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STATE OF FLORIDA
OFFICE OF THE PUBLIC COUNSEL

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PUBLIC COUNSEL

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COMMISSION
CLERK

January 17, 2002

Ms. Blanca S. Bayó, Director
Division of the Commission Clerk
and Administrative Services
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, FL 32399-0870

RE: Docket No. 010949-EI

Dear Ms. Bayó:

Enclosed is an original and a 15 copies of Exhibit ___ (WMZ-2) to be added to the testimony of William M. Zaetz that was filed on December 27, 2001, in the above-referenced docket.

Please indicate receipt of filing by date-stamping the attached copy of this letter and returning it to this office. Thank you for your assistance in this matter.

Sincerely,

Stephen C. Burgess
Deputy Public Counsel

SCB/dsb
Enclosures

AUS ___
CAF ___
CMP ___
COM ___
CTR ___
ECR ___
GCL ___
OPC ___
MMS ___
SEC ___
OTH ___

ACKNOWLEDGED & FILED
SC-BUREAU OF RECORDS

DOCUMENT NUMBER-DATE
00643 JAN 17 02
FPSC-COMMISSION CLERK

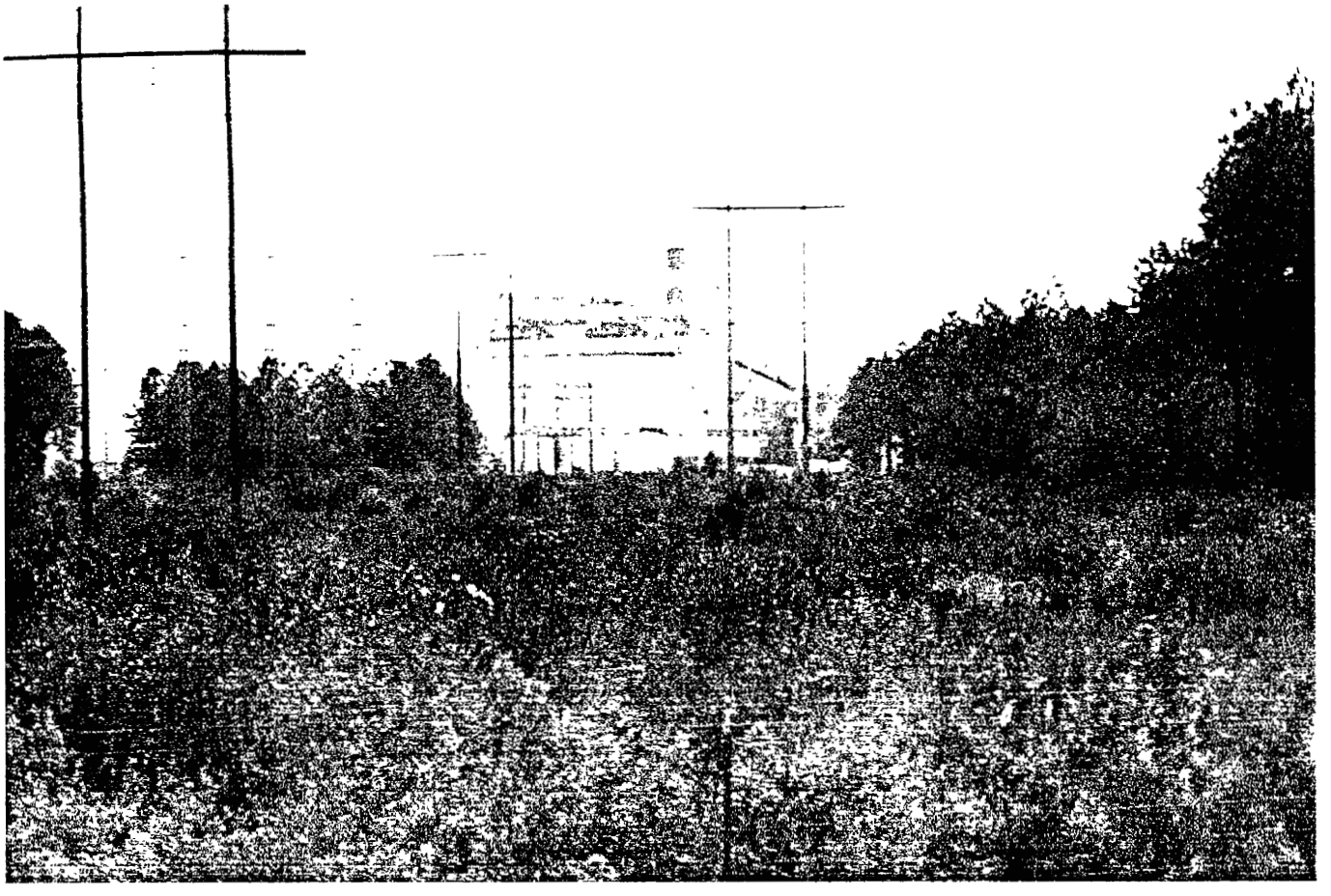
Site Visit to

Plant Lansing Smith Unit 3

S-K Senior Consultant William M. Zaetz

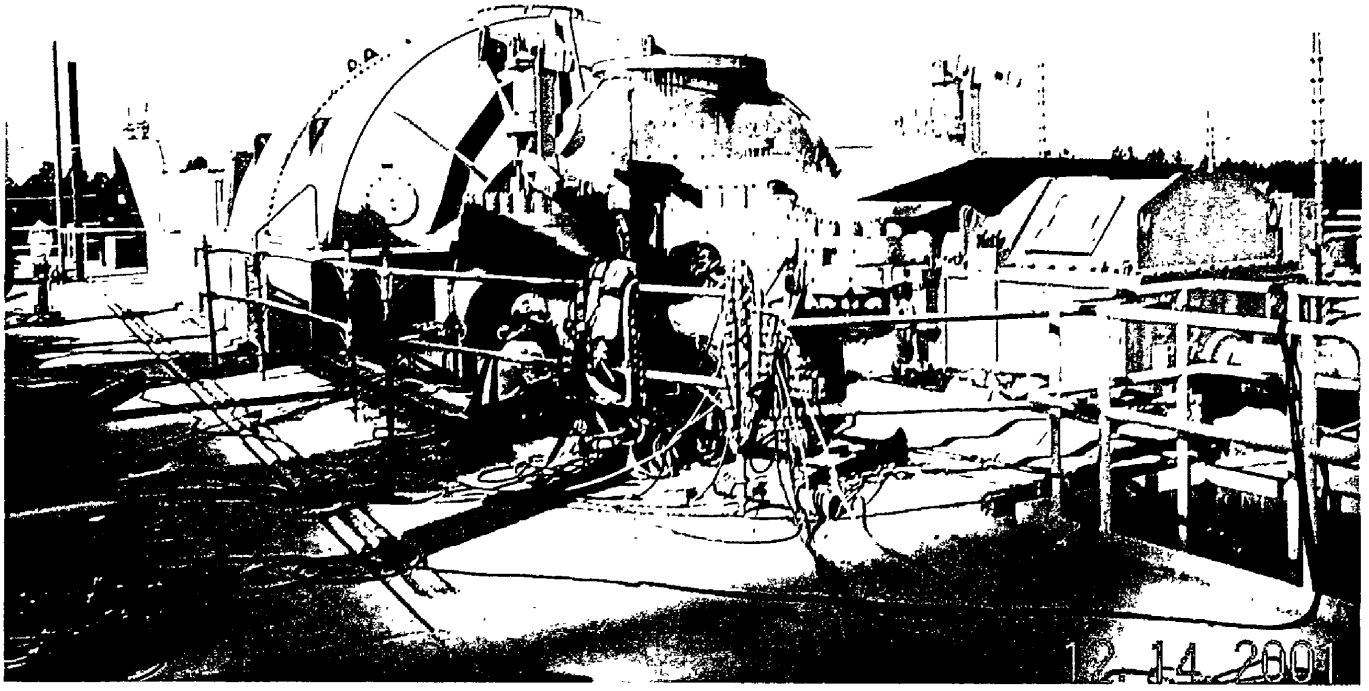
Exhibit___(WMZ-2)

