



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 85 TO FACILITY OPERATING LICENSE NO. NPF-57

PUBLIC SERVICE ELECTRIC & GAS COMPANY

ATLANTIC CITY ELECTRIC COMPANY

HOPE CREEK GENERATING STATION

DOCKET NO. 50-354

1.0 INTRODUCTION

By letter dated March 30, 1995 the Public Service Electric & Gas Company (the licensee) submitted a request for a change to the Hope Creek Generating Station (HCGS), Technical Specifications (TSs). The proposed change to Technical Specification (TS) TS Table 3.3.1-2, "Reactor Protection System Response Times", TS Table 3.3.2-3, "Isolation System Instrumentation Response Time", TS Table 3.3.3-3, "Emergency Core Cooling System Response Times", and associated Bases. The proposed changes to the above-referenced TS Tables would eliminate the requirement to perform response time testing (RTT) for certain classes of equipment. In addition, by letter dated November 30, 1994, the licensee requested that the requirements contained in TS Tables 3.3.1-2, 3.3.2-3 and 3.3.3-3, as referenced above, be transferred to the Hope Creek Updated Final Safety Analysis Report (UFSAR). Supplemental information addressing elimination of selected response time testing was submitted by letter dated September 5, 1995. The supplemental letter did not change the original no significant hazards consideration determinations nor the original Federal Register notices.

2.0 DISCUSSION

By letter dated December 28, 1994, the NRC staff informed the BWR Owners Group (BWROG) that the NRC staff had approved Licensing Topical Report NEDO-32291, "System Analyses for Elimination of Selected Response Time Testing Requirements," January 1994. The December 28, 1994 letter, which contained a supporting Safety Evaluation (SE), concluded that, "Based on its review of the information presented by the BWROG, the staff has concluded that significant degradation of instrument response times, i.e., delays greater than 5 seconds, can be detected during the performance of other surveillance tests, principally calibration, if properly performed. Accordingly, the staff concludes that RTT can be eliminated from technical specifications for the selected instrumentation identified in the topical report and accepts NEDO-32291 for reference in license amendment applications for all boiling water reactors with the conditions discussed below." The phrase "...with the conditions discussed below" refers to a plant-specific request for information that the NRC staff requested for those applicants wishing to reference NEDO-32291 as part of an application for license amendment.

The December 28, 1994 NRC staff letter and SE was supplemented by an NRC staff letter dated May 31, 1995 which approves the deletion of TS requirements for RTT of main steam line isolation sensors.

The March 30, 1995 application requested that the following RTT be eliminated from the TS based upon the analyses presented in NEDO-32291: (1) All Emergency Core Cooling System instrument loops as contained in TS Table 3.3.3-3, (2) All Isolation System actuation instrument loops except for Main Steam Line Isolation Valves (MSIVs) as contained in TS 3.3.2-3, (3) Sensors for selected Reactor Protection System actuation as contained in TS Table 3.3.1-2, and (4) Sensors for MSIV closure actuation as contained in a footnote in TS Table 3.3.2-3.

The licensee has also proposed changes to TS 3.3.1, 3.3.2 and 3.3.3 involving removing the references to Tables 3.3.1-2, 3.3.2-3 and 3.3.3-3 and removing these tables from the TS. The licensee has proposed to relocate the tables on response time limits to the UFSAR by including them in the next periodic updates to the UFSAR.

3.0 EVALUATION

The March 30, 1995 application for license amendment responds to the request for information contained in the NRC staff's letter dated December 28, 1994. The NRC staff's questions and the licensee's responses were as follows:

- (Q1) Confirm the applicability of the generic analysis of NEDO-32291.
- (A1) The licensee indicated that they had reviewed NEDO-32291 and verified its applicability to Hope Creek. The NRC staff accepts the licensee's explanation.
- (Q2) (Provide) a request as shown in Appendix I of the topical report.
- (A2) Appendix I of Topical Report NEDO-32291 is a generic model of a license amendment request to delete the RTT from the TS. The licensee's March 30, 1995 application for license amendment generally follows the form and content of the Appendix I model. The NRC finds the form and content of the licensee's application to be acceptable.
- (Q3) (Provide) the TS Markup Tables as shown in Table H.
- (A3) The TS submitted by the licensee as part of the March 30, 1995 application for license amendment conforms to the model TS in NEDO-32291 with one exception. The exception involves the "Refueling Floor Radiation" and "Reactor Building Exhaust Radiation" instruments RTT which were not addressed by the RTT analysis and are, thus, being retained in TS Table 3.3.2-3.
- (Q4) (Provide) a list of affected instrument loop components as shown in Appendix C.1.

