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OFFICE OF STRATEGIC SERVICES Research and Analysis Branch

R & A No. 1000.1

REVISION OF R & A NO. 1000, JAPAN'S ELECTRIC POWER INDUSTRY, ON BASIS OF NORTHERN KYUSHU PHOTOCOVER

### Description

A supplement to R & A No. 1000 based on photocover of the Kokura-Tobata-Yawata Area.

1 December 1944

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Revision of R & A No. 1000, Japan's Electric Power Industry, on Basis of Northern Kyushu Photocover\*

Recent photocover of the Kokura-Tobata-Yawata frea in Northern Kyushu has afforded a means to check information on 11 steam plants
listed in R & 1000, Japan's Electric Power Industry. The total
capacity of the plants checked -- as confirmed by photocover -- is
smaller than that listed in R & 1000. The basic study gives a total
capacity of 603,000 kilowatts for these plants while they are now
estimated to total only 503,000 kilowatts including one 50,000 kilowatt
plant not yet definitely located.\*\* The discrepancy of at least 100,000
kilowatts can be attributed in part to estimates made on the basis of
information about new generating equipment manufactured by Japan's
electrical equipment producers and supposedly assigned to plants in
this area during its period of rapid industrilization from 1939 to 1941.
At least two plants covered in this report have been dismantled and
this fact would not have been made known without photocover.

<sup>\*</sup>This report is based upon photography taken on 18 June 1944 by the 18th Photo Interpretation Detachment and released by the Photographic Division, Office of the Assistant Chief of Air Staff, Intelligence, Headquarters, U.S. rmy Air Forces and the Photographic Interpretation Center, Division of Naval Intelligence, Navy Department. The Evaluation and Library Branch of the Photographic Division, Army Air Forces, cooperated in the analysis and evaluation of the photocover used.

<sup>\*\*</sup>In addition to this, there are some unsettled questions with regard to 2 plants and part of the capacity of another.

A plant not otherwise known (Nippon Seitetsu-sho Yawata No. 5 Steam Plant) has been located. It is conceivable that a smaller total electric power capacity for Japan proper than was originally estimated in R & A 1000 may result from further photocover of other industrial areas. The attached map of the Kokura-Tobata-Yawata area shows the location of some of the power plants discussed in this report.

Confirmation or denial of existence of the following power plants is given by the available photocover:

# Moji Factory Steam Plant of the Asano Cement KK

Capacity listed in R & A 1000 (Plant 494) is 7,000 kilowatts.

An installation believed to be this plant has been identified. Additional photocover is required to make this identification positive.

Absence of coal storage and coal handling equipment does not affect the identification since the plant is known to have used waste gas.

from cement kilns as fuel.

# Kokura No. 1 Steam Plant

Capacity listed in R & A 1000 (Plent 376) is 40,000 kilowatts.

Its location, as shown on a 1931 city map of Kokura, and capacity as listed are confirmed. The plant is approximately 125 feet wide and 350 feet long. There are at least 2 chimneys, about 145 feet and 165 feet high. (No explanation can be offered for a pipe line which connects the Kokura No. 1 and No. 2 plants. While this and other features of the structure as shown in the photographs make a completely

satisfactory identification impossible, there is nothing either in the photographs or other intelligence to indicate that the power plant known to have been on this site in March 1940 is no longer in operation.)

### Kokura No. 2 Steam Plant

Capacity listed in R & A 1000 (Plant 377) is 78,240 kilowatts.

Its location and capacity are confirmed. However, in adding the last unit in 1938 the generator house was extended and a new boiler house was constructed so that there are new 2 boiler houses and 1 generator house. The 2 stacks at each end of the boiler house have been removed and there are new 1 concrete chimney at the south and north ends of the old boiler house and 1 concrete chimney at the new boiler house.

Each chimney is approximately 120 feet high. The coal yard and coal shed have been expanded. The latter measures approximately 125 feet wide and 470 feet long.

### Kokura Steam Plant

Capacity listed in R & A 1000 (Plant 378) is 50,000 kilowatts. Plant cannot be found in the available photocover, although reliable Japanese sources stated definitely that it was in operation in 1940. Until further information has been received, it must be assumed that this plant is still in existence. Its exact location is not known.

## Nippon Seitetsu-sho Yawata No. 1 Stoam Plant

Capacity listed in R & A 1000 (Plant 554) was 5,250 kilowatts. This plant cannot be found in the photographs and has presumably been

dismantled. This was an old plant, built in 1905.

#### Nippon Seitetsu-sho Yawata No. 2 Steam Plant

Capacity listed in R & A 1000 (Plant 555) was 25,000 kilowatts. A building on the former location of this plant appears to have some other function. It is believed probable that the new 12,000 kilowatt unit was installed in the No. 5 plant (see below) rather than in this plant, and the original No. 2 plant, built in 1916, has been decommissioned.

#### Nippon Seitetsu-sho Yawata No. 3 Steam Plant

Capacity listed in R & A 1000 (Plant 556) is 30,000 kilowatts. This is confirmed by the photocover. This plant is constructed in 2 buildings: (a) boiler house has V-shaped roof with 6 stacks, approximately 70 feet high, in 2 rows of 3 each on either side of the building; (b) generator house is a separate, adjacent building. Dimensions are 110 feet wide and 116 feet long (boiler house) and 74 feet wide and 240 feet long (generator house).

### Nippon Seitetsu-sho Yawata No. 4 Steam Plant

Capacity in R & A 1000 (Plant 557) is 124,600 kilowatts.

