1112	C109*	C109
1118)	C112*	C112
1118)	C113*	C113
1125	C117*	C117
1130	C337*	C337
1131	C338*	C338
1132	C339*	C339
1133	C340*	C340
1142	C119*	C119
1150	C126*	C126
1151	C128*	C128
1152	C127*	C127
1153	C128*	C128.2
1154	C602*	C602.5

<u>COCOM Doc. 1700.2</u> <u>as amended</u>	<u>ICEL</u>	<u>ICEL</u> <u>Appendix</u>
2129	C339*	C339
2133	C340*	C340
2154	C602*	C602.5

<u>COCOM Doc. 1700.3</u> <u>as amended</u>	<u>ICEL</u>	<u>ICEL</u> <u>Appendix</u>
3107	C105*	C105
3120	C114*	C114
3124	C116*	C116
3142	C119*	C119
3154	C602*	C602.5

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Electrical and Power-Generating Equipment

<u>CoCom Doc. 700.1 as amended</u>	<u>ICEL</u>	<u>ICEL Appendix</u>	<u>CoCom Doc. 1700.1 as amended</u>	<u>ICEL GL</u>	<u>Appendix</u>
1201	C201*	C201	1210	C203*	C203
1202	C202*	C202.1	1255	C204*	C204.2
1210	C203*	C203	1260	C208*	C208
1250	C604*	C604	1266	C205*	C208
1255	C204*	C204.2	<u>CoCom Doc. 1700.2 as amended</u>		
1256	C204*	C204.2	2265	C205*	C208
1260	C208*	C208	2270	C206*	C206
1265	C204*	C204.1	<u>CoCom Doc. 1700.3 as amended</u>		
<u>CoCom Doc. 700.2 as amended</u>			3202	C202*	C202.1
2201	C201*	C201	3256	C204*	C204.2
2210	C202*	C202.2	3265	C205*	C205
2250	C204*	C204.2		C208*	C208
2251	C204*	C204.2			
2255	C204*	C204.1			
2260	C041*	C041.7			
2265	C205*	C205			
2270	C206*	C206			
<u>CoCom Doc. 700.3 as amended</u>					
3201	C201*	--			
3250	C201*	--			
3260	C207	--			
3265	C205; C208*	--			
3267	C205; C208*	--			

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General Industrial Equipment

<u>CoCom Doc. 700.1 as amended</u>	<u>ICEL</u>	<u>ICEL Appendix</u>	<u>CoCom Doc. 1700.1 as amended</u>	<u>ICEL</u>	<u>ICEL Appendix</u>
1301	C-302*	C-302	1305	C-306*	C-306
1302	C-640*	C-640	1321	C-318*	C-318
1305	C-306*	C-306	1322	C-313*	C-313
1310	C-323*	C-323	1325	C-310*	C-310
1311	C-303*	C-303	1350	C-321*	C-321
1315	C-307*	C-307	1354	C-328*	C-328
1321	C-318*	C-318	1355	C-326*	C-326
1325	C-310*	C-310	1380	C-387*	C-337
1330	C-320*	C-320	1385	C-636*	C-636
1331	C-320*	C-320	1386	C-001*	C-001.64
1332	C-320*	C-320	1387	C-636*	C-636
1350	C-321*	C-321			
1351	C-309*	C-309.1	<u>CoCom Doc. 1700.3 as amended</u>		
1355	C-326*	C-326	3302	C-302*	C-302
1360	C-322*	C-322	3323	C-310*	C-310
1374	C-636*	C-636			
1375	C-324*	C-324			
1380	C-337*	C-337			
1381	C-309*	C-309.3			
1385	C-638*	C-638			
1386	C-001*	C-001.64			
1387	C-638*	C-638			
1388	C-526*	C-526			
1390	C-640*	C-640			
1395	C-325*	C-325			
<u>CoCom Doc. 700.2 as amended</u>					
2301	C-308*	C-308			
2325	C-310*	C-310			
2326	C-319*	C-319			
2350	C-309*	C-309.2			
2351	C-322*	C-322			
2354	C-328*	C-328			
2355	C-329*	C-329			
2375	C-636*	C-636			
<u>CoCom Doc. 700.3 as amended</u>					
3301	C-640	-			
3321	C-311	-			
3323	C-310*	-			
3351	C-309*	-			
3374	C-636*	-			
3380	C-316	-			
3381	C-317	-			
3385	C-640*	-			

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Transportation Equipment

<u>CoCom Doc. 700.1</u> <u>as amended</u>	<u>ICEL</u>	<u>ICEL</u> <u>Appendix</u>	<u>CoCom Doc. 1700.1</u> <u>as amended</u>	<u>ICEL</u>	<u>Appendix</u>
1401	C-401*	C401.1	1401	C401*	C401.1
1405	C-401*	C401.2	1405	C401*	C401.2
1410	C-401*	C401.3	1410	C401*	C401.3
1415	C-401*	C401.4	1415	C401*	C401.4
1425	C-401*	C401.7	1416	C401*	C401.4
1430	C-605*	C605			C401.5
1435	C-401*	C401.7	1417	C401*	C401.6
1450	C-403*	C403	1425	C401*	C401.7
1470	C-404*	C404.2	1430	C605*	C605
1475	C-404*	C404.3	1435	C401*	C401.7
1480	C-404*	C404.4	1441	C401*	C401.7
1485	C-401*	C401.8	1450	C403*	C403
1490	C-407*	C407	1471	C404*	C404.1
			1481	C406*	C406
			1485	C401*	C401.8
<u>CoCom Doc. 700.2</u> <u>as amended</u>			<u>CoCom Doc. 1700.2</u> <u>as amended</u>		
2401	C-402*	C402			
2405	C-401*	C401.2	2401	C402*	C402
2415	C-401*	C401.6	2405	C401*	C401.2
2440	C-401*	C401.7	2415	C401*	C401.6
2470	C-404*	C404.1	2416	C401*	C401.6
2475	C-405*	C405	2450	C403*	C403
2480	C-406*	C406	2479	C404*	C404.2
<u>CoCom Doc. 700.3</u> <u>as amended</u>			<u>CoCom Doc. 1700.3</u> <u>as amended</u>		
3450	C-403*	---	3415	C401*	C401.6
3451	C-403*	---	3430	C602*	C602
3470	C-404*	---	3441	C401*	---
3471	C-404*	---	3470	C404*	C404.1
3475	C-404*	---	3472	C404*	C404.2
3477	C-405*	---	3474	C404*	C404.3
3485	C-602*	---	3477	C405*	C405
			3479	C404*	C406.4
			3481	C406*	C406

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Electronics and Precision Instruments

<u>CoCom Doc. 700.1</u> <u>as amended</u>	<u>ICEL</u>	<u>ICEL</u> <u>Appendix</u>	<u>CoCom Doc. 700.1</u> <u>as amended</u>	<u>ICEL</u>	<u>ICEL</u> <u>Appendix</u>
1501	C-501*	C-501	1583	C-543*	C-543
1502	C-502*	C-502	1584	C-544*	C-544
1505	C-513*	C-513	1585	C-908*	C-908
1507	C-503*	C-503	1586	C-545*	C-545
1509	C-508*	C-508	1587	C-642*	C-642
1510	C-509*	C-509	1589	C-531*	C-531
1512	C-508*	C-508	1590	C-546*	C-546
1514	C-510*	C-510	1591	C-547*	C-547
1515	C-508*	C-508	1592	C-548*	C-548
1516	C-504*	C-504	1593	C-549*	C-549
1517	C-505*	C-505.1	1594	C-530*	C-530
1518	C-511*	C-511	1596	C-558*	C-558
1519	C-506*	C-506	1598	C-559*	C-559
	and	and	1599	C-525*	C-525
	C-507*	C-507			
1520	C-505	C-505.2	<u>CoCom Doc. 700.2</u>		
1521	C-514*	C-514	<u>as amended</u>		
1522	C-530*	C-530			
1525	C-520*	C-520	2517	C-505*	C-505
1528	C-530*	C-530	2519	C-507*	C-507
1531	C-530*	C-530	2521	C-518*	C-518
1532	C-530*	C-530	2522	C-519*	C-519
1533	C-532*	C-532	2535	C-515*	C-515
1537	C-517*	C-517	2541	C-528*	C-528
1541	C-523*	C-523	2544	C-526*	C-526
1544	C-528*	C-528	2545	C-521*	C-521
1545	C-528*	C-528	2546	C-521*	C-521
1548	C-529*	C-529	2570	C-551*	C-551
1549	C-524*	C-524	2580	C-552*	C-552
1552	C-527*	C-527			
1555	C-522*	C-522	<u>CoCom Doc. 700.3</u>		
1558	C-521*	C-521	<u>as amended</u>		
1561	C-536*	C-536			
1563	C-533*	C-533	3519	C-507*	-
1565	C-534*	C-534	3525	C-506*	-
1567	C-547*	C-547		and	
1569	C-535*	C-535		C-507*	-
1571	C-537*	C-537	3526	C-520*	-
1573	C-530*	C-530	3535	C-516	-
1575	C-539*	C-539	3561	C-530*	-
1577	C-907	C-907	3580	C-530*	-
1578	C-540*	C-540	3581	C-552*	-
1579	C-542*	C-542			
1582	C-330*	C-330			

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<u>CoCom Doc. 1700.1</u> <u>as amended</u>	<u>ICEL</u>	<u>ICEL</u> <u>Appendix</u>	<u>CoCom Doc. 1700.2</u> <u>as amended</u>	<u>ICEL</u>	<u>ICEL</u> <u>Appendix</u>
1501	C-501*	C-501	2568	C-550*	C-550
1502	C-502*	C-502	2580	C-552*	C-552
1507	C-503*	C-503			
1509	C-508*	C-508			
1510	C-509*	C-509			
1514	C-510*	C-510			
1516	C-504*	C-504	3517	C-505*	C-505.1
1517	C-505*	C-505.1	3519	C-506*	C-506
1518	C-511*	C-511		and	and
1519	C-507*	C-507		C-507*	C-507
1520	C-505*	C-505.2	3522	C-519*	C-519
1521	C-514*	C-514	3529	C-530*	C-530
1525	C-520*	C-520	3535	C-516	-
1529	C-530*	C-530	3544	C-521*	C-521
1533	C-532*	C-532		and	and
1537	C-517*	C-517		C-528	C-528
1541	C-523*	C-523			
1544	C-528*	C-528			
1545	C-528*	C-528			
1548	C-529*	C-529			
1549	C-524*	C-524			
1555	C-522*	C-522			
1558	C-521*	C-521			
1559	C-521*	C-521			
1563	C-533*	C-533			
1565	C-534*	C-534			
1571	C-537*	C-537			
1572	C-538*	C-538			
1577	C-907*	C-907			
1579	C-542*	C-542			
1582	C-330*	C-330			
1584	C-544*	C-544			
1585	C-908*	C-908			
1587	C-642*	C-642			
1589	C-551*	C-551			
1590	C-546*	C-546			
1591	C-547*	C-547			
1593	C-549*	C-549			
1594	C-530*	C-530			
1598	C-559*	C-559			

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Rubber and Rubber Products

Miscellaneous

<u>CoCom Doc. 700.1</u> <u>as amended</u>	<u>ICEL</u>	<u>ICEL</u> <u>Appendix</u>	<u>CoCom Doc. 700.1</u> <u>as amended</u>	<u>GL</u>	<u>ICEL</u> <u>Appendix</u>
1801	C-801*	C-801	1910	C-906*	C-906
1802	C-802*	C-802	1920	C-904*	C-904
1820	C-803*	C-803.1 & C-803.2	<u>CoCom Doc. 700.2</u> <u>as amended</u>		
1821	C-803*	C-803.1			
1822	C-803*	C-803.1			
1840	C-804*	C-804		2910	C-906*
1845	C-126*	C-126			
<u>CoCom Doc. 700.2</u> <u>as amended</u>			<u>CoCom Doc. 700.3</u> <u>as amended</u>		
	2820	C-803*	3901	C-901	--
	2821	C-803*	3909	C-906	--
			3910	C-639	--
<u>CoCom Doc. 700.3</u> <u>as amended</u>			3930	C-903	--
	3801	C-805	<u>CoCom Doc. 1700.1</u> <u>as amended</u>		
	3820	C-830	1910	C-906*	C-906
<u>CoCom Doc. 1700.1</u> <u>as amended</u>	3840	C-806	1920	C-904*	C-904
			1930	C-903*	C-903
<u>CoCom Doc. 1700.1</u> <u>as amended</u>			<u>CoCom Doc. 1700.3</u> <u>as amended</u>		
	1801	C-801*	3920	C-904*	C-904
	1820	C-803*			
	1840	C-804*			
<u>CoCom Doc. 1700.3</u> <u>as amended</u>					
	3801	C-805			

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Administrative Principles

1. The description of any item on the List includes that item in either new or second-hand condition.
2. When the description of any item on the List contains no qualifications or specifications, it is regarded as including all varieties of that item. Category and sub-category captions are only for convenience in reference and do not affect the interpretation of item definitions.
3. Any item (including plants) containing one or more embargoed components should generally be treated as though it were on the embargo list when the embargo component or components are a principal element of the item in value or quantity and can be feasibly removed or used for other purposes.
4. The object of the embargo should not be defeated by the export of component parts. Each country will take such action as it can to achieve this aim, and will continue to seek a workable definition for parts which could be used by all the participating countries.
5. So far as possible, the object of strategic controls should be maintained by restrictions on the export of technical assistance, design data and manufacturing technique.

