

Docket No. 50-320



Mr. Gale K. Hovey  
Vice President and  
Director of TMI-2  
Metropolitan Edison Company  
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Dear Mr. Hovey:

The Nuclear Regulatory Commission has issued the enclosed Amendment No. 16 to License No. DPR-73. This amendment consists of changes to the Appendix B technical specifications and is in response to your request dated June 10, 1981. This amendment implements the criteria established in Appendix R of the Final PEIS. These criteria require that the dose to offsite personnel be limited to the design objectives of Appendix I to 10 CFR Part 50 during the cleanup of TMI-2. This amendment does not authorize releases of accident-generated water, which are currently prohibited by the requirements of the February 11, 1980 Order. See proposed Technical Specifications 3.9.13 and 3.9.14 of Appendix A. These criteria also require quarterly reports to be submitted to the NRC specifying all radiological releases and the estimated cumulative population dose following the end of each calendar quarter.

We have determined that the amendment involves an action which is insignificant from the standpoint of environmental impact and that there is reasonable assurance that the health and safety of the public will not be endangered by this action. Having made this determination, we have further concluded that pursuant to 10 CFR §51.5 (d) (4) an environmental impact statement, negative declaration or environmental impact appraisal need not be prepared in connection with the issuance of this amendment.

Copies of the related Safety Evaluation and the Notice of Issuance, which has been forwarded to the Office of the Federal Register for publication, are also enclosed.

Sincerely,

*151*  
Bernard J. Snyder, Program Director  
TMI Program Office  
Office of Nuclear Reactor Regulation

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PDR

Enclosures:

OFFICE ▶	1. Amendment No. 16 to DPR-73	TMIP0:NRR	TMIP0:NRR	OELD	TMIP0:NRR
SURNAME ▶	2. Safety Evaluation	DBrinkman/pf.	RWeller		BJSnyder
DATE ▶	3. Notice of Issuance	(See previous concurrences - attached)			6/28/81
	cc w/encl: See next page				

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METROPOLITAN EDISON COMPANY  
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PENNSYLVANIA ELECTRIC COMPANY  
DOCKET NO. 50-320  
THREE MILE ISLAND NUCLEAR STATION, UNIT NO. 2  
AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 16  
License No. DPR-73

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Metropolitan Edison Company, Jersey Central Power and Light Company, and Pennsylvania Electric Company (the Licensee) dated June 10, 1981, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's rules and regulations set forth in 10 CFR Chapter I;
  - B. The facility will operate in conformity with the Order for Modification of License dated July 20, 1979, the Order of February 11, 1980, the Modification of Order dated August 11, 1980, the Amendment of Order dated November 14, 1980, the application for amendment, the provisions of the Act, and the rules and regulations of the Commission.
  - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
  - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and,
  - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, by changing paragraph 2.C.(2) to Facility Operating License No. DPR-73, to read as follows:

2.C.(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 16, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications and all Commission Orders, issued subsequent to March 28, 1979.

3. This license amendment is effective as of the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Bernard J. Snyder, Program Director  
Three Mile Island Program Office  
Office of Nuclear Reactor Regulation

Attachment:  
Revised Technical Specifications

Date of Issuance: June 26, 1981

FACILITY OPERATING LICENSE NO. DPR-73

DOCKET NO. 50-320

Replace the following pages of Appendix "B" Technical Specifications with the enclosed pages as indicated. The revised pages contain vertical lines indicating the area of change. The corresponding overleaf pages are also provided to maintain document completeness.

Pages

2-1  
2-3  
2-6  
2-7  
2-9  
2-10  
3.2-3  
5-7  
5-7a (added)

2.1 Radioactive Discharges2.1.1 Liquid EffluentsApplicability

Applies to the controlled release of radioactive liquids from TMI Unit Nos. 1 and 2.

Objective

To define the limits and conditions for the controlled release of liquid radioactive effluents to the environs to ensure that these releases are as low as practicable. These releases should not result in radiation exposures to off site areas greater than a few percent of background exposures. The instantaneous releases rate for all effluent discharges should be within the limits specified in 10 CFR Part 20.

To assure that the releases of radioactive liquids to off site areas meet the "as low as practicable" concept, the following objectives apply:

- a. The annual total quantity of radioactive materials in liquid waste, excluding tritium and dissolved gases, should not exceed 5 curies per radioactive waste-producing reactor, and the annual dose to the whole body or any organ of an individual shall not exceed 3 mrem to the total body and shall be less than or equal to 10 mrem to any organ.
- b. The annual average concentration of radioactive materials in the effluent from the Mechanical Draft Cooling Towers prior to dilution in the Susquehanna River, excluding tritium and dissolved gases, should not exceed  $2 \times 10^{-8}$  uCi/ml.

Objective

To ensure that radioactive liquid releases from the facility are within the limits of Specifications 2.1.1 a. through f.

Objective (Cont'd)

c. The annual average concentration of tritium in liquid waste prior to dilution in the environment should not exceed  $5 \times 10^{-6}$  uCi/ml.

