

Metropolitan Edison Company (Met-Ed)  
Three Mile Island Nuclear Generation Station Unit 1 (TMI-1)  
Docket No. 50-289  
Operating License No. DPR-50

Environmental Technical Specification Change Request No. 34

Replace Appendix B pages 15, 16, 23, and 24 with the enclosed replacement pages. Page 16 is unchanged and is included only for convenience.

Reason For Proposed Change

To comply with Appendix I 10 CFR 50

Environmental Analysis Justifying Change

The proposed change incorporates the design criteria of Appendix I of 10 CFR 50 into present Environmental Technical Specifications. Studies performed recently at our direction by Nuclear Safety Associates, Inc. show that the existing systems and related operating procedures provide adequate assurance that the release limits of Appendix I are being, and will continue to be met. This change will not serve to change existing systems or related operating procedure. Therefore, it does not involve an unreviewed safety question nor does it cause undue risk to the health and safety of the public, nor an unreviewed environmental impact.

Cost-Benefit Analysis Supporting Change

There is no significant cost involved in this change.

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2.0 LIMITING CONDITIONS FOR OPERATION

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Objective (cont'd)

are as low as reasonably achievable in conformance with 10 CFR Parts 50.34a and 50.36a, and to ensure that these releases result in concentrations of radioactive materials in liquid effluents released to unrestricted areas within the limits specified in 10 CFR Part 20.

To ensure that the releases of radioactive material above background to unrestricted areas are as low as is reasonably achievable, the following design objectives as defined in Appendix I to 10 CFR Part 50.36a apply:

- a. The annual total quantity of all radioactive material above background that may be released to unrestricted areas should not result in an annual dose or dose commitment from liquid effluents for any individual in an unrestricted area from all pathways of exposure in excess of 3 millirems to the total body or 10 millirems to any organ.
- b. The annual average concentration of radioactive materials in the effluent from the Unit 1 Mechanical Draft Cooling Tower prior to dilution in the Susquehanna River, excluding tritium and dissolved gases, should not exceed  $2 \times 10^{-8}$   $\mu\text{Ci/ml}$ .
- c. The annual average concentration of tritium in liquid waste prior to dilution in the environment should not exceed  $5 \times 10^{-6}$   $\mu\text{Ci/ml}$ .

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2.0 LIMITING CONDITIONS FOR OPERATION

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Specification

- a. The radioactivity release concentration in effluents from Unit 1 to the environment shall not exceed the values specified in 10 CFR Part 20, Appendix B, for unrestricted areas.
- b. The total release of radioactive liquid effluent from Unit 1 excluding tritium and noble gases, shall not exceed 10 curies 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 their discharge when the activity release rate will exceed 1.25 curies, excluding tritium and dissolved gases during any calendar quarter.
- d. The maximum activity 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 release rate of radioactive effluents, excluding tritium and dissolved

Specification

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

- a. The liquid gross activity monitor, RM-L6 or similar device, and recorder on the radwaste effluent line shall be operable.
- b. The liquid gross activity monitor RM-L6 or similar device shall be set to alarm and automatically close the waste discharge valve WDL-V-257 prior to exceeding the limits specified in 10 CFR Part 20, Appendix B for unrestricted areas.
- c. Liquid waste radioactivity and flow rate from the waste evaporator condensate storage tanks 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 valving prior to the discharge.

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2.0 LIMITING CONDITIONS FOR OPERATION

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Bases (Cont'd)

In addition to the limiting conditions for operation listed under Specification b, the reporting requirements of Specification e, in addition to 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 during any calendar quarter and describe the proposed program of action to reduce such release rate. This report must be filed within 30 days following the calendar quarter in which the 2.5 curies release occurred.

2.3.2 Gaseous Effluents

Applicability

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

Objective

To define the limits and conditions for the controlled release of radioactive effluents to the environs to ensure that these releases are as low as is reasonably achievable in

Objective

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

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2.0 LIMITING CONDITIONS FOR OPERATION

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Objectives (cont'd)

conformance with 10 CFR Parts 50.34a and 50.36a, and to ensure that these releases result in concentrations of radioactive materials in gaseous effluents released to unrestricted areas within the limits specified in 10 CFR Part 20.

To ensure that the releases of radioactive material above background to unrestricted areas are as low as is reasonably achievable, the following design objectives as defined in Appendix I to 10 CFR Part 50.36a apply:

- a. The annual total quantity of all radioactive material above background that may be released to unrestricted areas should not result in an annual dose or dose commitment from liquid effluents for any individual in an unrestricted area from all pathways of exposure in excess of 3 millirems to the total body or 10 millirems to any organ.
- b. The annual total quantity of all radioactive material above background that may be released to the atmosphere should not result in an annual air dose from gaseous effluents at any location near ground level which could be occupied by individuals in unrestricted areas in excess of 10 millirads for gamma radiation or 20 millirads for beta radiation, or that this quantity should not result in an annual external dose from gaseous effluents to any individual in unrestricted areas in excess of 5 millirems to the total body or 15 millirems to the skin.
- c. The annual total quantity of all radioactive iodine and radioactive material in particulate form above background that may be released in effluents to the atmosphere should not result in an annual dose from such radioactive iodine and radioactive material in particulate form for any individual in an unrestricted area from all pathways of exposure in excess of 15 millirems to any organ.

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