Top Secret

[redacted]

DIRECTORATE OF
INTELLIGENCE

Industrial Facilities
(Non-Military)

Basic Imagery Interpretation Report

Chu-chou Nitrogen Fertilizer Plant

Chu-chou, China

[redacted] 25X1

[redacted] 25X1

Top Secret

RCS 13/0039/71
[redacted] 25X1
DATE JUNE 1971
COPY 117
PAGES 7

25X1

RCS - 13/0039/71

CENTRAL INTELLIGENCE AGENCY
Directorate of Intelligence
Imagery Analysis Service

INSTALLATION OR ACTIVITY NAME		COUNTRY
Chu-chou Nitrogen Fertilizer Plant		CH
UTM COORDINATES	GEOGRAPHIC COORDINATES	
49RGA055850	27-52-40N 113-05-30E	

25X1

MAP REFERENCE

ACIC. USATC, Series 200, Sheet M0498-1AL, 2nd ed, Sep 60, Scale 1:200,000
(SECRET/

25X1

LATEST IMAGERY USED	NEGATION DATE (If required)
	NA

25X1

ABSTRACT

The primary function of the Chu-chou Nitrogen Fertilizer Plant is the production of prilled urea fertilizer. Secondary products include aqueous and/or liquid ammonia.

The plant was in an early stage of construction when first seen on good-quality coverage in March 1962. The ammonia synthesis building was completed between March 1962 and October 1966. By April 1968 the coal bunker building, a gasholder, the urea production facility, the prilling tower, and the urea warehouse had been added. The plant was essentially completed by February 1969 with the addition of the coal receiving and storage building, the coal preparation building, the retort building, two gasholders, and numerous support buildings. In January 1971, the coal receiving and storage building, the coal bunker building, the urea warehouse, the gas purification facility, and ammonia synthesis area were being expanded. The plant was first observed in operation on photography of January 1971.

This report includes a photograph, a process flow chart, a line drawing of the plant, and a chronological summary of construction and operational status.