Specification

a. The radioactivity release concentration in liquid effluents from Unit Nos. 1 and 2 to the environment shall not exceed the values specified in 10 CFR 20, Appendix B, for unrestricted areas.

b. The total release of radioactive liquid effluent from Unit Nos. 1 and 2, excluding tritium and noble gases, shall not exceed 10 curies per radioactive waste-producing reactor during any calendar quarter.

c. The equipment installed in the liquid radioactive waste system shall be maintained and shall be operated to process all radioactive liquid wastes prior to this discharge when the activity release rate will exceed 1.25 curies per radioactive waste producing reactor, excluding tritium and dissolved gases, during any calendar quarter.

d. The maximum radioactivity to be contained in one liquid radwaste tank, excluding tritium and dissolved gases, that can be discharged directly, to the environs, shall not exceed 10 curies.

e. When the average release rate of radioactive effluents, excluding tritium and dissolved gases, exceeds 2.5 curies per radioactive waste-producing reactor during any calendar quarter, the licensee shall notify the NRC within 30 days, identifying the

Specification

During release of liquid radioactive wastes from the Waste Evaporator Condensate Storage tank and the Waste Evaporator Condensate Test Tank, the following conditions shall be met.

A. The liquid gross activity monitors (Unit 1: RM-L6; Unit 2: WDL-R-1311) or similar device, and recorder on the radwaste effluent line shall be operable.

B. The liquid gross activity monitors (Unit 1: RM-L6; Unit 2: WDL-R-1311) or similar device shall be set to alarm and automatically close waste discharge valve (Unit 1: WDL-V-257; Unit 2: WDL-V-99) respectively prior to exceeding the limits specified in 10 CFR 20, Appendix B for unrestricted areas.

C. Liquid waste radioactivity and flow rate from the waste evaporator condensate storage tank (Unit 1) and the waste evaporator condensate test tank (Unit 2) shall be continuously monitored and recorded during release. If this requirement cannot be met, continued release of liquid effluents shall be permitted only during the succeeding 48 hours provided that during this 48-hour period two independent samples of each tank shall be analyzed and two station personnel shall independently check valve line-up prior to the discharge.

## LIMITING CONDITIONS FOR OPERATION

2.0

## MONITORING REQUIREMENTS

Specification (Cont'd)

causes and describing the proposed program of action to reduce such release rates.

"For the purposes of this specification, the MPC<sub>w</sub> (168 hour) for Xe-133 is  $5 \times 10^{-3} \mu\text{Ci/ml}$ . The MPC<sub>w</sub> (168 hour) for Xe-135 is  $1 \times 10^{-3} \mu\text{Ci/ml}$ ".

f. The dose or dose commitment from liquid effluents shall be less than or equal to 3 mrem total body and less than or equal to 10 mrem to any organ for the calendar year.

Bases

Liquid radioactive waste release levels to unrestricted areas should be kept "as low as practicable" and are not to exceed the concentration limits specified in 10 CFR 20. The specifications provide reasonable assurance that the resulting annual exposure to an individual in off site areas will not exceed the design objectives of Appendix I to 10 CFR Part 50, which were established as requirements for the cleanup of TMI-2 in the NRC's Statement of Policy of April 27, 1981. This assurance is based on the fact that the Susquehanna River will dilute the liquid effluents upon their release from

Specification (Cont'd)

D. Facility records shall be maintained of the radioactive concentrations and volume before dilution of each batch of liquid effluent released, and the average dilution flow and length of time over which each discharge occurred. Estimates of the error associated with each reported value should be included in facility records.

E. Radioactive liquid waste sampling and activity analysis shall be performed in accordance with Table 2.3-1. Prior to the release of each batch of liquid effluent, a sample shall be taken from that batch and analyzed for the concentration of each significant gamma emitter to demonstrate compliance with Specification "a" using the flow into which the effluent is discharged.

F. The liquid effluent radiation monitors RM-L6 and WDL-P-1311 shall be calibrated at least quarterly by means of a known radioactive source. RM-L6 and WDL-R-1311 shall also have an instrument channel test monthly and a source check prior to each discharge to verify that the read-out device is indicating as expected.

G. The ability of WDL-V-257 and WDL-Y-99 to close automatically on receipt of a high radiation alarm signal from RM-L6 and WDL-R-1311 shall be checked annually.

Bases

Specifications A, B, and C, above require that suitable equipment to monitor the release of radioactive materials in liquid effluents are operating during any period these releases are taking place.

The surveillance requirements given in the remaining specifications provide assurance that liquid wastes are properly controlled and monitored during any planned release of radioactive materials in liquid effluents



Bases (Cont'd)

the site. The effluents will be diluted by a factor of about 250 in the region where finfish can exist (within a one-quarter mile radius of the discharge point). At the same time these specifications permit the flexibility of operation, compatible with considerations of health and safety, to assure that the public is provided a dependable source of power under unusual operating conditions, which may temporarily result in higher than normal releases, but still within the concentration limits specified in 10CFR 20. It is expected that by using this operational flexibility under unusual operating conditions, and exerting every effort to keep levels of radioactive material in liquid wastes as low as practicable, the annual releases will not exceed a small fraction of the annual average concentration limits specified in 10CFR 20.