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Metalworking Machinery

<u>Item No.</u>	<u>Description</u>	<u>Source</u>
C-001*	Machine tools and accessories (except those designed specially for the production of civilian hardware, such as - but not limited to - needle, pin, button and nail-making machinery), as follows: (a) Metal-working machine tools, n.e.s., and accessories therefor; (b) Engineers' cutting and forming tools, n.e.s. (c) Portable hand-held power tools (pneumatic, electric, and petrol operated) designed for metal working	C001 C370(a)
C-002	Power driven can making machinery	3070

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Chemical and Petroleum Equipment

<u>Item No.</u>	<u>Item Description</u>	<u>Source</u>
C-101*	Acid (mineral) Concentrating equipment, as follows: (a) Complete installations; (b) Unit components; (c) Items of equipment specially designed therefor	0-1101
C-102*	Ammonia oxidation equipment, as follows: (a) Complete installations; (b) Catalyzers suitable for ammonia oxidation	0-1102
C-103*	Antibiotics production equipment, as follows: (a) Complete installations; (b) Specialized components thereof	0-1103
C-104*	Liquid/liquid solvent extraction equipment	N-1106 3110
C-105*	Equipment for the production of chlorine (gaseous or liquid), sodium and magnesium, as follows: (a) Complete installations; (b) Unit components; (c) Items of equipment specially designed therefor	0-1107
C-106*	High vacuum (4.5 mm of mercury pressure absolute or less) freeze-drying equipment as follows: (a) Complete installations; (b) Specialized parts, n.e.s., as follows: centrifugal vacuum spin-freezing apparatus, and multi-stage steam ejectors	0-1109
C-107*	Gas-liquefying equipment and equipment for handling liquefied gas, designed for operation at pressures of 300 psi (21 kg per sq cm) or over (Note: This includes steel cylinders for compressed or liquefied gases, whether or not with welded bottoms)	0-1110
C-108*	Vacuum-insulated storage or transportation containers for liquids or liquefied gases, 25 liters (26.42 US qts or 22 imperial gts) capacity or more	0-1110
C-109*	Hydrogen-producing equipment (water, gas, electrolytic, gas cracking, gas extraction processes)	0-1112
C-110*	Hydrogenation equipment, as follows: (a) Complete installations; (b) Catalyzers suitable for hydrogenation	0-1113

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Chemical and Petroleum Equipment

<u>Item No.</u>	<u>Description</u>	<u>Source</u>
C-111*	Methanol oxidation equipment, as follows: (a) Complete installations; (b) Catalyzers suitable for methanol oxidation	0-1116
C-112*	Nitrators	0-1118
C-113*	Equipment for the production of military explosives, as follows: (a) Complete installations (b) Specialized components	N-1118
C-114*	Processing equipment operating at pressures over 200 psi (14.0 kg. per sq. cm.), as follows: (a) Complete installations; (b) Unit components (c) Items of equipment specially designed therefor (including, but not limited to, autoclaves and digesters)	0-1120
C-115*	Sulphur (natural) extraction equipment, as follows: (a) Complete installations; (b) Unit components; (c) Items of equipment specially designed therefor.	0-1123
C-116*	Sulphur burners and pyrites roasters	0-1124
C-117*	Plant for the production of titanium metal (excluding separate plant for the production of titanium tetrachloride), as follows: (a) Complete installations (b) Specialized components	N-1125

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Chemical and Petroleum Equipment

<u>Item No.</u>	<u>Description</u>	<u>Source</u>
C-118*	Chemical process vessels, tanks, and vats, and piping and allied fixtures, made of or lined with any corrosion-resistant material	0-1141 0-2141 3140
C-119*	Pipe and tubing, made of or lined with any of the following corrosion-resistant materials: (a) Metals containing 10% or more chromium and/or nickel and/or silicon; metals containing 90% or more silver or titanium; (b) Carbon and/or graphite; (c) Polythene; polytetrafluoroethylene; trifluorochloroethylene; polyvinyl chloride; polyvinylidene chloride resin; phenol formaldehyde; (d) Borosilicate glass; <u>except</u> pipe and tubing specially shaped for laboratory use; (e) High-temperature fused silica or quartz.	0-2142
C-120*	Distillation equipment (industrial), as follows: (a) Fractionating, rectifying, and dephlegmating columns; and parts therefor (b) Destructive distillation equipment, and parts; (c) Stills designed to operate at absolute pressure of 5 mm and lower of mercury; and parts therefor	0-2101 3101
C-121	Evaporators, multiple-effect	3105
C-122	Driers for chemical processes, as follows: (a) Continuous screen; (b) Cylinder; (c) Drum; (d) Rotary; (e) Spray; (f) Vacuum.	3102
C-123	Drums (metal, empty) of 5 or more United States or United Kingdom gallons capacity (20 liters), made of or lined with any corrosion-resistant material (except containers designed for the transport of milk).	3143

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Chemical and Petroleum Equipment

<u>Item No.</u>	<u>Description</u>	<u>Source</u>
C-124.	Drums (metal, empty) of 55 US gallons (45 Imperial) gallons, 200 liters) capacity or more	3144
C-125	Containers of the "jerry can" or similar type, n.e.s., i.e., containers of 4 US gallons (15 liter) capacity or more, equipped with handles and water-tight lids, and suitable for use in storing or transporting petroleum	C150
C-126*	Oil well drilling and exploration equipment (Interpreted to include the following: (a) Casinghead and Christmas tree assemblies; (b) Cementing equipment; (c) Coring equipment; (d) Gun perforating equipment; (e) Photoclinometers; (f) Power pumping units; bottom hole pumps and working barrels; (g) Blowout preventers; (h) Drill bits (rock bits); (i) Draw works and rotary tables; (j) Well logging instruments and equipment; (k) Drill collars, tool joints, Kelly's and Kelly substitutes; (l) Crown blocks, traveling blocks for oil derricks; (m) Rotary drilling hose, high pressure (with test pressure 3,000 psi (210 kg. per sq. cm.) and over	0-1150; 0-1845
C-127*	Oil and natural gas production equipment, as follows: (a) Units for treating, separating and stabilizing, and natural gas extraction; (b) Complete plants including any of the above units (c) Items of equipment specially designed therefor (including, but not limited to the following: stabilizing, absorpition, and stripping vessels, separators; condensers)	0-1152
C-128*	Petroleum refinery equipment	0-1151; 0-1153; 0-1155; C151

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Electrical and Power Generating Equipment

<u>Item No.</u>	<u>Item Description</u>	<u>Source</u>
C-201*	Electric furnaces and electrical component parts therefor, as follows: (a) Induction melting furnaces, including generating capacity of 480 cycles and over; (b) Direct or indirect arc furnaces (c) Submerged arc and direct resistance furnaces (d) Induction heat treating furnaces, including generating equipment of 480 cycles and above (e) Resistor melting furnaces and resistor heat-treating furnaces	0-1201; 2201; 3201; C-302
C-202*	Welding machines and equipment and parts therefor (including electrodes--rod and wire)	0-1202 0-2210 C-210
C-203*	Searchlight control units	N-1210
C-204*	Internal combustion engines	0-1255 0-1256 0-2250 0-2251 3250 C-265 0-2255
C-205*	Power equipment, as follows: (a) Equipment, n.e.s., for electric generating, transforming, rectifying and converting, transmission, and power distribution; control gear and accessories, n.e.s.; substation equipment, n.e.s.; and parts, n.e.s., for the foregoing: (b) Plant for the production of fuel gas; (c) Boiler-house plant for use with sub-items (a) and (b) above.	C-266; 3267; 3535; 0-2265 3265
C-206*	Turbines over 300 hp (except those designed for driving electric generators)	0-2270
C-207	Water-tube boilers, 80,000 pound-hours (36,300 kilo-hours) steaming capacity and above (excluding marine boilers).	3260
C-208*	Electric motors and controls as follows: (a) Electric motors, all types (b) Automatic and semi-automatic equipment for the starting, stopping, reversing and speed control of electric motors of 60 hp (45 K.V.A. at unity power factor) and over, and specially designed parts.	C-260; 0-1260; 0-2265; 3265

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General Industrial Equipment

<u>Item No.</u>	<u>Description</u>	<u>Source</u>
C-301	Foundry plant	C-301
C-302*	Casting equipment, as follows: (a) Die-casting and centrifugal casting machines (b) Equipment or plants for continuous casting of metals into partially processed mill product forms	0-1301
C-303*	Sintering equipment for metallurgical purposes	0-1311
C-304	Hard-chrome plating plants (except small barrel-type electro-plating plants for decorative purposes)	C-315
C-305	Metal-spraying equipment	C-316
C-306*	Metal rolling mills, all types; and controls therefor	0-1305
C-307*	Tinning units, electrolytic-automatic continuous	0-1315
C-308*	Furnace equipment: pressure-top equipment (i.e., top equipment for blast furnaces designed to facilitate the retention during the recharging process of the pressure and temperature generated during the preceding heat for use with the new charge)	0-2301
C-309*	Mining machinery	C-351; 0-1351; 0-1381 0-2350; 3351; 315C
C-310*	Excavators, power shovels and cranes, as follows: a) Excavators b) Power shovels c) Power cranes of the non-excavator type, full revolving, mounted or unmounted (including floating and railway types) (This category covers all such cranes of the shipyard, railway and construction types)	C-325; 0-1325; 0-2325; 0-3323
C-311	Road and airport machinery of the following kinds: (a) Concrete mixers (stationary and portable, including truck and trailer-mounted) and concrete transport truck-mounted agitators, capacity 18 cu. ft. (0.5 cu.m) and over; (b) Concrete pavers, paving spreaders, and finishers; (c) Bituminous mixing outfits, spreaders, pavers, and mixer-paver combinations; (d) Crushing and screening outfits; mobile and semi-portable knockdown types; (e) Sub-graders and fine-graders; (f) Self-propelled road graders; (g) Self-loading scrapers (automatic), self-propelled and pull-push types. (This excludes hand-operated types).	3321

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<u>Item No.</u>	<u>Description</u>	<u>Source</u>
C-312	Bull-dozers; angle-dozers; trail builders	C-326
C-313*	Soil compacting equipment, as follows: (a) soil compactors with pneumatic tired wheels, vibrating type, of 30,000 lbs. or (13 metric tons) net vehicle weight or over (b) pneumatic tire casings for such soil compactors (whether or not mounted on the vehicle) of 16.00 x 21 size or over, and rated 36 ply or over	N-1322
C-314	Road-rollers, self-propelled, tandem and three-wheel steel-tired types, 8 ton unballasted weight or over	C-321
C-315	Spray-guns, air-operated types capable of placing 13½ cu. ft. (0.38 cu. meters) or more of wet mixture of cement and sand per hours; and accessories therefor	C-327
C-316	Conveyor belting	3380
C-317	Crushing equipment, as follows: (a) Crushers, grinders, and pulverizers (all types except for food processing) (b) Colloid mills	3381
	..	
C-318*	Tractors, diesel or gasoline powered, 60 belt hp and over (50 drawbar hp and over) (a) Wheel (b) Tracklaying	O-1321
C-319*	Off-the-road equipment, as follows: (a) Off-the-road trucks, wagons, trailers of over 10 cu. yd. (7.6 cu. m.) struck capacity (b) Off-the-road trucks, wagons, trailers of 10 cu. yd. (7.6 cu. m) struck capacity and under	O-2326
C-320*	Rubber making machinery as follows: (a) Calenders (rubber-working) with 3 or more rolls and capable of handling fabric 55" (140 cm) or over (b) Master batch mixers, with automatically controlled time cycle, chamber volume 130,000 cu. cm. or more (c) Tire-curing presses, single or multiple cavity, capable of accommodating tire molds of a total outside depth of 10" (25.4 cm) or over	O-1330; O-1331 O-1332

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General Industrial Equipment

<u>Item No.</u>	<u>Description</u>	<u>Source</u>
C-321*	Carbon black manufacturing plants	0-1350
C-322*	Synthetic fiber manufacturing equipment, as follows: (a) Filament extrusion and spinning machines (b) Spinnerets made of platinum and/or tantalum metals and/or alloys, capable of producing yarns of 500 denier or more; (c) Spinnerets made of stainless steel capable of producing yarns of 210 denier or more	0-1360; 2351
C-323*	Separators (electrostatic) having a voltage of more than 1,000 volts across the air gap; and parts	0-1310
C-324*	Air conditioning units (self-contained), with a capacity of over 8,000 British Thermal Units per hour	0-1375
C-325*	Precipitators (electrostatic), capable of removing 90 percent or more (by blackness test) of all air-borne particles down to sizes as small as 1/250,000 of an inch; and specialized parts therefor.	0-1395
C-326*	Radio valve manufacturing machinery	0-1355
C-327*	Molding machines for plastics (extrusion, injection and other)	0-1146
C-328*	Cable-making machinery for making coaxial cable, as follows: (a) Machines used for applying insulating separators to the inner conductor of air spaced coaxial electric cables; (b) Machines used for applying metal strip or sheet to form the outer conductor of coaxial electric cables.	0-2354
C-329*	Cable-making machinery for making multipair electric cables for tele-communication purposes as follows: (a) Machinery for applying insulating material to conductors; (b) Machinery for laying conductors together and/or for applying an insulating, separating, binding, or identifying material thereto; (c) Machinery for laying up conductors, pairs, quads, etc., into layers to form the complete cable core or part thereof.	0-2355

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<u>Item No.</u>	<u>Description</u>	<u>Source</u>
C-330*	Optical curve generators (grinders, surfacers, and polishers) and parts, capable of producing: (a) Aspherical curves; (b) Toric, cylinder, or spherical surfaces on glass or other material without the use of mating surfaces or laps.	O-1582
C-331	Jacks, 10-ton capacity and over	C-374
C-332	Materials-handling equipment, as follows: (a) Fork-lift trucks; (b) Platform trucks; (c) Other industrial-type trucks, trailers, and stackers. (Note: The above sub-paragraph (c) covers only equipment specially designed for materials handling, such as those equipped with crane booms and winches)	C-375
C-333	Portable hand-held power tools (pneumatic, electric and petrol operated) designed for: a) Mining and quarrying b) Transportation and transportation-servicing (railroads, locomotives and rolling-stock, ships, planes and motor transport).	C-370
C-334	Electronic heating instruments used in the metallurgical industry, n.e.s.	C-572
C-335*	Heat exchangers (tubular) for industrial processes, and components therefor.	O-2110
C-336*	Water treatment equipment, industrial, except stationary equipment for the treatment of drinking water.	O-1127; 3127
C-337*	Compressors and blowers, as follows: (a) Designed to operate with a delivery pressure exceeding 110 psi, or with a capacity exceeding 250 cfm free air delivered; (b) Compressors, n.e.s. and parts, regardless of delivery pressures and capacities, when fabricated of, or lined with any corrosion-resistant material.	O-1130; O-1380 O-1384; C-380

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<u>Item No.</u>	<u>Description</u>	<u>Source</u>
C-338*	<p>Pumps (except vacuum pumps) as follows:</p> <p>(a) delivering liquids separately or in combination with solids and/or gases, designed for working pressures of 75 psi (5.25 kg. per sq. cm.) or over or fabricated of or lined with any corrosion-resistant material;</p> <p>(b) bodies and rotors of centrifugal or rotary pumps, fabricated of, or lined with, any corrosion-resistant material;</p> <p>(c) designed to move molten metals by electro-magnetic forces.</p> <p>Note: This does not include diesel and fuel injection pumps, or pumps destined for closed hydraulic circuits, such as are required in conjunction with hydraulic presses.</p>	<p>O-1131; O-2136 3131; N-1131</p>
C-339*	Vacuum pumps (and parts), all types (including mechanical diffusion and ejector) which (a) are designed to produce a vacuum of 50 mm of mercury pressure absolute or less; or (b) regardless of vacuum produced, are fabricated of, or lined with, any corrosion-resistant material.	O-1132; O-2130
C-340*	<p>Valves and cocks, as follows:</p> <p>(a) Valves and cocks with pressure parts wholly made of or wholly lined with any corrosion-resistant material, except the following types of valves when made of or lined with corrosion-resistant materials other than molybdenum, or alloys (as defined in Interpretative Note I (1d) or nickel metal or alloys (as defined in Interpretative Note I (1a). (i) Check, non-return and float valves; (ii) Pressure relief valves designed for working pressures of less than 300 psi (20 kg. per sq. cm.); (iii) Valves and cocks for domestic household use, and those specially designed for milking machines and for electrical household refrigerators and home freezers.</p> <p>(b) Valves, controlled automatic types as follows: Any pipe valve having partially or wholly integral with it a mechanism actuated by hydraulic, pneumatic, mechanical, electrical, or other means which regulates or controls its operations, except (i) check, non-return, and float; (ii) pressure relief valves designed for working pressures of less than 300 psi</p>	<p>O-1133; O-1134 O-1135; O-2131 O-2132</p>

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General Industrial Equipment

<u>Item No.</u>	<u>Description</u>	<u>Source</u>
C-340* (cont'd)	(21 kg. per sq. cm.); and (iii) valves specifically designed for milking machines and for electric household refrigerators and home freezers.	
(c)	Pipe valves, n.e.s. designed for working pressures of 300 or more psi (21 kg. per sq. cm.).	

