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INFORMATION REPORT

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SUBJECT Development and Production of X-ray Equipment at Koch und Sterzel in Dresden

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SUPPLEMENT TO REPORT NO.

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1. The Koch und Sterzel plant in Dresden, Germany, was dismantled and shipped to USSR in late 1945; in 1946, the remaining installations in Dresden were renamed the Transformatoren und Roentgenwerk. VEB.

The renamed plant in Dresden was primarily concerned with the production of equipment for reparations payment to the USSR until 1948-49. Three types of medical X-ray units were produced for this purpose:

- a. A small, portable unit (dental type, without rectifier) with specifications of 75 kv at 25 ma; annual production was approximately 100.
b. A medium-sized, fixed unit (without rectifier) with 100 kv transformer. This unit operated at 80 kv and 100 ma maximum. Annual production - approximately 200.

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Table with columns for STATE, NAVY, NSRB, ARMY, AIR, FBI, and DISTRIBUTION.

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- c. A large-sized unit with 100 kv transformer. This equipment had a four-tube cascade rectifier system and operated at 80 kv and 400 ma maximum. Annual production - approximately 100.

All three types of equipment were produced complete with controls and tables but did not include X-ray tubes. These X-ray tubes, which all had tungsten anodes, were obtained from Phoenix VEB, Rudolstadt, Thuringia. [redacted] 80% of the larger units and 50% of the medium and smaller units went to the USSR, the remainder were used in East Germany.

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2. Production of the three above-mentioned units was continued at the plant after reparations production had been satisfied. Annual production of the small unit increased to above 150; the medium unit became obsolete and production of it gradually dropped from 200 per year to nearly none; the annual production of the larger unit was still about 100 at the time of my departure. More than half of these medical X-ray units have gone to the satellite countries but none to the USSR. China and Poland received most of them; some also went to Hungary and Czechoslovakia. The greatest quantity was allocated to China; Poland and Hungary purchased mostly parts [redacted] and the least number went to Czechoslovakia.

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3. In August 1952 we were producing a research type of X-ray apparatus. This equipment, which was without rectifiers, operated at 60 kv and 40 ma maximum; it was the usual research type of apparatus, similar to Siemens and Seifert machines. Phoenix VEB also supplied the tubes for these units. [redacted] orders for molybdenum, nickel, silver and the other anode materials usually used in this tube. [redacted] the sales allocations were as follows:

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- a. One to China (probably a sample for copying)
- b. Fifteen to Poland (they wanted more - probably for upper Silesian industry)
- c. One to Hungary and one to Czechoslovakia (probably samples)

The remainder of our production went to German industry, Technische Hochschule, and research institutes. Our production rate was about 50 per year; approximately two-thirds of this number probably went to the satellite countries, the other third to the Soviet Zone of Germany.

4. Phoenix, VEB at Rudolstadt, Thuringia, acquired the former Siemens tube plant at Erlangen. This plant produced all of our X-ray tubes except a very few which we had received several years prior from a small plant in Gera. The plant in Gera was dissolved in 1949-50 and was merged with the Phoenix, Rudolstadt plant. To my knowledge, a small plant which produces X-ray equipment is still located in Gera; small dental and examination table-type apparatus were produced there. X-ray tubes were also produced in Berlin at Oberspreewerk (now named Werk fuer Fernmeldetechnik SAG); [redacted] this plant constructed a few replacement tubes for a 250 kv American industrial apparatus.

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5. The following developments were in progress in our X-ray laboratories [redacted]
- a. A deep-therapy machine to operate at 200 kv and 20 ma; development was almost completed.
  - b. A materials testing industrial apparatus at 200 kv and 20 ma; development was almost completed.

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These two products will have standardized parts which can be used interchangeably insofar as possible; all of the major items will be interchangeable.

c. Geiger counter and amplifier

This development was planned as an internal project; three were to be constructed for use in the X-ray laboratories as a protective measure for the personnel employed therein. It was impossible to obtain Geiger tubes either from the West or East. [redacted] the Soviets provide counter equipment for use in the uranium mining fields but we could not obtain any of these either. [redacted]

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The Soviets displayed no interest in any of these three developments. It is anticipated that the Soviet Zone's satellite export market will want some of these items when they become available.

6. The Elektro-Medizin laboratory of the Transformatoren und Roentgenwerk, VEB was engaged in the development of the following two items at the time of my departure:
- a. A supersonic apparatus which operated with 40 watts output on 800 kc. This unit, already in production, was to be used for medical purposes. One unit was exported -- to Poland, probably a sample to be copied.
  - b. A short wave apparatus for diathermy. The generator was a simple short wave transmitter; Erfurt furnished the transmitter tubes. The equipment operated on 11 meters. This apparatus had been completed [redacted]
7. While at the Leipzig Fair in the spring of 1950 or 1951, [redacted] Soviet X-ray equipment. [redacted] no technological advances, the Soviet equipment which was on display was of very good design.