25X1

25X1

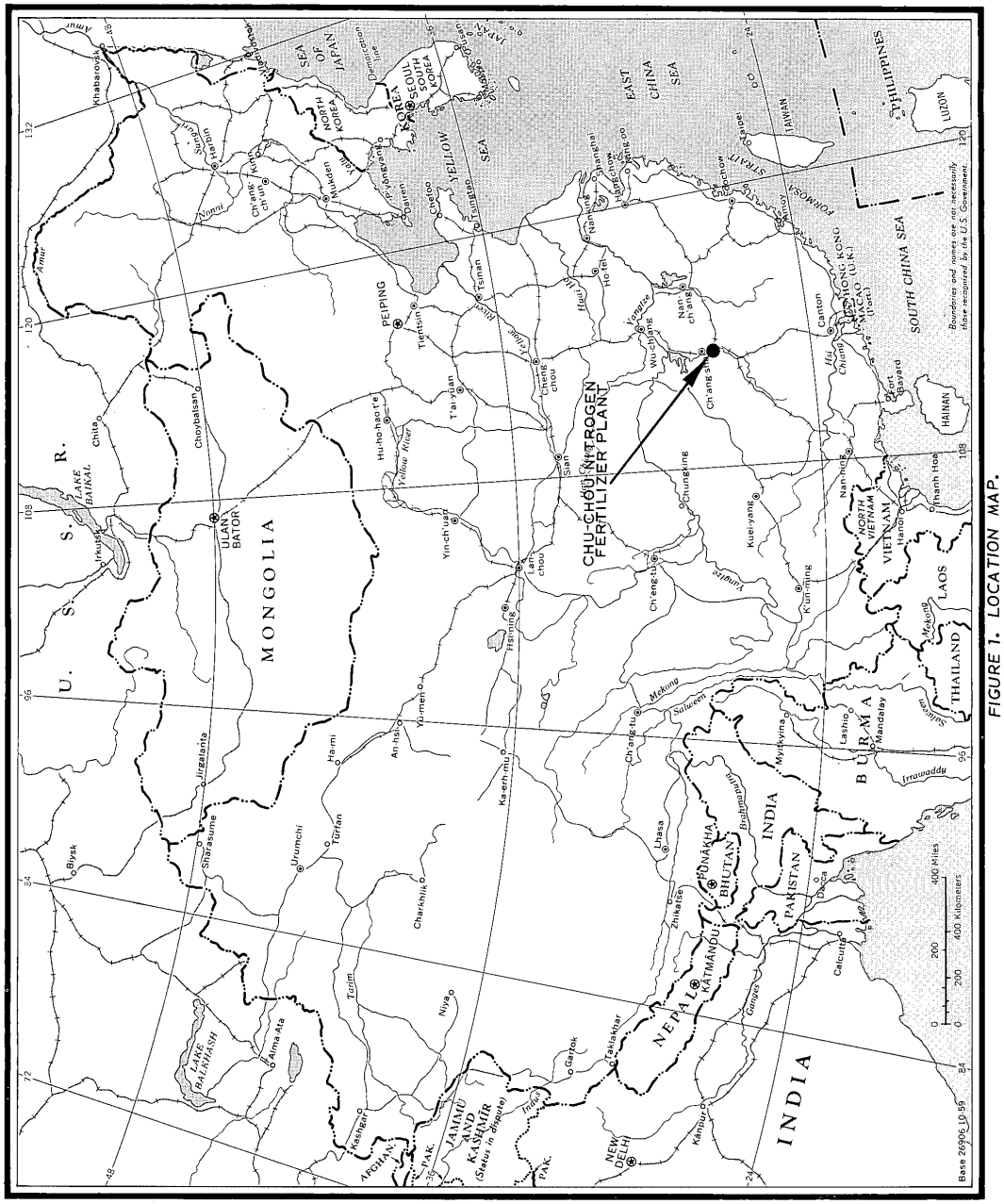

FIGURE 1. LOCATION MAP.

INTRODUCTION

Chu-chou Nitrogen Fertilizer Plant is located 3.5 nautical miles northwest of the center of Chu-chou, Hunan Province (see Figure 1). It is situated in a rapidly expanding industrial complex. Electric power is received from the Chu-chou Thermal Power Plant 25X1 Steam is provided by a collocated steam plant. 25X1

Two other plants in the industrial complex are the Chu-chou Chemical Plant and the Chu-chou Nonferrous Metals Plant 601 25X1. In addition, an unidentified production facility is located adjacent to the southeastern boundary of the plant.

BASIC DESCRIPTION

Physical Features

The plant occupies about 86 acres in an irregular area measuring approximately 2,280 by 2,230 feet (see Figures 2 and 3). It is served by six roads and a spur from the Chu-chou to I-chia-wan rail line.

Operational Functions

The primary function of the plant is the production of prilled urea fertilizer. Secondary products include aqueous and/or liquid ammonia. Water gas is utilized as the feed material for the synthesis of ammonia and as a source of carbon dioxide for the production of urea. The process flow for the products is shown in Figure 4.

Construction Chronology

The plant was observed in the early stage of construction in March 1962. At that time, only three storage buildings, an unidentified production building, and a support building were completed. Between March 1962 and October 1966, the ammonia synthesis building was completed, but little progress was made elsewhere in the plant. Construction resumed after October 1966 and by April 1968 the coal bunker building, a gasholder, the urea synthesis building, urea prilling tower, and urea warehouse were completed. The plant appeared externally complete on photography of February 1969 with the addition of the coal receiving and storage building, the coal preparation building, the water gas retort building, two gasholders, and numerous support buildings. Only minor support buildings were added between February 1969 and January 1971.

On photography of January 1971 the plant was undergoing expansion. The coal receiving and storage building, the coal bunker building, and the urea warehouse were being doubled in size. Additional expansion was noted in the gas purification facility. The compressor section of the ammonia synthesis building was also being expanded and a possible third copper formate tower was lying on the ground near it.

Operational Status

The plant appeared externally complete in February 1969, but its operational status could not be determined due to the small scale of the photography. It was first observed in operation on photography of January 1971. Vapors were coming from the retorts and the gasholders were in the raised position. The operational status of the plant could not be determined on small-scale photography of July, September, and October 1969.