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Transportation Equipment

<u>Item No.</u>	<u>Description</u>	<u>Source</u>
C-401*	Watercraft, and important components	C-401
C-402*	Dredges and specialized dredge equipment and components, such as grabs, buckets, cutters, ladders, centrifugal pumps, and floating and shore pipelines	O-2401
C-403*	Motor vehicles and equipment, as follows: (a) Motor vehicles (including tractors, trailers and motor cycles), except the following: scooters; tricycles under half-ton loading capacity; and private touring (passenger) cars designed or constructed to carry not more than 6 persons. (Note: The foregoing exclusion does not apply to the following, even if apparently designed or constructed to carry not more than 6 persons; crew cars (personnel carriers); station wagons; utilities; pick-ups; buses; kit cars); (b) Chassis, components, and spares for the above vehicles; (c) Servicing equipment and materials for the above vehicles.	C-450 O-3451
C-404*	Railway rolling stock, and parts therefor	C-471
C-405*	Railway	O-2475 O-3477
C-406*	Railway signal systems, as follows: (a) Centralized traffic control (CTC) system of railway signalling controlled by code impulses; and parts specially designed therefor (b) Automatic (block type) railway signal systems, and parts specially designed for such systems	N-1481 O-2480
C-407*	Landing mats for aircraft	O-1490

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ELECTRONICS AND PRECISION INSTRUMENTS

<u>Item No.</u>	<u>Description</u>	<u>Source</u>
C-501*	Communication equipment specially designed for use in aircraft or for communication with aircraft; and specialized parts therefor.	N-1501
C-502*	Communication equipment of a kind using infra-red radiation or ultrasonic waves; <u>and</u> specialized parts therefor.	N-1502
C-503*	"Jamming" apparatus (i.e., apparatus specially designed to jam or otherwise interfere with radio reception); <u>and</u> specialized parts therefor.	N-1507
C-504*	Radio receivers, panoramic (being receivers which search automatically a part of the radio-frequency spectrum and indicate visibly the signals received); <u>and</u> specialized parts therefor.	N-1516
C-505*	Radio communications equipment as follows: (a) Radio transmitting apparatus and components therefor (including non-specialized components); (b) Radio communication receivers and components therefor (including non-specialized components), except domestic radio receivers.	C-501 N-1517 N-1520 O-2517
	NOTE - Non-specialized components include all types of electronic valves (tubes), capacitors, resistors, coils, antennae and power supplies. Export licenses can be granted when small quantities of replacement parts for domestic radio receivers are involved and when, in accordance with the conditions and procedure of CoCom Doc. 782, the exporting country can justify that there is no doubt as to their civilian end use.	
C506*	Telephone equipment, as follows: (a) Carrier frequency telephone terminal equipment, and carrier frequency intermediate repeater or amplifier equipment, which incorporate designs, components, or construction techniques specially suitable for military field application; (b) Specialized components and subassemblies thereof (e.g., crystal lattice filters)	O-1519 C-501 3525

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<u>Item No.</u>	<u>Description</u>	<u>Source</u>
	(c) Telephone switchboards and other telephone instruments, n.e.s. (except domestic telephone instruments)	
	(d) Telephone cable of any type containing more than one pair of conductors	
	(e) Telecommunications cable, n.e.s.	
C507*	Telegraph equipment, as follows:	O-2519
	(a) Voice frequency telegraph terminal equipment of all types, as follows:	N-1519
	(i) Apparatus used for converting the output from telegraph sending instruments to audio frequencies for transmission over electric circuits;	3519
	(ii) Apparatus used for converting incoming telegraph signals on an audio frequency basis into a form suitable for and distribution to, telegraph receiving instruments;	3525
	(iii) Channel filters and components thereof; and specialized components and sub-assemblies specially designed for incorporation in voice frequency telegraph terminal equipment.	C-501
	(b) Telegraph equipment (machines) as follows:	
	(1) Mechanical, electro-mechanical, or electronic equipment used to translate the information contained in written text, printed matter, line or half-tone drawings, maps, diagrams or photographs into electrical wave-forms suitable for transmission over communication circuits;	
	(ii) Equipment designed to accept such electrical wave-forms and display the information from them in visible form;	
	(iii) Specialized component parts and accessories for such equipment.	
	(c) Telegraph cable of any type containing more than one pair of conductors.	
	(d) Telecommunication cable, n.e.s.	

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<u>Item No.</u>	<u>Description</u>	<u>Source</u>
C-508*	Location apparatus as follows: (a) Apparatus of a kind used for detecting objects or for determining the relative direction, position, or motion of objects by means of the constant velocity or rectilinear propagation characteristics of electromagnetic waves having frequencies less than 4×10^{14} cycles per second (0.75 microns) (except radio direction finding equipment of a kind used at frequencies not greater than 1.5 megacycles per second); (b) Specialized parts and accessories of such apparatus; (c) Specialized equipment for testing or calibrating such apparatus.	N-1509 O-1509 O-1512 O-1515
C-509*	Location apparatus, under water: apparatus for detecting or locating objects under water by magnetic or acoustic or ultra-sonic methods (except marine depth sounders of a kind used solely for measuring the depth of water or the distance of submerged objects vertically below the apparatus), and specialized components of such apparatus.	N-1510
C-510*	Pulse modulators capable of providing electric impulses of peak power exceeding 10 kw; and pulse transformers and pulse-forming equipment being specialized parts of such modulators.	N-1514
C-511*	Telecontrol equipment suitable for controlling pilotless aircraft and guided weapons.	N-1518
C-512	Detection apparatus, as follows: (a) Ultrasonic detectors, n.e.s.; (b) Electrocardiographs (except those being exported in small quantities where the exporting authorities have made sure that the equipment is intended for medical purposes and report the exports in accordance with the "exceptions" procedure in paragraph 3 of Document 782).	C-502
C-513*	Ionosphere recording apparatus, fully automatic.	C-1505
C-514*	Amplifiers, any of the following: (a) Designed to operate at frequencies in excess of 100 m/cs; (b) Tuned amplifiers having a bandwidth (defined as the band of frequencies over which the power amplification does not drop to less than one-half of its maximum value) which exceeds 5 m/cs or 10%	N-1521

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SECRETELECTRONICS AND PRECISION INSTRUMENTS

<u>Item No.</u>	<u>Description</u>	<u>Source</u>
C-514* (continued)	<p>of the mean frequency, whichever is less. (The mean frequency is defined as the arithmetic mean between the frequencies at which the power amplification is one-half of its maximum value.)</p> <p>(c) Untuned amplifiers having a bandwidth, as defined in sub-item (b) above, which exceeds 5 m/cs per second;</p> <p>(d) DC amplifiers having a noise level (referred to the input circuit) of 10-16 watts <u>or less</u> and/or a zero drift in 1 hour corresponding to a change in input power of 10-16 watts <u>or less</u>;</p> <p>(e) Capable of a total power output in excess of 500 watts at any frequency or frequencies between 15 k/cs per second and 200 k/cs per second.</p>	

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ELECTRONICS AND PRECISION INSTRUMENTS

<u>Item No.</u>	<u>Description</u>	<u>Source</u>
C-515*	Transformers, n.e.s., and parts, as follows: (a) Inter-stage and modulation transformers; (b) Transformers made from electrical steels having a core loss of 1.7 watts or less per kilogram at 10,000 gaussess and 50 cycles per second; (c) Transformer and choke laminations and core assemblies with a core loss of 1.0 to 1.7 (both inclusive) watts per kilogram at 10,000 gaussess and 50 cycles per second.	O-2535
C-516	Reactors (made of materials covered by item 1631), n.e.s., as follows: (a) transformers; (b) chokes and coils.	3535 C266
C-517*	Special tuned circuits, as follows: (a) Electromagnetic waveguides, resonant circuits, and radiators of a kind used at frequencies exceeding 600 megacycles per second; (b) Articles or equipment incorporating or designed to be connected to or to be incorporated in, any such wave-guide, circuit, or radiator.	N-1537
C-518*	Subminiature electronic circuit components, as follows: (a) Other than those specially designed for, or intended for, medical hearing aids; (b) Specially designed for, or intended for, medical hearing aids.	O-2521
C-519*	Capacitors, as follows: (a) Fixed capacitors in excess of 0.5 microfarads, having DC working voltage in excess of 1,000 volts; (b) Radio-frequency capacitors, either fixed or variable, rated in excess of 5 amperes at 1,000 kcs; (c) All vacuum and gas capacitors; (d) Ceramic dielectric capacitors, or parts thereof, having a declared tolerance of temperature coefficient of plus or minus 20 percent of the nominal capacitance or less; (e) polyethylene tetraphthalate dielectric capacitors; and (f) tantalum electrolytic capacitors	O-2522 N-3522
C-520*	Coaxial electric cable as follows: (a) all types suitable for the transmission of frequencies of 100 or more kilocycles per second; (b) all types with polytetrafluoroethylene or polytrifluorochloroethylene dielectric	N-1525 3526

SECRETELECTRONICS AND PRECISION INSTRUMENTS

<u>Item No.</u>	<u>Description</u>	<u>Source</u>
C-521*	Valves (tubes) electronic, of the following kinds (and specialized parts therefor): (a) Those of a kind used with a potential difference exceeding 9,000 volts between electrodes; (b) Those of a kind used at frequencies of 100 megacycles or more per second; (c) Those of a kind that can be passed through a circular hole $\frac{1}{2}$ " (1.27 cm) in diameter; (d) Those designed to withstand severe mechanical vibration or shock; (e) Capable of conducting a peak current greater than 10 amperes; (f) Capable of continuous plate dissipation of 150 watts or over.	0-1558 0-2545 0-2546 N-1559
C-522*	Image converters and electronic storage tubes of all kinds, including television camera tubes.	N-1555 0-1555
C-523*	Cathode-ray tubes, as follows: (a) With screen afterglow longer than $\frac{1}{2}$ second; (b) With writing speeds of more than 3,000 km per second; (c) With 2 or more electron guns.	N-1541
C-524*	Photomultiplier tubes; and specialized parts therefor.	N-1549
C-525*	X-ray tubes 1,000 PKV and over.	0-1599
C-526*	Rectifier tubes of the high-vacuum or hot cathode mercury vapor type, having peak inverse voltages in excess of 2,000 volts with average current capacity of $\frac{1}{4}$ ampere or over.	0-2544
C-527*	Rectifier or amplifier tubes, cold cathode type.	0-1552
C-528*	Crystal diodes and transistors.	0-1544 N-1545 0-2541
C-529*	Photoelectric cells, as follows: (a) Photoelectric cells with a peak sensitivity at a wave length longer than 7,000 Angstrom units; (b) Phototransistors (photo-conductive cells) with a response time constant of one millisecond or less measured at the temperature at which the time constant is a minimum (Note: The time constant is defined as the time taken from the application of a light stimulus for the current increment to reach a value of $1-1/e$ times the final value (i.e., 63% of the final value).)	0-1548

ELECTRONICS AND PRECISION INSTRUMENTS

<u>Item No.</u>	<u>Description</u>	<u>Source</u>
C-530*	Measuring instruments, as follows:	N-1529
	(a) Electrical instruments, as follows:	N-1594
	1) apparatus for measuring impedance, admittance, capacitance, or inductance at a frequency of 100 megacycles per second or more;	0-1522
	2) decade attenuators giving readings, accurate to less than plus or minus 5% of the indicated value expressed in decibels, at frequencies of 1 megacycle per second or above;	0-1573
	3) equipment for measuring permittivity, and/or power factor of dielectrics at frequencies of 1 megacycle per second or above;	3529
	4) radio-frequency field strength measuring equipment;	3561
	5) frequency measuring equipment with an accuracy better than plus or minus 0.01% at frequencies over 30 kilocycles per second;	3580
	6) electronic stabilized power supplies delivering a DC output voltage which:	
	(i) varies by less than 1% of any input voltage variation within plus or minus 20% of the nominal, and/or	
	(ii) varies by less than 0.1% of the maximum rated voltage between no load and maximum rated load;	
	7) those operating at frequencies exceeding 300 megacycles per second;	
	8) antenna pattern recorders for use at frequencies over 250 megacycles per second;	
	9) impedance measuring apparatus (apparatus of a kind used to measure electric impedance) at frequencies of 60 megacycles per second and specialized parts thereof;	
	10) voltmeters, ammeters, and microammeters (including portable test type) - precision indicating types, with an accuracy of 0.5 percent of full scale deflection;	
	11) bridges for measuring capacitance, impedance, inductance, and/or resistance, precision types; and	
	12) measuring and testing equipment, n.e.s., rated for use at frequencies of 30 kilocycles and above.	
	(b) Resistors, inductors, or capacitors, fixed or variable, with a rated accuracy better than plus or minus 1% at 1 megacycle per second or any higher frequency;	
	(c) Apparatus for automatically sorting electronic components in respect of their electrical characteristics.	

