

CENTRAL INTELLIGENCE AGENCY  
INFORMATION REPORT

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COUNTRY	East Germany	REPORT	
SUBJECT	1. Production of VEB Turbinenfabrik Dresden 2. Status of Turbines in Other Enterprises	DATE DISTR.	11 February 1955
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1. VEB Turbinenfabrik Dresden, located at N 15, Industriegelände, was formerly the plant of Brueckner, Kanis and Company. The present firm has a staff of 1,300 employees. It makes turbines up to a capacity of 5 MW.
2. Subcontractors
  - Pumpen- und Gebläsewerk Leipzig (formerly Jaeger)
  - Elbowerk Rosslau (formerly Sachsenwerk)
  - Maschinenfabrik Koenigsee (formerly Stock)
  - Pumpenwerk Halle
  - Pumpenwerk Aschersleben
  - Poldina Foundry, Czechoslovakia, supplies turbine blade steel.
  - Maxhuette, Unterwellenborn, supplies turbine blade steel.
  - Finow and Lauchhammer supply steel castings.
  - Groeditz and Riessa supply forgings.
  - Pulsnitz supplies condensers.

3. Production of Turbines for East German Enterprises by VEB Turbinenfabrik Dresden

a. Feeder Steam Turbines (Speisedampfturbinen)

Quantity	Year	Price per Unit	Capacity	Consigee
2	1954	500,000 DME	-	Kraftwerk Elbe, Vockerode
For boiler feeders of 1,600 H.P. These machines proved too weak in the housings, both in regard to materials and construction.				
4	1955	"	-	"
3	1956	"	-	"

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b. Condensation Bleeder Turbines (Entnahme-Kondensationsturbinen)

Quantity	Year	Price per Unit	Capacity	Consignee
1	1954	870,000-980,000 DME	3.2 MW	Papierfabrik Morseburg
1	1954	" "	"	Papierfabrik Weissenborn
1	1954	" "	"	Papierfabrik Golzern/Triptis
1	1954	" "	"	Papierfabrik Unterkreizbach
1	1954	" "	"	Zellstoffwerk Goswig
1	1954	" "	"	Reifenwerk Fuerstenwalde
1	1954	" "	"	Schott, Jena

Most of the above turbines, though installed, could not be placed in service because the testing of the control system was not completed.

1	1954	-	2.6 MW	<sup>1</sup> Kunstseidenwerk Schwarz
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c. Three-cylinder Turbines (C 3 Machines)

2	1954		3 MW (each)	Kunstseidenwerk Schwarz
1	1954		3.2 MW	Sodafabrik Bernburg
3	1955	540,000 DME	-	Sodafabrik Bernburg
1	1954	"	2.6 MW	Sodafabrik Stassfurt
1	1953	"	4 MW	Kunstseidenwerk Pirna

In 1955 this firm is to receive from VEB Turbinenfabrik Dresden machines sufficient to raise power capacity by a further 7 MW.

d. Three-cylinder Irrillse Turbines (Gegendruck-Maschinen C 3)

2	1954	600,000 DME	3 MW	Zuckerfabrik Delitzsch
1	1954	600,000 DME	3 MW	Zuckerfabrik Helmsdorf

e. Miscellaneous Smaller Turbines

	Year	Price	Capacity	Consignee
50-60	1954	12,000-280,000 DME	1.8 MW	Various smaller firms

f. Booster Turbines Produced on Sub-contract by Maschinenfabrik Koenigsee

6-8	920,000 DME	-	
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These are produced on orders from VEB Turbinenfabrik Dresden. They utilize the exhaust from steam engines (zur Abdampf-Verwertung der Dampfmaschinen). They are installed on freight ships of 3,000 tonnage, one turbine per ship. The whole order includes 30 turbines.