COMBINED CYCLE AT SMITH #3



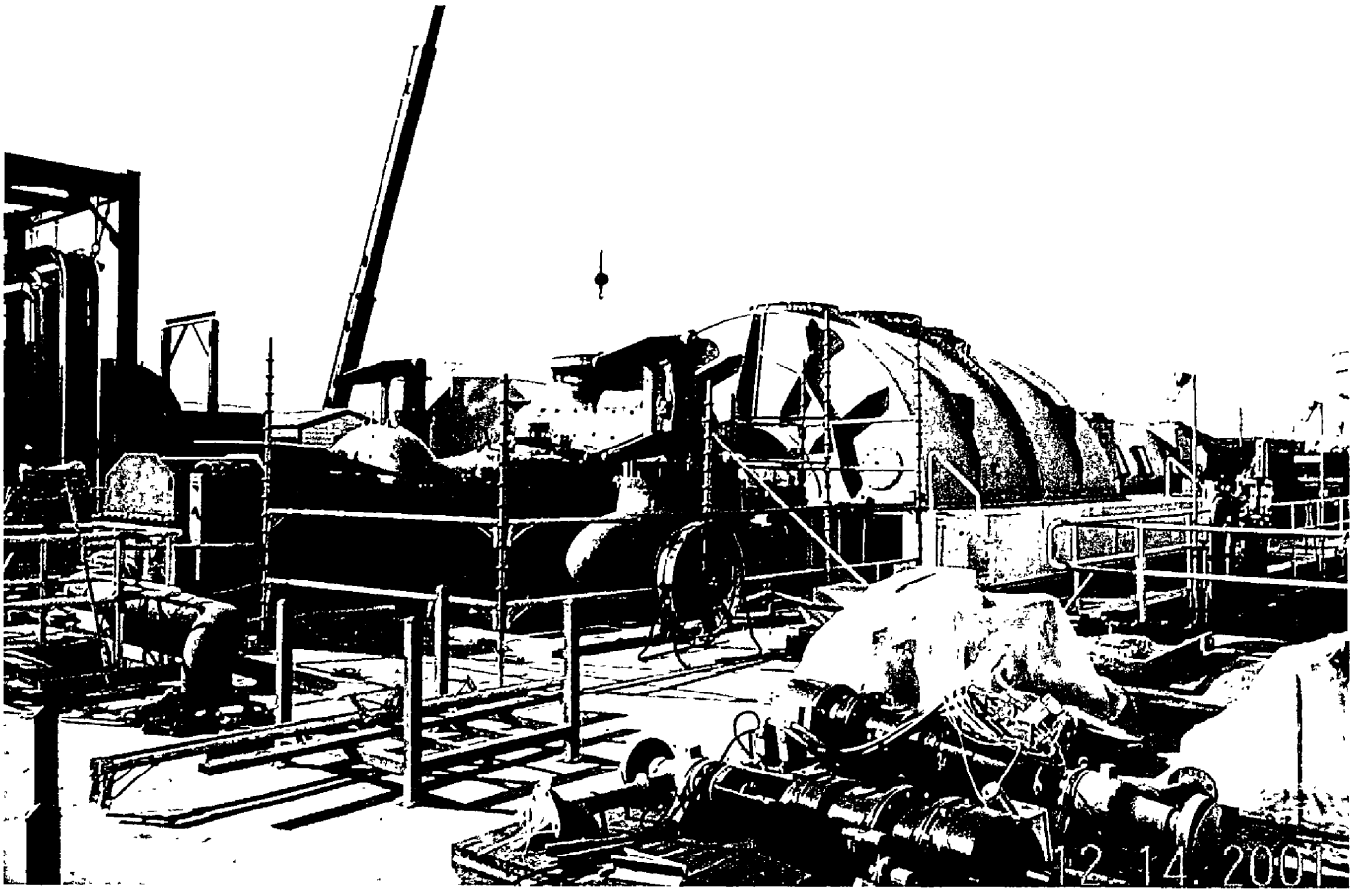
This photo of Plant Lansing Smith units 1&2, was taken from the public access road leading into the construction site. All photos included in this report, except this one, were taken by a representative of Gulf Power. The Gulf Power legal department selected the photos that