



Consumers
Power
Company

James W Cook

Vice President - Projects, Engineering
and Construction

General Offices: 1945 West Parnall Road, Jackson, MI 49201 • (517) 788-0453

January 11, 1983

Harold R Denton, Director
Office of Nuclear Reactor Regulation
Division of Licensing
US Nuclear Regulatory Commission
Washington, DC 20555

MIDLAND NUCLEAR COGENERATION PLANT
MIDLAND DOCKET NOS 50-329, 50-330
NATURAL GAS ISSUES
FILE 0971 SERIAL 20441

On November 23, 1982 the NRC Staff met with representatives of Consumers Power Company to discuss issues associated with the natural gas pipeline at the Midland Plant site. Information was supplied in letters by Consumers Power Company to H R Denton from J W Cook dated October 19, 1982, and November 16, 1982. This letter provides all of the information requested by the Staff in the meeting on the following topics:

1. Copies of slides used by M A Stoner of Stoner Associates, Inc
2. Descriptions of the administrative and physical controls on the pipeline
3. Drawing showing the location of identified underground utilities
4. Pipeline flow if isolation does not occur
5. Discussion of usage of the portion of pipeline which will be valved out of service.

In the letter of October 19, 1982 a description of the leak detection system being supplied by Stoner Associates, Inc was provided. Attachment "A" is a copy of the pages that were changed for the presentation at the meeting due to modifications to the system.

The portions of the pipeline which are above ground will have protective barriers installed. These protective barriers will consist of guard rails designed to the Michigan State Highway construction specification. The barriers will be installed around the two automatic valve locations, and at the regulator station located on site. Also, markers will be installed to identify the portions of the pipeline which feed the site.

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Administrative procedures will be developed to enhance the safe operation of the gas pipeline. These procedures will include the requirement of having security personnel present when digging is being performed within ten feet of the pipeline and will contact the process steam control room in the event of an accident to ensure the gas line is isolated. Also the operators in the control room for the evaporator steam system will be instructed upon the detection of natural gas by smell to isolate the pipeline by using the remote isolation control provided with the leak detection system.

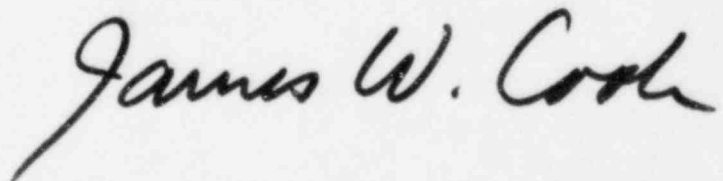
Procedures for performing maintenance on the piping to the test boilers state that a valve shall be closed to provide isolation of the line being worked on.

Attachment "B" provides a drawing showing the underground utilities identified in an investigation performed by Consumers Power Company. All utilities shown except the electrical cable near the condensate pump return house are buried below the natural gas pipeline. The Consumers Power construction standards require a minimum of 12-inches between the two utilities. The electrical cable is located such that it is never closer to a safety-related structure than the pipeline.

Attachment "C" is a copy of Figure 2-1 from the NUS Report #4242. This figure shows the blow down of the pipeline, and has been modified to show the blow down characteristics without isolation valve closure.

As shown in Attachment "D", a portion of the pipeline will be manually valved out of service. The two valves will be locked in the closed position to ensure they are not inadvertently opened. There are certain situations that could arise that would require this portion of the pipeline be activated. This is advisable since it has been determined that it is undesirable to override the leak detection system. Therefore, in the event of a malfunctioning or inoperative system, and the need to fire the boilers, another source of gas would be required. Procedures will be developed to ensure that operation of the pipeline to the site from the east is performed under strict administrative control and only after approval has been given by the NRC.

It was indicated in the meeting that this information was needed prior to discussing the natural gas issue in the safety evaluation report. We believe that the above information is a complete response addressing all requests for additional information.



