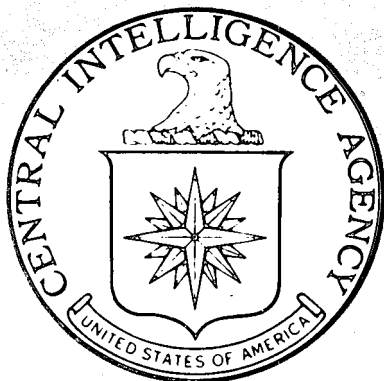


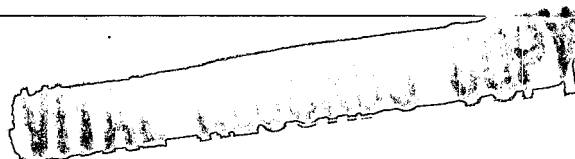
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CHINESE POWER PLANTS

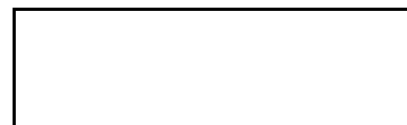
SHANSI PROVINCE



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Declass Review by NIMA / DOD



DATE JULY 1966

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CHINESE POWER PLANTS

SHANSI PROVINCE

- (A) Chang-chih Thermal Power Plant
- (B) Tai-yuan Thermal Power Plant No. 1
- (C) Tai-yuan Thermal Power Plant No. 2
- (D) Tai-yuan Thermal Power Plant
(Steel Works Plant No. 2)
- (E) Ta-tung Thermal Power Plant (Ping-wang)

REQUIREMENT

C-RR5-83,218

CIA/IAD PROJECT

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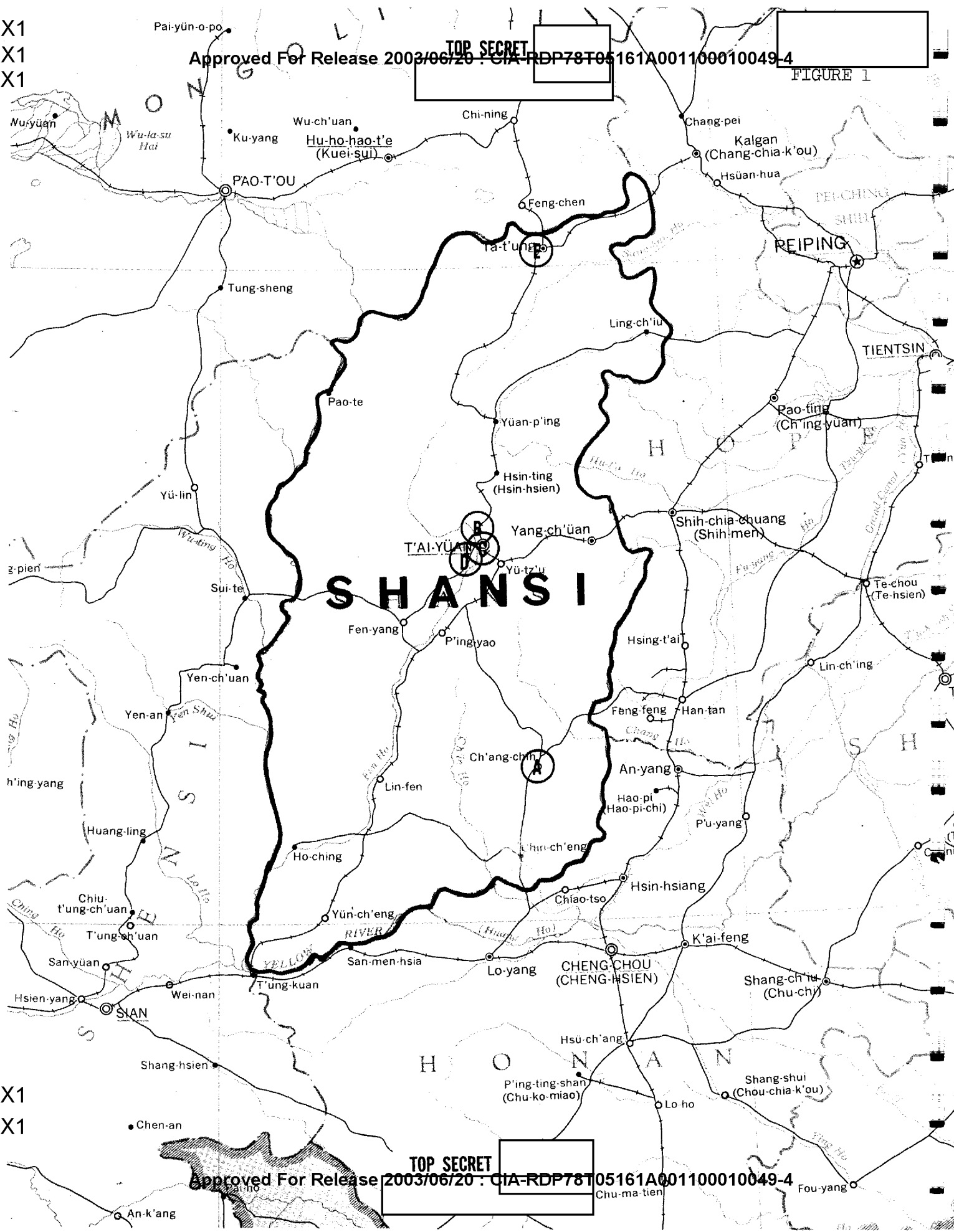
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FIGURE 1



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CHANG-CHIH THERMAL POWER PLANT
NPIC NUMBER - 20-E

The Chang-chih Thermal Power Plant is located approximately 8.0 nm north of Chang-chih at coordinates 36 19 50N - 113 04 40E and east of a small reservoir on the Cho-chang-nai Yuan (River).

The plant is coal operated, rail served and consists of an integrated control house with five connecting transformers, large substation, switching building, five spray ponds, coal conveyor, and the usual support/storage buildings. An ash disposal area is located just northeast of the powerhouse.