could be viewed from the inventory of photos taken at the construction site on December 14, 2001.

COMBINED CYCLE AT SMITH #3



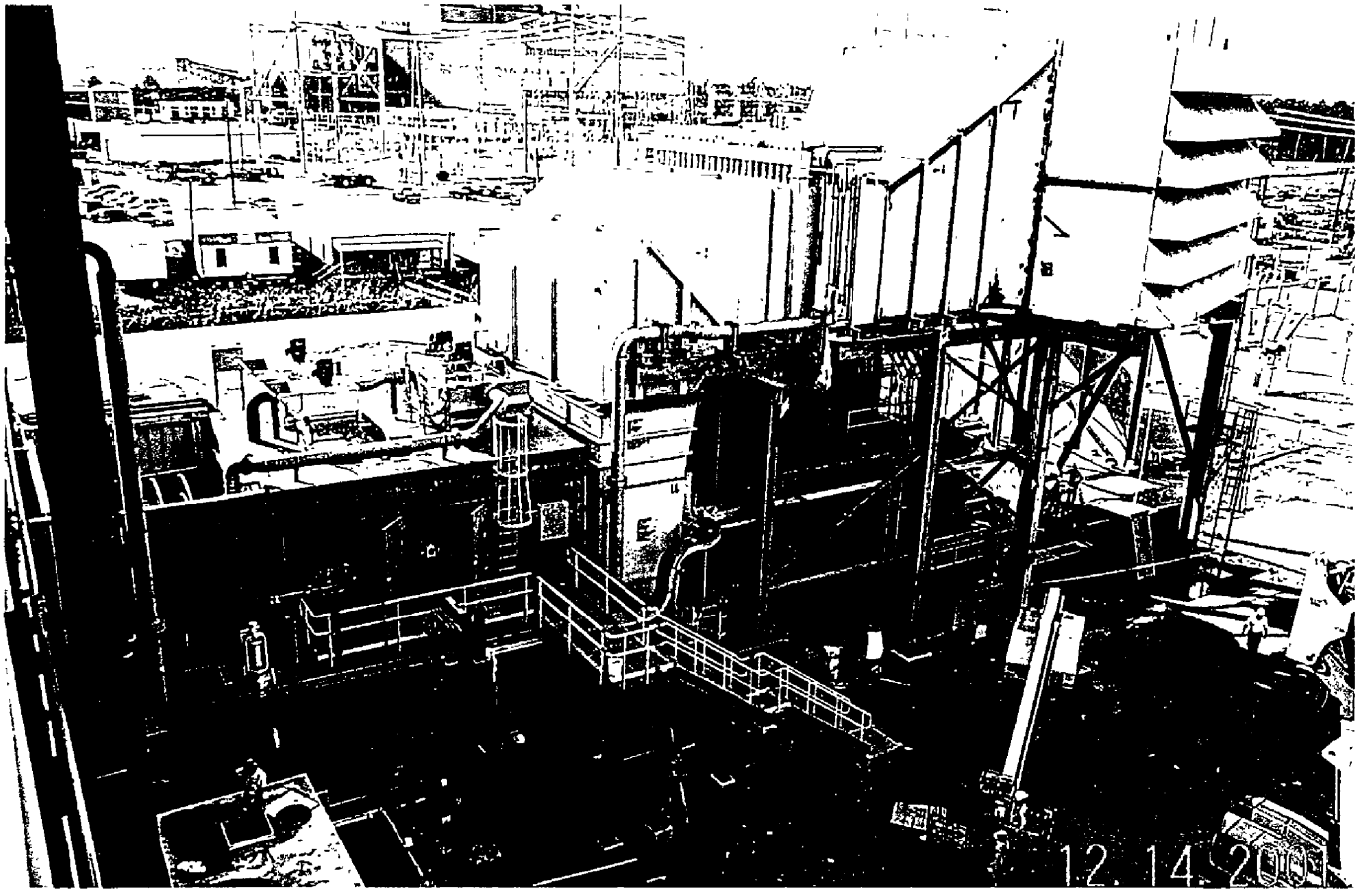
The work product of the combination of the Brayton (gas turbine) Cycle and the Rankine (steam) Cycle is the steam that powers this state-of-the-art General Electric Steam Turbine.

