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Posted Amdt. 130 to DPR-50

June 8, 1987

Docket No. 50-289

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Mr. Henry D. Hukill, Vice President
and Director - TMI-1
GPU Nuclear Corporation
P.O. Box 480
Middletown, Pennsylvania 17057

Dear Mr. Hukill:

SUBJECT: AMENDMENT NO.130 TO FACILITY OPERATING LICENSING NO. DPR-50 (TAC #64675)

The Commission has issued the enclosed Amendment No. 130 to Facility Operating License No. DPR-50 for the Three Mile Island Nuclear Station, Unit No. 1 (TMI-1). This amendment consists of changes to the Technical Specifications (TSs) in response to your letter dated February 3, 1987 (Technical Specification Change Request (TSCR) No. 157).

This amendment revises the TSs to account for a new condenser vent stack iodine sampler. The new iodine sampler provides for continuous sampling instead of periodic sampling, and facilitates calculation of annual dose to unrestricted areas to determine compliance with 10 CFR 20 and 10 CFR 50, Appendix I.

A copy of our Safety Evaluation is also enclosed. Notice of Issuance will be included in the Commission's biweekly Federal Register notice.

Sincerely,

G E Edison

Gordon E. Edison, Senior Project Manager
Project Directorate I-4
Division of Projects I/II

Enclosures:
1. Amendment No. 130 to DPR-50
2. Safety Evaluation

cc w/enclosures:
See next page

LAPDI-4	PDI-4 GEE	PDI-4	OGC
SNorris	GEEdison	JStolz	[illegible]
5/21/87	5/22/87	5/22/87	5/28/87

already Done GEE
Although STATE & SECY before issuance

Mr. Henry D. Hukill
GPU Nuclear Corporation

cc:
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Atomic Safety & Licensing Appeal
Board Panel (8)
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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

METROPOLITAN EDISON COMPANY

JERSEY CENTRAL POWER AND LIGHT COMPANY

PENNSYLVANIA ELECTRIC COMPANY

GPU NUCLEAR CORPORATION

DOCKET NO. 50-289

THREE MILE ISLAND NUCLEAR STATION, UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 130
License No. DPR-50

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment by GPU Nuclear Corporation, et al. (the licensees) dated February 3, 1987, 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 application, 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, and paragraph 2.c.(2) of Facility Operating License No. DPR-50 is hereby amended to read as follows:

Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendement No. 130, are hereby incorporated in the license. GPU Nuclear Corporation shall operate the facility in accordance with the Technical Specifications.

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

FOR THE NUCLEAR REGULATORY COMMISSION

John F. Stolz, Director
Project Directorate I-4
Division of Reactor Projects I/II

Attachment:
Changes to the Technical
Specifications

Date of Issuance: June 8, 1987

ATTACHMENT TO LICENSE AMENDMENT NO. 130

FACILITY OPERATING LICENSE NO. DPR-50

DOCKET NO. 50-289

Replace the following pages of the Appendix "A" Technical Specifications with the attached pages. The revised pages are identified by Amendment number and contain vertical lines indicating the area of change.

Remove	Insert
4-106	4-106
4-107	4-107
4-109	4-109

TABLE 4.22-2

RADIOACTIVE GASEOUS WASTE SAMPLING AND ANALYSIS PROGRAM

Gaseous Release Type	Sampling Frequency	Minimum Analysis Frequency	Type of Activity Analysis	Lower Limit of Detection (LLD) (uCi/ml)[a]
A. Waste Gas Storage Tank	P Each Tank Grab Sample	P Each Tank	Principal Gamma Emitters [g]	1×10^{-4}
B. Containment Purge	P Each Purge [b] Grab Sample	P Each Purge [b]	H-3 Principal Gamma Emitters [g]	1×10^{-6} 1×10^{-4}
C. Auxiliary and Fuel Handling Building Air Treatment System	M[c,e] Grab Sample	M	H-3 Principal Gamma Emitters [g]	1×10^{-6} 1×10^{-4}
D. Fuel Handling Building ESF Air Treatment System	M (during system operation) Grab Sample	M (during system operation)	H-3 Principal Gamma Emitters [g]	1×10^{-6} 1×10^{-4}
E. Condenser Vacuum Pumps Exhaust [h]	M[h] Grab Sample	M[h]	H-3 Principal Gamma Emitters [g]	1×10^{-6} 1×10^{-4}

TABLE 4.22-2 (Continued)

RADIOACTIVE GASEOUS WASTE SAMPLING AND ANALYSIS PROGRAM

Gaseous Release Type	Sampling Frequency	Minimum Analysis Frequency	Type of Activity Analysis	Lower Limit of Detection (LLD) (uCi/ml)[a]
F. All Release Types as Listed Above in A, B, C and D (during System Operation)	Continuous [f]	W[d] Charcoal Sample	I-131 I-133	1×10^{-12} 1×10^{-10}
	Continuous [f]	W[d] Particulate	Principle Gamma Emitters [g] (I-131, Others)	1×10^{-11}
	Continuous [f,i]	Q Composite Particulate Sample	Gross Alpha	1×10^{-11}
	Continuous [f,i]	Q Composite Particulate Sample	Sr-89, Sr-90	1×10^{-11}
G. Condenser Vent Stack Continuous Iodine Sampler[j]	Continuous [k]	W[d] Charcoal Sample	I-131	1×10^{-12}