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ELECTRONICS AND PRECISION INSTRUMENTS

<u>Item No.</u>	<u>Description</u>	<u>Source</u>
C-531*	Resistors, temperature-sensitive (of a kind used in bolometers or in the measurement of electric power below 10 milliwatts but <u>excluding</u> electric lamps)	N-1589
C-532*	Radio spectrum analyzers (being apparatus capable of indicating the single-frequency components of multifrequency oscillations); <u>and</u> specialized parts of such analyzers.	N-1533
C-533*	Balances, as follows: (a) Balances, electronic capable of detecting differences in weight smaller than 10 micrograms; <u>and</u> specialized parts therefor; (b) Balances of sensitivity of .01 milligrams or better.	O-1563
C-534*	Computers, electronic (<u>except</u> business type calculating machines).	N-1565
C-535*	Electrometers (except student type).	O-1569
C-536*	Absorption meters, infra red	O-1561
C-537*	Geophysical prospecting equipment, as follows: (a) Seismometers; (b) Gravimeters; (c) Electronic or fluxgate magnetometers (including airborne magnetometers); (d) Complete seismic exploration recording equipment, portable or designed for truck mounting; and the following units when specifically designed and/or designated therefor: 1) amplifiers with automatic volume control; 2) variable filters; 3) synchronized timing-photographic recording equipment (including recording oscillographs), <u>and</u> parts specifically designed therefor; 4) Geophones; <u>and</u> parts specifically designed therefor; 5) Electromagnetically-damped galvanometers; 6) Equipment for surface shooting, employing shaped charges.	O-1571

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SECRETELECTRONICS AND PRECISION INSTRUMENTS

<u>Item No.</u>	<u>Description</u>	<u>Source</u>
C-538*	Magnetic recorders and/or reproducers (other than those designed for voice or music) and specialized recording media, parts and components therefor.	N-1572
C-539*	Leak-detecting instruments (instruments capable of detecting small leaks of gases under high vacuum or high pressure).	O-1575
C-540*	Micro-hardness testers.	O-1578
C-541*	Dynamometers capable of absorbing more than 300 brake horsepower.	O-1388
C-542*	Microscopes of the following kinds: (a) Electronic; (b) Metallurgical - consisting of microscopes (whether or not in combination with a camera and mounted, or capable of being mounted, on a rigid optical bench i.e., a metallograph (which posses, or are capable of adaptation to include the following: (1) An illumination system by which the light beam enters the microscope axially and is projected through the objective lens to the specimen under observation; and (2) A tube of length which, when used with a lens capable of magnification to 75 times or greater, will obtain a flat field of view wherein all parts of the specimen under observation are simultaneously in sharp focus.	O-1579
C-543*	Oscillographs, recording.	O-1583
C-544*	Oscilloscopes (cathode-ray) and specialized parts, as follows: (a) Oscilloscopes possessing any of the following characteristics: (1) A bandwidth greater than 5 megacycles (defined as the band of frequencies over which the loss does not exceed 3 decibels); (2) A time base shorter than 0.05 microseconds per centimeter;	N-1584

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<u>Item No.</u>	<u>Description</u>	<u>Source</u>
	<ul style="list-style-type: none"> (3) Containing or designed for the use of multiple beam tubes, or those of 3 or more cathode-ray tubes; (4) Employing accelerating potentials in excess of 5,000 volts; (b) Specialized parts and accessories, as follows: <ul style="list-style-type: none"> (1) Oscilloscope cameras; (2) Amplifiers and pre-amplifiers with a bandwidth greater than 5 megacycles (defined as the band of frequencies over which the loss does not exceed 3 decibels). 	
C-545*	Pyrometers, as follows: <ul style="list-style-type: none"> (a) Optical pyrometers - disappearing filament types; (b) Radiation type pyrometers with sensitive receiver consisting of either a thermocouple (with or without protecting tube) or a "sighting" device whereby heat is focused on a thermopile by a lens or mirror. 	O-1586
C-546*	Micro-flash equipment capable of giving a flash of 1/100,000 second or shorter duration, or with a frequency of 200 flashes or more per second.	N-1590
C-547*	Spectrographs, spectrometers, monochrometers, and associated measuring equipment, as follows: <ul style="list-style-type: none"> (a) Grating types with, or designed for use with diffraction gratings (originals or replicas, plane or concave); and gratings therefor; (b) Prism types: <ul style="list-style-type: none"> (1) Capable of a spectrum length of 20 cms between 9000 and 2000 Angstrom units, or (2) Designed for use with prisms having refracting face 35 mm or more in width; (c) Infra-red types, having an effective total prism base length over 2 inches (5 cm); (d) Recording or controlling densitometers or other specialized equipment for the quantitative assessment of spectrographic records. <p>(NOTE: This does not include: (1) instruments limited to the use of replica plane grating not exceeding 1" (2.5 cms) in ruled width, and spares therefor, and (2) instruments of the "circle" type incapable of direct measuring to less than 5 seconds of arc.)</p>	N-1591

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<u>Item No.</u>	<u>Description</u>	<u>Source</u>
C-548*	Strain gauge equipment, electric recording; and specialized parts therefor.	O-1592
C-549*	Measuring and counting equipment as follows: (a) Equipment capable of measuring time intervals of one second or less with an error not exceeding 2% of the interval measured or an error of 20 microseconds, whichever is the greater; (b) Equipment capable of counting at over 50,000 counts per second.	N-1593
C-550*	Electronic automatic controlling units, whether or not including associated regulating units, designed to regulate flow by continuous action as a function of one or more industrial process variables and capable of operating a regulating valve by pneumatic, hydraulic or electric means in response to an A.C. or D.C. voltage produced by a measuring unit in the process stream. (NOTE: "Controlling unit" means the unit comprising those elements which apply control action to the regulating unit in relation to the deviation, which it determines by comparing (by using an electronic feed back stabilised amplifier) the desired value with the value of the controlled condition as indicated by the measuring unit.)	N-2568
C-551*	Electric or electronic impulse registers or counters designed to operate at over 20 counts per second.	O-2570
C-552*	pH meters, continuous and non-continuous, and components thereof.	② O-2580 O-3581

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<u>Item No.</u>	<u>Description</u>	<u>Source</u>
C-553*	Gauges for measuring pressures over 100 atmospheres (gauge pressures of 1470 psi or 103 kg. per sq. cm.)	C-1145
C-554	Measuring and testing instruments for use in engineering workshops, n.e.s.	C-563
C-555	Surveying instruments, as follows: (a) Baseline equipment; (b) Geodetic theodolites (first order instruments); (c) Precise theodolites having an accuracy better than 4 sexagesimal seconds by direct reading; (d) Theodolites, tachometers and transits with a telescope magnification of X15 or higher and reading direct to 1 sexagesimal minute or better; (e) Precise levels for first-order work; (f) Surveyors' and engineers' telescopic levels having telescope magnification of X15 or higher and an object glass aperture 1.2 inches (30 mm) or larger.	C-570
C-556	Precision, scientific, and optical instruments, n.e.s., capable of being used in the development, production and testing of military equipment.	C-571
C-557	Cartographic instruments, as follows: (a) Map-making instruments for use with ground or air photographs; (b) Instruments for studying and interpreting air photographs.	C-562
C-558*	Warburg apparatus for the examination of living tissues	C-1596
C-559*	X-ray and electron diffraction equipment and accessories as follows: (a) X-ray diffraction units; (b) X-ray tubes designed or intended for use in X-ray diffraction analysis; (c) Powder cameras with heating element for temperatures of 500°C (932°F) or above; (d) Single crystal oscillating and rotating X-ray goniometers with X-ray film or plate holders; (e) Electron diffraction units and specialized components	C-1598

SECRET

INTERNATIONAL CHINA EMBARGO LIST

METALS, MINERALS, AND THEIR MANUFACTURES

<u>Item No.</u>	<u>Description</u>	<u>Source</u>
C-601*	Anti-friction bearings (ball, roller, needle) and parts	0-1601 0-2601 0-3601
C-602*	Iron and steel products, as follows: (a) Pig iron and ingot steel; (b) Scrap iron and steel; (c) Semi-finished and finished iron and steel, including alloy steel (ingots, castings, billets, pipes, tubes, plates, angles and girders); (d) Barbed wire; (e) Tinplate; (f) Iron powder and iron alloy powder, of grain sizes less than 30 microns (30 millionths of a meter) in diameter; (g) Galvanized steel cable, rope, strand or cord, of all types with or without a textile or fibre core, containing one or more strands composed of three or more threads or wires, provided that any one such thread or wire has a tensile strength (breaking strength) of 180 kg. per sq. mm. or more.	C-635 0-1603 N-1630 0-1631 0-1635 0-2610 0-1154 0-2630 3625 C-616 0-3610 0-3630 0-2430
C-603*	Munitions components and materials, as follows: (a) Brass and bronze fabrications for munitions anvils, fabrications for bullet cup (gilding metal clad steel), cartridge belt link, primer cap shell rotary band; (b) Brass rolled cartridge strip (with 68 to 72% copper); (c) Copper rotating bands for shells; and other copper munitions components; (d) Gilding metal clad steel; (e) Gun forgings and castings, rough and alloy rough (This includes, but is not limited to, those for artillery guns, machine guns, automatic guns, and small arms).	N-1615
C-604*	Condenser tubes (seamless cupronickel)	0-1250

SECRET

<u>Item No.</u>	<u>Description</u>	<u>Source</u>
C-605*	Cable, as follows: (a) Electric conducting cable, suitable for sweeping magnetic mines or for harbor defense; (b) Wire rope, strand and cord, made of phosphor bronze or stainless steel suitable for aircraft; (c) Single or multicore electric power cables insulated with paper and metal sheathed, with or without armour and/or serving, n.e.s. (d) Galvanized steel cable (See C602(g) above).	N-1430 C650
C-606*	Magnetic materials of all types and of whatever form, e.g., powder, strip, sheet, castings, and blocks, if possessing one or more of the following characteristics: (a) For sheet or strip, thickness of 0.003" (0.075 mm) and less; (b) Initial permeability 20,000 or over; (c) Remanance 85% of maximum flux or over; (d) Energy product 10^{-6} gauss es oersteds or over; (e) Core loss of 0.5 watts per second at B equals 13,000 gauss es and 50 cycles per second or less	N-1631 O-1631
C-607	Flexible metal tubing, n.e.s.	C610
C-608*	Aluminum and aluminum alloys, primary and secondary, as follows: (a) Crude forms; (b) Semifabricated forms; (c) Scrap; (d) Powder. (Note. Aluminum foil for wrapping purposes is excepted, provided that the foil is either: (a) Embossed, printed or lacquered in sheets or coils; or (b) Plain sheets - with or without paper backing - the largest dimension of which does not exceed 8" (20 cms)	O-1636 O-2635
C-609	Antimony, as follows: (a) Concentrates; (b) Metal; (c) Compounds (excluding medicinals)	3635
C-610*	Bismuth: metal and alloys	O-1641
C-611*	Cadmium	O-1645
C-612*	Calcium: metal	O-1646
C-613*	Cobalt, as follows: (a) Ores, residue, and concentrates including arsenical crystals; (b) Cobalt-bearing scrap; (c) Metal; (d) Compounds (including cobalt oxide, but excluding (i) paint driers; (ii) paint pigments containing less than 20% cobalt (Note: Paint driers, for this purpose, are regarded as being products, or preparations of	O-1648 O-3703

<u>Item No.</u>	<u>Description</u>	<u>Source</u>
C-613 (cont'd)	such products, containing combined cobalt with or without other metals, produced in any way by reaction with one or more of the following: linseed oil, linseed oil fatty acids, colophony, tall oil, naphthenic acids, 2-ethylhexanoric acid)	
C-614*	Columbium (niobium), as follows: (a) Ores and concentrates; (b) Scrap; (c) Metal and alloys (including ferrocolumbium and ferrocolumbium-tantalum.	N-1649
C-615*	Copper, as follows: (a) Copper ores, concentrates, regulus, and matters; (b) Copper and copper alloy scrap and old metal; (c) Copper and copper-base alloys in the form of anodes and cathodes, billets, blocks, blooms, cakes, ingots, ingot bars, pellets, pigs, shot, slabs, sticks, wire bars and wire rods, and other cast shapes; (d) Copper and copper-base alloy semifinished products, as follows: sheets, strips, plates, rods, pipe and tubing, wire (uncovered); (e) Copper and copper-base alloy finished products, as follows: (i) cable, uncovered; (ii) wire, single strand conductor) of a diameter of 0.35 mm or less, insulated.	O-1650
C-616*	Ferrochrome (low carbon) containing a maximum of 0.2% carbon	O-2640
C-617*	Ferrotorium; ferrouanium	O-1672
C-618*	Germanium and germanium compounds	O-1653
C-619*	Lead, as follows: (a) Ores, concentrates, bullion, and matte; (b) Scrap and old metal; (c) Metal, in the form of pigs, slabs, shot, bars, and other primary shapes; (d) Secondary lead in pig and slab form; (e) Semi-fabricated and other such forms (including but not limited to sheet, strip, plate, pipe and tubing).	O-2650 3650
C-620	Lithium	3651
C-621*	Magnesium and magnesium base alloys as follows: (a) Magnesium and magnesium base alloys (primary) in the form of billets, blocks, ingots, notched bars, powder, slabs, sticks, and crystals; (b) Scrap and old metal; (c) Magnesium and magnesium base alloys (secondary);	O-2655

<u>Item No.</u>	<u>Description</u>	<u>Source</u>
C-621* (Cont'd)	(d) Magnesium alloys in the following semi-fabricated forms; 1) Wrought or worked material fabricated by rolling, drawing, extruding, forging, impact extruding, pressing, graining, atomizing and powder metallurgy; 2) Cast material produced by casting in sand, die, metal or plaster molds.	
C-622*	Mercury and mercury compounds	N-1655 3655
C-623*	Molybdenum, as follows: (a) Ores and concentrates; (b) Scrap; (c) Metal (including wire), ferromolybdenum, and alloys (d) Compounds (e) Cemented or sintered carbides.	0-1658
C-624*	Nickel, as follows: (a) Ores, concentrates, and matte; (b) Nickel metal, and nickel base alloys (other than steel alloys) in the form of ingots, billets, bars, grains, rods, sheets, strips, shot, plates, circles, discs, dross, flue dust, foil, powdered in oil, ribbon, rings, tubes, and wire; (c) Anodes, cathodes, electrodes, and welding rods; (d) Catalysts and nickel oxide.	0-1661 N-1661
C-625*	Platinum products, as follows: (a) Gauzes manufactured from platinum or platinum alloys of 1024 mesh (squares) per sq. cm. or finer; (b) Wire of platinum, rhodium platinum, or iridium platinum of a thickness of 0.5 mm or less; (c) Thermocouples manufactured from platinum or platinum alloys; (d) Platinum tubing (including such tubing with braided cores, linings, or sheaths of other metals or substances.	0-1620 0-2610(b)
C-626	Potassium metal	3660
C-627*	Sodium (metallic)	0-1666

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<u>Item No.</u>	<u>Description</u>	<u>Source</u>
C-628*	Strontium, as follows: (a) Ores and concentrates; (b) Metal; (c) Compounds.	0-1667
C-629	Tin Note. Recognized as presenting special problems.	3665
C-630*	Tungsten, as follows: (a) Metal and alloys (including ferro-tungsten but not steel alloys) in all forms and shapes; (b) Compounds (including carbides).	0-1668 0-2667
C-631*	Tantalum, as follows: (a) Ores and concentrates; (b) Metal, and ferrotantalum; (c) Compounds; (d) Seamless pipe and tubing.	N-1670
C-632*	Titanium metal (including sponge) and titanium metal alloys, as follows: (a) In all unwrought forms; (b) In all semifabricated forms; (c) Scrap. (d) Ferrotitanium	N-1671 0-2666
C-633*	Vanadium, as follows: (a) Ores, concentrates, and flue dust; (b) Scrap; (c) Metal and vanadium base alloys (including ferrovanadium).	0-1675
C-634	Zinc: (a) pigs, slabs; (b) granulated; (c) die-casting alloys; (d) all other forms (except manufactures)	3670
C-635*	Zirconium, as follows: (a) Metal and alloys (including ferro-zirconium); (b) Compounds; (c) Seamless pipe and tubing.	0-1679