4. Production of Turbines for Export by VEB Turbinenfabrik Dresdena. Communist China

2 turbines of 5 MW capacity were delivered to Communist China in September 1954 by air, since the deadline had passed. They are to be installed in a sugar factory.

b. Hungary

2 feeder steam turbines, type K 5, priced at 80,000 DME each, were delivered

\* Nachschalt-Turbinen

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to the Banida power plant (Kraftwerk), near Budapest. They are to be used for the steam boiler outfit which is to be supplied by Bergmann-Borsig.

c. Poland

4 turbines costing 500,000 DME each were delivered to destinations in Poland, 2 of these to Auschwitz, 2 to a sugar factory. The consignment consisted of 2 impulse turbines and 2 condensation bleeder turbines, and their capacity was 3 MW (2 turbines), 2.5 MW and 1 MW respectively.

d. Romania

2 three-cylinder turbines with a capacity of 3 MW, priced at 650,000 DME each, were delivered to a sugar factory.

e. Russia

120 feeder steam turbines for boiler feeders and generators were delivered during 1954. The total shipment cost 3,500,000 DME. Capacities of individual items ranged from 80 to 2,500 horsepower, and prices ranged from 12,000 to 560,000 DME.

f. Western Countries

No exports.

5. Defective Materials

The turbine shafts (Wellenlaeufer) received from the steel works at Groedtz and Magdolburg (Thaelmann-Werk) are from 25 to 30 percent defective. The predecessor firm, Bruckner, Kanis and Co., secured its supply of forged parts especially from the Bochumer Verein, and rejections amounted to 1 or 2 percent only. The VEB Turbinenfabrik Dresden possesses an electromagnetic testing apparatus, by which shrink-holes and other defects may be detected. It is also equipped with a centrifuge for high-speed testing.

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6. Status of Turbines in Various Enterprises

a. Power Plants

(1) Buna-Schkopau

In 1953, this firm received one Brown-Boveri turbine of 24 MW capacity.

(2) Galbe

Power production at this enterprise is at a standstill owing to a damaged induced draught installation (Saugzug).

(3) Heiskraftwerk Dresden

A 32 MW turbine, imported from the "West", was damaged as it was being started.

(4) Kraftwerk Elbe, Voekerode

This firm will receive an unspecified number of turbines from Rossau, and, by 1956, 9 large turbines totalling 32,000,000 watts from Bergmann-Borsig.

(5) Kraftwerk Hirschfelde

This plant possesses at present a capacity of 130 MW. The machines which produced 30 MW of this amount were moved from Chemnitz several years ago. A new 50 MW turbine is to be installed.

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(6) Kraftwerk Leipzig/Kulkwitz

After a local overhauling two machines, one 25 MW and the other 16 MW, jammed. The responsible superintendent had attempted to change the oil during operation, with the result that the oil feed not only for the lubrication but also for the cooling system had to be taken out. The superintendent committed suicide. Oil filters with devices enabling mechanical cleaning during operation are now manufactured by Schumann in Leipzig.

(7) Kraftwerk Zschornowitz

Capacity is expected to be raised within the near future by the installation of 4 turbines of 50 MW each.

b. Other Plants(1) Kunstseidenwerk Pirna

In 1953, this firm received a new Brown-Boveri turbine of 2 MW capacity.

(2) Kunstseidenwerk Schwarza

This firm possesses, in addition to the Dresden turbines listed above, one AEG turbine of 4 MW capacity, and a Lungstroem turbine of 3 MW capacity. The 3 turbines have gear drives, in which pinion trouble has already developed. The reason for this is because the power installations at Schwarza are connected in parallel with the overland power lines (Ueberlandnetz) and, when lightning strikes, sudden overcharging or undercharging results. Recently an apparatus has been installed to cut the turbines out of the power network in such circumstances.

(3) Sodafabrik Hornburg

This firm has heretofore been equipped with only two old AEG turbines (capacity 1 MW or 1.5 MW) and one 3 MW turbine from Goerlitz. They were obtained from potash mines. These AEG turbines are now to be torn out and replaced by one new 4 MW machine and by the above-listed C 3 machines from Dresden. In the recently constructed boiler-house, 8 boilers with about 80 tons steam capacity per hour at 40 atmospheres absolute pressure are to be installed. They will replace the 14 locomotive boilers (of 12 atmospheres pressure) utilized since the initiation of the factory.

(4) Sodafabrik Stassfurt Fred Oelssner

This firm possesses, in an old power-house, 3 Brown-Boveri turbines with a total capacity of 5 MW. In a newer power house, there is an older turbine of 800 KW capacity and the recently installed Dresden turbine listed above.

7. Orders for domestic consumption of equipment produced by VEB Turbinenfabrik Dresden included a monthly delivery of 80 locomotive searchlights (Beleuchtungsmaschinen) at 460 DMF each.

1.  Comment: This turbine is called simply a Kondensations-Turbine

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