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COUNTRY Germany (Soviet Zone) REPORT NO. [REDACTED]

TOPIC Use of Rhenium as a Substitute for Iridium

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REMARKS _____

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1. On 28 December 1950, [REDACTED] a meeting of the Central Planning and Research Office, held in the Ministry Building on the Leipzigerstrasse in Berlin. The manager of the Planning and Research Office is Dr. Meissel, (Inu). The problem of using rhenium as a substitute for iridium was on the agenda of this meeting. The iridium requirements of the Soviet Zone, ranging from 100 to 220 kg per annum, have to be supplied by western imports. It is planned to use rhenium instead of iridium in order to overcome the necessity for western imports and to save foreign credit.
2. Rhenium is produced in "Isloben (N 52/D 63) from gases and flue residues generated during copper roasting. Between August 1950 and the end of February 1951, 60 kg of rhenium were produced. They were stored in the Soviet Zone Ministry of Finance in Berlin. The degree of purity of this rhenium is 95 percent. It can be processed into rods, wires, and plates.
3. Until the end of January 1951, laboratory tests were made with rhenium in the Berlin Electric Bulb Factory, the former Osram Plant. Practical tests using rhenium as a substitute for iridium were successfully completed in the VEB Plant in Singwitz-Bautzen (O 52/A 66) from 16 to 19 March 1951. Dr. Meissel, the manager of the Central Planning Office was present when the rhenium tests were demonstrated. *
4. By order of the S.C.C., the Soviet Zone Ministry of Finance allocated 800 to 1,000 grams of rhenium for experimental purposes to the optical laboratory of the German Academy of Sciences on the Rudower Chaussee in Berlin-Adlershof (N 53/2 94). These tests were also satisfactory.
5. The S.C.C. confiscated the entire Soviet Zone rhenium stock stored in the Ministry of Finance after the laboratory tests, proving the practical use of rhenium for iridium, were successfully concluded.

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[REDACTED] Iridium is used for various purposes including screw bits for measuring instruments, contact points for aircraft and automobile engines, thermocouple elements, and laboratory crucibles. The VEB Plant in Singwitz-Bautzen is the Fernmelde- und Apparatebau Fabrik Oberspreewald (Oberspreewald Plant Producing Telecommunications Devices, abbreviated PAO. Until 1945, it was an enterprise of the AEG and its production included telecommunication devices and apparatus for telephonic networks.

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