Photocover shows a main installation with 8 chimneys -- the known number when the plant had a capacity of 40,000 kilowatts. The original generator bay has been extended in length and an adjacent structure, believed to be an extension of the boiler house, with an additional

Contract of the second

new generating units on which information had been obtained was actually installed. The size of the extensions md stack suggest that this was one of the larger units reported on, probably the 25,000 kilowatt unit for which there is somewhat more definite evidence than for the 30,000 kilowatt unit. This would give the plant a present capacity of 65,000 kilowatts, excluding house units, Until further confirmation is available this new capacity estimate must be considered as tentative. The extension to the beiler house is approximately 100 feet wide and 150 feet long; the stack is about 72 feet high.

# · Nippon Seitetsu-sho Yawata No. 5 Steam Plant

This plant, not listed in R & A 1000, is located adjacent.

to the Yawata No. 3 Steam Plant. It has 3 stacks indicating 3 units,

all of which are in operation. It is estimated to have a capacity of

41,600 kilowatts; 2 units at 12,000 kilowatts, of which one was assigned

in R & A 1000 to the No. 2 plant and the other to the No. 4 plant, and

1 unit at 17,600 kilowatts, originally assigned to the No. 4 plant.

(If an additional 25,000 kilowatt capacity can definitely be assigned

to the No. 4 plant (see above) then only one 30,000 kilowatt unit out

of all the new units originally believed to have been installed at

Yawata cannot be located.)

# Tobata Steam Plant

Capacity listed in R & A 1000 (Plant 844) is 209,000 kilowatts.

in five units. Photocover shows six stacks, approximately 100 feet high, all smoking, and a check of the dimensions of the plant shows that each stack is associated with one of the 6 boilers shown in available plans of the plant in 1938, when it had 3 generator units and space and boiler capacity for 1 additional unit. Therefore, the capacity is now known to be only 156,000 kilowatts, expansion not having been carried beyond the No. 4 unit. The main building is approximately 250 feet wide, 400 feet long, and 90 feet high. The coal storage shed is 110 feet wide and 330 feet long. The switchgear covers an area 110 feet wide and 330 feet long.

# Yawata Factory' Steam Plant of the Asahi Garasu KK

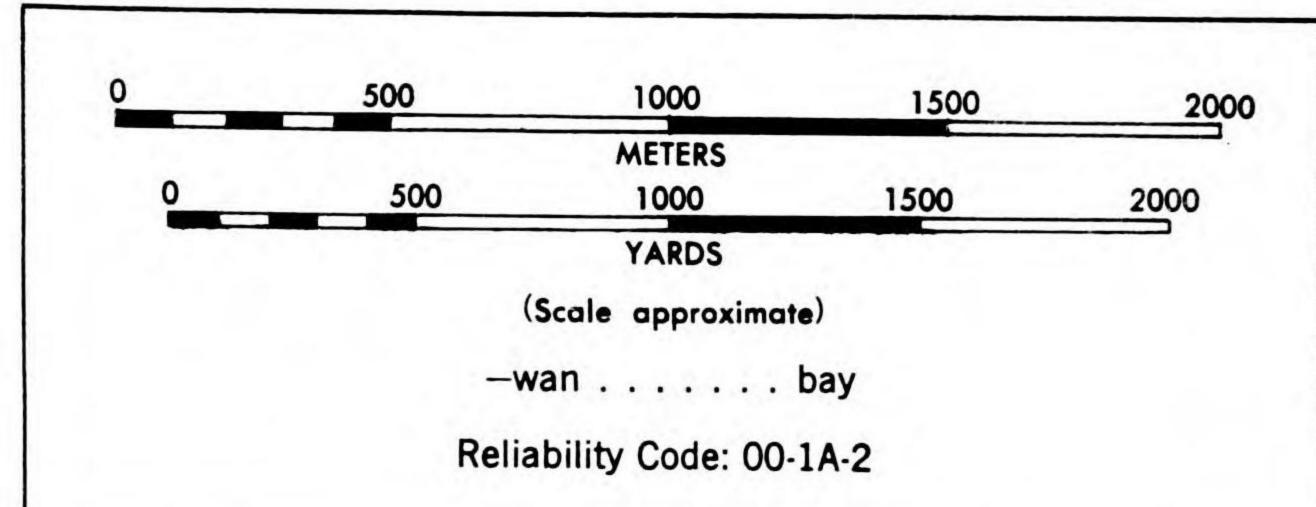
Estimated capacity listed in R & A 1000 (Plant 956) is
10,000 kilowatts. A building with three stacks found in the photocover
probably contains the high pressure boilers known to have been installed
at this factory and has the characteristics of a power plant. In the
absence of any definite information regarding installation of generator
units it is uncertain whether this is actually an electric power plant.

# Yawata Factory Steam Plant of the Nippon Kasei Kogyo KK

Capacity listed in R & 1000 (Plant 957) is 24,000 kilowatts. This plant has been definitely located and its capacity is confirmed. The plant has 3 stacks for its 3 boiler units, one of which is a spare.

MAJOR ELECTRIC POWER PLANTS IN THE KOKURA-TOBATA-YAWATA AREA

Base: Yawata Area, Photography of 18 June 1944, 21st Photo Squadron, 14th Army Air Force. Prepared by the Office of the Assistant Chief of Air Staff, Intelligence, HQ U.S. Army Air Forces and the Photographic Intelligence Center, Division of Naval Intelligence, Navy Department.





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