COMBINED CYCLE AT SMITH #3



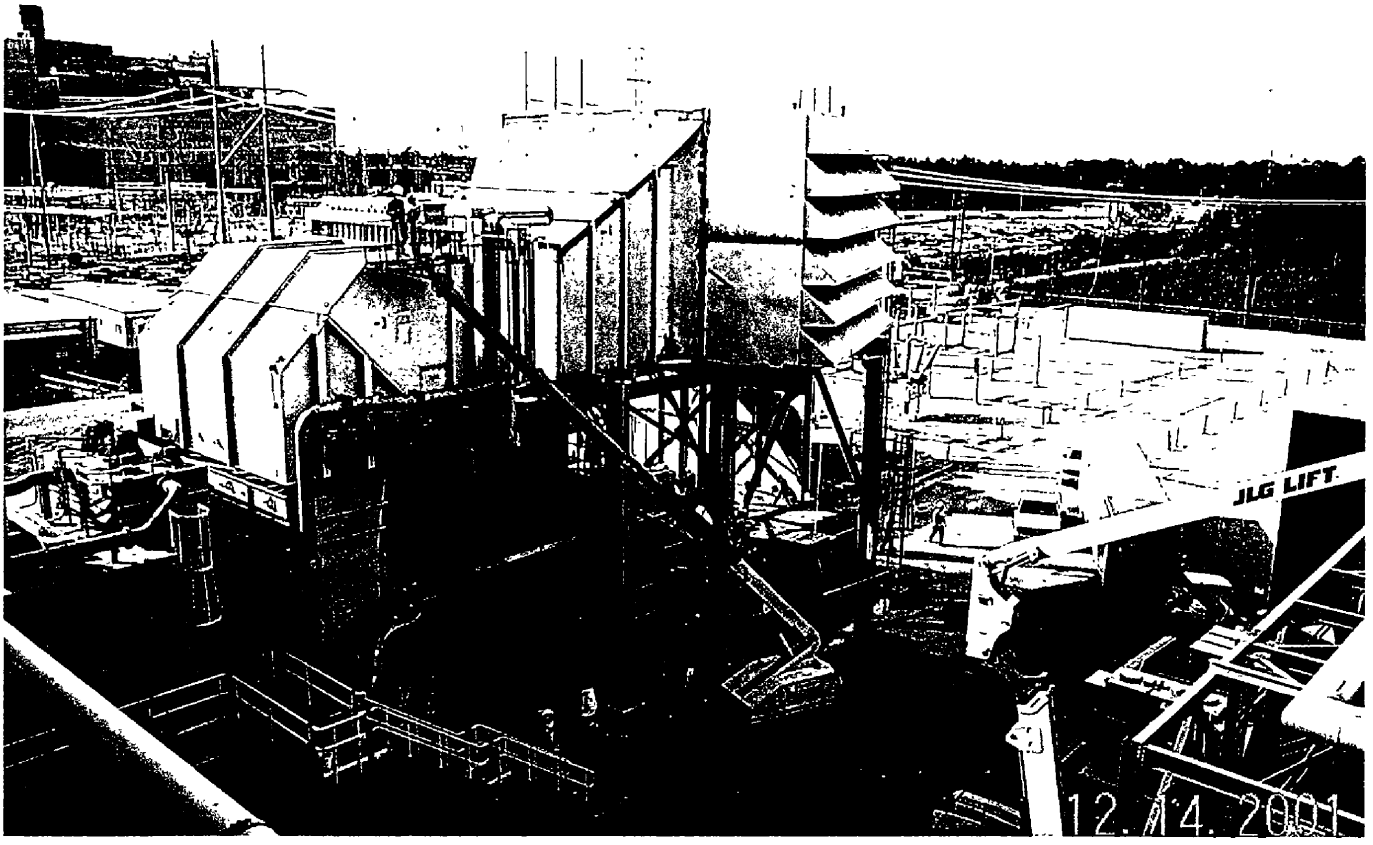
When the unit is running at full capacity, that is, both gas turbines and both HRSG's, this state-of-the-art General Electric steam turbine has a nameplate rating of 570 MW.