Page Denied

Next 1 Page(s) In Document Denied

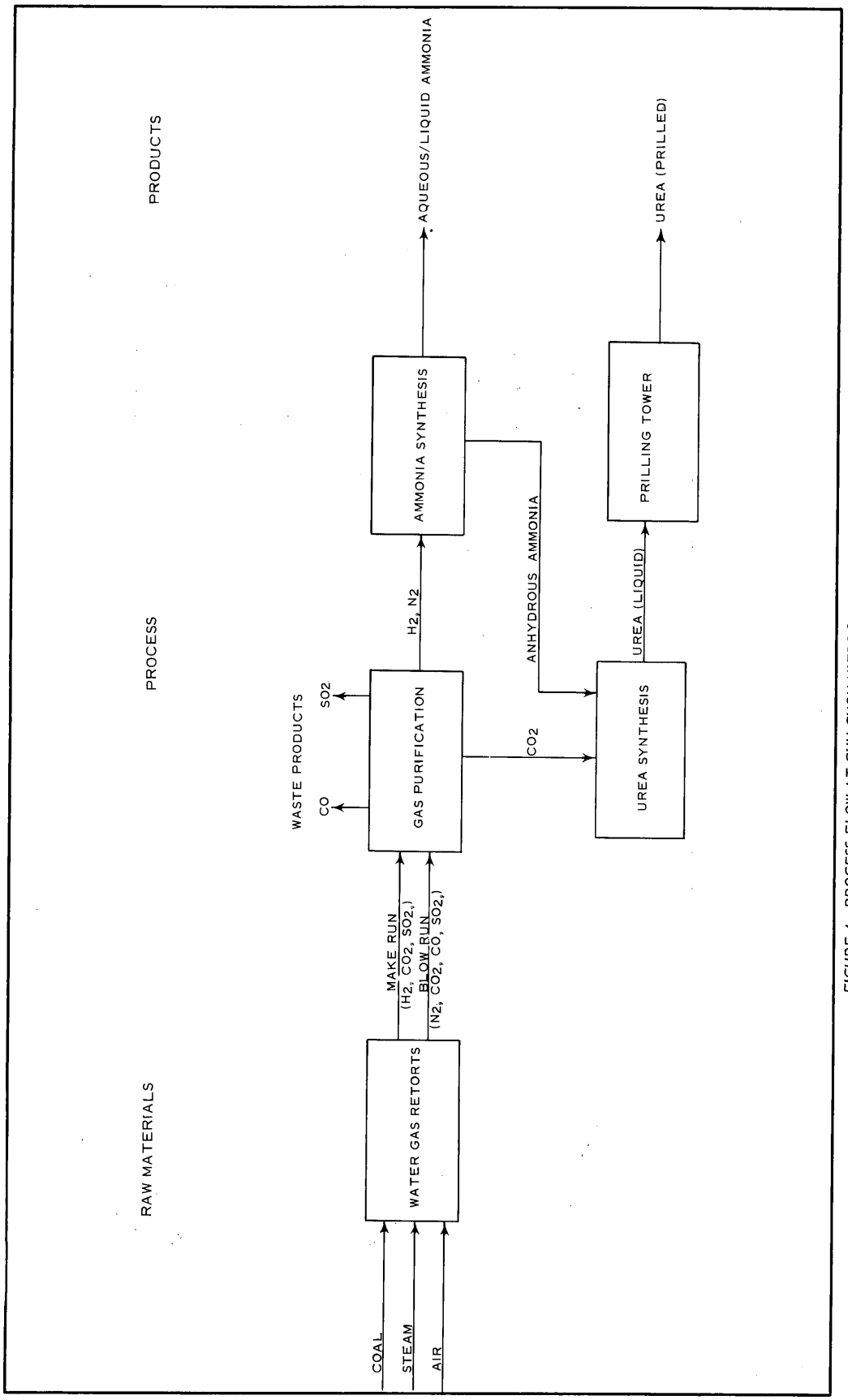

FIGURE 4. PROCESS FLOW AT CHU-CHOU NITROGEN FERTILIZER PLANT.

25X1

REFERENCES

25X1

Map

ACIC. US Air Target Chart, Series 200, Sheet M0498-1AL, 2nd edition, September 1960, Scale 1:200,000 (SECRET

25X1
25X1

Requirement

COMIREX NO2
Support Number 429219

25X1

[redacted]