Specification a. above requires the licensee to limit the concentration of radioactive materials in liquid effluents from the station to levels specified in 10CFR 20, Appendix B, for unrestricted areas. This specification provides assurance that no member of the general public can be exposed to liquids containing radioactive materials in excess of limits considered permissible under the commission's rules and regulations.

Specification b. above establishes an upper limit for the release of radioactive liquid effluents, excluding tritium and dissolved gases, of 10 curies per unit during any calendar quarter. The intent of this specification is to permit the licensee the flexibility of operation to assure that the public is provided a dependable source of power under unusual operating conditions, which may temporarily result in releases higher than the levels normally

Bases (Cont'd)

These surveillance requirements provide the data for the licensee and the commission to evaluate the station's performance relative to radioactive liquid wastes released to the environment. Reports on the quantities of radioactive materials released in liquid effluents shall be furnished to the Commission on the basis of Section 5.6.1 of these Technical Specifications. On the basis of such reports and any additional information obtained from the licensee or others, the Commission may require the licensee to take appropriate action.

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LIMITING CONDITIONS FOR OPERATION

2.0

MONITORING REQUIREMENTS

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Bases (Cont'd)

achievable when the station and the liquid radwaste equipment are functioning as designed. Releases of up to 10 curies per radioactive waste-producing reactor during any calendar quarter will result in concentrations of radioactive materials in liquid effluents at small percentages of the limits specified in 10 CFR 20.

Specification c. requires that the licensee shall maintain and operate the equipment installed in the liquid radioactive waste system to reduce the release of radioactive materials in liquid effluents to as low as practicable, consistent with the requirements of 10 CFR 50.36a. Normal use and maintenance of installed equipment in the liquid radioactive system is expected to result in releases of not more than about five curies per radioactive waste-producing reactor per year, excluding tritium and dissolved gases, during normal operations. In order to keep releases of radioactive materials as low as practicable, the specification requires, as a minimum, operation of equipment whenever the rate of release exceeds 1.25 curies per radioactive waste-producing reactor per quarter, excluding tritium and dissolved gases.

In addition to the limiting conditions for operation listed under Specification b., the reporting requirements of Specification e., the requirements of Section 5.6.2, delineate that the licensee shall identify the cause whenever the rate of radioactive effluents, excluding tritium and noble gases, exceeds 2.5 curies per radioactive waste-producing reactor during any calendar quarter and describe the proposed program of action to reduce such release rates. This report must be filed within 30 days following the calendar quarter in which the 2.5 curies release occurred.

Specification f. requires that the dose to offsite personnel be limited to the design objectives of Appendix I of 10 CFR Part 50. This will assure the dose received by the public during the cleanup is equivalent to or less than that from a normal operating reactor. The limits also assure that the environmental impacts are consistent with those assessed in the PEIS.

Bases (Cont'd)

2.1.2 Gaseous EffluentsApplicability

Applies to the controlled release of radioactive gases from TMI Unit Nos. 1 and 2.

Objective

To define the limits and conditions for the controlled release of radioactive gaseous effluents to the environs to ensure that these releases are as low as practicable. These releases should not result in radiation exposures in offsite areas greater than a few percent of background exposures. The instantaneous release rate for all effluent discharges should be within the limits specified in 10 CFR 20.

To assure that the release of radioactive gases to offsite areas meet the as low as practicable concept, the following objectives apply:

- a. The release rate of gaseous effluents shall not result in doses to the public exceeding the design objectives of Appendix I to 10 CFR Part 50.

Specification

- a. The instantaneous release rate of gross gaseous activity except for halogens and particulates with half-lives longer than eight days shall not exceed:

$$\sum \frac{Q_i}{(\text{MPC})_i} \leq 1.5 \times 10^5 \frac{\text{m}^3}{\text{sec}}$$

Objective

To ensure that radioactive gaseous releases from the facility are within the limits of specifications.

Specification

During release of radioactive gaseous wastes, the following conditions shall be met:

- A. During release of gaseous waste from the waste gas decay tanks, the following conditions shall be met:

## LIMITING CONDITIONS FOR OPERATION

2.0

## MONITORING REQUIREMENTS

Specification (Cont'd)

where  $Q_i$  is the release rate in  $\mu\text{Ci}/\text{sec}$  for isotope  $i$ , and  $\text{MPC}_i$  ( $\mu\text{Ci}/\text{m}^3$ ) is the maximum permissible concentration of isotope and defined in Appendix B, Table II, Column 1. 10CFR 20.

b. The instantaneous release rate of particulates with half-lives greater than eight days, released to the environs as part of airborne effluents, shall not exceed  $0.3 \mu\text{Ci}/\text{sec}$ .

c. The release rate of gross gaseous activity shall not exceed:

$$\sum \frac{Q_i}{(\text{MPC})_i} \leq 2.4 \times 10^4 \frac{\text{m}^3}{\text{sec}}$$

when averaged over any calendar quarter.

