

METROPOLITAN EDISON COMPANY
JERSEY CENTRAL POWER & LIGHT COMPANY

AND

PENNSYLVANIA ELECTRIC COMPANY
THREE MILE ISLAND NUCLEAR STATION UNIT 1

Operating License No. DPR-50
Docket No. 50-289
Technical Specification Change Request No. 13

This Technical Specification Change Request is submitted in support of
Licensee's request to change Appendix A to Operating License No. DPR-50
for Three Mile Island Nuclear Station Unit 1.

METROPOLITAN EDISON COMPANY

By RC Smith
Vice President-Generation

Sworn and subscribed to me this 13th day of June, 1975

Richard I. Ruth
Notary Public

RICHARD I. RUTH
Notary Public, Montgomery Twp., Berks Co.
My Commission Expires September 23, 1978

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METROPOLITAN EDISON COMPANY

POST OFFICE BOX 542 READING, PENNSYLVANIA 19603

TELEPHONE 215 - 929-3601

June 13, 1975
GQL 1148

Mr. Charles P. Hoy, Chairman
Board of County Commissioners
of Dauphin County
P.O. Box 1295
Harrisburg, Pennsylvania 17120

Dear Mr. Hoy:

Enclosed please find one copy of Technical Specification Change Request No. 13 to Appendix A of the Operating License for Three Mile Island Nuclear Station Unit 1.

This request was filed with the U. S. Nuclear Regulatory Commission on June 13, 1975.

Very truly yours,

/s/ R. C. Arnold

R. C. Arnold
Vice President

RCA:RSB:pa

File 20.1.1/7.7.4.3.6.1

1492 263



METROPOLITAN EDISON COMPANY SUBSIDIARY OF GENERAL PUBLIC UTILITIES CORPORATION

POST OFFICE BOX 542 READING, PENNSYLVANIA 19603

TELEPHONE 215 - 929-3601

June 13, 1975
GQL 1147

Mr. Weldon B. Arehart, Chairman
Board of Supervisors of Londonderry Township
R.D. #1 Geyers Church Road
Middletown, Pa. 17057

Dear Mr. Arehart:

Enclosed please find one copy of Technical Specification Change Request
No. 13 to Appendix A of the Operating License for Three Mile Island
Nuclear Station Unit 1.

This request was filed with the U. S. Nuclear Regulatory Commission
on June 13, 1975.

Very truly yours,

/s/ R. C. Arnold

R. C. Arnold
Vice President

RCA:RSB:tas

File: 20.1.1 / 7.7.4.3.6.1

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UNITED STATES OF AMERICA
U. S. NUCLEAR REGULATORY COMMISSION

IN THE MATTER OF

DOCKET NO. 50-289
OPERATING LICENSE NO. DPR-50

METROPOLITAN EDISON COMPANY

This is to certify that a copy of Technical Specification Change Request No. 13 to Appendix A of the Operating License for Three Mile Island Nuclear Station Unit 1, dated June 13, 1975, and filed with the United States Nuclear Regulatory Commission on June 13, 1975, has this the thirteenth day of June 1975 been served on the chief executives of Londonderry Township, Dauphin County, Pennsylvania, and Dauphin County, Pennsylvania, by deposit in the United States mail, addressed as follows:

Mr. Weldon B. Arehart, Chairman
Board of Supervisors of Londonderry
Township
Township Building
R. D. #1, Geyers Church Road
Middletown, Pennsylvania

Mr. Charles P. Hoy, Chairman
Board of County Commissioners of
Dauphin County
Dauphin County Courthouse
P. O. Box 1295
Harrisburg, Pennsylvania

METROPOLITAN EDISON COMPANY

By /s/ R. C. Arnold
Vice President

1492 265

Metropolitan Edison Company
Three Mile Island Nuclear Station Unit I
Docket No. 50-289
Operating License No. DPR-50

Technical Specification Change Request 13

Licensee requests that the following pages be added to Appendix A of Technical Specifications. The proposed specifications have been assigned specification and page numbers in accordance with those previously submitted in our Change Request 7 dated January 30, 1975.

Pages 3-67, 3-68. Add new Specification 3.16.

Pages 4-59, 4-60. Add new Specification 4.16.

A copy of proposed new pages marked "Change Request No. 13" is attached.

Reason for Proposed Changes

This change request was initiated in response to a request made by the Commission's Mr. George Lear as stated in his letter dated May 7, 1975, and if implemented, would serve to provide additional assurance that the operational capabilities of the existing vent header system are fully realized.

Safety Analysis Justifying Change

As the change reflects additional and more stringent requirements than those presently existing, there exist no unreviewed safety questions. It should also be noted that it is the Licensee's position that the changes as contained herein, in conjunction with the procedural revisions that have been made to strengthen existing administrative controls (Ref: Letter from Licensee to Commission's Mr. George Lear, dated April 19, 1975 {GQL 0951}), together provide sufficient additional measures to prevent a recurrence of the type of unplanned radioactive releases referenced in Mr. Lear's March 19, 1975 letter.

3.16 WASTE GAS VENT HEADER SYSTEM

Applicability

Applies to the operation of the Waste Gas Vent Header System.

Objective

To minimize unplanned gaseous releases from the Waste Gas Vent Header System.