The boilerhouse appears to have been expanded twice with a resultant variance in boiler section design. The northern section is served by free-standing masonry stacks C and D, and possibly houses three or four boiler units; the southern section has two smaller free-standing masonry stacks (A and B) and may have three smaller boiler units. A more definitive analysis of the boilerhouse construction was impossible using available coverage. The generator hall is of uniform design and is equipped with two longitudinal monitors. A control house is contiguous to the western side and southern end of the generator hall; five transformers are linked to the control house, suggesting five operable generator units.

The only construction during the period [redacted] consisted of the installation of a new spray pond (E).

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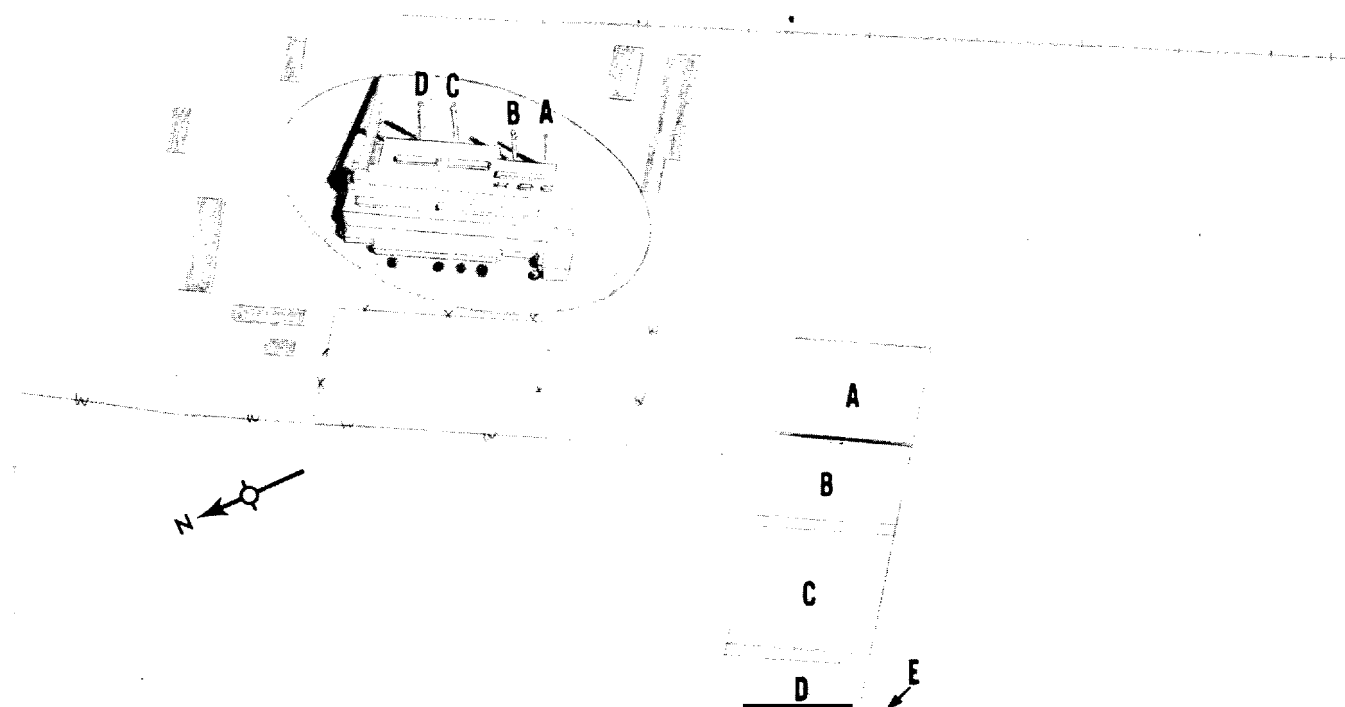
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FIGURE 2

CHANG-CHIH THERMAL POWER PLANT



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CHANG-CHIH THERMAL POWER PLANT

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	CONSTRUCTION ACTIVITY	LEVEL OF PRODUCTION
	None	Heavy smoke from stack D. Moderate smoke from stack C. Spray ponds A and B are filled but not in operation. Spray ponds C and D show dense vapor.
	Preparation for the addition of spray pond E is apparent.	Light smoke from stacks C and D. Eight sprinkler units are in operation in the spray ponds.
	No apparent change.	Light smoke from stacks C and D. Spray ponds A and B are empty. Four sprinkler units are in operation in spray ponds C and D.
	Spray pond E is completed and in operation.	Light smoke from stacks C and D. Possible light smoke from stacks A and B. Fourteen sprinkler units are in operation in the spray ponds.

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TAI-YUAN THERMAL POWER PLANT NO. 1

NPIC NUMBER - 12-R3

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Tai-yuan Thermal Power Plant No. 1 is located 4.0 nm west of Tai-yuan Strip Airfield [REDACTED] at coordinates 37 46 35N - 112 28 20E. The facility is coal-operated, rail-served and includes a sub-station with five transformers (three large and two medium), three possible small transformers, two control houses, eight small oil-storage tanks, three spray ponds, extensive coal handling and treatment facilities, and numerous support/storage buildings of undetermined function.

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The boilerhouse consists of two distinct sections with nine operable boiler units and one boiler unit under construction. The older section has seven metal roof-stacks and seven small dust-catchers suggesting seven units; the newer and expanding section consists of two larger completed units with framework for a third unit. The completed units are each equipped with a large dust-catcher and connected by four-duct flues to masonry stack H.