d. The release rate of particulates with half-lives greater than eight days, shall not exceed:  $0.024 \mu\text{Ci}/\text{sec}$ ., when averaged over any calendar quarter.

e. Radioactive gaseous wastes collected in the gas decay tanks shall be held up to a minimum of 45 days, except when the release rate shall not exceed:

$$1. \sum \frac{Q_i}{\text{MPC}_i} \leq 3 \times 10^3 \frac{\text{m}^3}{\text{sec}}$$

(noble gases)

or

2.  $0.003 \mu\text{Ci}/\text{sec}$  (particulates with half-lives greater than 8 days)

Specification (Cont'd)

1. Waste gas discharge monitor (Unit 1: RM-A7; Unit 2: WDG-R-1480) or similar device, shall be operable.

2. Auxiliary and Fuel Handling Building and Unit Exhaust Vent exhaust gas, iodine and particulate monitor (Unit 1: RM-A8; Unit 2: HP-R-219) or similar device, shall be operable.

3. The waste gas decay tank discharge valves (Unit 1: WDG-V47; Unit 2: WDG-V-30A or 30B) shall be operable.

4. The waste gas decay tank discharge valves (Unit 1: WDG-V47; Unit 2: WDG-V-30A or 30B) shall be closed on receipt of any one of the following conditions:

a. A high radiation signal from the waste gas discharge monitor (Unit 1: RM-A7; Unit 2: WDG-R-1480).

b. A high radiation signal from the Auxiliary and Fuel Building exhaust monitor (Unit 1: RM-A8; Unit 2: HP-R-219).

c. A high flow signal from the Waste Gas Decay Tank discharge flow transmitter (Unit 1: FT-123; Unit 2: WDG-FT-3923).

d. Observation of loss of flow through the Unit vent.

B. During purge of the Reactor Building, the following conditions shall be met:

1. The Reactor Building Purge Exhaust Monitor (Unit 1: RM-A9; Unit 2: HP-R-225 and/or HP-R-226 and HP-R-219) or similar device shall be operable.

2. The Purge Exhaust Valves (Unit AH-VIA and AH-VIB and Dampers; Unit 2: D5129 A/D and D5129 B/C) shall be operable.

## LIMITING CONDITIONS FOR OPERATION

2.0

## MONITORING REQUIREMENTS

Specification (Cont'd)

f. Radioactive gas and particulates purged from the reactor building shall be filtered through the high efficiency particulate air filters.

g. The maximum activity to be contained in one gas decay tank shall not exceed 8800 curies (equivalent to Xe-133).

h. When the release rate of radioactive materials in gaseous wastes, averaged over a calendar quarter exceeds,

$$\sum \frac{Q_i}{(MPC)_i} \leq 6 \times 10^3 \frac{\text{m}^3}{\text{sec}}$$

(noble gas)

or

0.006  $\mu\text{Ci}/\text{sec}$  (particulates with half-lives greater than 8 days)

the licensee shall notify the NRC within 30 days, identifying the causes and describing the proposed program of action to reduce such release rates.

i. The air dose due to noble gases in gaseous effluents shall be less than or equal to 10 mrad for gamma radiation and less than or equal to 20 mrad for beta radiation for the calendar year.

j. The dose for radionuclides (other than noble gaseous effluents) shall be less than or equal to 15 mrem to any organ for the calendar year.

Specification (Cont'd)

3. The valves (Unit 1: AH-VIA and AH-VIB and Dampers; Unit 2: D5129 A/D and D5129 B/C) shall be interlocked to close or recirculate, respectively on receipt of a high radiation signal from the Reactor Building Exhaust Monitor (Unit 1: RM-A9; Unit 2: HP-R-225 and HP-R-226) respectively.

C. The flow rate for radioactive effluent streams and the Auxiliary and Fuel Handling Building and the Reactor Building, shall be monitored and recorded. Gaseous effluents from the Waste Gas Decay Tanks and the Reactor Building Purge Exhaust shall be continuously monitored and recorded.

D. Radioactive gaseous waste sampling and activity analysis shall be performed in accordance with Table 2.3-2.

E. The waste gas decay tank effluent monitor (Unit 1: RM-A7; Unit 2: WDG-R-1480) shall be tested using the installed check source or equivalent prior to any release of radioactive gas from a holdup tank and shall be calibrated quarterly using a referenced calibration source in a controlled reproducible geometry.

F. During power operation, the condenser vacuum pump discharge shall be continuously monitored for gross gaseous activity. The monitor shall not be inoperable for more than a week. Whenever this monitor is inoperable, a grab sample shall be taken daily and analyzed for gross radioactivity. ( $\beta, \gamma$ ).

G. Facility records shall be maintained of radioactive concentration, release ratio and volume of each batch of gaseous effluents released.

Specification (Cont'd)

and the length of time over which release occurred. Estimates of the error associated with each reported value should be included in facility records.