COMBINED CYCLE AT SMITH #3



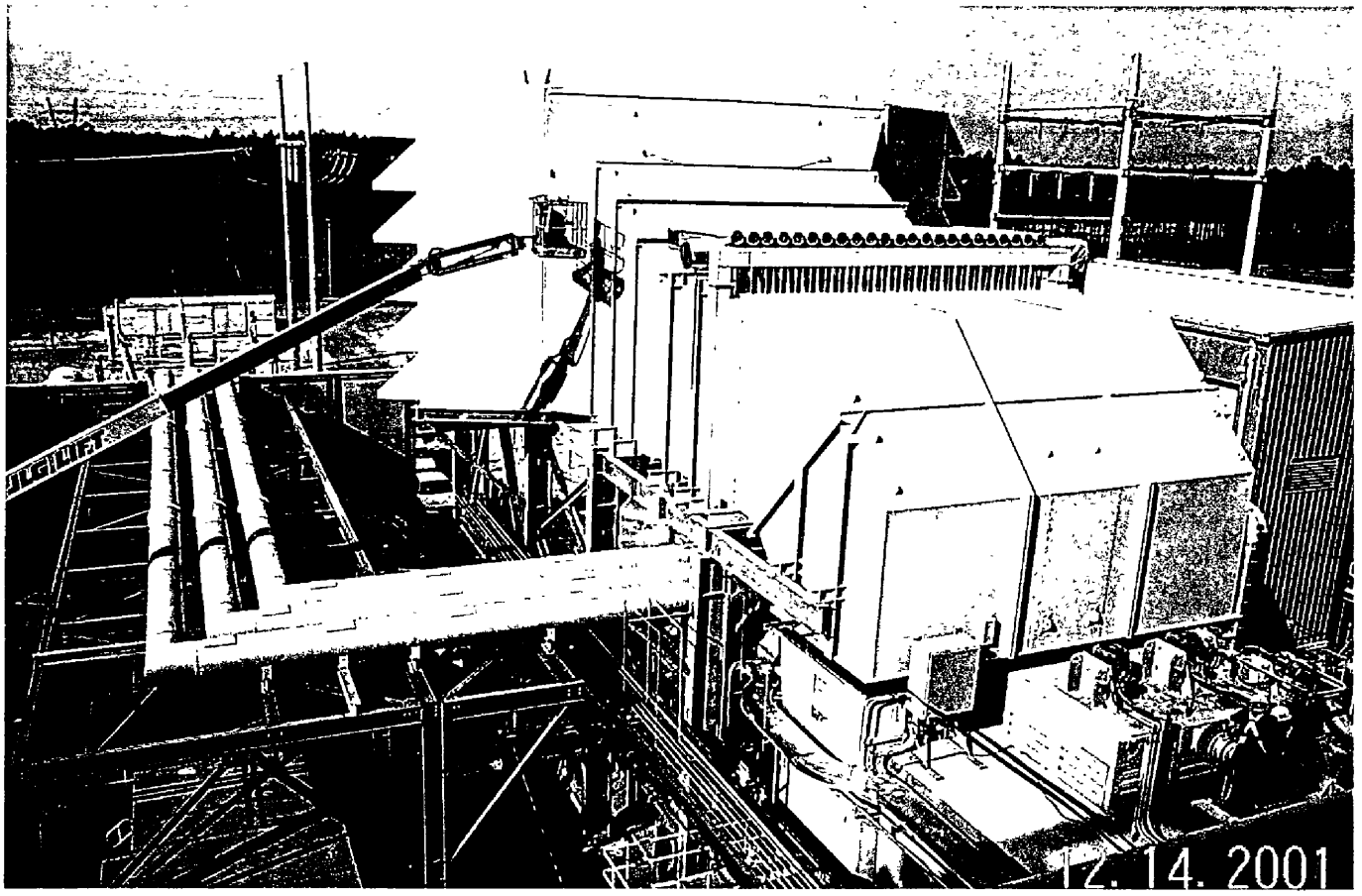
This photo depicts the Brayton Cycle. The air intake is the louvered ductwork to the right in the photo. The air is then compressed and added to the ignited fuel in the combustor. The heated exhaust flue gases exit the Brayton Cycle and are utilized as the heat source for the Heat Recovery Steam Generator (HRSG).