There were five visible sets of power cables leading from the generator hall to the control house [REDACTED]

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Two new boiler units and one new generator hall section were completed during the period [REDACTED]

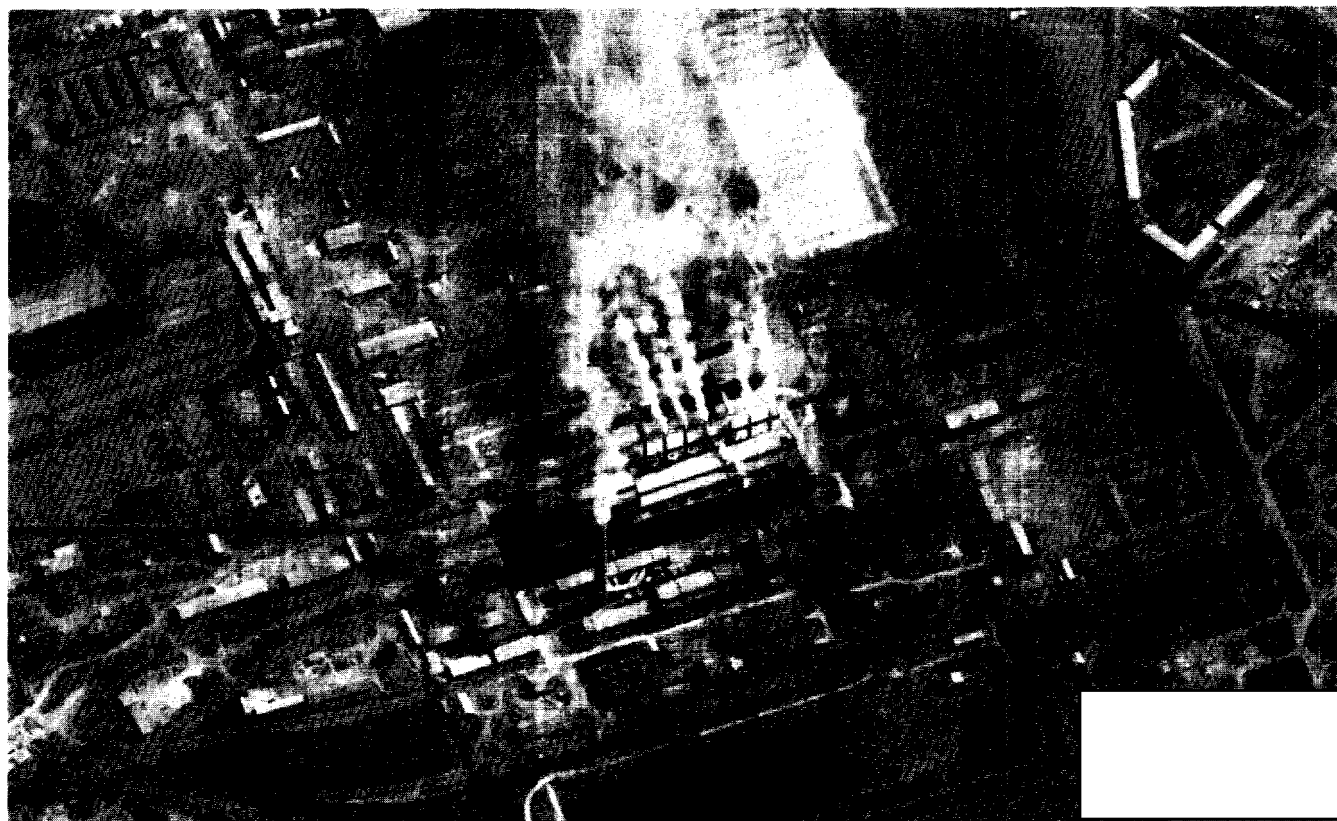
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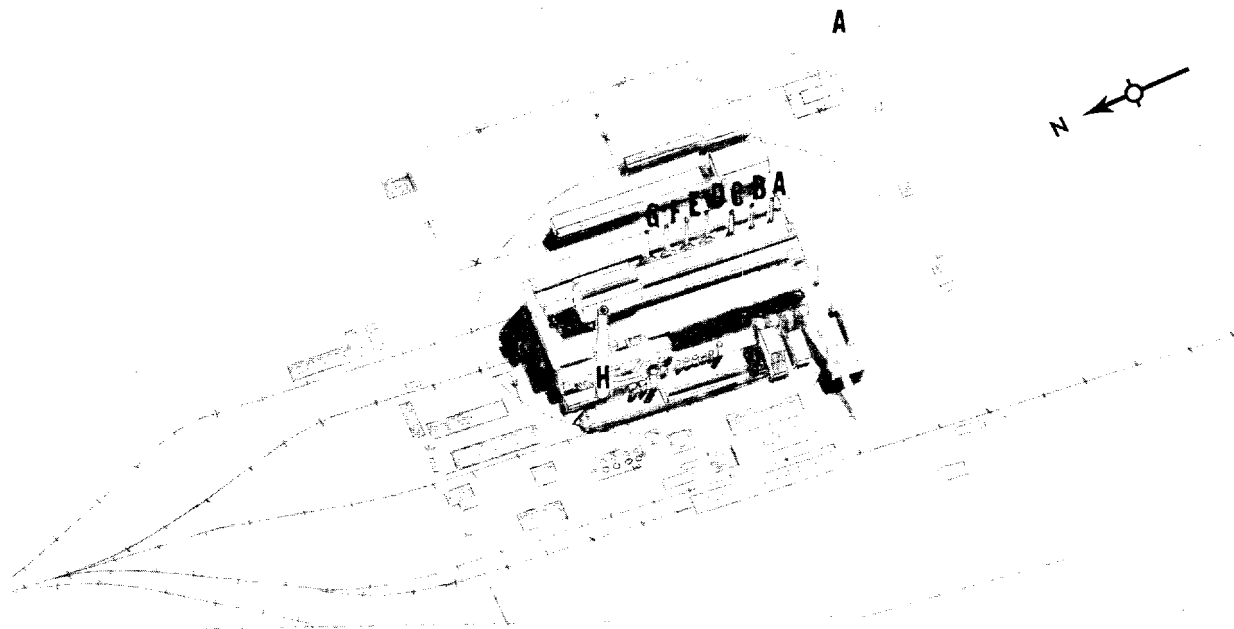
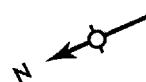
FIGURE 3