Specification

- 3.16.1 If the Vent Header pressure is greater than 2.0 psig, a determination shall be made that the waste gas system compressors are operating.
- 3.16.2 At least one Waste Gas Compressor shall be operable at all times and automatically interlocked to start if the vent header pressure exceeds 1.8 ± 0.2 psig. If neither waste gas compressor is operable and vent header pressure exceeds 2.1 psig, an orderly shutdown to the hot shutdown condition shall be commenced within eight hours.
- 3.16.3 The water levels within the vent header system loop seals shall normally be maintained at sufficient elevations to prevent releases of gas from the vent header for vent header pressures equal to or less than 2.8 psig. The vent header system loop seals consist of the loop seal for the miscellaneous waste storage tank and the reactor coolant bleed tanks and the loop seal for each reclaimed boric acid storage tank. If the specified water level drops below the level required for 2.8 psig (78 in.), adequate level shall be restored within 24 hours.
- 3.16.4 The loop seal for the Reactor Coolant Waste Evaporator and the loop seal for the Miscellaneous Waste Evaporator shall be kept plugged until such time as permanent modifications to these seals are made.

Bases

The Waste Gas Vent Header System collects radioactive gases which are evolved from the liquids in various liquid waste system tanks. These gases are pumped into one of three gas decay tanks by either of two waste gas compressors. These compressors come into operation when the vent header pressure is 1.8 psig (equivalent to 16.5 psia.). In addition, relief valves are provided, which discharge to the unit stack when system pressure is 2.2 psig, and local loop seals are provided for the various tanks. Five relief seals provide pressure relief at a system pressure of approximately 2.8 psig.

As of date of preparation of these specifications, the demonstrated operational capability of the Waste Gas Vent Header System is not sufficient so as to assure prevention of normal operating system pressure transients from causing unplanned

situations wherein the system relief valves lift and/or system associated loop seals are blown and unplanned radioactive gaseous releases occur. Therefore, until such time as a design modification can be implemented to increase the operational capability of the system, it is advisable to implement additional specifications so as to better ensure that the full operational capabilities of the existing system are realized.

It is also pertinent to note that two of the system associated loop seals have in themselves been designated to be inadequate and that these two subject seals consist of one for the Reactor Coolant Waste Evaporator and the one for the Miscellaneous Waste Evaporator. Therefore, until such time as these seals and/or associated systems can be modified, it is also advisable to implement additional specifications so as to ensure that the two subject seals are maintained in a plugged condition.

In particular, these Specifications are intended to do the following:

Ensure that vent header pressure is maintained at or below its normal upper upper limit of 1.8 psig, and ensure that the ability of the compressors to pump gases into the decay tanks is verified whenever the pressure alarm point of 2.0 psig is reached.

Ensure availability of one compressor so that it will come into operation when required.

Ensure that adequate water is maintained within the tank loop seals (see Technical Specification 4.17 for a definition of the required water level).

Ensure that the two loop seals which were previously plugged to prevent inadvertent gas releases will remain plugged until their design can be appropriately modified.

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4.16 WASTE GAS VENT HEADER SYSTEM

Applicability

Applies to surveillance of the Waste Gas Vent Header System.

Objective

To identify surveillance requirements to minimize unplanned gaseous releases from the low pressure vent header until permanent modifications are made to allow the vent header to absorb greater pressure transients.

Specification

- 4.16.1 A check of loop seal water shall be performed on a daily basis to verify that the water level is at the required height above the bottom of the seal.
- 4.16.2 Both waste gas compressors shall be checked for operability every month.
- 4.16.3 Automatic startup of each waste gas compressor on application of a test signal simulating vent header system pressures of equal to or greater than 1.8 ± 0.2 psig shall be checked on a semiannual basis.

Bases

The height of water within the loop seals is selected to ensure that releases of gas will not occur from these seals when vent header system pressure is equal to or less than 2.8 psig. This pressure corresponds to a water height of 78 inches, which is within six inches of the total available seal height. This required height is defined by:

$$h = 39 + P \times 14 \text{ in/psig}$$

h = required height, inches
 p = vent header operating pressure, psig.

Each loop seal is essentially a "u-tube", with its upstream leg connected to a liquid waste system tank. A sight glass is provided to indicate the level of water in the downstream leg of the seal. The required water levels which are applicable to the measured values in the downstream leg of the seal, ensure that a gas release will not occur if vent header system pressure increases from its operating pressure to a pressure of 2.8 psig.

Operation of the waste gas compressor is required to pump out excess quantities of gas which may be collected in the vent header system. These compressors come into operation periodically. Specification 4.17.2 ensures that their operability is checked monthly.

This check may consist of observing normal compressor operation, or may consist of manual initiation of compressor operation if the compressor were not normally in use during the monthly period. This check will be considered satisfactory if

the compressor motors are observed to be operating.

A semiannual test verifies the operability of the controls which initiate automatic startup of the compressors, and to check the pressure setpoint for their automatic startup. This check will be considered satisfactory if the compressor motors are observed to come into operation when a signal simulating a pressure of 1.8 psig is applied.

Specification 4.17.4 ensures that frequent surveillance is made of the vent header system pressure.

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