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CENTRAL INTELLIGENCE AGENCY

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25X1A

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SUPPLEMENT TO REPORT NO. [redacted]

25X1X

[redacted]

1. The Beck Physical-Technical Laboratory in MEININGEN (M 51/H 82), Thuringia was the property of Dr.BECK Bros. During WW II, it was engaged in the development of high-performance carbon arc lamps for searchlights. One of the brothers, Dr. Harald BECK, was employed by the AEG during WW II and later in the BODENBACH/Sudetenland AEG branch plant, Department for Shipbuilding, Air Force, and Army Equipment. This branch plant developed and produced AAA searchlights.

2. Dismantling of the BECK Physical-Technical Laboratory. The BECK Laboratory was ordered to be dismantled in January 1948. The entire special equipment used for the development and measuring of high-performance carbon arc lamps, as well as test apparatus, was dismantled, including:

a. 2-m (diam) searchlights;

b. Wide-angle searchlights with a range of dispersion of 90°;

c. A carbon arc lamp with a current intensity of 450 amperes for use in AAA searchlights. This lamp represented a development order for the AAA which was completed at the end of the war. This lamp was designed for an open searchlight without casing and was to become standard equipment. Weight of lamp: 30 kg. The completed 450-ampere lamp was stored in the laboratory;

d. Parts of a previously developed carbon arc lamp with a current intensity of 1,000 to 1,200 amperes.

The value of the dismantled equipment was estimated at 60,000 east marks. It was packed in boxes and shipped by rail, probably to LENINGRAD, since the boxes were marked with the inscription "LENINGRAD." No information is available on the installation of the equipment in LENINGRAD plants.

3. Soviet unit and technical experts

a. Light Fittings Bureau at 45 Franz-Flemming-strasse, LEIPZIG W 35. This bureau was located on the premises of the KOERTING &

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ATHEN firm. This firm which had manufactured street and carbon arc lamps, was dismantled in 1946.

b. In a letter dated September 1947, Capt POROKHIN signed as chief of this bureau. He had from two to five Soviet assistants. A German expert, graduate engineer WERNER fro the SIEMENS-PLANIA firm in BERLIN-PANKOW, also worked there

25X1X

c. [redacted] the SIEMENS-PLANIA Firm and the BECK Laboratory were the only plants in the Soviet Zone of Germany qualified for the development of high-performance carbon arc lamps. One of the BECK brothers - the other fled into the Western Zones of Germany - and WERNER were the only noted German experts in this field under Soviet control. No German experts of the BECK Laboratory were deported to the Soviet Union.

d. Source was told by experts who did business with the Soviet Light Fittings Bureau in LEIPZIG that it was also concerned with the development of airfield landing floodlights.

4. Soviet commission in the BECK Laboratory

The Soviets appeared at the laboratory for the first time in the spring of 1947. They came from the LEIPZIG Light Fittings Bureau and brought records relative to the development of the 450-ampere and the 1,000 to 1,200-ampere lamps. Source supposed that these were translations of the records secured in the BODENBACH AEG Branch Plant. The Soviets also had with them a list of all the German engineers who had participated in the development of these carbon arc lamps. The special interest of the Soviets centered on the 1,000 to 1,200 ampere lamp, which was measured and tested. From talks with the Soviets it was gathered that they were not in agreement as to which type of lamp would best suit the interests of troop units, i.e. whether it was preferable to have many light and mobile 450-ampere lamps of fewer, heavier and less mobile, but more efficient, 1,000 or 1,200 ampere lamps.

5. State of the development of AAA searchlights in Germany at the end of the war.

The new types of searchlights had been developed and produced in the BODENBACH/Sudetenland AEG Branch Plant, which was seized, undamaged, by the Soviets. 25X1X [redacted] heard this from directors of the branch plant whom he later met) Presumably, the Soviets seized all the blueprints and records relative to the development of the 1,000 to 1,200-ampere and the 450-ampere carbon arc lamps, both of them to be installed in searchlights without casings. Along with these records the constructional drawings for the mechanical parts of radar sets then under development were also stored in the same safe. 25X1X [redacted] not familiar with the contents of these records.

a. The searchlights equipped with the 450-ampere lamp had at that time been produced in quantity and in use with troop units. Source believes that numerous searchlights of this type were 25X1X captured by the Soviets. [redacted] technical data on this type searchlight:

Diameter of mirror; 2m; open searchlight without casing; remote-controlled; source of current: a 60 kilowatt generator, then the standard generator with the German armed forces. A characteristic feature of this searchlight was the rectangular form of the positive electrode through which a rectangular light sector was obtained.

b. Only two specimens of the searchlight equipped with the 1,000 to 1,200-ampere lamp had been produced. One of them was located in VIENNA. It was equipped with a 1,200-ampere lamp, an obsolete model and forerunner of the new 1,000 to 1,200-ampere lamps. Its mirror had a diameter of 3m. Source had heard that this searchlight was seized, undamaged, by the Soviets. The second searchlight of this type was located in BUCHENWALD. Its lamp and mirror were destroyed before the arrival of the Soviets. Source remembered the following technical specifications: 1,000 to 1,200-ampere lamp; 130 volts; candle-power: 10 billion lux; range: 158km with absorption being equal to zero (theoretical range). Diameter of mirror: 3m; open searchlight without casing. Remote-controlled; source of current: 160 kilowatt generator; Zeppelin-Maybach motor with DYNAMO generator. Live rails of the BERLIN interurban railway served as conductors. This searchlight could be loaded on two trucks. A special feature of this searchlight was the rectangular positive electrode through which a rectangular light sector was obtained.

c. There were also two other searchlights equipped with 1,000 ampere lamps at the end of the war. They had, however, mirrors with a diameter of 2 m only. One of these searchlights was located in BUCHENWALD the other in NUERNBERG.

25X1A [redacted] Comment

a. The transfer to the Soviet Union of the OSRAM Physical-Technical Laboratory engaged in the development of high-performance carbon arc lamps was reported for the first time.

b. The dismantled equipment of this laboratory which was reportedly transferred to LENINGRAD may have been installed in the "SV TEMWA" Plant No. 211, which also received sections of the BERLIN OSRAM and the JENA ZEISS Plants.

c. Report also supplements available but incomplete information on the BOLKENHAG AEG Branch Plant #. This plant or at least sections of it, are assumed to have been transferred to NIZHNIY TAGIL.**

d. The bulk of the information on the state of the development of German searchlights is considered correct and could be checked against captured material of the former German Armament Ministry. Fourhundred and fifty units of 1.5m diameter and 200 units of 2m diameter searchlights were scheduled for production in the second half of 1944, according to the procurement program. Actual production remained, however, below these target figures since the production of these searchlights did not have first priority.

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