TAI-YUAN THERMAL POWER PLANT NO.1



B

A



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FIGURE 4

TAI-YUAN THERMAL POWER PLANT NO. 1

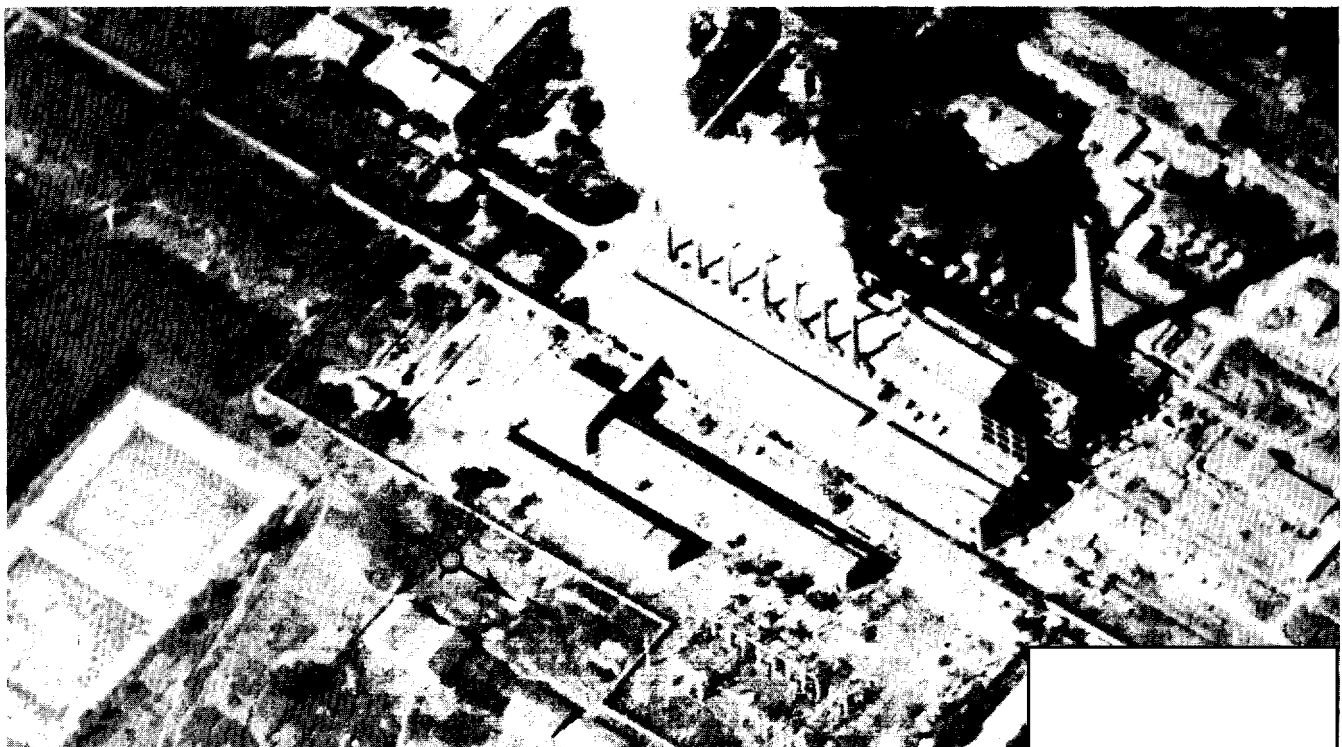
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TAI-YUAN THERMAL POWER PLANT NO. 1

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	CONSTRUCTION ACTIVITY	LEVEL OF PRODUCTION
	Uprights for additions to boilerhouse and generator hall are evident. Masonry stack H is complete, but has no flues or ducts installed. Poor quality photography precludes further analysis.	Heavy smoke from stacks A, B, F and G. Moderate smoke from stacks D, E, and possibly F. Spray pond appears empty.
	Sides and roof for two boiler units are complete; two dust-catchers are visible on these two new units. Minor roofing has occurred on the generator hall.	Moderate smoke from stacks A, B, C, D, E, F, and G. Spray ponds are empty.
	Heavy smoke from plant precludes analysis.	Heavy smoke from plant precludes analysis. Spray ponds appear empty.
	No change	Moderate smoke from stacks A, B, C, D, and E. Possibly stacks F and G are smoking also but smoke precludes analysis. Spray ponds A, B, and C are empty. Obliquity precludes further analysis.
	Flue system from masonry stack H to the previously noted two new boiler units is evident.	Moderate smoke from stacks B, C, E, and G. Heavy smoke from stack H. Spray ponds A and B appear empty. C is full but not activated.

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TAI-YUAN THERMAL POWER PLANT NO. 1

	CONSTRUCTION ACTIVITY	LEVEL OF PRODUCTION
	Several small support buildings are added.	Heavy smoke from stacks preclude analysis. Spray ponds are empty.
	None apparent.	Heavy smoke precludes analysis. Spray pond A is empty.
	None apparent.	Moderate smoke from stacks H, D, E, F, and G. Light smoke from stacks A, B, and C. Spray ponds A, B, and C are empty.

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TAI-YUAN THERMAL POWER PLANT NO. 2

NPIC NUMBER - 12-P1

25X1

Tai-yuan Thermal Power Plant No. 2 is located west of the Tai-yuan Explosives Manufacturing Plant at coordinates 37 59 20N - 112 31 10E. The plant is rail-served, coal-operated, and includes a sub-station with a control house and three large transformers, three probable transformers, six small oil storage tanks, three reinforced concrete or masonry cooling towers, a fourth cooling tower under construction, coal conveyor and processing facilities, and numerous support/storage buildings.

The powerhouse is being expanded and apparently consists of three operable boiler-generator units. The boilerhouse is equipped with three sets of dust-catchers and is connected by three complete sets of flues to masonry stack A. [REDACTED] the boilerhouse could accommodate at least two additional boiler units, but no dust-catchers had been installed and the flue systems were incomplete. One of the incomplete boiler sections will connect to stack A; a fourth set of flues is already partially completed to stack A. The remaining section and others that will be added will be connected to a second stack (B). Foundations for new stack B and additions to the boilerhouse and generator hall are under construction.

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Two visible sets of three-cable power leads connect the generator hall and sub-station.