JWC/MAF/jvm

CC RJCook, Midland Resident Inspector
RHernan, US NRC
DBMiller, Midland Construction (3)
RWHuston, Washington

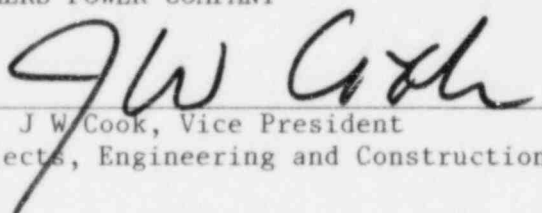
CONSUMERS POWER COMPANY
Midland Units 1 and 2
Docket No 50-329, 50-330

Letter Serial 20441 Dated January 11, 1983

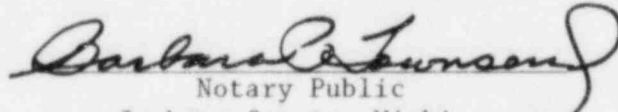
At the request of the Commission and pursuant to the Atomic Energy Act of 1954, and the Energy Reorganization Act of 1974, as amended and the Commission's Rules and Regulations thereunder, Consumers Power Company submits documentation regarding natural gas issues.

CONSUMERS POWER COMPANY

By


J W Cook, Vice President
Projects, Engineering and Construction

Sworn and subscribed before me this 21 day of January, 1983


Notary Public
Jackson County, Michigan

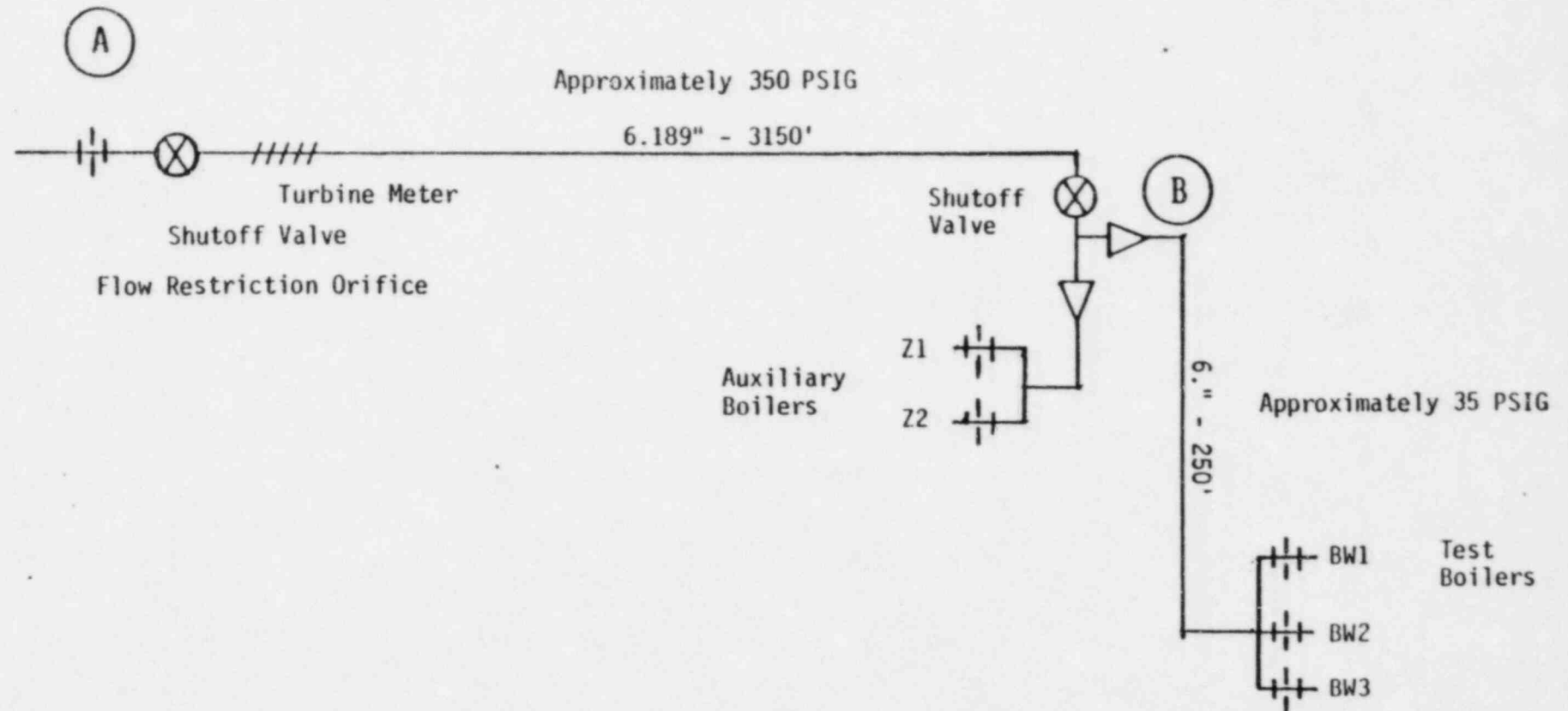
My Commission Expires September 8, 1984

ATTACHMENT "A"

