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DEPARTMENT OF JUSTICE
WAR DIVISION
ECONOMIC WARFARE SECTION

SUPPLEMENTARY REPORT

ON

SHOWA STEEL WORKS, ANZAN, MANCHURIA

March 27, 1943

Submitted by: H. B. Ritchin and
Leo H. Kuhn
Economic Warfare Section
Department of Justice
Chicago, Illinois

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Economic Warfare Section
War Division
Department of Justice
Washington, D. C.

Supplementary Report

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Re: Showa Steel Works, Anzan,
Manchuria

Submitted by: H. B. Ritchin and
Leo H. Kuhn

Economic Warfare Section
Department of Justice
Chicago, Illinois

SHOWA STEEL WORKS, ANZAN, MANCHURIA

Introduction

This report supplements the information contained in the Confidential Report on the Showa Steel Works, Anzan, Manchuria, dated March 15, 1943, by Leo H. Kuhn. The previous report pointed out that the Showa Steel Works was responsible for approximately 20% of Japan's ability to mechanize its armed forces; it produced approximately 20% of Japan's total steel production, over 95% of Manchuria's steel production, 50% of all the steel rails manufactured in the Japanese Empire, 50% of the pig iron needs of Japan, and 20 to 25% of Japan's coke for metallurgical purposes, as of 1937.

Layout of the Showa Steel Works

The layout of the Showa Works, showing the location of the important buildings, plants, railroad tracks, power station, etc., existing and proposed as of 1939 is attached hereto as Exhibit 1. The existing plants and buildings, with the appropriate titles, are noted thereon.

Facilities of Independent Companies Located at Showa

In addition to the Showa facilities indicated on Exhibit 1, there are also shown the facilities of the plants adjacent to Showa. They are:

1. Manshu Roll Kaisha plant
2. Manshu Chuko plant
3. Manshu Sumitomo Kokan Kaisha plant
4. Anzan Kosai Kaisha plant
5. Nichiman Kokan Kaisha plant, and
6. Manshu Aento Kaisha plant.

These plants are independent of Showa and independent of the Manchurian Heavy Industries Development Corporation. They are owned by private interests in Japan. They buy semi-finished materials from Showa and process them. One plant manufactures the chilled iron rolls

used in rolling mills, another manufactures seamless tubes, and another is a structural steel fabricating plant whose products are similar to those of the American Bridge Company in the United States.

Itemized Description of the Showa Plant - Including
Equipment, Building structures, Capacity, Processes,
Technology, Atmospheric Conditions, Power, Trackage,
Water Supply, etc.

A questionnaire was prepared and submitted by Mr. Van Campen to the management of the Showa Steel Works. The attached sheet exhibits are the answers to this questionnaire. They are dated June 17, 1938. The questions answered include:

Exhibit #2

Coke Ovens

1. Number of batteries
2. Number of ovens in each battery, etc.
(3 sheets.)

Exhibit #3

Coke Oven Gas Distribution

1. Amount of gas produced each 24 hours.
2. Amount of gas consumed at coke plant, etc.
(2 sheets.)

Exhibit #4

Blast Furnace History
(1 sheet.)

Exhibit #5

Blast Furnace No. 1

1. Average daily production, etc.
(3 sheets.)

Exhibit #6

Blast Furnace No. 2

1. Average daily production, etc.
(3 sheets.)

Exhibit #7

Blast Furnace No. 3

1. Average daily production, etc.
(3 sheets.)

Exhibit #8

Blast Furnace No. 4

1. Average daily production, etc.
(3 sheets.)

Exhibit #9

Blast Furnaces Nos. 5 and 6

1. Diameter of dust catcher, etc.
(2 sheets.)

Exhibit #10

Blast Furnaces Nos. 7 and 8

1. Diameter of dust catcher, etc.
(2 sheets.)

Exhibit #11

Blast Furnace Gas

1. Gas produced each 24 hours, etc.
(2 sheets.)

Exhibit #12

Blast Furnace Gas Cleaning

1. Diameter and height of primary gas washers, etc.
(1 sheet.)

Exhibit #13

Blast Furnace Boilers

1. Number of boilers, etc.
(5 sheets.)

Exhibit #14

Blast Furnace Blowing

1. Number of blowing units used for No. 1,
2, 3 and 4 blast furnaces, etc.
(4 sheets.)

Exhibit #15

Specifications for Anzan Pig Iron

1. For steel, etc.
(1 sheet.)

Exhibit #16

Standard Specifications for O. H. Furnace Steel
(1 sheet.)