COMBINED CYCLE AT SMITH #3



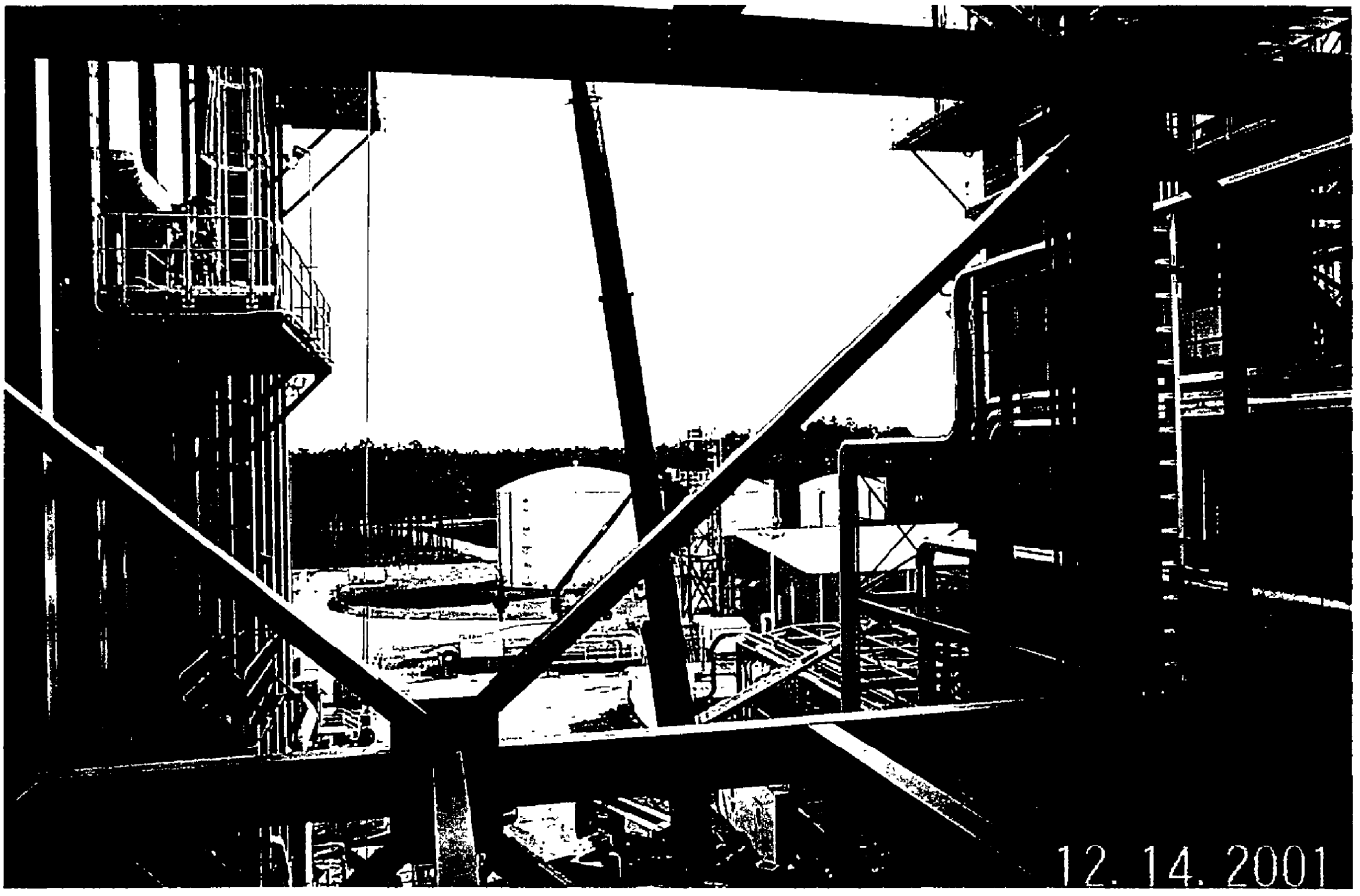
One of the main reasons for the reduction in overall construction costs, are the accessibility of all the components in the combined cycle plant. The ductwork for the gas turbine cycle can be maintained and repaired from the JLG, eliminating the need for scaffolding, ladders or grating platforms.

COMBINED CYCLE AT SMITH #3



The light-green rust-proof paint will make the air intake housing virtually maintenance free.

COMBINED CYCLE AT SMITH #3



The three light-green storage tanks in the center of the photo, are for the water treatment process that takes place in the building in front of the tanks. According to Project Manager Lloyd Mayo, the advances in water treatment have proven to be the single most beneficial improvement in the overall efficiency and maintenance reduction in the HRSG.