H. At least annually, automatic initiation and closure of the Waste Gas Decay Tank Discharge valve on alarm of (Unit 1: RM-A7 and RM-A8; Unit 2: WDG-R-1480) shall be verified.

I. The Auxiliary and Fuel Handling Building and Reactor Building Purge Exhaust gas monitors for TMI-1 (RM-A8 and RM-A9) and the Unit Vent monitors for TMI-2 (HP-R-219, HP-R-225, and HP-R-226), respectively, shall be calibrated at least every eighteen months by means of a known radioactive source. These detectors shall have an instrument channel test at least monthly, and a sensor check at least daily, to verify that the read-out device is indicating as expected.

Bases

The specified levels provide reasonable assurance that the resulting annual exposure rate from noble gases at any location at the site boundary will not exceed 10 millirems per year. At the same time, these specifications permit the flexibility of operation, compatible with consideration of health and safety, to assure that the public is provided a dependable source of power under unusual operating conditions, which may temporarily result in higher than the design objective levels, but still within the concentration limits specified 10 CFR 20 and within the design objectives of Appendix I to 10 CFR 50. It is expected that using this operational flexibility under unusual operating conditions, and by exerting every effort to keep levels of radioactive material in gaseous wastes as low as practicable, the annual releases will not exceed a small fraction of the annual concentration limits specified in 10 CFR 20 and will not result in doses which exceed the design objectives of Appendix I to 10 CFR 50, which were endorsed as limits for the cleanup of TMI-2 by the NRC's Statement of Policy of April 27, 1981.

Bases

Specifications A. through I., above, require that suitable equipment to monitor the radioactive gaseous releases are operating during any period these releases are taking place.

The surveillance requirements given under the remaining Specifications above, provide assurance that radioactive gaseous effluents from the station are properly controlled and monitored over the life of the station. These surveillance requirements provide the data for the licensee and the Commission to evaluate the station's performance relative to radioactive gaseous wastes released to the environment.

Reports on the quantities of radioactive materials released in gaseous effluents shall be furnished to the Commission on the basis of Section

exceeds the reporting level given in Table 4, a written report shall be submitted to the Director of the NRC Regional Office (with a copy to the Director, Office of Nuclear Reactor Regulation) within 30 days from the end of the quarter. If it can be demonstrated that the level is not a result of plant effluents (e.g., by comparison with control station or preoperational data) a report need not be submitted, but shall be discussed in the annual report. When more than one of the radionuclides in Table 4 are detected in the medium, the reporting level shall have been exceeded if:

$$\frac{\text{concentration (1)}}{\text{reporting level (1)}} + \frac{\text{concentration (2)}}{\text{reporting level (2)}} + \dots \geq 1$$

If radionuclides other than those in Table 3.2-4 are detected and are due from plant effluents, a reporting level is exceeded if the potential annual dose to an individual is equal to or greater than the design objective doses of 10 CFR Part 50, Appendix I. This report shall include an evaluation of any release conditions, environmental factors, or other aspects necessary to explain the anomalous result.

c. Radiological Releases and Estimated Dose Report.

The following information shall be submitted to the Director of the Regional Office. This information shall be submitted on a calendar quarter basis (January-March, April-June, July-September, and October-December) and shall be submitted no later than 30 days following the end of each calendar quarter.

- (a) Estimates of the amounts and types of radioactivity that were released to the environment during the quarter and during the calendar year. This shall include estimates of the total activity of each nuclide and the time rate of release of each nuclide.
- (b) Estimates of populations and maximum individual doses which occurred during the calendar quarter and during the calendar year shall be provided. The estimates shall be based on actual hydrological and meteorological conditions which occurred during the releases. Calculational methods shall be those of U.S. NRC Regulatory Guides 1.109 (Revision 1, October 1977), 1.111 (Revision 1, July 1977), 1.112 (Revision 0-R, April 1976) and 1.113 (Revision 1, April 1977). These calculations shall be based on estimates of actual population distributions during the releases and shall take into consideration factors such as boating or fishing recreation.