Exhibit #17

Steel Specifications
(2 sheets.)

Exhibit #18

Open Hearth Information
(3 sheets.)

Exhibit #19

Blooming Mill
1. Diameter of rolls, etc.
(1 sheet.)

Exhibit #20

Sheet Bar and Billet Mill
(1 sheet.)

Exhibit #21

Rail and Structural Mill
1. Type of mill, etc.
(2 sheets.)

Exhibit #22

No. 1 Bar Mill
1. Type of mill, etc.
(2 sheets.)

Exhibit #23

No. 2 Bar Mill
1. Type of mill, etc.
(3 sheets.)

Exhibit #24

Sheet Mill
No. of roughing mills, etc.
(2 sheets.)

Exhibit #25

Electric Power
No. of generators, etc.
(5 sheets.)

Exhibit #26

Analysis of Gases
(1 sheet.)

Exhibit #27

Water Services
(3 sheets.)

Exhibit #28

Service Shops
How many tons of iron castings per day can foundry
produce, etc.
(1 sheet.)

Exhibit #29

Civil Engineering
(2 sheets.)

Exhibit #30

Average Number of Employees Per Day
(1 sheet.)

Exhibit #31

Plants Adjacent to Showa
(1 sheet.)

Exhibit #32

Mine Data
(1 sheet.)

Exhibit #33

Analysis of Raw Materials
(1 sheet.)

Exhibit #34

Iron Deposits in Manchukuo
(1 sheet.)

Exhibit #35

Atmospheric Conditions
(2 sheets.)

Exhibit #36

Coal Analysis
(1 sheet.)

Exhibit #37

Magnesite Analysis
(1 sheet.)

Exhibit #38

Lean Ore Crushing Plant
(1 sheet.)

Exhibit #39

Analysis of Fuchin Coal
(1 sheet.)

Raw Materials

Limestone

Limestone is supplied entirely by the mine which is located at about 17 kilos northeast of Dairen; that is, 317 kilos south of Anzan. An open-cut method is employed in this mine and the annual mining capacity is about 908,000 tons. The stone from this mine contains 52.5% CaO and 3% SiO₂.

Manganese Ore

The Showa Works do not have their own manganese mines. They have to secure all of their supplies from outside sources. The main supply comes from India and amounts to 20,000 tons. About 7,000 tons of low-grade manganese ore is purchased from Japanese and Manchurian mines.

Magnesite

The Showa Works have their own mine at Gyushinzan, which is located at 75 miles south of Anzan. They mine about 6,000 tons yearly. This mine has a reserve of about 1,000,000 tons.

Dolomite, Fluorspar, and Quartz

The Steel Works buy these materials from various companies in Japan and Manchukuo. The amounts are as follows:

Dolomite	20,000 tons
Fluorspar	2,600 tons
Quartz	15,000 tons

Source of Information

Mr. J. C. Van Campen. Mr. Van Campen was born in 1888 and graduated as a mechanical engineer from Pratt Institute. He was employed for six years with the Bethlehem Steel Corporation at Bethlehem, Pennsylvania as a steel plant engineer and superintendent of the machine shop. For five years thereafter he was employed by the Midvale Steel Ordnance Company of Coatesville, Pennsylvania as assistant chief engineer. In 1924 he was employed by the Timken Roller Bearing Company of Canton, Ohio as special engineer on anti-friction bearings for steel plants and railroads. From there he went to E. W. Bliss Company of Salem, Ohio as chief engineer.

For seven years he was chief engineer of the Republic Steel Corporation and for three and a half years he was chief foreign engineer of the H. A. Brassert Company.

In April of 1938, Mr. Van Campen, with Mr. Vaill and another engineer, was sent by H. A. Brassert and Company to Anzan, Manchuria to make a survey of the iron and steel facilities. After this survey was completed, he was employed for one year as a consulting engineer for the Otani Steel Industries syndicate located in Tokyo, Japan.

Mr. Van Campen terminated the contract when political conditions in Japan became very strained and returned to the United States in the early part of 1941 and has been employed by the Continental Ordnance Corporation as consulting engineer since that time.