S E C R E T

<u>Item No.</u>	<u>Description</u>	<u>Source</u>
C-636*	<p>Abrasives, as follows:</p> <p>(a) Silicon carbide, crude;</p> <p>(b) Boron carbide;</p> <p>(c) Natural corundum (not including emery);</p> <p>(d) Fused aluminium oxide;</p> <p>(e) Grinding wheels and other articles made of silicon carbide;</p> <p>(f) Grinding wheels and other articles made of fused aluminium oxide;</p> <p>(g) Grinding wheels and other articles made of natural corundum (excluding grinding wheels made of emery);</p> <p>(Note: The following products are excluded from control under this item:</p> <p>(1) Silicon carbide abrasives as follows:</p> <p>(i) Sheets, cut strips, discs and belts with backing of kraft and/or rope paper, when the backing weighs 140 grams per square meter (0.25 lbs. per sq. yd.) or less and when the largest dimension does not exceed 32 cm (32.6 inches);</p> <p>(ii) Sheets, cut strips, discs and belts with textile backing, when the backing weighs 210 grams per square meter (0.4 lbs. per square yard) or less and when the largest dimension does not exceed 32 cm. (12.6 inches);</p> <p>(2) Abrasives of silicon carbide, natural corundum, or fused aluminium oxide, in paste form, when the abrasives are reclaimed or, if primary abrasives are used, when they constitute less than 50 per cent of the weight;</p> <p>(3) Sheets, cut strips, discs and belts coated entirely (except for filler) with reclaimed corundum or reclaimed fused aluminium oxide;</p> <p>(4) Dental abrasives, as follows:</p> <p>(i) unmounted wheels up to 1 inch (25.4 mm) in diameter where the arbor hole is less than 0.08 inches (2.03 mm);</p> <p>(ii) wheels up to 1 inch (25.4 mm) in diameter and points mounted on a mandrel less than 0.093 inches (2.36 mm) in diameter;</p> <p>(iii) metal strips less than 5/32 of an inch (3.97 mm) in width coated with abrasive grain;</p> <p>(iv) flexible metal discs up to 3/4 of an inch (19.05 mm) in diameter, coated on one side with abrasive grain.</p>	<p>0-1374</p> <p>0-2375</p> <p>0-3374</p>
C-637*	Titanium carbide	N-2671

S E C R E T

<u>Item No.</u>	<u>Description</u>	<u>Source</u>
C-638*	Diamonds, and items incorporating diamonds, as follows: (a) Diamonds suitable for industrial use, including splints and borts (Interpreted to include industrial diamonds, dust, and powder. Also interpreted to include rough diamonds suitable either for gem stones or industrial diamonds.) (b) Diamond grinding wheels, sticks, hones and laps.	N-1385 N-1387
C-639*	Asbestos, raw and manufactured, except the following: (a) asbestos cement products (b) filter asbestos (c) asbestos jointing and packing	0-1680 3680 C680 3910
C-640*	Graphite and carbon, as follows: (a) Graphite (artificial) and amorphous carbon (excluding charcoal), in forms (including scrap* whose largest dimension exceeds 25" (635 mm), or whose smallest dimension exceeds 2" (50 mm), or whose weight exceeds 6 lbs. (2.7 kg); (b) Powder (carbon only); (c) Crucibles, natural graphite; (d) Crucibles, artificial graphite; (e) Electrodes (artificial graphite), with cross-section 3/4" to 2" (19 to 50 mm).	0-1302 0-1390 0-3301 3385
C-641*	Mica (strategic grades), as follows: block (good stained or better), film and muscovite splittings, and phlogopite splittings which conform to the American Society of Testing Materials standards or to India-Calcutta standards.	0-1691
C-642*	Quartz crystals and plates	0-1587
C-642	Steatite (talc) as follows: (a) Machinable grade, block or lump, containing not over 1.5% iron (Fe) in the form of iron oxide and not over 0.5% CaO (lime); (b) Non-machinable grade or in ground form, containing not over 1.5% iron (Fe) in the form of iron oxide and not over 0.5% CaO (lime).	3690
C-643	Sulfur bearing pyrites (i.e. iron pyrites and copper pyrites)	3663

S E C R E T

International China Embargo List

Chemical and Petroleum Products

<u>Item No.</u>	<u>Description</u>	<u>Source</u>
C-701*	Detonators: (a) mercury fulminate, lead azide, lead styphnate and lead thiocyanate; and detonating or priming compositions (mixtures containing one or more of these chemicals; (b) sodium azide.	N-1701
C-702*	Stabilizers for explosives, as follows: (a) ethyl and methyl centralites (b) diphenylamine (c) N, N-diphenylurea (unsymmetrical diphenylurea) (d) methyl-N, N-diphenylurea (methyl unsymmetrical diphenylurea) (e) ethyl - N, N-diphenylurea (ethyl unsymmetrical diphenylurea) (f) ethyl phenyl urethane (g) diphenyl urethane (h) diortho - tolyl - urethane (i) 2-nitro-diphenylamine	N-1703
C-703*	Dynamite	0-2742
C-704	Explosives, n.e.s.	3701
C-705*	Cellulose nitrate containing 12.3% or less nitrogen	0-2719; 3719
C-706	Alpha cellulose, purified, containing not less than 88% alpha cellulose	3717
C-707*	Ethyl cellulose	0-1717
C-708*	Polyethylene	0-1750
C-709*	Polytetrafluoroethylene	0-1751
C-710*	Trifluorochloroethylene (polymerized or not)	0-1764
C-711*	Styrene (monomer); dichlorostyrene (monomer); polydichlorostyrene and its molding powders, sheets, rods, and tubes	0-1758
C-712*	Methyl methacrylate, as follows: (a) resins, molding powders, sheets, rods, and tubes; (b) monomer, with or without the addition of stabilizers, packed in bulk containers of 10 gallons or more; and resins in the form of scrap.	0-2737 3737

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Chemical and Petroleum Products

<u>Item No.</u>	<u>Description</u>	<u>Source</u>
C-713	Vinyl and vinylidene resins, molding powders, sheets, rods, and tubes	3766
C-714*	Polyisobutylene	0-2754
C-715	Formaldehyde (in solution or polymerized)	3730
C-716*	Dinitrotoluenes	N-1720
C-717*	Monochlorobenzene	0-1739
C-718*	Picric acid (trinitrophenol)	N-1748
C-719*	N, N-dimethylaniline	0-2725
C-720*	Hydroquinone	0-2731
C-721*	Phenol	0-2751
C-722*	Toluene	N-2764
C-723	Aniline	3712
C-724	Benzene or benzole	3714
C-725	2:4-dinitrophenol	3725
C-726	p-Aminophenol and salts	3746
C-727	p-phenylenediamine	3747
C-728	Mononitrobenzene	3748
C-729	Cresylic acid including para-, meta-, and ortho-cresol and xyleneol	C-750
C-730	Phthalic anhydride; and phthalic esters (except alkyd resins)	3754
C-731*	1:2-dibromoethane (ethylene dibromide)	0-1719

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Chemical and Petroleum Products

<u>Item No.</u>	<u>Description</u>	<u>Source</u>
C-732*	Fluorinated hydrocarbons as follows:	0-1721
	(a) Trichloromonofluoromethane (F-11)	0-2721
	(b) Monochlorotrifluoromethane	3720
	(c) Dichloromonofluoromethane	
	(d) Monochlorodifluoromethane	
	(e) Trichlorotrifluoroethane	
	(f) Dichlorotetrafluoroethane	
	(g) Trichlorodifluoroethane	
	(h) Monobromotrifluoromethane (F-13-B-1)	
	(i) Dichlorodifluoromethane (F-12)	
	(j) Monochlorodifluoroethane	
	(k) Tetrachlorodifluoroethane	
	(l) Difluoroethane	
	(m) Tetrafluoromethane	
	(n) Dibromodifluoromethane (F-12-B-2)	
	(o) Monobromomonochlorodifluoromethane	
	(p) Dibromomonochlorotrifluoroethane	
	(q) Dibromotetrafluoroethane	
	(r) Monochloropentafluoroethane	
	(s) Octafluorocyclobutane	
C-733*	Furfural; furfural alcohol; tetrahydrofurfural alcohol	0-1725
C-734*	Glycols and their derivatives, as follows:	0-1727;
	(a) Ethylene glycol (ethanediol-1,2), propylene glycol (propanediol-1,2), and diethylene glycol (di-2-hydroxyethyl ether); and mixtures consisting mainly of one or more of these compounds;	0-2727
	(b) Thiodiglycol, and mixtures consisting mainly thereof;	
	(c) Diethylene glycol dinitrate, and mixtures consisting mainly thereof	
	(d) Polypropylene glycol.	
C-735*	Hexamethylenetetramine	N-1729
C-736*	Methyl isobutylketone	0-1737
C-737*	Nitroguanidine	N-1741
C-738*	Guanidine nitrate	N-1742
C-739*	Pentaerythritol; pentaerythritol tetranitrates	N-1744
C-740	Acetic anhydride	3709
C-741	Acetic acid (over 80%)	3710

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Chemical and Petroleum Products

<u>Item No.</u>	<u>Description</u>	<u>Source</u>
C-742	Acetone	3711
C-743	Glycerine	3733
C-744	Isopropyl alcohol	3739
C-745	Methanol	3745
C-746	Tricresyl phosphate	3758
C-747*	Rubber compounding agents, as follows: (a) antioxidants (b) nonmineral accelerators (Note: See Interpretative Note No. 2)	0-1704
C-748*	Aluminum chloride (anhydrous)	0-1710
C-749*	Barium nitrate; barium chromate	0-1713
C-750	Boric acid and borates (crude or refined)	3715
C-751*	Bismuth compounds, including but not limited to those used in medical compounds (Note: This does not include medical preparations themselves which are mixtures containing other substances of therapeutic value. See Illustrative Footnote No. 3)	0-2715
C-752*	Carbon black	0-1716
C-753	Calcium carbide	3718
C-754	Chlorates and preparations consisting mainly thereof	3721
C-755	Chromium compounds, as follows: (a) sodium dichromate and chromate; (b) potassium dichromate and chromate; (c) chromic acid; (d) chrome oxide green; (e) zinc chromate.	3722
C-756*	Hydrazine; hydrazine hydrate; hydrazine salts	N-1731
C-757*	Hydrogen peroxide (50% strength and over)	N-1732
C-758*	Nitric acid; ammonium nitrate; potassium nitrate.	0-2741
C-759	Perchloric acid and its salts	3751
C-760*	Permanganates: calcium and potassium	0-1745

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Chemical and Petroleum Products

<u>Item No.</u>	<u>Description</u>	<u>Source</u>
C-761	Persulfates: sodium, potassium, and ammonium	3749
C-762*	Phosphoric acid catalyst (Victor)	0-1747
C-763*	Potassium tetroxide	0-1752
C-764*	Phosphorous (including red)	0-2752
C-765*	Sodium cyanide (chemical grades)	0-2757
C-766*	Sulphur, as follows: (a) Crude, crushed, ground, refined, sublimed, and flowers (from whatever source); (b) Dusts, spray concentrates and other preparations containing 85% or more sulphur, such as but not limited to conditioned sulphur and wetttable sulphur.	0-2761 3761
C-767*	Sulphuric acid, 93% H ₂ SO ₄ and stronger, including oleum (fuming sulphuric acid)	0-2762
C-768*	Thallium bromiodide	0-1760
C-769*	Titanium tetrachloride	0-1761
C-770*	Vanadium compounds	0-1766 3763
C-771*	Flotation reagents, synthetic organic, as follows: (a) sodium and/or potassium alkyl xanthates; (b) acetates of dodecylamine and its higher homologues and mixtures thereof; (c) acetates of amines derived from natural fatty acids, whether hydrogenated or not; (d) dialkyl or diaryl dithiophosphoric acids; and their sodium, potassium and ammonium salts; (e) quaternary trimethylammonium chloride from amines prepared from soya bean fatty acids	0-2701
C-772*	Silicon (e) organic compounds of the following kinds: (a) silicon (e) high vacuum grease; (b) silicon (e) stopcock grease, high vacuum or regular; (c) silicone rubber; (d) silicon (e) oils; (e) siloxanes.	0-1755 N-1755 N-3755
C-773	Ships' bottom compositions: anti-corrosive and anti-fouling	3702

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Chemical and Petroleum Products

<u>Item No.</u>	<u>Description</u>	<u>Source</u>
C-774	Metallo-organic artificial colouring matters of cobalt, molybdenum, or tungsten containing less than 20% of any of these metals	3703
C-775*	Hydraulic fluids and oils, as follows: (a) Synthetic (b) Petroleum base (c) Castor oil base	0-1702 0-1793 3705
C-776*	Crude petroleum	0-1770
C-777*	Distillate fuel oils, including diesel oil	0-1771 N-3769
C-778*	Fuel oil	0-1772
C-779*	Gasoline (motor and aviation)	N-1773
C-780*	Kerosene	N-1774
C-781*	Reference fuels, referee fuels, and calibrating fuels	N-1775
C-782*	Lubricating oils and greases, petroleum based and synthetic (ester type)	N-1780 N-1781
C-783*	Additives for lubricating oils and greases and for diesel fuels	N-1786
C-784*	Liquid gum inhibitors	0-1787
C-785*	Tetraethyl lead; tetraethyl lead fluid; and any mixture containing more than 3 cc of tetraethyl lead per gallon (0.66 cc per litre)	0-1788
C-786*	High octane blending agents for aircraft fuels, as follows: (a) alkylates (b) codimer (c) cumenes and substitutes (d) diisobutylene (e) diisopropyl (2, 3 dimethylbutane) (f) hydrocodimers (g) hydropolymers (h) isooctanes (i) isohexanes (j) isohexanes (k) isopentanes (l) neohexanes	N-1789

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Chemical and Petroleum Products

<u>Item No.</u>	<u>Description</u>	<u>Source</u>
C-786* (cont'd)	(m) neopentane (n) triptanes (o) monomethylaniline (p) isopropylether (q) ethyl benzene	
C-787*	Ignition quality (cetane number) improvers for diesel fuels	N-1790
C-788*	Coke, and coke flour, derived from: (a) petroleum or (b) coal tar pitch	O-1796
C-789*	Paraffin wax; petroleum jelly	C-790
C-790	Naphtha mineral spirits and solvents (including coal tar naphtha)	C-3770
C-791	Petroleum asphalt	C-3771

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Rubber and Rubber Products

<u>Item No.</u>	<u>Description</u>	<u>Source</u>
C-801*	Synthetic rubbers, as follows: (a) Neoprene (b) N type (Nitrile) (c) Butyl	O-1801
C-802*	Materbatch (i.e., unvulcanized compounds or mixtures of natural and/or synthetic rubbers with carbon black and/or other rubber compounding agents)	O-1802
C-803*	Tires and tubes (except those for scooters and pedal cycles)	C-820; N-1820; O-1820; O-2820; 3820; O-1821 O-2821
C-804*	Water-lubricated bearings	O-1840
C-805	Natural rubber, including latex (Note. Recognized as presenting special problems.)	O-3801
C-806	Rubber hose and tubing made from neoprene and N-type rubbers only with 1/2 inch (13 mm) diameter and over	O-3840
C-807	Rubber solution	C-801
C-808	Rubber scrap	C-840

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Miscellaneous Items

<u>Item No.</u>	<u>Description</u>	<u>Source</u>
C-901	Abaca and sisal: fibres and cordage (yarn, twine, cord, rope)	0-3901
C-902*	Heavy water, heavy paraffin and other compounds of or derived from deuterium	0-1931
C-903*	Nylon products, as follows: (a) nylon parachute cloth (b) nylon rope	N-1930; 0-3930
C-904*	Paper or synthetic film for dielectric use (condenser tissue), coated or uncoated, 0.0015" (.034 mm) or less in thickness	0-1920
C-905	Photo-plan printing machines, non-optical	C-910
C-906*	Raw optical glass in the mass (tinted or untinted) in blocks, plates (slabs), pressings and moulds	0-1910; 0-2910 0-3909
C-907*	Metecrological sounding balloons, 1100 grams or larger	0-1577
C-908	Photographic equipment, as follows: High speed cinematograph cameras, capable of recording at rates in excess of 250 frames per second.	0-1585
C-909	Telescopes and binoculars (except opera glasses having no prisms and magnification less than $\times 3\frac{1}{2}$).	C-561

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INTERPRETATIVE FOOTNOTE NO. 1

As used in various chemical equipment items on the List,
the term "corrosion-resistant materials" means:

- (1) Metals or alloys containing any of the following:
 - (a) 10% or more chromium and/or nickel and/or silicon;
 - (b) 75% or more copper;
 - (c) 85% or more aluminum; or
 - (d) 90% or more zinc, tin, cadmium, indium, lead silver, titanium, molybdenum, tantalum or zirconium, either separately or combined.
- (2) Glass; ceramics; carbon; graphite; or other non-metallic materials of mineral origin.
- (3) Rubber (natural or synthetic); plastics; or synthetic resins.
- (4) Any other newly developed corrosion-resistant materials.