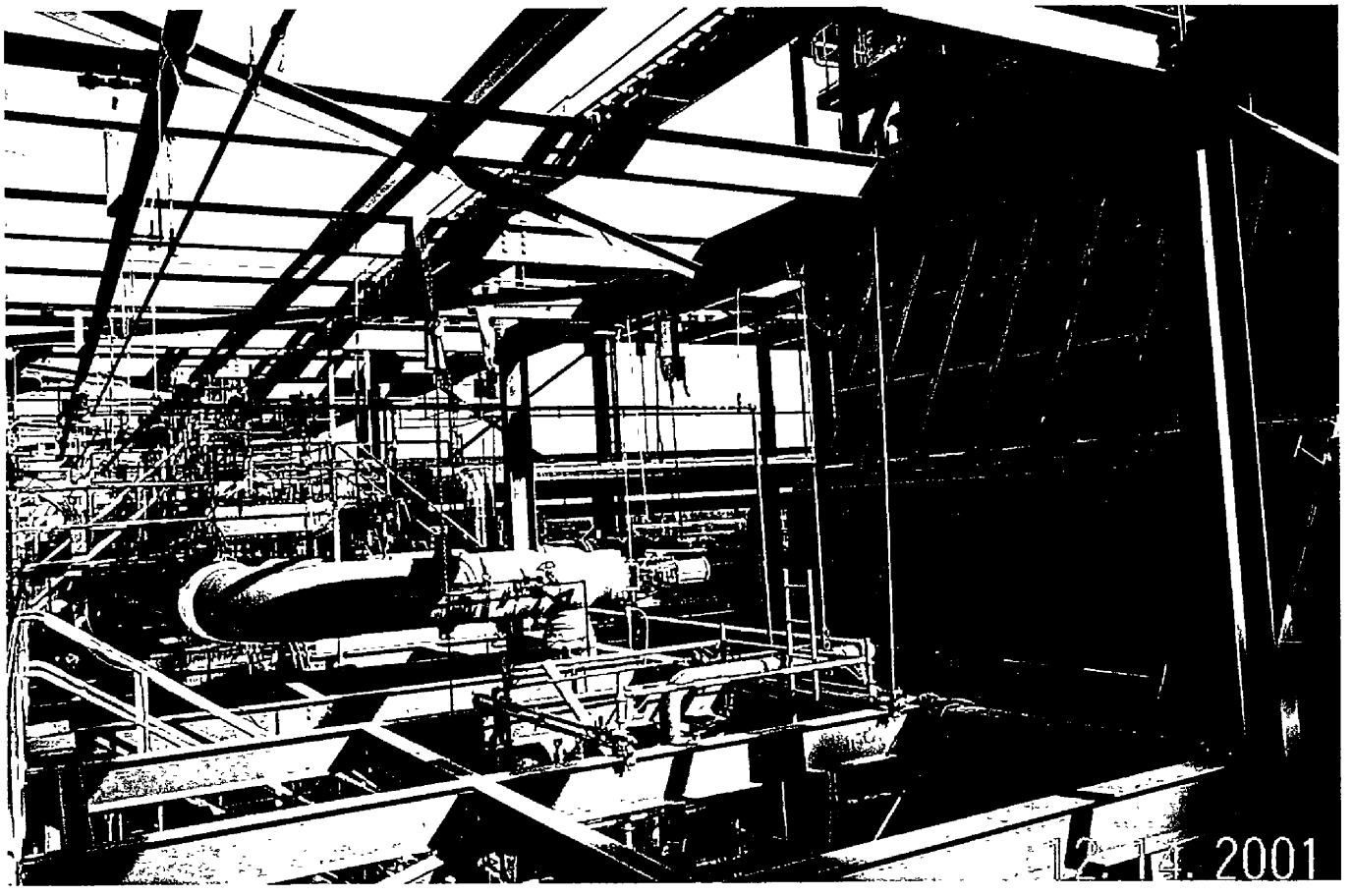
COMBINED CYCLE AT SMITH #3

This Heat Recovery Steam Generator (HRSG), is sometimes referred to as a waste heat recovery boiler (WHRB) or turbine exhaust gas (TEG) boiler.The HRSG is a key element in the combined cycle plant affecting initial capital cost, operating cost and overall cycle efficiency. This triple-drum HRSG is the state-of-the-art technology.

COMBINED CYCLE AT SMITH #3

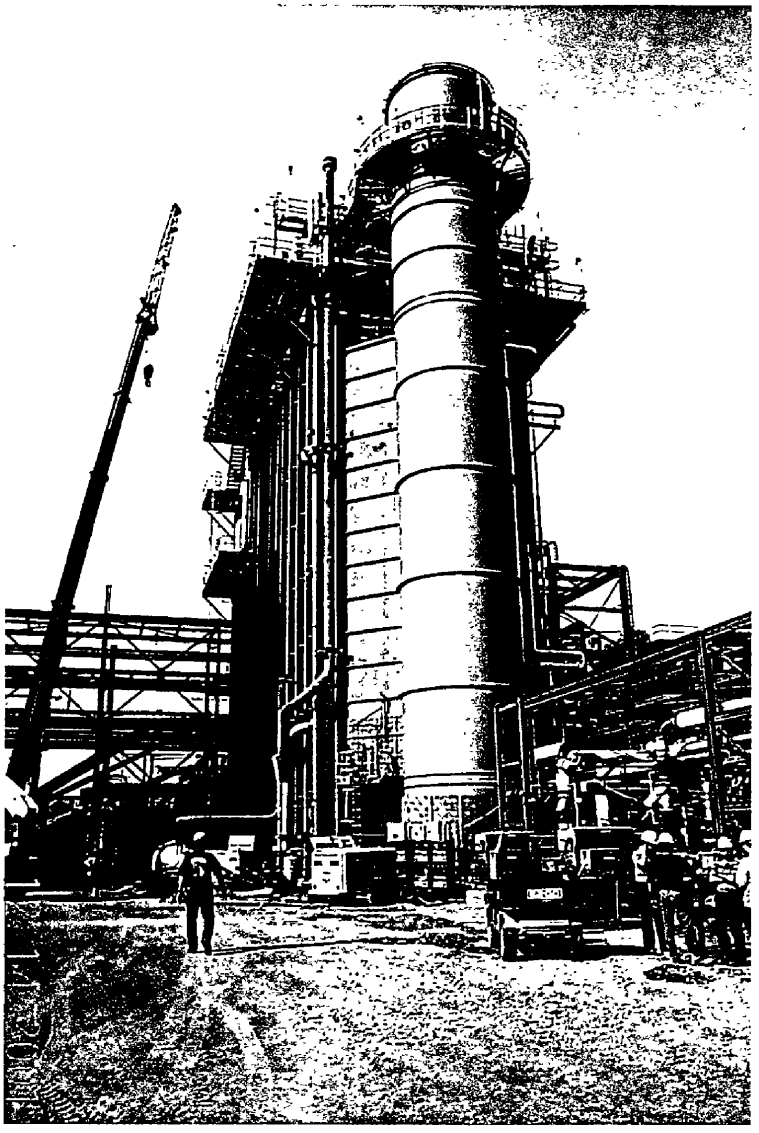
Heat loss through the casing of the HRSG is minimal because of the use of insulation internally. The slanted portion of the housing is the Combustion Chamber.