Construction of foundations for stack B and a new cooling tower (D) plus considerable continuing expansion of the powerhouse occurred during the period [REDACTED]

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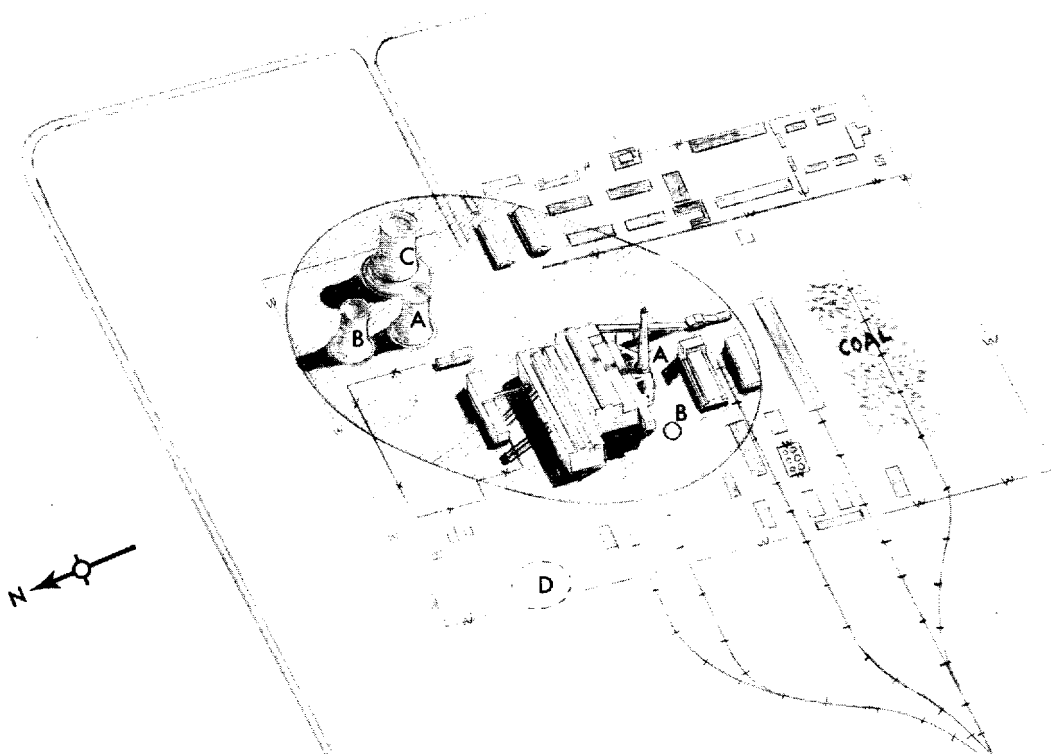
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FIGURE 5

TAI-YUAN THERMAL POWER PLANT NO. 2



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FIGURE 6

TAI-YUAN THERMAL POWER PLANT NO. 2

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TAI-YUAN THERMAL POWER PLANT NO. 2

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CONSTRUCTION ACTIVITY	LEVEL OF PRODUCTION
Uprights for probably two boiler units are evident. The western-most section of the generator hall appears to be only partially roofed. Heavy smoke and haze precludes a detailed assessment.	Moderate smoke from stack A. Heavy vapor from cooling towers A and B.
The generator hall addition is roofed. Heavy smoke precludes further analysis.	Very heavy smoke from stack A. Moderate vapor from cooling towers A and B.
No apparent change.	Moderate smoke from stack A. Light vapor from cooling tower A and possible light vapor from cooling tower B.
No apparent change.	Moderate smoke from stack A. Light vapor from cooling towers A, B, and C.
No apparent change.	Moderate smoke from stack A. Moderate vapor from cooling towers A, B, and C.

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TAI-YUAN THERMAL POWER PLANT NO. 2

	CONSTRUCTION ACTIVITY	LEVEL OF PRODUCTION
	<p>Wall for a fourth boiler unit is under construction.</p> <p>The southern side of the boilerhouse addition is apparently complete; the section, however, is not roofed.</p> <p>The new boilerhouse addition appears to be largely complete. The section is roofed, except for a small area at the open east end. Foundations for more expansion of the boilerhouse and generator hall are evident. Also, foundations for a new stack (B) and cooling tower (D) are present.</p>	<p>Moderate smoke from stack A. Moderate vapor from cooling towers A, B, and C.</p> <p>Moderate smoke from stack A. Moderate vapor from cooling towers A, B, and C.</p> <p>Moderate smoke from stack A. Light vapor from cooling towers A, B, and C.</p>

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TAI-YUAN THERMAL POWER PLANT
(STEEL WORKS PLANT NO. 2)

25X1

Tai-yuan Thermal Power Plant is located in the southern sector of the Tai-yuan Iron and Steel Complex at coordinates 37 55 10N - 112 32 19E. The facility is rail-served, coal-operated, and includes three spray ponds, three oil storage tanks, coal conveyor system, and numerous support/storage buildings. A pipeline connects the plant with the blast furnace and coke oven sections, indicating that the power plant may use gas as an alternate fuel.

The boilerhouse contains four dust catcher units, and four sets of ducts, suggesting that four boiler units are installed. No power cables or switching facilities are apparent. The three small sections extending from the eastern side of the generator hall may serve as control facilities. A steam line leads from the power plant to the steel works.