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INTERNATIONAL CHINA EMBARGO LIST

INTERPRETATIVE FOOTNOTE No. 2 - RUBBER-COMPOUNDING AGENTS (Refers to item C747)

I. Accelerators

A. Aldehyde-amines:

1. Acetaldehyde-aniline
2. Butyraldehyde-N-butyraldehyde ammonia
3. n-Butyraldehyde-aniline
4. a-Ethyl-B-propyl acryl aniline
5. Formaldehyde-aniline (Methylene-aniline)
6. Formaldehyde-p-toluidine (Methylene-p-toluidine)
7. Heptaldehyde-aniline
8. Triethyltrimethylenetriamine

B. Dithiocarbamates:

1. Carbon disulfide-methylenedipiperidine
2. Dibenzyl dithiocarbamic acid, zinc salt
3. Dimethyl ethylenediphenyl dithiocarbamic acid, lead salt
4. 2,4-Dinitrophenyl dimethyl dithiocarbamate
5. Diphenylguanidine salt of dibutyl dithiocarbamic acid
6. Modified dithiocarbamate
7. Piperidinium pentamethylene dithiocarbamate
8. Piperidinium pentamethylene dithiocarbamic acid, potassium salt
9. Amyl ammonium dimethyl dithiocarbamic acid, zinc salt
10. Dibutyl dithiocarbamic acid, sodium salt
11. Dibutyl dithiocarbamic acid, zinc salt
12. Diethyl dithiocarbamic acid, copper salt
13. Diethyl dithiocarbamic acid, selenium salt
14. Diethyl dithiocarbamic acid, tellurium salt
15. Diethyl dithiocarbamic acid, zinc salt
16. Dimethyl dithiocarbamic acid, copper salt
17. Dimethyl dithiocarbamic acid, lead salt
18. Ethylene bis-(B-cyano ethyl dithiocarbamic acid, zinc salt)

C. Guanidines:

1. Diphenylguanidine
2. Diphenylguanidine acetate
3. Diphenylguanidine phthalate
4. Di-o-tolylguanidine
5. Triphenylguanidine

D. Thiazole derivatives:

1. Alkyl mercaptothiazole
2. 2-(Benzoylthio) benzothiazole
3. Bis-N,N'-(2-benzothiazylthio-methyl) urea
4. N-Cyclohexyl-2-benzothiazole sulfonamide
5. 2-(2',4'-Dinitrophenylthio) benzothiazole
6. Disulfide alkylated 2-mercaptothiazole
7. 2,2'-Dithiobisbenzothiazole (2,2'-Benzothiazyl disulfide)
8. N-Isopropyl-2-benzothiazole sulfonamide
9. 2-Mercaptobenzothiazole
10. 2-Mercaptobenzothiazole, copper salt
11. 2-Mercaptobenzothiazole, sodium salt
12. 2-Mercaptobenzothiazole, zinc salt
13. 2-Mercaptobenzothiazole-formaldehyde-cresylic acid-hexamethylenetetramine
14. 2-Mercaptobenzothiazole-methylene-aniline
15. 2-Mercaptothiazoline

E. Thiurams:

1. Di-N pentamethylene thiuram tetrasulfide
2. Mixed methyl ethyl thiuram disulfide
3. Tetrabutyl thiuram monosulfide
4. Tetraethyl thiuram disulfide
5. Tetramethyl thiuram disulfide
6. Tetramethyl thiuram monosulfide
7. Tetramethyl thiuram tetrasulfide

F. Xanthates:

1. Di-N-butyl xanthodisulfide
2. Di-isopropyl xanthodisulfide
3. Sodium isopropyl xanthate
4. Zinc butyl xanthate

INTERPRETATIVE FOOTNOTE NO. 2 (continued)

I. Accelerators - Continued:

1. Dibenzylamine
2. p-quinone dioxime dibenzoate
3. Diethylthiourea

II. Antioxidants

A. Aldehyde- and acetone-amines:

1. Acetaldehyde-aniline-hydrochloride
2. p-Aminodiphenyl-acetone
3. Aniline-acetone, acid derivatives
4. Butyraldehyde-aniline
5. Crotonilidide-a-naphthylamine
6. Diphenylamine-acetone
7. Phenyl-B-naphthylamine-acetone

B. Amino or hydroxy compounds:

1. Alkylated diphenylamine
2. p-tert-Butyl-m-cresol sulfide
3. 2,4-Diaminodiphenylamine
4. p-p'-Diaminodiphenylmethane
5. 2,5-Di-tert-amylhydroquinone
6. B-Di-p-hydroxyphenylpropane
7. 2,5-Di-tert-butylhydroquinone
8. Di-isobutyl cresol
9. p,p'-Dimethoxydiphenylamine
10. N,N'-Di-B-naphthol-p-phenylenediamine
11. N,N'-Diphenylethylenediamine
12. N,N'-Diphenyl-p-phenylenediamine
13. N,N'-Diphenylpropylenediamine
14. Di-o-tolyethylenediamine
15. Hydroquinone monobenzyl ether
16. p-Hydroxydiphenylamine
17. p-Hydroxy-N-phenylmorpholine
18. p-isopropoxydiphenylamine
19. Phenyl-a-naphthylamine
20. Phenyl-B-naphthylamine
21. p-(p-Toluenesulfonamino) diphenylamine
22. o-Tolyl-B-naphthylamine

C. Guanidines:

1. Dicatechol borate, di-o-tolyguanidine salt

D. Miscellaneous:

1. Dicresyl disulfide
2. Dicresyl monosulfide
3. Diphenylnitrosamine
4. 2,2,4-Trimethyldihydroquinoline
5. Triphenyl phosphite
6. Methyl ethyl ketoxime

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INTERPRETATIVE FOOTNOTE NO. 3 (Refers to item C-751)

MEDICINAL BISMUTH COMPOUNDS

Bismuth-amonium citrate	bismuth-iodate
bisalicylate	lactate
bitannate	nitrate
bromide	oleate
cerium oxalate	albuminate (bismuthose)
cerium salicylate	oxybromide
cerium valerate	oxychloride
citrate	oxyiodide
dithiosalicylate	oxyiodogallate
formic-iodide	nucleinate
bismuth-permanganate	bismuth-sodium tartrate
phenate	subbenzoate
phenolsulfonate	subcarbonate
phosphate	subgallate
potassium iodide	subsalicylate
pyrogallate	sulfate
sodium iodide	tribromophenate
sodium pyrophosphate	trioxide
sodium salicylate	valeriate

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APPENDIX

to

INTERNATIONAL CHINA EMBARGO LIST

- Appendix 0 - Metalworking Machinery
- Appendix 1 - Chemical and Petroleum Equipment
- Appendix 2 - Electrical and Power-Generating Equipment
- Appendix 3 - General Industrial Equipment
- Appendix 4 - Transportation Equipment
- Appendix 5 - Electronics and Precision Instruments
- Appendix 6 - Metals, Minerals, and their Manufactures
- Appendix 7 - Chemical and Petroleum Products
- Appendix 8 - Rubber and Rubber Products
- Appendix 9 - Miscellaneous

(The Appendices describe the parts of the International China Embargo List which are subject to COCOM Doc 471 (Revised) exceptions procedure. In other words, the Appendices cover all items for which the source is either COCOM Doc 700.1 or 700.2 as amended, or COCOM Doc 1700.1 or 1700.2, as amended.)

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Appendix O

Metalworking Machinery Subject to CoCom Document 471 (Revised (Exceptions Procedure))

<u>Item No.</u>	<u>Description</u>	<u>Source</u>
CO01.1	Axle lathes	0-1035
CO01.2	Hollow spindle (oil country type) lathes	0-1037
CO01.3	Relieving lathes: machines specially designed for the "backing off" of rotary cutters to provide clearance behind the cutting edge	0-1038
CO01.4	Turret lathes, of bar capacity of 3" (7.5 cms) and over or swing-over-bed of 18" (46 cms) or over	0-1040
CO01.5	Automatic lathes (screw machines) of the following kinds: (a) Multiple-spindle, bar or chucking (b) Single-spindle, chucking and/or between center	0-1041
CO01.6	Surfacing and boring lathes, 10" (25 cms) center height and over, including "T" lathes	N-1042 0-1042
CO01.7	Combination boring and turning lathes	N-1043
CO01.8	Combination lathe, drilling, and milling machines, specially designed for mobile military workshops or for naval craft	N-1044
CO01.9	Spinning lathes, except those with spindle drive motor of 10 HP or less	N-1075
CO01.10	Engine and center lathes, as follows: (a) Over 16" (400 mm) center height, or over 6' (1,830 mm) between centers; (b) Over 10" (250 mm) up to and including 16" (400 mm) center height, and not exceeding 6' (1,830 mm) between centers	0-2035
CO01.11	Automatic lathes, single-spindle bar type only	0-2036
CO01.12	Crankshaft and camshaft lathes	0-1036
CO01.13	External cylindrical grinding machines, centerless (whether or not automatic sizing)	0-1015
CO01.14	Internal cylindrical grinding machines, as follows: (a) Fully automatic as follows: (i) Automatic sizing; or (ii) Centerless; and (b) Mechanical and hydraulic feed, production types, as follows: (i) automatic feed (ii) automatic sizing (iii) centerless	0-1016 0-2015
CO01.15	Surface grinding machines, multiple spindle (automatic and non-automatic) and single spindle (automatic)	0-1017 0-2017

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Appendix O

Metalworking Machinery Subject to CoCom Document 471 (Revised)
Exceptions Procedure

<u>Item No.</u>	<u>Description</u>	<u>Source</u>
COOL.16	Crankshaft, crankpin, cam, and camshaft grinders, and combined crankshaft and crankpin grinders	O-1018 O-2019
COOL.17	Contour profile grinders	N-1019
COOL.18	Gap gauge grinding machines	O-1020
COOL.19	Jig grinders	N-1021
COOL.20	Lap radial grinders (automatic oscillating types) i.e., machines for grinding concave or convex surfaces such as those in ball bearing races	N-1022
COOL.21	Roll grinding machines (machines fitted with, or capable of being fitted with, cambering device only)	N-1023
COOL.22	Spline grinders	O-1024
COOL.23	Thread grinding machines	N-1025
COOL.24	Grinders for broaching tools	O-1027
COOL.25	Equipment designed for removing surplus stock from work-pieces of metal or other materials: (a) by the discharge of electric sparks from a shaped electrode; (b) by applying ultrasonic vibrations; (c) by electrolytic means in combination with abrasive action	N-1084
COOL.26	Honing and/or lapping machines (except gear)	O-1089
COOL.27	Shaving machines	O-1091
COOL.28	Combined internal and external grinding machines, including cylindrical and irregular contour grinders	O-1026 O-2016
COOL.29	Vertical boring and turning mills as follows: (a) All types with table diameter 72" (183 cms) or over; (b) Automatic types (automatic feed)	N-1001 N-2001
COOL.30	Jig-boring machines	N-1002

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Appendix O

Metalworking Machinery Subject to CoCom Document 471 (Revised)
Exceptions Procedure

<u>Item No.</u>	<u>Description</u>	<u>Source</u>
CO01.31	Horizontal combination boring, drilling, and milling machines, as follows: (a) Rotary table type; (b) Floor type; (c) Planer type; (d) Multiple head type	N-2003 0-1003
CO01.32	Deep hole drilling machines; and deep hole drills	0-1006
CO01.33	Multiple-spindle drilling and/or tapping machines having a cluster of a number of spindles driven from one or more power units, as follows: (a) All automatic and non-automatic types with clusters of 7 or more spindles; (b) Automatic horizontal and automatic combination horizontal vertical types with clusters of less than 7 spindles	0-1007
CO01.34	Unit-head type drilling machines, as follows: (a) Single-spindle (b) Fixed center multiple-spindle	0-1008
CO01.35	Vertical inverted spindle drilling machines	0-1009
CO01.36	High precision (fine) boring machines, production types only, capable of an accuracy of .015 mm (.0005") or better	N-2002
CO01.37	Multiple spindle drilling and/or tapping machines consisting of a cluster of less than 7 spindles driven from one or more power units, as follows: (a) Horizontal and combination horizontal-vertical, non-automatic (b) Vertical, automatic	0-2006
CO01.38	Radial drilling machines, plain or traversing type, as follows: (a) With a column diameter of 13" (33 cms) or over and an arm of 4' (122 cms) or over (b) With flat guideways and with an arm of 4' (122 cms) or over, provided that performance characteristics are comparable to the minimum performance characteristics of the machines in (a) above	0-2007

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Appendix O

Metalworking Machinery Subject to CoCom Document 471 (Revised)
Exceptions Procedure

<u>Item No.</u>	<u>Description</u>	<u>Source</u>
CO01.39	Planing and milling machines and combination planing and milling machines, as follows:	
	(a) Combination miller and planer with double housing and/or open side, 48" (122 cms) width of the table and over;	0-1052 0-2051
	(b) Milling machines, planer type, incorporating one or more vertical spindles, or vertical and horizontal spindles, or capable of incorporating vertical spindles;	0-2052
	(c) Planing machines with tables which travel over 6' (183 cms)	
CO01.40	Automatic milling machines (cycle type)	0-2050
CO01.41	Armor plate planers	N-1053
CO01.42	Thread milling machines, 6" (15 cms) work diameter at the thread and over	N-1050
CO01.43	Spar millers	N-1051
CO01.44	Automatic or semi-automatic cam-operated thread cutting machines, single or multiple spindle	0-1060
CO01.45	Thread rolling machines (except those capable of thread rolling on sheet metal only)	0-1074
CO01.46	Pipe threading machines:	0-1061
	(a) Combination threading and cut-off, 8" (20 cms) and over diameter	
	(b) Nipple threading machines, 8" (20 cms) and over diameter	
CO01.47	Broaching machines	0-1087
CO01.48	Gear-making machinery: All machinery designed for the manufacture and/or finishing of machine-cut gears (This does not include machines for casting, molding, stamping, or forging, but does include machines for the precision finishing and testing of these gears).	0-1088

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Appendix O

Metalworking Machinery Subject to CoCom Document 471 (Revised)
Exceptions Procedure