- (A4) The list of applicable components is contained in Table G-6 of NEDO-32291.
- (Q5) Licensees must state that they are following the recommendations from EPRI NP-7243, "Investigation of Response Time Testing Requirements".
- (A5) The licensee stated that they do follow the recommendations from EPRI NP-7243 and provided the required responses concerning commitments to (a) perform a hydraulic RTT following installation or refurbishment of a transmitter/switch and (b) for transmitters/switches that utilize capillary tubes, perform capillary tube testing for initial installations or after maintenance that could damage the lines (found not to be applicable for HCGS). The NRC staff found the licensee commitments to be acceptable.

In addition to providing the above information, the licensee also responded to the following plant-specific questions contained in the NRC staff's December 28, 1994 letter:

- (Q "a") Calibration is being done with equipment designed to provide a step function or fast ramp in the process variable.
- (A "a") Test equipment and procedures provide a step or ramp input. For example, a transmitter can be pressurized with air to 100 percent of the calibrated span and then the air can be quickly removed to simulate the response to a fast ramp input. A trip unit can be subjected to input via a potentiometer until the unit "trips."
- (Q "b") Provisions have been made to ensure that operators and technicians are aware of the consequences of instrument response time degradation, and that applicable procedures have been reviewed and revised as necessary to assure that technicians monitor for response time degradation during the performance of calibrations and functional tests.
- (A "b") Operators will receive training on the consequences of instrument response time degradation during the 1994/1995 training cycle; such training has already been implemented for technicians. Procedures for Channel Calibration and Functional Tests will be revised to include a note to require input signal and output function to be monitored, simultaneously, to ensure that performance has not degraded.
- (Q "c") The surveillance test procedures have been reviewed and revised if necessary to ensure calibrations and functional tests are being performed in a manner that allows simultaneous monitoring of both the input and output response of units under test.

- (A "c") As noted above, procedures for Channel Calibration and Functional Tests will be revised to include a note to require input signal and output function to be monitored, simultaneously, to ensure that performance has not degraded.
- (Q "d") For any request involving the elimination of RTT for Rosemount pressure transmitters, the licensee is in full compliance with the guidelines of Supplement 1 to Bulletin 90-01, "Loss of Fill-Oil in Transmitters Manufactured by Rosemount."
- (A "d") The NRC letter and Safety Evaluation dated December 2, 1994 indicates that the licensee has satisfied the requested actions of NRC Bulletin 90-01, Supplement 1 for Hope Creek.
- (Q "e") For those instruments where the manufacturer recommends periodic RTT as well as calibration to ensure correct function, the licensee has ensured that elimination of RTT is nevertheless acceptable for the particular application involved.
- (A "e") There are no instruments at Hope Creek, for which PSE&G is requesting elimination of RTT, where the manufacturer recommends periodic RTT as well as calibration to ensure correct function.

The NRC staff has reviewed the licensee's responses to the information requested in items "a" through "d" of the NRC staff's letter dated December 28, 1994 and finds these responses to be acceptable. The licensee has indicated that all outstanding commitments described above will be implemented prior to implementation of the license amendment.

The licensee has also proposed changes to TS 3.3.1, 3.3.2 and 3.3.3 involving removing the references to Tables 3.3.1-2, 3.3.2-3 and 3.3.3-3 and removing these tables from the TS. The licensee has proposed to relocate the tables on response time limits to the UFSAR by including them in the next periodic updates to the UFSAR. These actions are consistent with the guidance in GL 93-08, "Relocation of Technical Specification Tables of Instrument Response Time Limits." The staff has reviewed this matter and finds that the proposed changes to the TS for Hope Creek Generating Station are acceptable.

4.0 STATE CONSULTATION

In accordance with the Commission's regulations, the New Jersey State Official was notified of the proposed issuance of the amendment. The State official had comments as follows: "The Hope Creek Technical Specifications define the terms 'ECCS Response Time', 'Reactor Protection System Response Time', and 'Isolation System Response Time'. The tables that are proposed to be deleted from the Technical Specifications contain footnotes that clarify the way that several specific response times are to be measured. These footnotes appear to provide flexibility in certain response time tests that the definition would not allow. It is noted that a portion of one footnote related to radiation monitors was incorporated elsewhere in the Technical Specifications.

However, if PSE&G intends to continue to follow the information in the remainder of the footnotes, then all the footnotes should be incorporated elsewhere into the Technical Specification rather than being deleted." Subsequent to receiving the New Jersey State Official's comments, the licensee provided the following explanation to the State Official. The footnotes in the tables to be deleted from the TS pertain only to the systems dealt with in the tables to be deleted. Further, when these deleted tables are incorporated in the UFSAR, the footnotes are to be included. The State Official was satisfied that the footnotes would be handled satisfactorily and as a consequence had no further comment.

5.0 ENVIRONMENTAL CONSIDERATION

The 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 and changes the surveillance requirements. The NRC staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluent that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued proposed findings that the amendment involves no significant hazards consideration, and there has been no public comment on such findings (60 FR 16198) and (60 FR 42606). 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.

6.0 CONCLUSION

The Commission 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, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

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Date: October 24, 1995