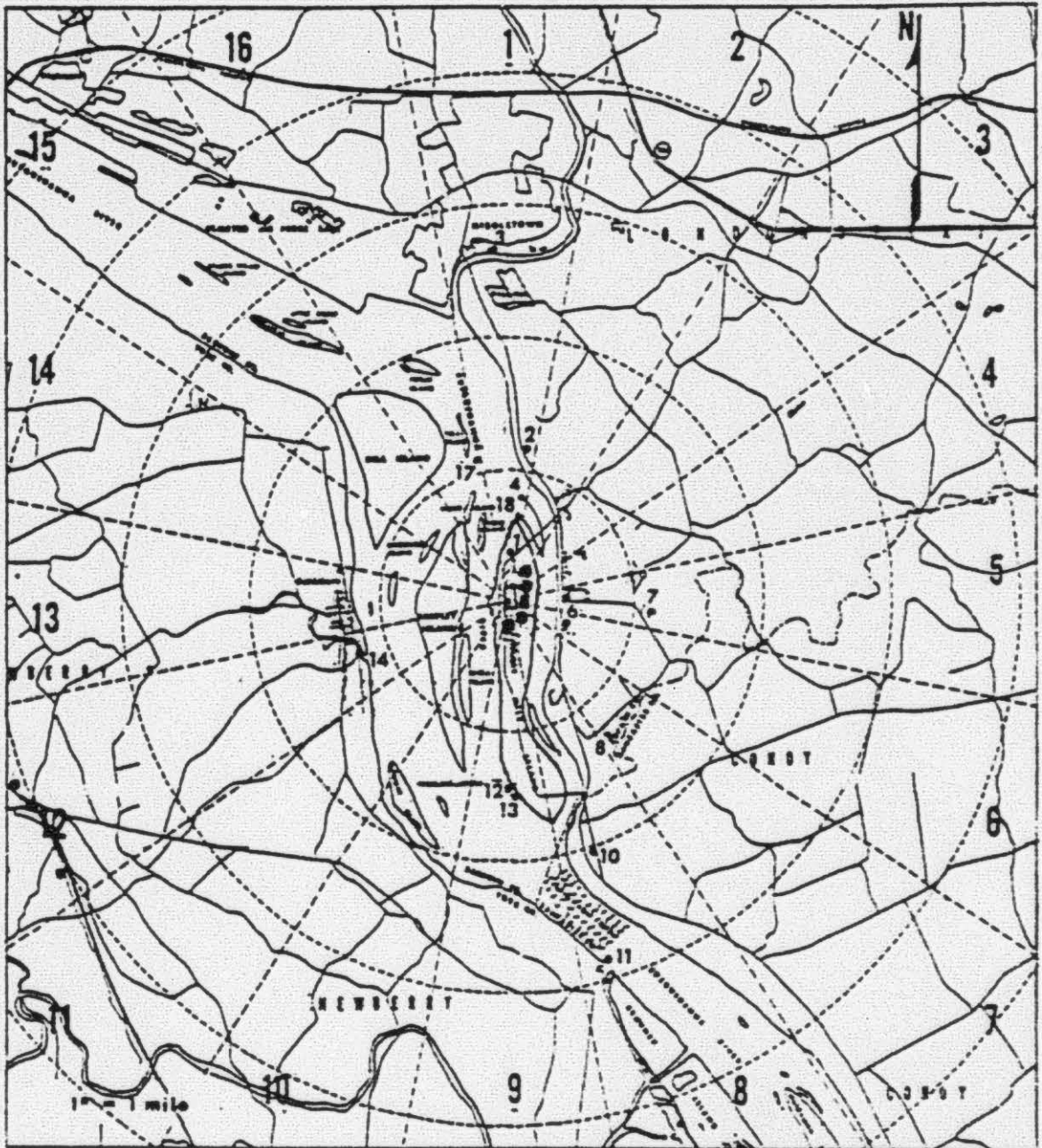


FIGURE 3.2-1

THREE MILE ISLAND NUCLEAR STATION  
 Location of Operational  
 Radiological Environmental  
 Monitoring Stations within  
 5 Miles of the Site



station operation on the environment. If harmful effects or evidence of irreversible damage are suggested by the monitoring or special programs, the licensee shall provide a more detailed analysis of the data and a proposed course of action to alleviate the problem.

The Annual Report shall also include a summary of:

- 1) All ETS noncompliances and the corrective actions taken to remedy them.
- 2) Changes made to state and federal permits and certificates.
- 3) Changes made to the Environmental Program Description Document.
- 4) Changes in station design which could involve an environmental impact or change the findings of the FSFES.
- 5) All nonroutine reports submitted per ETS Section 4.6.
- 6) Changes in ETS.

#### B. Data Reporting Formats

Results of analysis of all nonradiological environmental data collected shall be summarized and tabulated on an annual basis. In the event that some results are not available by May 1, the report shall be submitted noting and explaining the missing results. The missing data shall be submitted as soon as possible in a supplementary report.

#### C. Quarterly Radiological Releases and Estimated Dose Report.

A quarterly report shall be submitted to the Director of the Regional Office. This report shall be submitted no later than 30 days following the end of each calendar quarter. The report shall include estimates of the amounts and types of radioactivity released each quarter including the time release rate and total activity of each nuclide. Also include estimates of populations and maximum individual doses which occurred during the quarter and during the calendar year shall be provided. The estimates shall be based on actual hydrological and meteorological conditions which occurred during the releases. Computational methods shall be those of U. S. NRC Regulatory Guides 1.109 (Revision 1, October 1977), 1.111 (Revision 1, July 1977), 1.112 (Revision 0-R, April 1976) and 1.113 (Revision 1, April 1977). These calculations shall be based on estimates of actual population distributions during the release and shall take into consideration factors such as boating or fishing recreation.

#### 5.6.2 Nonroutine Reports

A report shall be submitted in the event that a "Limiting Condition for Operation" (Section 2), if applicable, is exceeded, a report level as specified in Section 3, "Environmental Monitoring," is reached or if an "Exceptional Occurrence" as specified in Section 4.6 occurs. Reports shall be submitted under one of the report schedules described below.