COMBINED CYCLE AT SMITH #3



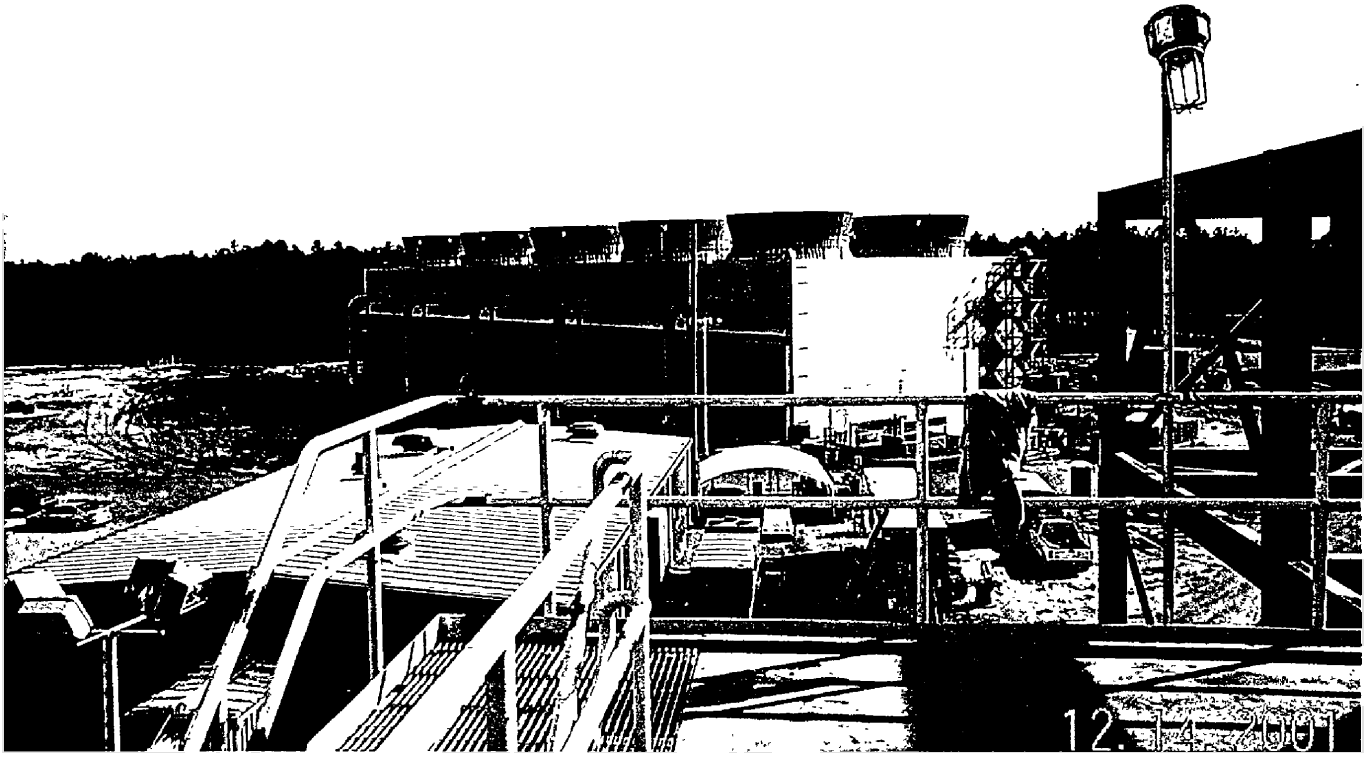
Some of the super-heated steam that goes to the steam turbine is not accepted by the high-pressure section. It is then re-introduced to the cycle by way of this reheat linkage (red pipe). This reheat technique is used in all modern boilers, and is considered an efficiency enhancer to the Rankine cycle.

COMBINED CYCLE AT SMITH #3



This flue stack at the end of the Heat Recovery Steam Generator allows the unused flue gases to escape into the atmosphere.

COMBINED CYCLE AT SMITH #3



After passing through the steam turbine, the super-heated steam passes through the condenser, where the nearby river provides the cooling water for the process. The boiler feed pumps then begin the Rankine cycle again. The heated river water is then cooled in these Marley- type cooling towers before returning to the river.