There has been no new construction during the period

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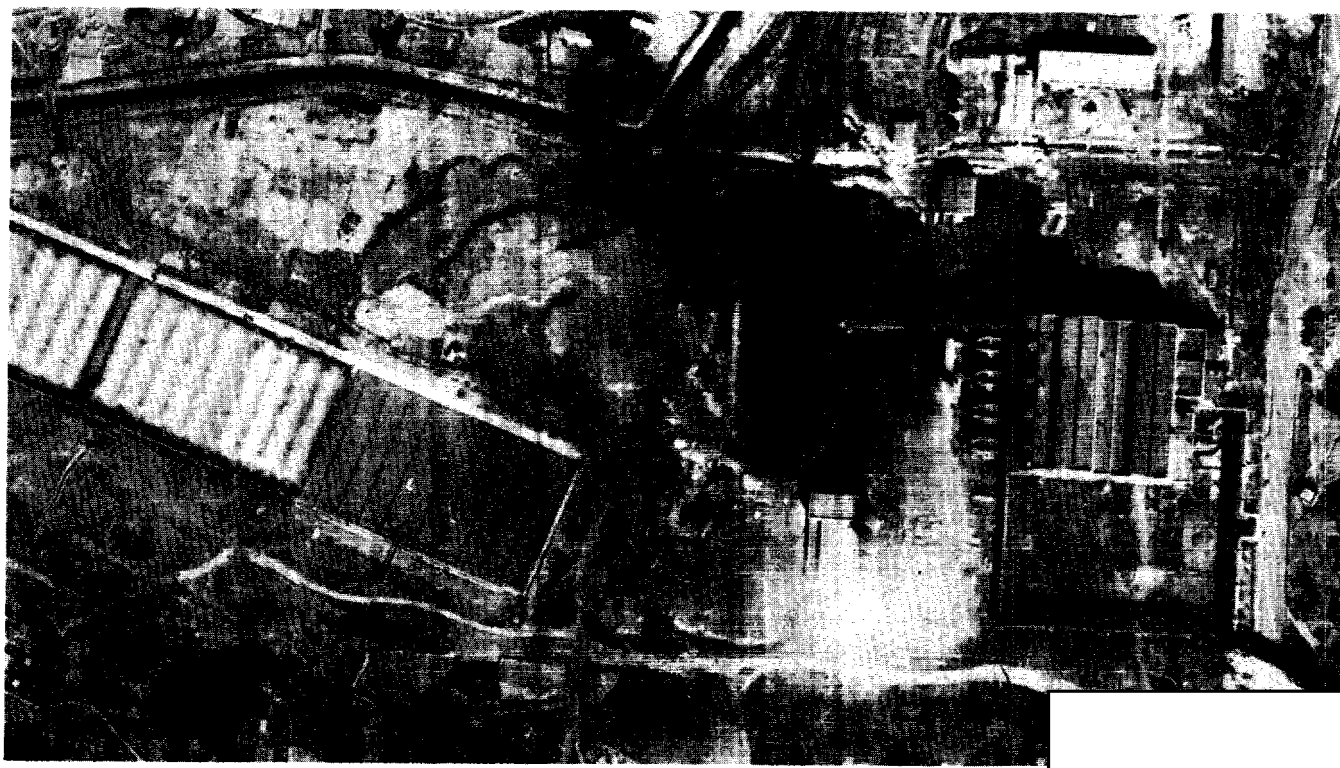
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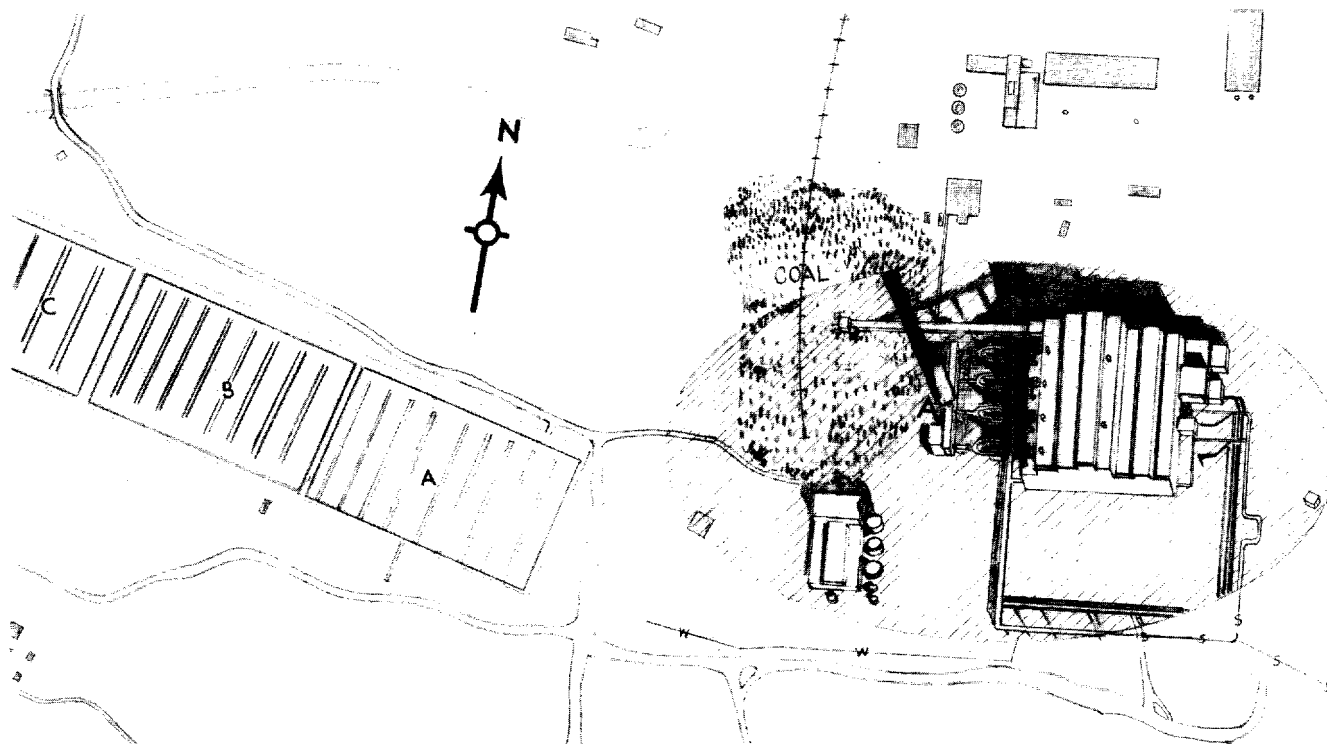
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FIGURE 7

TAI-YUAN THERMAL POWER PLANT
(STEEL WORKS PLANT NO. 2)



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TAI-YUAN THERMAL POWER PLANT
(STEEL WORKS PLANT NO. 2)

25X1

	CONSTRUCTION ACTIVITY	LEVEL OF PRODUCTION
	None	Moderate smoke from stack A. Spray ponds A, B, and C appear activated.
	None	Moderate smoke from stack A. Spray ponds B and C are activated.
	None	Light smoke from stack A. Spray pond A appears activated; spray ponds B and C are empty.
	None	Moderate smoke from stack A. Spray ponds A, B, and C are activated.
	None	Light smoke from stack A. Spray ponds A, B, and C are activated.
	None	Light smoke from stack A. Spray ponds are apparently inactive.

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TAI-YUAN THERMAL POWER PLANT
(STEEL WORKS PLANT NO. 2)

	CONSTRUCTION ACTIVITY	LEVEL OF PRODUCTION
	None	Moderate smoke from stack A. Spray ponds A, B, and C are activated.