<u>Item No.</u>	<u>Description</u>	<u>Source</u>
COOL.49	Profiling and duplicating machinery, as follows: (a) Die-sinking machines (b) Profiling machines for marine and aircraft propeller blades (planing, shaping, milling or grinding) (c) Profiling and duplicating milling machines (except propeller types covered by paragraph b) (d) Profiling machines, n.e.s. (e) Attachments to center lathes, capstan lathes, milling machines and vertical borers, which make them capable of carrying out profiling and duplicating	0-1090
COOL.50	Shapers of the following types (a) Hydraulic vertical shapers (i.e., hydraulic slotters) (b) Mechanical vertical shapers (i.e., mechanical slotters) (c) Horizontal draw-cut shapers, hydraulic or mechanical, with a stroke of 10" (25 cm) or more.	0-2060
COOL.51	Contour band sawing and filing machines	0-2085
COOL.52	Forging hammers, as follows: (a) Forging hammers, all sizes (b) Steam, air or mechanical hammers, all sizes	0-1070 0-2070
COOL.53	Forging machines, as follows: (a) Forging machines capable of operating on bar stock of a diameter exceeding 3.5" (8.9 cms) or of equivalent cross-section (b) Heading and/or upsetting machinery (horizontal) (c) Nut forging machinery (d) Forging rolls (e) Swaging machinery	0-1071
COOL.54	Presses, mechanical or hydraulic, with a rated pressure of 500 tons or over	0-1072 0-2072
COOL.55	Military-type jigs, fixtures and plate metal working accessories (except machines)	N-1065

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Appendix O

Metalworking Machinery Subject to CoCom Document 471 (Revised)
Exceptions Procedure

<u>Item No.</u>	<u>Description</u>	<u>Source</u>
COOL.56	Machines and equipment specially designed for making or measuring gas turbine blades, including but not limited to the following: (a) blade belt grinding machines (b) blade edge radiusing machines (c) blade polishing machines (d) blade aerofoil milling and/or grinding machines (e) blade fillet radiusing and/or platform forming machines or equipment (f) blade root milling machines (g) blade blank preforming machines (h) blade rolling machines (i) blade aerofoil shaping machines (j) blade root grinding machines (k) blade aerofoil scribing equipment (l) blade aerofoil and/or root automatic measuring equipment	N-1080
COOL.57	Special machinery for the working or forming of aircraft sheet, plate or extrusion	N-1081
COOL.58	All machines and equipment specially designed for manufacturing armaments (i.e., arms, ammunition, and implements of war), including: (a) shell lathes (b) cartridge case lathes (c) bomb spinning lathes (d) shell banding presses (e) bomb nose and tail forging machines (f) shell tapping machines (g) armour plate drilling machines (h) artillery casting machines (i) bomb nose and tail boring machines (j) gun jump screw lathes (k) rifle working machines (l) shell nosing presses (m) shell loading or filling machines (n) shell forming presses (o) cartridge case presses (p) tank turret bearing grinding machines (q) aircraft skin milling machines (r) gun boring, turning, and rifling machines (s) gun barrel straightening presses (t) armour plate quenching presses (u) Jet engine compressor case boring machines (v) Jet engine compressor and turbine disc turning machines (w) Jet engine rotor grinders (x) shell and shell case extrusion and draw presses	N-1086

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Appendix O

Metalworking Machinery Subject to CoCom Document 471 (Revised)
Exceptions Procedure

<u>Item No.</u>	<u>Description</u>	<u>Source</u>
COOL.58 (con't)	(y) gun barrel rifling and broaching machines; and broaching tools (z) gun barrel trepanning lathes	
COOL.59	Wire, tubing, and strip machinery, as follows: (a) Machinery for drawing and/or tempering wire .015" (.381 cms) in diameter or less or tubing .026" (.660 cms) in diameter or less (b) Wire and strip forming machines, horizontal, multiple-slide	0-1072 N-1073
COOL.60	Balancing machines (dynamic) of the following types: (a) Machines for locating and correcting unbalance (b) Machines for automatically locating and measuring the amount of unbalance	0-1085
COOL.61	Pipe and tube flanging machines, power driven	0-2071
COOL.62	Portable machine tools, over 2 metric tons in weight, so designed that they must be attached to the work to be operated	0-2086
COOL.63	Metal cutting and working tools (not incorporating diamonds) for machine operations: (a) Broaching cutting (b) Carbide and carbide tipped, including tungsten carbide inserts (tips) (c) Gear cutting (d) Forming roll sets (e) Lapping, honing	0-2066
COOL.64	All tools, including dies and slugs, incorporating diamonds	0-1386

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Appendix 1

Chemical and Petroleum Equipment Subject to CoCom Document 471 (Revised)
 Exceptions Procedure

<u>Item No.</u>	<u>Description</u>	<u>Source</u>
C-101	Entire item	O-1101
C-102	Entire item	O-1102
C-103	Entire item	O-1103
C-104	Centrifugal counter-current solvent extractors	N-1106
C-105	Entire item	O-1107
C-106	Entire item	O-1109
C-107	Entire item	O-1110
C-108	Entire item	O-1140
C-109	Entire item	O-1112
C-110	Entire item	O-1113
C-111	Entire item	O-1116
C-112	Entire item	O-1118
C-113	Entire item	N-1118
C-114	Entire item	O-1120
C-115	Entire item	O-1123
C-116	Entire item	O-1124
C-117	Entire item	N-1125
C-118.1	Stainless steel tanks with capacity of 2,000 imperial gallons (2,400 US gallons or 9,100 liters) or over; and piping and allied fixtures for such tanks	O-1141

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Appendix 1

Chemical and Petroleum Equipment Subject to CoCom Document 471 (Revised)
Exceptions Procedure

<u>Item No.</u>	<u>Description</u>	<u>Source</u>
C-118.2	Corrosion-resistant equipment, as follows: (a) Chemical process vessels (with or without stirring gear and with or without jackets) made of or lined with, any corrosion-resistant material; (b) Pipe and tubing made of, or lined with, any corrosion-resistant material.	0-2141
C-119	Entire item	0-2142
C-120	Distillation equipment (industrial), as follows: (a) Fractionating, rectifying, and dephlegmating columns; and parts therefore (b) Destructive distillation equipment, and parts; (c) Stills designed to operate at absolute pressure of 5 mm and lower of mercury; and parts therefor	0-2101
C-126	Entire item	0-1150 0-1845
C-127	Entire item	0-1152
C-128.1	Oil refining equipment; the following units for refining lubricating oils (and complete plants including any of these units): (a) Solvent processing units (including phenol, duosol, furfural, and nitrobenzene solvent extraction and propane de-asphalting units); (b) Dewaxing units (including centrifugal and solvent de-waxing units, such as methyl-ethyl-ketone and propane units); (c) Filtration units (including percolation filtration, contact filtration, and filtrol fractionation units); (d) Fractionating, rectifying, and dephlegmating columns, and parts therefor.	0-1151
C-128.2	Fuel-production equipment, as follows: (a) Processing units of types suitable for the production of components of aviation fuels for reciprocating engines (includes alkylation, thermal, and catalytic cracking units; isomerization, hydroforming, aromatization, dehydrogenation, hydrogenation, polymerization, poly-forming, and platforming units) (b) Complete plants including any of these units	0-1153
C-128.3	Heater return bends for petroleum refineries	0-1155

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Appendix 2

Electrical and Power Generating Equipment Subject to CoCom
Document 471 (Revised) Exceptions Procedure

<u>Item No.</u>	<u>Description</u>	<u>Source</u>
C-201	Electric furnaces and electrical component parts thereof, as follows: (a) Induction melting furnaces, including generating equipment of 480 cycles and above, with generator capacity over 40 KW. (b) Direct or indirect arc furnaces (c) Submerged arc furnaces, and direct resistance furnaces (d) Induction heat-treating furnaces, including generating equipment of 480 cycles and above (e) Heating elements (resistors) for resistor furnaces.	0-1201; 0-2201
C-202.1	Electrodes for underwater cutting (covered tubular steel or ceramic types)	0-1202
C-202.2	Welding sets for ferrous and nonferrous metals, electrical (<u>including</u> high frequency), all types	0-2210
C-203	Entire item	N-1210
C-204.1	Internal combustion engines, carburetor type, marine, as follows: (a) Outboard engines over 50 hp; (b) Inboard engines over 100 hp.	0-1265; 0-2255
C-204.2	Diesel engines, all types, over 50 h.p. and especially designed parts for diesel engines over 500 h.p.	0-1255; 0-1256 0-2250; 0-2251
C-205	Rotating electrical machinery and prime movers, as follows: (a) Rotating electrical machinery, including AC and DC generators, synchronous (rotary) converters, phase converters, synchronous condensers, and motor generator sets (including frequency changers) of 500 h.p. or 375 KVA (at unity power factor) and over; and specially designed parts; (b) Prime movers for generators, including steam turbines, hydraulic turbines and diesel engines, of 500 h.p. and over; and specially designed parts. (This covers prime movers for generators, whether accompanying or shipped separately from the generators.)	0-2265

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Appendix 2

Electrical and Power Generating Equipment Subject to CoCom
Document 471 (Revised) Exceptions Procedure

<u>Item No.</u>	<u>Description</u>	<u>Source</u>
C-206	Entire item	0-2270
C-208	Electric motors of 500 h.p. and over and specially designed parts; and automatic controls for starting, stopping and reversing reversible type motors over 1,000 h.p.	0-2265; 0-1260

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Appendix 3

General Industrial Equipment Subject to CoCom Document 471 (Revised) Exceptions Procedure

<u>Item No.</u>	<u>Description</u>	<u>Source</u>
C-302	Entire item	0-1301
C-303	Entire item	0-1311
C-306	Entire item	0-1305
C-307	Entire item	0-1315
C-308	Entire item	0-2301
C-309.1	Mining equipment; "Rocker" shovels (i.e., mine car loaders fitted with shovels or buckets operating on rocker arms); and component parts thereof	0-1351
C-309.2	Mining equipment, as follows: (a) Loading machines for rock, coal, or ore, all underground types having an automatic loading head with or without conveyor (b) Underground tractors, self-propelled only, tracklaying and rubber-tired types specially designed; (i) for hauling of minerals, rock, equipment, or supplies; or (ii) as carriages for mounting of the following auxiliary underground mining equipment (whether or not mounted with such equipment); drills, timber setters, post pullers, rock dusters, compressors, conveyors	0-2350
C-309.3	Core drill bits	0-1381
C-310	Power shovels and cranes, as follows: (a) (1) Excavator type, full revolving, convertible, of 1.5 cubic meters (2 cubic yards) rated shovel capacity or over, of 30 tons rated crane lifting capacity or over. (Note: This includes all machines of this type-- whether or not equipped with or designed to use shovel, dragline, trencher (backhoe), skimmer, crane, grab, driver, foundation borer, or any other kind of attachment) (b) Non-excavator type, full revolving, (including floating and railway types), having a maximum rated capacity of 30 tons or more (Note: This category covers all such construction types.) (c) Excavators, power shovels and cranes specially designed for airborne transport	0-1325 0-2325
C-313	Entire item	N-1322
C-318	Entire item	0-1321

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Appendix 3

General Industrial Equipment Subject to CoCom Document 471 (Revised) Exceptions Procedure

<u>Item No.</u>	<u>Description</u>	<u>Source</u>
C-319	Entire item	0-2326
C-320	Entire item	0-1330; 0-1331 0-1332
C-321	Entire item	0-1350
C-322	Entire item	0-1360; 0-2351
C-323	Entire item	0-1310
C-324	Entire item	0-1375
C-325	Entire item	0-1395
C-326	Entire item	0-1355
C-327	Entire item	0-1146
C-328	Entire item	0-2354
C-329	Entire item	0-2355
C-330	Entire item	0-1582
C-335	Entire item	0-2110
C-336	Water treatment equipment, industrial , except anti-scaling types and stationery equipment for the treatment of drinking water	0-1127
C-337	Compressors and blowers, as follows: (a) Compressors capable of delivering air, gases, or vapors at pressures exceeding 300 psi (21 kg. per sq. cm); (b) Turbo-compressors or blowers capable of operating at either (1) speeds of 8,000 r.p.m. or over, or (2) with internal air flow at any point exceeding a Mach number of 0.7; (c) Compressors or blowers capable of an overall compression ratio of 2:1 or more, coupled with a capacity of over 35,000 cu. ft. (991 cu. m.) per minute; (d) Compressors or blowers capable of handling a mass flow of over 2,500 lb. (1,134 kg.) per minute and designed for operating with intake above atmospheric pressure	0-1130; 0-1380

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Appendix 3

General Industrial Equipment Subject to CoCom Document 471 (Revised) Exceptions Procedure

<u>Item No.</u>	<u>Description</u>	<u>Source</u>
C-337 (e) (cont'd)	Compressors, n.e.s. and parts, regardless of delivery pressures and capacities, when fabricated of, or lined with any corrosion-resistant material	
C-338	Pumps (except vacuum pumps) delivering liquids separately or in combination with solids and/or gases and having <u>any</u> of the following characteristics: (a) Designed to produce pressures of 300 psi (21 kg. per sq. cm.) and over; or (b) Designed to operate at temperatures of 220 degrees Fahrenheit (104 degrees Centigrade) and over; or (c) Designed to move molten metals by electro-magnetic forces (d) Fabricated of, or lined with, any corrosion-resistant material; and (e) The following parts: bodies and rotors of centrifugal or rotary pumps fabricated of, or lined with, any corrosion-resistant material	0-1131; N-1131 0-2136
	(<u>Note</u> : This does not include Diesel and fuel injection pumps, or pumps destined for closed hydraulic circuits, such as are required in conjunction with hydraulic presses.)	
C-339	Entire item	0-1132; 0-2130
C-340	Entire item	0-1133; 0-1134 0-2131; 0-2132

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Appendix 4

Transportation Equipment Subject to CoCom Document 471 (Revised) Exceptions Procedure

<u>Item No.</u>	<u>Description</u>	<u>Source</u>
C-401.1	Floating docks	0-1401
C-401.2	Ice breakers	0-1405; 0-2405
C-401.3	Tankers; tank barges; whaling factories	0-1410
C-401.4	Warships (whether or not converted to non-military use and regardless of current state of repair or operating condition)	0-1415
C-401.5	Fishing vessels, as follows: (a) of 100 feet (30 m) in length or over; or (b) having apparatus for generating electrical power of 20 KW or over.	0-2415
C-401.6	Other vessels, n.e.s., over 40 feet (12 m) in length or over 50 shaft h.p. (or equivalent)	0-2415
C-401.7	Watercraft components, as follows: (a) Hulls, and parts of hulls for items C-401.4, C-401.5 and C-401.6; (b) Propellers (marine) of 12" (30 cm) diameter and over; and blades for such propellers (c) Submarine batteries (d) Minesweeping equipment (magnetic and acoustic) (e) Marine steam boilers (i) having a capacity to generate 11 lbs. of steam per sq. ft. (54 kg. per sq. cm) or more of tubular heating surface per hour at pressures of 450 psi (32 kg/sq cm) or more and feed water heaters for such boilers; (ii) having a capacity to generate 15,000 pounds of steam per hour, or more, at pressures of 450 psi (32 kg. per sq. cm) or more, and feed water heaters for such boiler.	0-1415 0-2415 0-2440 0-1425 0-1435 N-1441 0-2260
C-401.8	Compasses and gyroscopic equipment, as follows: (a) Gyro-compasses (b) Transmitting magnetic compasses (c) Gyro-magnetic compasses (d) Repeaters for these compasses (e) Gyroscopic stabilizers (f) Gyroscopic steering controls	N-1485