Inserts to Stoner Associates Information

MIDLAND PLANT GAS SUPPLY LINE

SCHEMATIC



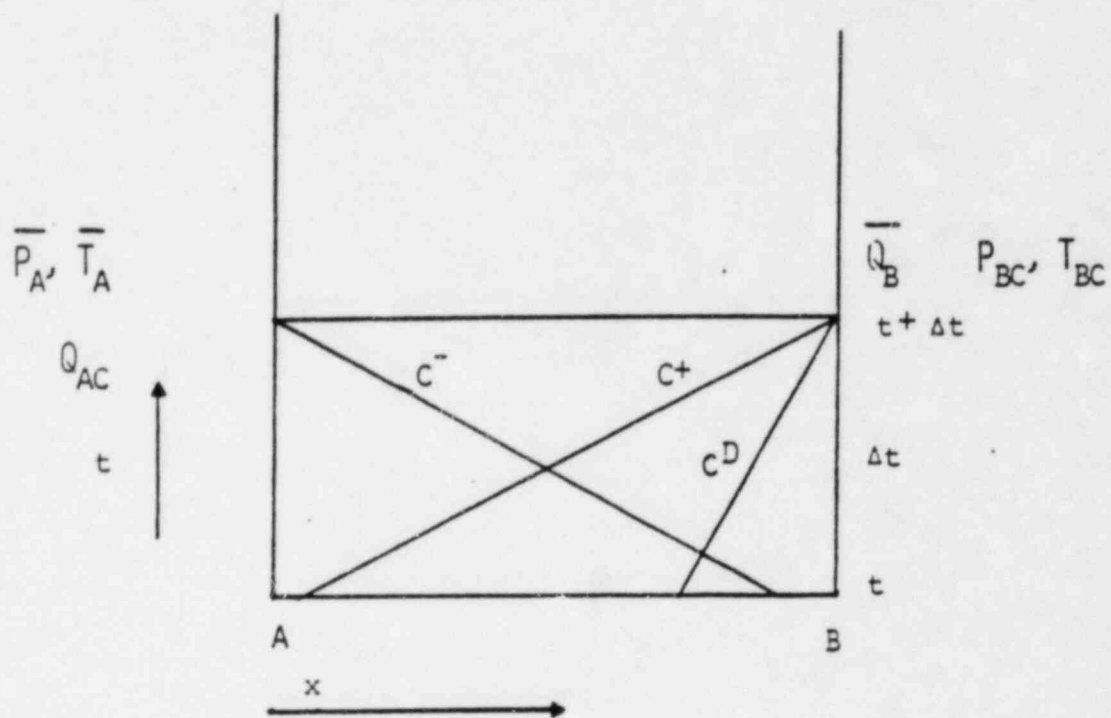
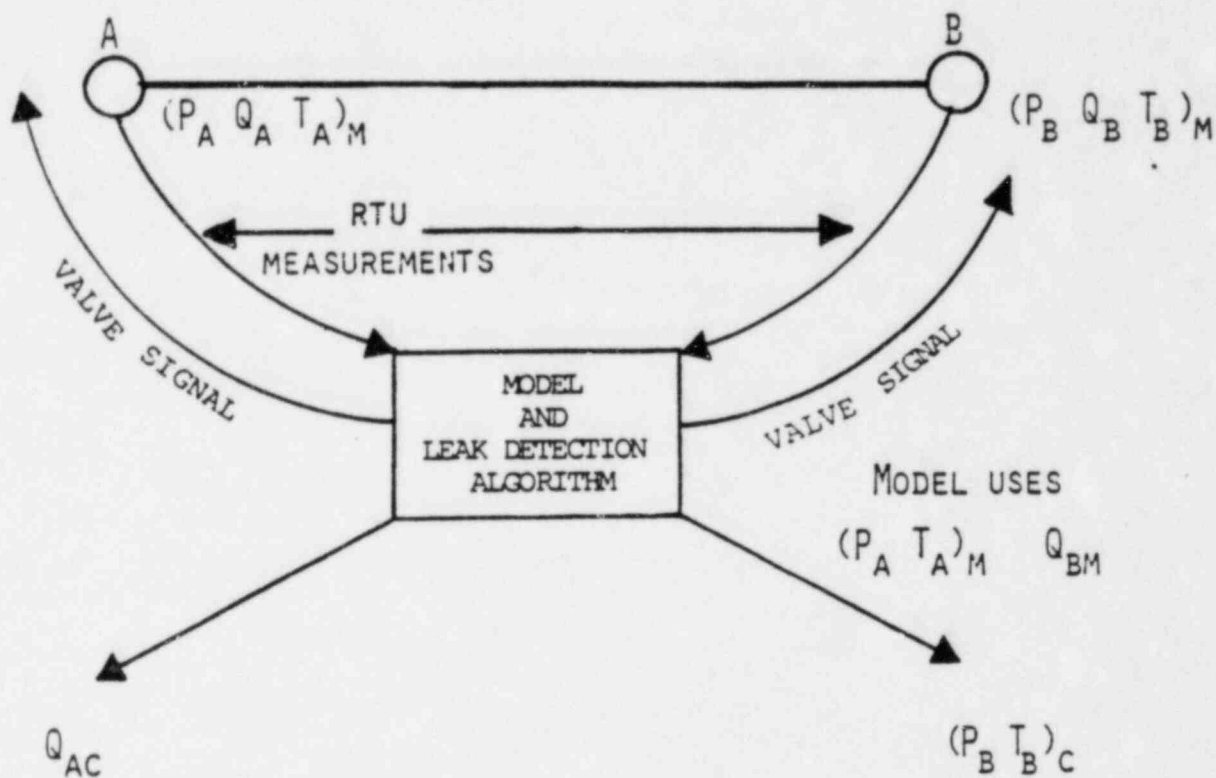


FIGURE 2
X-t DIAGRAM FOR MODEL SOLUTION



FIRST SUBSCRIPT - LOCATION A, B,
 SECOND SUBSCRIPT - M: MEASURED
 C: CALCULATED

FIGURE 3
 MODEL CALCULATION CONCEPT

ATTACHMENT "B"

Location of other Underground Utilities

Sanitary Sewer

Natural Gas Pipeline

MECH SHOP

Electrical Cables

Storm Drain

Storm Drain

EVAPORATOR BUILDING

WATER HOUSE NO. 1

TANK FARM

RADIATION BUILDING

Auxiliary Building

ATTACHMENT "D"