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[redacted] their equipment would not have sold on the Western market because of its poor appearance. It had been almost exactly copied from American and German equipment but did not include the usual complex controls, interlocks and safety devices. The equipment was rugged, had interchangeable parts wherever possible; [redacted]

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[redacted] it had been very practicably designed. [redacted] the time necessary for the repair of Soviet equipment is probably very low. [redacted]

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[redacted] the Soviets do good and purposeful work. / [redacted]

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[redacted] At this Leipzig Fair the Soviets exhibited medical equipment and one industrial unit. The industrial unit was a redesigned version of one which had been made by Seifert in Hamburg; it operated at 200 kv and 15-20 ma. Soviet machine tools, automobiles, and agricultural equipment were also exhibited. [redacted] the quality of the machine tools to be good [redacted]

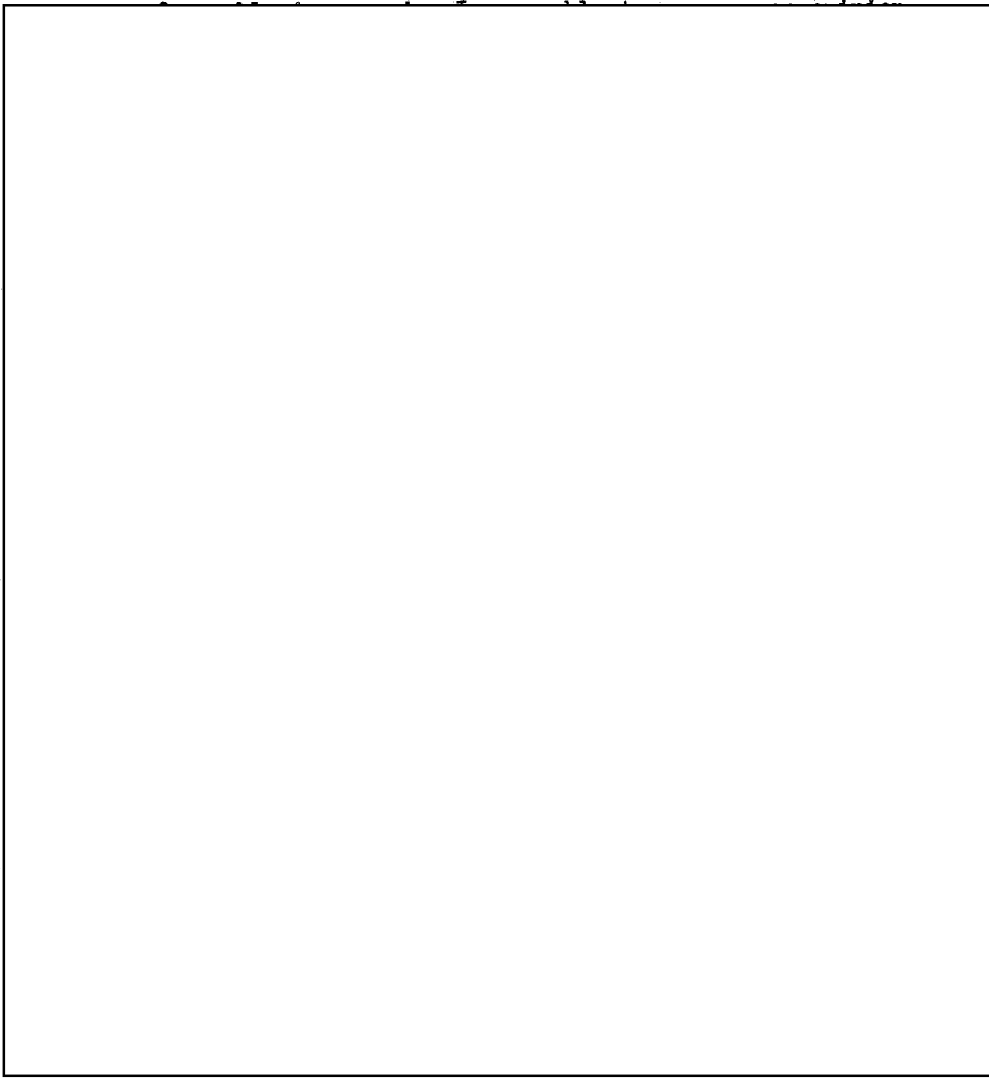
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