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EAST GERMANY
CZECHOSLOVAKIA

PLANS FOR ATOMIC RESEARCH IN EAST GERMANY

SOURCE BERLIN: 1. West BERLIN Investigating Committee of Free Jurists.

2. Alfred HEICHEL, a refugee. Prior to his flight HEICHEL held the position of main-department chief at the people's owned transformer works in DRESDEN "Transformatoren- und Röntgenwerke." Source fled when he was warned that the State Security Service was planning to arrest him on suspicion of entertaining "illegal" contacts to the West.

DATE OF OBSERVATION: 1954/1955.

EVALUATION COMMENT: None.

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Were it not for the lack of certain materials, atomic research in East Germany would have reached a respectable position in 1955. Such is the opinion of Alfred HEICHEL, a refugee from DRESDEN, who prior to his flight held the position of main department chief at the DRESDEN "Transformatoren- und Röntgenwerke," producers of many items needed for atomic research.

The plant not only produces electro-medical and X-ray equipment but also electric test equipment, actinometers and radiating equipment. So-called Cascade-Generators are given special priority in the plant production program as they are produced for atomic research and nuclear fission exclusively.

The development of such generators and their output by the plant are issues which are uninterruptedly pushed by the East German Government; the more so since the Soviet Union last year ordered - for import - the production of two sets of generators having a capacity of four, five and six million volts respectively. Similar, though smaller, orders have been received from Communist China and Czechoslovakia.

Except for the Soviet orders, which have priority,
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the plant mainly strives to meet the scheduled production orders of the two East German atom-research-projects, located at BUCH and MIESDORF, in the German Democratic Republic.

These two atomic research plants work with a relatively small voltage only. Owing to the complete lack of a special lute, East German plants are not yet in a position to build larger cyclotrons. Attempts of East German scientists to produce such special quality lute have so far proved unsuccessful. This is why the GDR is now making efforts to obtain this lute illegally from the USA.

The transformer and generator equipment in BUCH and MIESDORF was developed by engineer and scientist (fnu) BIENER of the Technical University in DRESDEN. Both research stations began operating in March of 1955 with a capacity of 1,500,000 volts (one ampere Strahlstromstaerke.) The BUCH and the MIESDORF stations are qualified for research only.

Almost all of the equipment used in BUCH or MIESDORF was produced at the DRESDEN plant. Nothing was obtained from the Soviet Union. A 50,000,000 betatron is presently being constructed at DRESDEN. Engineers of the plant are worried, however, since the available test-equipment has proved insufficient because of the strong radiation. A particularly large GEIGER-MÜLLER counter must first be developed.

The BUCH and MIESDORF stations are examining both systems of nuclear fission: Atom-splitting by means of cascade-generators, as well as by means of the Betatron.

Secret plans, the details of which are not entirely known to source, provide that by the end of this year atomic research is to be pushed decisively ahead. While there are experts in sufficient numbers and with the necessary know-how, the shortage of vital materials will undoubtedly continue to upset the plans of Pankow officials. The lack of insulating materials has proved to be one of the biggest obstacles in the past.

While various Soviet officials are continuously visiting and inspecting the DRESDEN plant, they have never tried to interfere directly with the work there. The Russians watch very closely, however, the production of items earmarked for export to the Soviet Union.

During 1954, four atomic research stations, each having a capacity of between 2,500,000 and 3,000,000 volts, were exported to Communist China. Special equipment for atomic research has been exported to the CSR ever since 1952. Only last February two research stations with capacities of 2,250,000 and 2,900,000 volts were delivered to PRAGUE. The exported "research-stations" are seldom complete, however.

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Owing to the shortage of certain materials in East Germany, the importing countries must order elsewhere various items belonging to the research station. This goes also for condensers which the CSR, for instance, buys from the Swiss firm of HAVELI & Co. A number of such condensers were also bought by East Germany. On orders of the Pankow Government, a special team of technicians and constructors headed by (fnu) STACHE of the people's-owned plant ISOKOND, has been trying for the past months to copy the Swiss product. The same goes for rectifying-valves which were successfully copied from West German products. The difficulties in reconstructing rectifying-valves seemed enormous at first; when East German importers succeeded, however, in buying tungsten-rounds and useful machinery from West German enterprises, the problem was soon solved.

The DRESDEN plant is subject to direct orders from the Ministry of the Interior, which in matters concerning the plant cooperates with the Russian Professor WOTSCHEL (fnu) who visits the plant frequently.

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