Site Layout of Pipeline

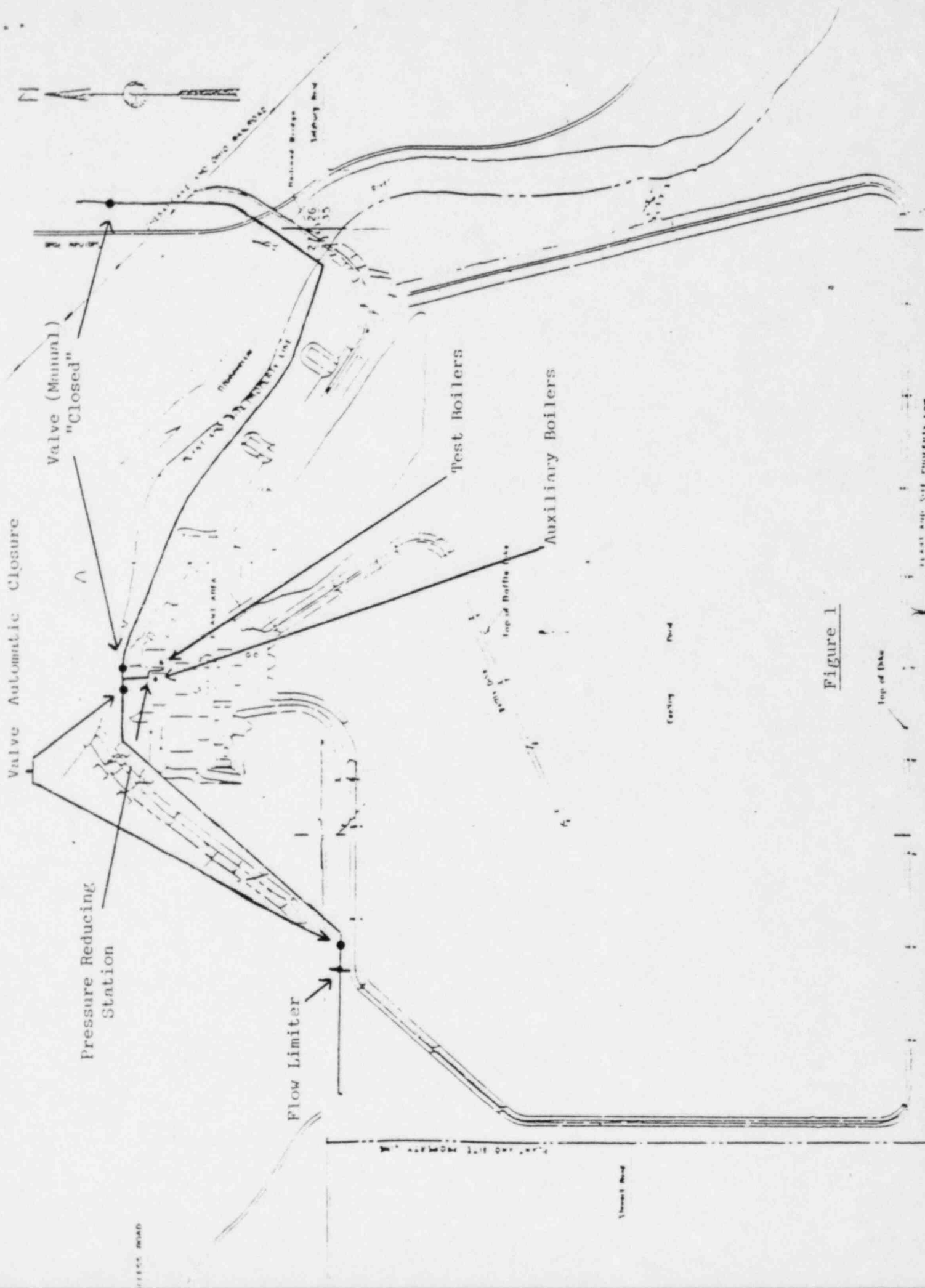


Figure 1