5.6.2.a Prompt Report

Those events specified as prompt report occurrences shall be reported within 24 hours by telephone, telegraph, or facsimile transmission to the NRC followed by a written report to the NRC within 30 days.

5.6.2.b Thirty Day Report

Non-routine events not requiring a prompt report as described in Subsection 5.6.2.a, shall be reported to NRC either within 30 days of their occurrence or within the time limit specified by the reporting requirement of the corresponding certification or permit issued pursuant to Sections 401 or 402 of PL 92-500, whichever time duration following the non-routine event shall result in the earlier submittal.

### 5.6.2.c Content of Nonroutine Reports

Written 30-day reports and, to the extent possible, the preliminary telephone, telegraph, or facsimile reports shall (a) describe, analyze, and evaluate the occurrence, including extent and magnitude of the impact, (b) describe the cause of the occurrence, and (c) indicate the corrective action (including any significant changes made in procedures) taken to preclude repetition of the occurrence and to prevent similar occurrences involving similar components or systems.

## 5.7 Changes in Environmental Technical Specifications and Permits

### 5.7.1 Change in Environmental Technical Specifications

Request for changes in environmental technical specifications shall be submitted to the NRC for review and authorization per 10 CFR 50.90. The request shall include an evaluation of the environmental impact of the proposed change and a supporting justification. Implementation of such requested changes in ETS shall not commence prior to incorporation by the NRC of the new specifications in the license.

### 5.7.2 Changes in Permits and Certifications

Changes or additions to required Federal, State, local, and regional authority permits and certificates for the protection of the environment that pertain to the requirements of these ETS shall be reported to the NRC within 30 days. In the event that the licensee initiates or becomes aware of a request for changes to any of the water quality requirements, limits or values stipulated in any certification or permit issued pursuant to Section 401 or 402 of PL 92-500 which is also the subject of an ETS reporting requirement, NRC shall be notified concurrently with the authorizing agency. The notification to the NRC shall include an evaluation of the environmental impact of the revised requirement, limit or value being sought.

If, during NRC's review of the proposed change, it is determined that a potentially severe environmental impact could result from the change, the NRC will consult with the authorizing agency to determine the appropriate action to be taken.

## 5.8 Records Retention

Records and logs relative to the following areas shall be made and retained throughout the term of the operating license. These records and logs shall be made available to NRC on request.

- a. Records and drawing changes detailing station and unit design changes made to systems and equipment which could potentially affect the environment.

SAFETY EVALUATION BY THE OFFICE OF  
NUCLEAR REACTOR REGULATION  
METROPOLITAN EDISON COMPANY  
JERSEY CENTRAL POWER AND LIGHT COMPANY  
PENNSYLVANIA ELECTRIC COMPANY  
DOCKET NO. 50-320  
THREE MILE ISLAND NUCLEAR STATION, UNIT NO. 2

Introduction

By letter dated June 10, 1981, the Metropolitan Edison Company (licensee) requested amendments to the Technical Specifications or Operating License No. DPR-73 for the Three Mile Island Nuclear Station, Unit 2 (TMI-2). The requested amendments to Appendix B of Operating License No. DPR-73 would fulfill the requirements as proposed by the NRC staff and contained in Appendix R of the Programmatic Environmental Impact Statement (PEIS) related to the decontamination and disposal of radioactive wastes resulting from the March 28, 1979 accident at TMI, Unit 2. The requirements of Appendix R of the PEIS were endorsed by the Commission's Statement of Policy of April 27, 1981.

Evaluation

In addition to the existing requirements in the Appendix B Technical Specifications, the proposed amendment would limit the radioactive effluent releases to the environment such that:

- (1) The dose or dose commitment to an individual from liquid effluents will not exceed 3 mrem to the total body or 10 mrem to any organ per calendar year.
- (2) The air dose to an individual due to noble gases in gaseous effluents will not exceed 10 mrad for gamma radiation or 20 mrad for beta radiation for the calendar year.
- (3) The dose to an individual from radionuclides other than noble gases in gaseous effluents will not exceed 15 mrem to any organ for the calendar year.

The proposed amendment would also require quarterly reports to be submitted to the NRC specifying all radiological releases and the estimated cumulative population dose following the end of each calendar quarter. The quarterly report shall include:

- (1) Estimates of the amounts and types of radioactivity released each quarter including the time release rate and total activity of each radionuclide.
- (2) Estimates of cumulative population and maximum individual doses which occurred during the quarter and during the calendar year. These estimates shall be based on actual hydrological and meteorological conditions occurring at the time of the releases.