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Appendix 4

Transportation Equipment Subject to CoCom Document 471 (Revised) Exceptions Procedure

<u>Item No.</u>	<u>Description</u>	<u>Source</u>
C-402	Entire item	0-2401
C-403	Automotive vehicles, or chassis, having front and rear drives; and specially designed parts therefor	N-2450
C-404.1	Locomotives and locomotive parts, as follows: (a) General service (line), switching and industrial locomotives of a gauge greater than 3 ft. (1 m) or with an individual axle load greater than 5 metric tons; (b) Parts specially designed for the above locomotives (c) General service (line), switching and industrial locomotives of 3 ft. (1 m) gauge or less and with an individual axle load of 5 metric tons or less; mine locomotives (surface and underground) of all types and sizes; and parts specially designed for the above types of locomotives	0-2470
C-404.2	Flat cars with a load capacity of 40 tons or over	0-1470
C-404.3	Tank cars (rail) with a load capacity of over 10 tons	0-1475
C-404.4	Well cars with a load capacity of over 10 tons	0-1480
C-405	Railway rails, grooved, of 40 lbs. or more per linear yard (20 kg. or more per meter) (Note. This item covers transportation and industrial types only, including but not limited to general service railway rails, grooved rails, mine rails, and light-railway rails, if within the above specifications.)	0-2475
C-406	Entire item	N-1481;0-2480
C-407	Entire item	0-1490

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Appendix 5

Electronics and Precision Instruments subject to CoCom Doc. 471 (Revised)
exceptions procedure

<u>Item No.</u>	<u>Description</u>	<u>Source</u>
C-501	Entire item	N-1501
C-502	Entire item	N-1502
C-503	Entire item	N-1507
C-504	Entire item	N-1507
C-505.1	Radio transmitters and components as follows:	0-2517
	(a) Radio-frequency oscillators or amplifiers designed to operate at frequencies below 1.5 megacycles and capable of delivering output carrier power over 500 watts or, if pulse modulated, with average input DC power over 100 watts; specialized components and sub-assemblies thereof, including power supplies; and transmitters incorporating such oscillators or amplifiers; and	N-1517
	(b) Radio-frequency oscillators or amplifiers (except	
	(i) standard commercial broadcast amplitude modulation (AM), frequency modulation (FM), and television (TV) transmitters operating at less than 250 megacycles per second and designed for fixed permanent installation; and	
	(ii) standard commercial single land mobile communications equipment operating at frequencies of less than 180 megacycles per second designed to operate at frequencies of 30 megacycles and above; specialized components and subassemblies including power supplies; and transmitters incorporating such oscillators or amplifiers.	
C-505.2	Radio relay communications equipment and specialized components and subassemblies thereof.	N-1520
C-506	Parts (a) and (b)	0-1519
C-507	Part (a)	0-1519
	Part (b) as follows:	0-2519
	Telegraph equipment (machines), mechanical, electro-mechanical or electronic, used to translate the information contained in written or printed text into electrical wave forms suitable for transmission over communication circuits at any speed greater than 200 words per minute, or 150 bauds, whichever is the less; equipment designed to accept such electrical wave-forms and display the information from them in visible form; and specialized component parts and accessories for such equipment.	

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Appendix 5 continued -

Electronics and Precision Instruments subject to CoCom Doc. 1471 (Revised)
exceptions procedure

<u>Item No.</u>	<u>Description</u>	<u>Source</u>
C-508	Entire item	N-1509 O-1509 O-1512 O-1515
C-509	Entire item	N-1510
C-510	Entire item	N-1514
C-511	Entire item	N-1518
C-513	Entire item	O-1505
C-514	Entire item	N-1521
C-515	Entire item	O-2535
C-517	Entire item	N-1537
C-518	Entire item	O-2521
C-519	Parts (a), (b) and (c)	O-2522
C-520	Coaxial-type cable as follows: (a) Cables having an attenuation not exceeding 10 decibels per 100 feet and a standing wave ratio of 2 or less, when terminated in their characteristic impedance at 3,000 megacycles, except air-spaced disc-separated cable (but including air-spaced cable with a continuous helical dielectric separator); (b) Cables of all types with polytetrafluoroethylene or poly-trifluorochloroethylene dielectric.	N-1525
C-521	Entire item	O-1558 N-1559 O-2545 O-2546
C-522	Entire item	O-1555 N-1555
C-523	Entire item	N-1541
C-524	Entire item	N-1549
C-525	Entire item	O-1599
C-526	Entire item	O-2544

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Appendix 5 continued -

Electronics and Precision Instruments subject to CoCom Doc. 471 (Revised)
exceptions procedure

<u>Item No.</u>	<u>Description</u>	<u>Source</u>
C-527	Entire item	O-1552
C-528	Entire item	O-1544 O-2541 N-1545
C-529	Entire item	O-1548
C-530	Entire item, except the following: (a) Part (a) (12); (b) Part (a) (11); and (c) Voltmeters, ammeters, and microammeters (including portable text type) - precision indicating types, with an accuracy of 0.5 percent of full scale deflection.	N-1594 O-1522 O-1573
C-531	Entire item	N-1589
C-532	Entire item	N-1533
C-533	Entire item	O-1563
C-534	Entire item	N-1565
C-535	Entire item	O-1569
C-536	Entire item	O-1561
C-537	Entire item	O-1571
C-538	Entire item	N-1572
C-539	Entire item	O-1575
C-540	Entire item	O-1578
C-541	Entire item	O-1388
C-542	Entire item	O-1579
C-543	Entire item	O-1583
C-544	Entire item	N-1584
C-545	Entire item	O-1586
C-546	Entire item	N-1590
C-547	Entire item	N-1591

Appendix 5 continued -

Electronics and Precision Instruments subject to CoCom Doc. 471 (Revised)
exceptions procedure

<u>Item No.</u>	<u>Description</u>	<u>Source</u>
C-548	Entire item	O-1592
C-549	Entire item	N-1593
C-550	Entire item	N-2568
C-551	Entire item	O-2570
C-552	pH meters (continuous measuring types), pH control apparatus and components thereof, viz. electrodes, amplifiers, indicators, recorders, and controllers specially adjusted or calibrated for pH measurements.	O-2580
C-553	Entire item	O-1145
C-558	Entire item	O-1596
C-559	Entire item	O-1598

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Appendix 6

Metals, Minerals and their Manufactures Subject to CoCom Doc. 471 (Revised)
Exceptions Procedure

<u>Item No.</u>	<u>Description</u>	<u>Source</u>
C-601	Anti-friction bearings (ball, needle, roller) and parts, except low-carbon (normal carbon) unground steel ball bearings and carbon steel balls and rollers	0-1601; 0-2601
C-602.1	Iron powder and iron alloy powder, of grain sizes less than 30 microns (thirty-millionths of a meter) in diameter	0-1605
C-602.2	Electrical steel sheet or strip (including transformer and choke laminations and core assemblies) with a core loss of 1.3 watts per kg. (.59 watts per lb.) or less at 10,000 gauss and 50 cycles per second and with a thickness of (0.02 in.) or less.	0-2630; 0-1631
C-602.3	Scrap iron and steel	N.1630
C-602.4	Alloys containing: (a) 3% or more molybdenum (but 2% or more molybdenum in any alloys containing more than 17% chromium); or (b) 4% or more cobalt; or (c) 0.25% or more columbium or tantalum; or (d) 5% or more tungsten	0-1635
C-602.5	Iron and steel pipe and tubing, seamless, except cast iron and except pipe and tubing of carbon steel (ordinary, common or non-alloyed) of an internal diameter of 12 inches (305 mm) or less and with a maximum specified test pressure of not more than 70.3 kg. per sq. cm. (1000 lbs. per sq. in.).	0-1154; 0-2610
C-602.6	Galvanized steel cable, rope, strand or cord, of all types with or without a textile or fibre core, containing one or more strands composed of three or more threads or wires, provided that any one such thread or wire has a tensile strength (breaking strength) of 180 kilograms per square millimeter or more.	0-2430
C-603	Entire item	N-1615
C-604	Entire item	0-1250
C-605	Parts (a) and (b)	N-1430
C-606	Entire item	N-1631; 0-1631
C-608	Entire item	0-1636; 0-2635

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Appendix 6

Metals, Minerals and their Manufactures Subject to CoCom Doc. 471 (Revised)
Exceptions Procedure

<u>Item No.</u>	<u>Description</u>	<u>Source</u>
C-610	Entire item	0-1641
C-611	Entire item	0-1645
C-612	Entire item	0-1646
C-613	Entire item, except cobalt-organic artificial coloring matters containing less than 20% cobalt.	0-1648 0-3703
C-614	Entire item	N-1649
C-615	Entire item	0-1650
C-616	Entire item	0-2640
C-617	Entire item	0-1672
C-618	Entire item	0-1653
C-619	Parts (a) through (d)	0-2650
C-621	Entire item	0-2655
C-622	Mercury metal	N-1655
C-623	Entire item, except molybdenum organic artificial coloring matters containing less than 20% molybdenum.	0-1658
C-624	Entire item	0-1661; N-1661
C-625	Entire item	0-1620; 0-2610
C-627	Entire item	0-1666
C-628	Entire item	0-1667
C-630	Entire item, except tungsten organic artificial coloring matters containing less than 20% tungsten	0-1668; 0-2667
C-631	Entire item	N-1670
C-632	Entire item	N-1671; 0-2666
C-633	Entire item	0-1675
C-635	Entire item	0-1679

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Appendix 6

Metals, Minerals and their Manufactures Subject to CoCom Doc. 471 (Revised)
Exceptions Procedure

<u>Item No.</u>	<u>Description</u>	<u>Source</u>
C-636	Entire item, except grinding wheels made of natural corundum	0-1374; 0-2375
C-637	Entire item	N-2671
C-638	Entire item	N-1385; N-1387
C-639	Asbestos (strategic grades): Amosite EGNEP grades as follows: (a) D-3 (b) DX (c) D-11	0-1680
C-640	Graphite: (a) Graphite (artificial) and amorphous carbon (excluding charcoal), in forms (including scrap) whose largest dimension exceeds 25" (635 mm), or whose smallest dimension exceeds 2" (50 mm), or whose weight exceeds 6 lb. (2.7 kg); (b) Powder (carbon only); (c) Crucibles (artificial graphite).	0-1302; 0-1390
C-641	Entire item	0-1691
C-642	Entire item	0-1587

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Appendix 7

Chemicals and Petroleum Products Subject to CoCom Doc. 471 (Revised) Exceptions Procedure

<u>Item No.</u>	<u>Description</u>	<u>Source</u>
C-701	Entire item	N-1701
C-702	Entire item	N-1703
C-703	Entire item	O-2742
C-705	Cellulose nitrate containing not less than 11.3% and not more than 12.3% nitrogen	O-2719
C-707	Entire item	O-1717
C-708	Entire item	O-1750
C-709	Entire item	O-1751
C-710	Entire item	O-1764
C-711	Entire item	O-1758
C-712	Part (a)	O-2737
C-714	Entire item	O-2754
C-716	Entire item	N-1720
C-717	Entire item	O-1739
C-718	Entire item	N-1748
C-719	Entire item	O-2725
C-720	Entire item	O-2731
C-721	Entire item	O-2751
C-722	Entire item	N-2764
C-731	Entire item	O-1719
C-732	Parts (a) through (i)	O-1721 O-2721
C-733	Entire item	O-1725
C-734	Entire item	O-1727 O-2727

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Appendix 7

<u>Item No.</u>	<u>Description</u>	<u>Source</u>
C-735	Entire item	N-1729
C-736	Entire item	O-1737
C-737	Entire item	N-1741
C-738	Entire item	N-1742
C-739	Entire item	N-1744
C-747	Entire item	O-1704
C-748	Entire item	O-1710
C-749	Entire item	O-1713
C-751	Entire item	O-2715
C-752	Entire item	O-1716
C-756	Entire item	N-1731
C-757	Entire item	N-1732
C-758	Entire item	O-2741
C-760	Entire item	O-1745
C-762	Entire item	O-1747
C-763	Entire item	O-1752
C-764	Entire item	O-2752
C-765	Entire item	O-2757
C-766	Part (a)	O-2761
C-767	Entire item	O-2762
C-768	Entire item	O-1760
C-769	Entire item	O-1761
C-770	Vanadium compounds (except catalysts)	O-1766

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Appendix 7

<u>Item No.</u>	<u>Description</u>	<u>Source</u>
C-771	Entire item	O-2701
C-772	Parts (a) through (d)	O-1755 N-1755
C-775	Parts (a) and (b)	O-1702 O-1793
C-776	Entire item	O-1770
C-777	Diesel oil	O-1771
C-778	Entire item	O-1772
C-779	Entire item	N-1773
C-780	Entire item	N-1774
C-781	Entire item	N-1775
C-782	Entire item	N-1780 N-1781
C-783	Entire item	N-1786
C-784	Entire item	O-1787
C-785	Entire item	O-1788
C-786	Entire item	N-1789
C-787	Entire item	N-1790
C-788	Entire item	O-1796

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Appendix 8

Rubber and Rubber Products Subject to CoCom Document 4.71 (Revised) Exceptions Procedure

<u>Item No.</u>	<u>Description</u>	<u>Source</u>
C-801	Entire item	0-1801
C-802	Entire item	0-1802
C-803.1	Pneumatic tire casings (excluding tractor and farm implement types) as follows:	0-1820; 0-1821; N-1821; 0-2820
	(a) Of a kind specially constructed to be bullet proof or to run when deflated;	
	(b) All sizes of 10.00 cross section and over, regardless of ply rating;	
	(c) All sizes of 7.00 up to, but not including 10.00 cross section (including 34 x 7) with 12 ply rating and over;	
	(d) Sizes 9.00-13 and 9.00-16, regardless of ply rating;	
	(e) The following sizes with 8 and 10 ply rating:	
	6.00-16	
	6.00-20	
	6.50-19	
	6.50-20	
	7.00-16	
	7.00-20 (8 ply only if off-the-road treads; 10 ply all types)	
	7.00-24	
	7.25-20	
	7.50 up to, but not including 10.00 cross section	
	(f) The following with off-the-road treads; 6 ply rating:	
	6.50-19	
	6.50-20	
	7.00-16	
C-803.2	Pneumatic tire inner tubes: truck, bus, off-the-road, and industrial types (except farm tractor and implement types) of 7.50 and over cross section	0-2821
C-804	Entire item	0-1840

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Appendix 9

Miscellaneous Items Subject to CoCom Document 471 (Revised)
Exceptions Procedure

<u>Item No.</u>	<u>Description</u>	<u>Source</u>
C-902	Entire item	O-1931
C-903	Nylon parachute cloth	N-1930
C-904	Entire item	N-1920
C-906	Raw optical glass in the mass (tinted or untinted) as follows: (a) Blocks, plates, (slabs), pressings and moulds (other than rough-molded lenses and prisms) with a unit weight of more than 0.5 kg; (b) Rough-molded lenses with a unit weight of more than 0.2 kg; (c) Rough molded prisms	O-1910; O-2910
C-907	Entire item	O-1577
C-908	Entire item	O-1585

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