



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 137 TO FACILITY OPERATING LICENSE NO. DPR-50

METROPOLITAN EDISON COMPANY
JERSEY CENTRAL POWER & LIGHT COMPANY
PENNSYLVANIA ELECTRIC COMPANY
GPU NUCLEAR CORPORATION

THREE MILE ISLAND NUCLEAR STATION UNIT 1

DOCKET NO.: 50-289

1.0 INTRODUCTION

By letter dated July 28, 1987, GPU Nuclear Corporation (GPU) submitted a request for changes to the Technical Specifications (TS) for Three Mile Island Nuclear Station, Unit No. 1. In response to a staff request, supplemental information was provided in a letter dated December 21, 1987. This information did not alter the staff's initial determination of no significant hazards consideration.

This amendment revises the Radiological Effluent Technical Specifications (RETS) to improve clarity, make the RETS more specific to TMI-1 without changing intent or substance, and to improve consistency with Standard Technical Specifications (STS). The systems covered by the RETS do not include emergency systems intended to protect against core-melt accidents or their consequences. Rather, the RETS are intended to help control the normal and routine operation of Rad Waste Systems and the normal and routine releases of small amounts of radioactivity to the environment.

2.0 EVALUATION

The changes can be divided into two categories: (1) administrative changes and (2) changes that would make the TS more consistent with the STS.

The following types of administrative changes are proposed: (1) capitalizing some words in the TS (e.g., see pages 1-3, 1-4, 3-13, 3-22, 3-96, 6-18, and 6-19) that are already defined in Section 1, "Definitions"; (2) correcting typographical errors and updating references (e.g., see pages 1-3, 3-13, 3-99, 4-91, 4-98, 4-99, 4-101, and 5-1); and (3) clarifications (e.g., see pages 1-6, 3-96, 3-99, 3-102, 3-103, 3-105, 4-7a, 4-87, 4-90 through 4-95, 4-98 through 4-102, 4-104, 4-106, 4-107, 4-108, and 5-1). The staff has reviewed these changes and has found them acceptable.

The following changes would make the TS for Three Mile Island Unit 1 more consistent with the STS: (1) the definition of "channel check" (TS 1.5.3 on page 1-4); (2) the definition of "members of the public" (TS 1.22 on page 1-7), and its subsequent use (TS 3.22.1 on pages 3-106 through 3-108, TS 3.22.2 on

pages 3-111 through 3-113, TS 3.22.2.6 on page 3-117, TS 6.9.4.3.3 on page 6-19); (3) the use of thyroid dose conversion factors from Regulatory Guide 1.109 (TS 1.12 on page 1-6) in calculating "dose equivalent I-131"; (4) a change in notations for conducting various monitoring and surveillance requirements (Table 1.2 on page 1-8); and (5) the definition of the "lower limit of detection," as it is used in Tables 4.22-1 and 4.22-2. The staff has reviewed these changes, as well as the supplemental information provided in the GPU letter of December 21, 1987, and finds that these changes are consistent with the STS and are therefore acceptable.

GPU proposes to eliminate some of the limits associated with the instruments listed in TS Tables 3.21-1 and 3.21-2 (pages 3-99, 3-100, 3-105, 3-105a), for releasing radionuclides to the environment. The instruments listed in the preceding Tables are used to monitor the release of radioactive liquids and airborne radionuclides. Currently, TS 3.21.1 requires that the radioactive liquid effluent monitoring instrumentation channels listed in Table 3.21-1 shall be operable. If less than the minimum number of channels are operable, then GPU must enter one of the "ACTION" statements listed in the TS. TS 3.21.2 contains a similar requirement for the instruments that monitor releases of airborne radionuclides and the instruments that monitor the plant's processing of airborne radionuclides. Under the current "ACTION" statements, GPU may continue to release radioactive effluents for up to 14 days, 28 days, or 30 days, depending on the type of monitor that is inoperable, provided that grab samples are collected and analyzed within a stated time period.

GPU proposes to eliminate the 14 day, 28 day, and 30 day release limits. Instead of the specific day limits, GPU would be required to "exert best efforts to return the instrumentation to 'operable' status within 30 days and, if unsuccessful, explain in the next Semi-Annual Effluent Release Report why the inoperability was not corrected in a timely manner." Thus, releases would be allowed to continue in the event that less than the minimum number of instruments were operable, provided that grab samples were collected and analyzed within a stated timeframe. The staff finds that these proposed changes are consistent with the STS.

GPU proposes to eliminate monitoring of gross beta activity and phosphorous-32 in samples taken from radioactive liquid releases (i.e., Table 4.22-1 on pages 4-96 and 4-97), and monitoring of iodine-133 in samples taken from radioactive airborne releases (i.e., Table 4.22-2 on page 4-103). Other types of activity analyses will continue to be performed and these analyses will be sufficient to maintain releases within the appropriate regulatory limits. The staff finds that these proposed changes are consistent with the STS.

3.0 ENVIRONMENTAL CONSIDERATION

This amendment changes a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. We have determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that this amendment

involves no significant hazards consideration and there has been no public comment on such finding. Accordingly, this amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of this amendment.

4.0 CONCLUSION

We have concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (2) such activities will be conducted in compliance with the Commission's regulations and the issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public.

Dated: March 22, 1988

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