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TA-TUNG THERMAL POWER PLANT (PING-WANG)

NPIC NUMBER - 16-D

The Ta-tung Thermal Power Plant is located 4.0 nm southwest of Ta-tung on the west bank of the Shih-li Ho (River) at coordinates 40 03 50N - 113 12 20E. The plant is coal-operated, rail-served and consists of a sub-station with five probable transformers, two integrated control houses, a natural draft cooling tower, sedimentation pond, seven spray ponds, three probable oil storage tanks, a canal network for utilization of water, and numerous support/storage buildings. A steam line leads eastward to the Ta-tung Locomotive Factory and a second line leads southward to the possible Ta-tung Diesel Engine Plant.

The powerhouse consists of an old section equipped with roof stacks A and B, a recently completed center section with probably three operable boiler-generator units (served by stack C), and an expanding western section which may house four boiler-generator units when completed. The generator hall has no power cables visible and there are no other indications of the number of operable generator units.

Considerable expansion occurred during the period [redacted] to include the completion of one boiler-generator unit, extension of the generator hall and control house, and completion of walls for three additional boiler units.

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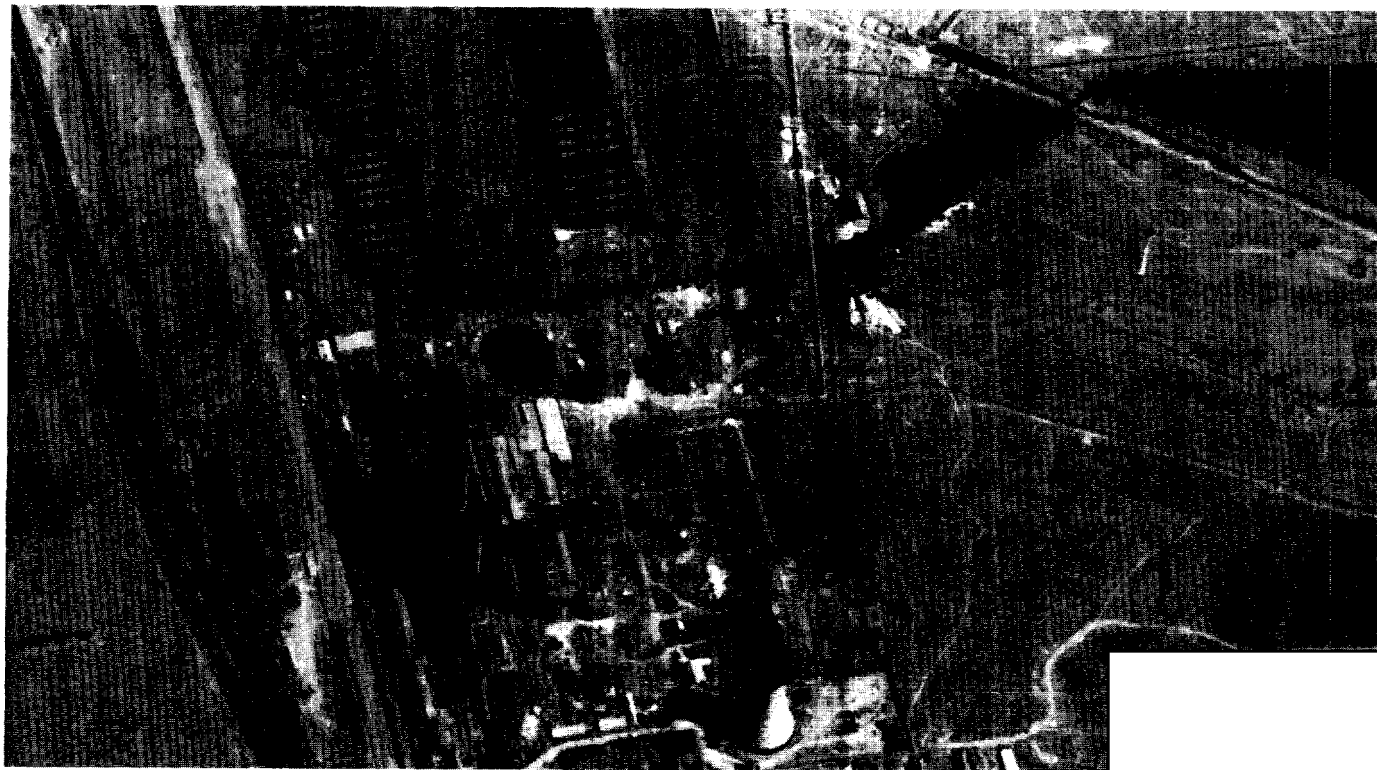
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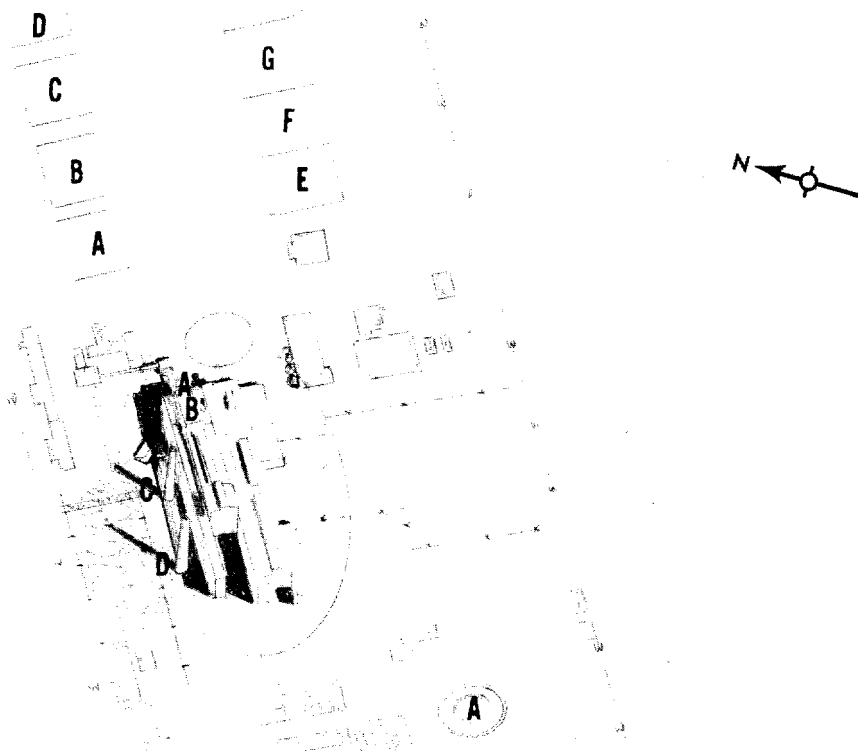
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FIGURE 8