The proposed amendments to the Appendix B Technical Specifications discussed above are identical to those in Appendix R of the PEIS. As stated in the PEIS; "These modifications are proposed for the purpose of implementing the requirements of Appendix I to 10 CFR Part 50 and to assure that the offsite doses that may occur are as low as reasonably achievable, while at the same time do not exceed the numerical design objectives of Appendix I . . . . compliance with the numerical objectives of Appendix I to 10 CFR Part 50 will assure that the radiation doses received by the public during the cleanup operation are sufficiently low to protect the public's health and safety. The permissible doses will be equivalent to or less than those permitted from an operating reactor. These doses, even when added to the doses which occurred during the TMI-2 accident are likely to have negligible health effects to individuals of the population." Endorsing the PEIS, the Commission, in its Policy Statement of April 27, 1981, stated that, "The cleanup should be carried out in accordance with the criteria in Appendix R of the PEIS as well as in conformance with the existing operating license (DPR-73) and with previously imposed orders."

The proposed changes to the Appendix B Technical Specifications would establish the design objectives of Appendix I to 10 CFR Part 50 as limits which must be complied with during the cleanup operations at TMI-2. The proposed requirements are more restrictive than the criteria contained in the existing Technical Specifications and would be in addition to the existing requirements; they would not replace any of the existing requirements. Therefore, there would be no increase in the probability or consequences of accidents previously evaluated nor would their addition create the possibility of a different type accident or reduce the margin of safety defined in the basis of any technical specification. Consequently, the addition of these proposed requirements does not involve a significant hazards consideration.

#### Environmental Consideration

Based on the evaluation above, the proposed amendment to the Appendix B Technical Specifications would not result in any environmental impact beyond those considered in the Programmatic Environmental Impact Statement, NUREG-0683 and the Final Supplement to the Final Environmental Statement for TMI Unit 2, NUREG-0112. In fact, the proposed amendment conforms to the radioactivity effluents criteria and proposed Technical Specifications of the PEIS and are more restrictive than those in the existing Technical Specifications.

Conclusion

Based upon the staff's review of the proposed amendments to the Appendix B Technical Specifications, the staff finds the licensee's proposal to be acceptable and grants the request. Based on the review, the staff has concluded that:

- (1) The modification does not involve a significant increase in the probability or consequences of accidents previously considered or a significant reduction in a margin of safety and, therefore, does not involve a significant hazards consideration.
- (2) There is reasonable assurance that the health and safety of the public will not be endangered by operation in the modified manner.
- (3) Such activities will be conducted in compliance with the Commission's regulations and the issuance of this modification will not be inimical to the common defense and security or to the health and safety of the public.

Having made this determination, the staff has further concluded that this amendment involves an action which is insignificant from the standpoint of environmental impact and, pursuant to 10 CFR 51.5(d) (4), that an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared in connection with the issuance of this amendment.

UNITED STATES NUCLEAR REGULATORY COMMISSIONDOCKET NO. 50-320METROPOLITAN EDISON COMPANY  
JERSEY CENTRAL POWER AND LIGHT COMPANY  
PENNSYLVANIA ELECTRIC COMPANYNOTICE OF ISSUANCE OF AMENDMENT TO FACILITY OPERATING LICENSE

The U. S. Nuclear Regulatory Commission (the Commission) has issued Amendment No. 16 to Facility Operating License No. DPR-73, issued to Metropolitan Edison Company, Jersey Central Power and Light Company, and Pennsylvania Electric Company which changed Appendix B Technical Specifications for operation of the Three Mile Island Nuclear Station, Unit 2 (the Facility) located in Dauphin County, Pennsylvania. The amendment is effective as of its date of issuance.

The amendment implements the criteria in Appendix R of the Final Programmatic Environmental Impact Statement related to decontamination and disposal of radioactive wastes resulting from the March 28, 1979 accident at TMI-2. These criteria require that the dose to offsite personnel be limited to the design objectives of Appendix I to 10 CFR Part 50 during the cleanup of TMI-2. The criteria also require submittal to NRC of quarterly reports specifying radiological releases and estimated cumulative population dose. This amendment imposes a more restrictive limit on permissible doses than the limit presently established in the facility's Technical Specifications.

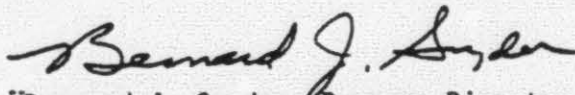
The application for the amendment complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations. The Commission has made appropriate findings as required by the Act and the Commission's rules and regulations in 10 CFR Chapter 1, which are set forth in the license amendment. Prior public notice of this amendment was not required since the amendment does not involve a significant hazards consideration.

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For further details with respect to this action, see (1) the application for amendment dated June 10, 1981, (2) Amendment No. 16 to License No. DPR-73, and (3) the Commission's related Safety Evaluation. All of these items are available for public inspection at the Commission's Public Document Room, 1717 H Street, N.W., Washington, D.C. 20555 and at the Government Publications Section, State Library of Pennsylvania, Education Building, Commonwealth and Walnut Streets, Harrisburg, Pennsylvania 17126. A copy of items (2) and (3) may be obtained upon request addressed to the U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, Attention: Director, TMI Program Office.

Dated at Bethesda, Maryland this 26th day of June, 1981

FOR THE NUCLEAR REGULATORY COMMISSION



Bernard J. Snyder, Program Director  
TMI Program Office  
Office of Nuclear Reactor Regulation