TABLE 4.22-2 (Continued)

d. Samples shall be changed at least once per 7 days and analyses shall be completed within 48 hours after changing (or after removal from sampler).

e. Tritium grab samples shall be taken weekly from the ventilation exhaust from the spent fuel pool area whenever spent fuel is in the spent fuel pool.

f. The ratio of the sample flow rate to the sampled stream flow rate shall be known for the time period covered by each dose or dose rate calculation made in accordance with Specifications 3.22.2.1, 3.22.2.2, and 3.22.2.3.

g. The principal gamma emitters for which the LLD specification applies exclusively are the following radionuclides: Kr-87, Kr-88, Xe-133, Xe-133m, Xe-135 and Xe-138 for gaseous emmissions and Mn-54, Fe-59, Co-58, Co-60, Zn-65, Mo-99, Cs-137, Ce-141 and Ce-144 for particulate emissions. This list does not mean that only these nuclides are to be detected and reported. Other peaks which are measureable and identifiable, together with the above nuclides, shall also be identified and reported. Nuclides which are below the LLD for the analyses shall be reported as "less than" the nuclide's LLD, and shall not be reported as being present at the LLD level for that nuclide. The "less than" values shall not be used in the required dose calculations.

h. Applicable only when condenser vacuum is established. Sampling and analyses shall be performed within 4 hours following each shutdown, startup or thermal power level change exceeding 15% of Rated Thermal Power in one hour.

i. Gross Alpha, Sr-89, and Sr-90 analyses do not apply to the Fuel Handling Building ESF Air Treatment System.

j. If the Condenser Vent Stack Continuous Iodine Sampler is unavailable, then alternate sampling equipment will be placed in service within 48 hours.

k. Applicable only when condenser vacuum is established.

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO.130 TO FACILITY OPERATING LICENSE NO. DPR-50

METROPOLITAN EDISION COMPANY
JERSEY CENTRAL POWER AND LIGHT COMPANY
PENNSYLVANIA ELECTRIC COMPANY
GPU NUCLEAR CORPORATION

THREE MILE ISLAND NUCLEAR STATION, UNIT NO. 1

DOCKET NO. 50-289

INTRODUCTION

By letter dated February 3, 1987, GPU Nuclear Corporation (GPU or the licensee) requested an amendment to the Technical Specifications appended to Facility Operating License No. DPR-50 for the Three Mile Island Nuclear Station, Unit No. 1. The proposed changes would incorporate additional sampling and analysis requirements in TS Table 4.22-2 related to the new Condenser Vent Stack Continuous Iodine Sampler. In addition, an editorial change affecting the same Table has been incorporated in this request, which serves to remove a redundant footnote.

EVALUATION

NUREG-0472, Standard Radiological Effluent Technical Specifications for Pressurized Water Reactors (Rev. 3), Section 4.11.2.1.2 and Table 4.11-2, provides general guidance as to the types of sampling and analysis necessary to determine whether dose rates due to gaseous effluents are within regulatory limits. Table 4.11-2 indicates that the licensee should include release points where gaseous effluents are discharged from the facility, and sets forth the sampling and analysis frequency, the radionuclides to be analyzed, and the lower limits of detection (LLD) for these radionuclides. The licensee's proposed Technical Specification change is consistent with the guidance of NUREG-0472, in that it seeks to provide for additional radioiodine sampling and analysis capability for the condenser off-gas system using the sampling and analysis frequencies and the LLD specified in NUREG-0472.

This additional sampling capability is provided by the Condenser Vent Stack Continuous Iodine Sampler, which the licensee has already installed to provide continuous representative iodine samples for laboratory analysis. This sampler will allow the licensee to detect and quantify traces of radioiodine in the Condenser Off-Gas System released to the atmosphere through the vent stack during normal plant operations.

The licensee also proposes removal of the reference to footnote b in Item E of Table 4.22-2, because this footnote is redundant to footnote h. Item E requires a monthly grab sample of the condenser vacuum pumps exhaust, with analysis for tritium and principal gamma emitters. Footnote h specified that this sampling and analysis be performed whenever condenser vacuum is established. Both footnotes required additional sampling following shutdown, startup, or a thermal power level change exceeding 15% of rated thermal power in a one hour period. Only footnote h is needed to fully specify the requirements for sampling and analysis from the condenser vacuum pumps exhaust.

The staff has evaluated the proposed changes to the Technical Specifications and concludes for the reasons stated above that these changes: (1) are consistent with the Standard Technical Specifications, (2) require additional sampling and analysis capability, and (3) serve to eliminate an existing redundancy in the current Technical Specifications.

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. The staff has 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 published a proposed finding that the amendment involves no significant hazards consideration and there has been no public comment on such finding. Accordingly, the 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 the amendment.

CONCLUSION

The staff has 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: June 8, 1987

Principal Contributor

R. Struckmeyer