TA-TUNG THERMAL POWER PLANT (PING-WANG)



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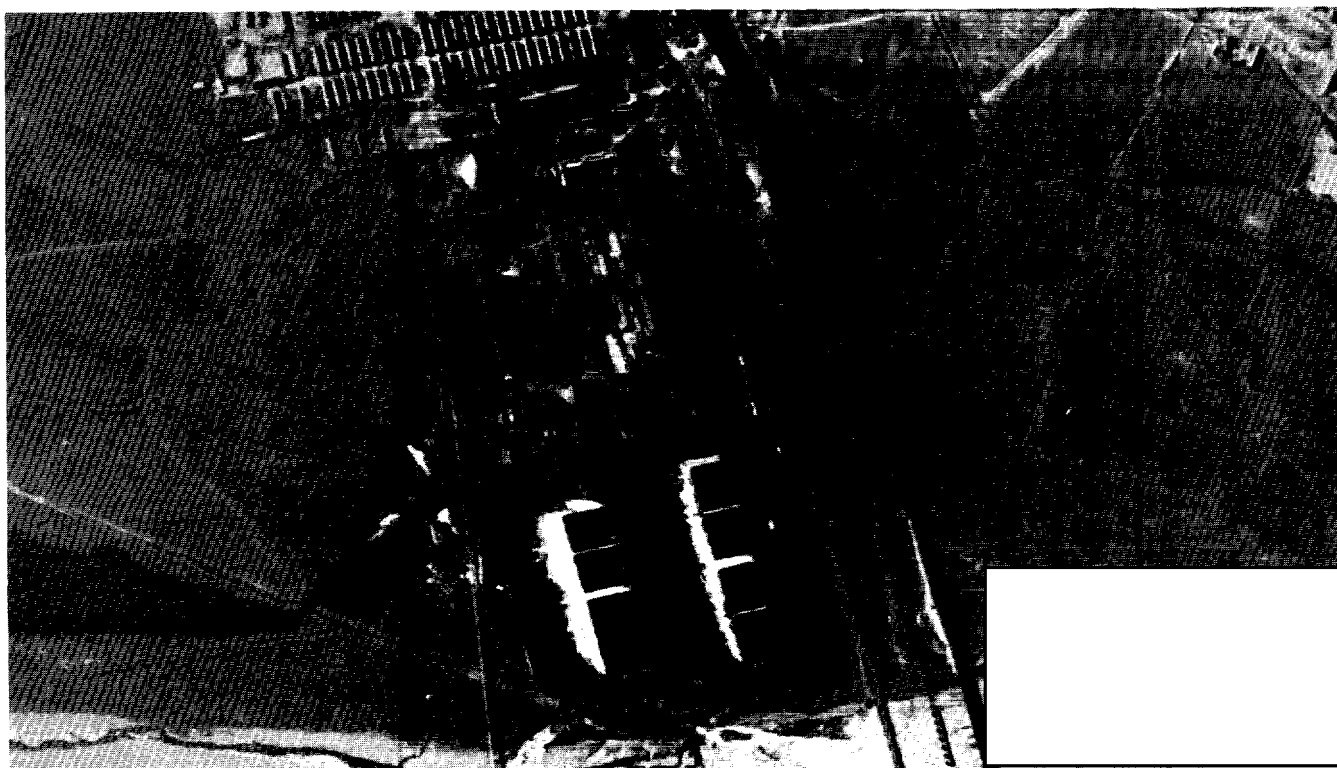
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TA-TUNG THERMAL POWER PLANT (PING-WANG)



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TA-TUNG THERMAL POWER PLANT (PING-WANG)

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CONSTRUCTION ACTIVITY	LEVEL OF PRODUCTION
Powerhouse is expanding. The plant presently consists of an old section of probably two units (served by stacks A and B) and a newer section of about three larger units (served by stack C). A second masonry stack (A) is complete but not connected. Uprights for the addition of perhaps two more boiler units are evident. Obliquity precludes further analysis.	Appears to be light smoke from stack A. Light vapor from cooling tower A. Five units are in operation in spray ponds A, B, C, and D. Four units are in operation in spray ponds E, F, and G.
Obliquity precludes analysis.	Light smoke from stack A. Five units in operation in spray ponds A, B, C, and D. Four units in operation in spray ponds E, F, and G.
No apparent change	No smoke/vapor observed. Four units in operation in spray ponds A, B, C, and D. Four units in operation in spray ponds E, F, and G.
Walls are in place for one unit addition to the generator hall. Integrated control house has been expanded along the above new generator hall unit.	Light smoke from stack A. Five units are in operation in spray ponds A, B, C, and D. Four units are in operation in spray ponds E, F, and G.
Roof is complete on one new boiler unit.	Light smoke from stack A. Possible light smoke from stack C. Five units are in operation in spray ponds A, B, C, and D. Four units are in operation in spray ponds E, F, and G.

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TA-TUNG THERMAL POWER PLANT (PING-WANG)

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	CONSTRUCTION ACTIVITY	LEVEL OF PRODUCTION	
	Flue is visible leading from stack D to new boiler unit observed [REDACTED] Large dust-catcher is installed in the new boiler unit.	Light smoke from stacks A and B. Three units are in operation in spray ponds A, B, C, and D. Four units are in operation in spray ponds E, F, and G.	25X1
	No apparent change.	Light smoke from stacks A and C. Five units are in operation in spray ponds A, B, C, and D. Four units are in operation in spray ponds E, F, and G.	25X1
	Wall is complete for two new boiler units.	Very light smoke from stacks A and C.	
	No apparent change.	Light smoke from stacks A and B. Five units in operation in spray ponds A, B, C, and D. Four units in operation in spray ponds E, F, and G.	

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