



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 76 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

In a submittal dated April 25, 1994, as supplemented July 24, 1995, the licensee for Hope Creek Generating Station requested an amendment to Technical Specifications (TSs) Table 3.6.3-1, "Primary Containment Isolation Valves." The licensee requested elimination of 10 CFR Part 50 Appendix J, Type C leak rate testing for certain containment isolation valves (CIVs), which are located in lines that penetrate the primary containment and terminate below the minimum water level in the suppression pool, by deleting Note 4 and adding a new Note 11 for these valves. Note 4 requires Type C water test at 1.10 Pa, and leakage added to 10 gpm allowable leakage. Note 11 clarifies that Type C testing is not required for certain CIVs because containment bypass leakage is prevented since the line terminates below the minimum water level in the suppression pool and the system is a closed system outside primary containment. Note 11 also refers to existing ASME Section XI requirements in the TS (4.0.5) for performance of inservice testing.

The licensee indicated that this amendment request is not an exemption to 10 CFR Part 50, Appendix J requirements. Appendix J, Type C testing is not appropriate for certain CIVs on lines which penetrate the suppression pool (i.e., torus) and terminate below the minimum water level. Inservice testing will be performed in accordance with the American Society of Mechanical Engineers Boiler and Pressure Vessel (ASME B&PV) Code, Section XI - Division 1, Article IWV-3000.

The licensee has proposed specific changes for the following valves:

- RHR Suppression Pool Cooling water & Test Isolation Valves BC-V124, V125, V028 and V027, Penetrations P212B and P212A.
- Core Spray Test to Suppression Pool Isolation Valves BE-V025 and V026, Penetrations P217B and P217A.
- HPCI Pump Suction Isolation Valve BJ-V009, Penetration P202.
- HPCI Minimum Return Line Isolation Valve BJ-V016 Penetration P203.
- RCIC Pump Suction Isolation Valve BD-V003, Penetration P208.

- RCIC Minimum Return Line Isolation Valve SV-F019, Penetration P209.
- Core Spray Suppression Pool Suction Valves BE-V017, V019, V018 and V020, Penetrations P216D, P216A, P216C and P216B.
- Core Spray Minimum Flow Valves BE-V035 and BE-V036, Penetrations P217B and P217A.
- RHR Suppression Pool Suction Valves BC-V103, V006, V098, and V001, Penetrations P211C, P211B, P211D and P211A.
- RHR Minimum Flow Isolation Valves BC-V128, V031, V131, V034, Penetrations P212B and P212A.
- RHR System Jockey Pump Discharge Check Valves BC-V206 and V260, Penetrations P212B and P212A.
- RHR Suppression Pool Return Valves BC-V126 and V026, Penetrations P212B and P212A.

2.0 EVALUATION

The containment isolation valves for which Appendix J, Type C leak rate testing will not be performed are all on lines which penetrate the torus and terminate below the torus minimum water level. Since the torus is designed and operated to be filled with water during and following any postulated design basis accident (DBA), the CIVs will remain water sealed during these conditions. This prevents the primary reactor containment atmosphere from impinging on the CIVs and precludes its leakage out of containment post-accident.

The licensee indicated that the subject CIVs are located in systems for which the system and the associated piping are protected against missiles and pipe whip, are designed to seismic Category I requirements, and are classified as Quality Group B per Regulatory Guide 1.26 (RG 1.26). The systems and piping will not be adversely affected by single active failures.

The torus will remain filled with water for at least 30 days following the onset of an accident. The subject CIVs, therefore, do not constitute potential containment atmosphere leak paths, and as such are not required by Paragraph III.A.1.(d) of Appendix J to be Type C tested. Additionally, in accordance with Sections III.C.2 and III.C.3 of Appendix J, the CIVs need not be tested with air. Further, it is not necessary to test them with water, as the purpose of the water leak rate test is to assure a supply of sealing water for 30 days following an onset of an accident. As the torus is postulated to always remain filled with water, no leak rate test is necessary to satisfy Appendix J requirements. The CIVs will, however, continue to be tested pursuant to the applicable requirements of Section XI of the ASME B&PV Code.

For the above reasons, the staff finds the proposed testing of the CIVs in the above penetrations to be in compliance with the requirements of Appendix J.

3.0 STATE CONSULTATION

In accordance with the Commission's regulations, the New Jersey State Official was notified of the proposed issuance of the amendment. By letter dated June 28, 1994, the New Jersey State Official provided the following comments.

PSE&G stated in their letter that " This request is based upon an exemption issued by the NRC on October 30, 1986 for Georgia Power Company's Hatch Nuclear Plant." However, the note on page 1 of Attachment 1 (to PSE&G's Amendment Application dated April 25 1994) says that this amendment request is not an exemption to 10CFR50 Appendix J, Type C testing. They are proposing the substitution of ASME Section XI testing for the subject CIV's. Does it mean an exemption from Type C testing was issued to Hatch and no substitution with an appropriate ASME test was required? Also, shouldn't the details (CIVs and systems involved) of the exemption, issued to Hatch, be provided in the Justification Section of this amendment? The BNE (Bureau of Nuclear Engineering of the State of New Jersey) believes that an appropriate ASME code case could have been considered for Hatch.

The following answers were given to the state official by the staff in a telephone conference on June 21, 1995:

The above safety evaluation for this amendment states the valves listed in PSE&G's amendment application dated April 25, 1994, are in compliance with 10 CFR Part 50 Appendix J and that no leak rate test is required to satisfy Appendix J requirements; and further, the safety evaluation states that the CIVs will, however, continue to be tested pursuant to the applicable requirements of Section XI of the ASME B&PV Code. The staff has agreed with the licensee that no exemption is required. Concerning the Hatch amendment, which Hope Creek used as an example in preparing their amendment application, the staff stated that although Hatch's application was for exemptions to CIVs and closed systems inside containment, the staff found some of the valves that were on lines which penetrated the torus and terminated below the torus minimum level were in compliance with Appendix J, needing no Type C test nor exemption.

The state official had no further comments.

4.0 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. The NRC 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 issued a proposed finding that the amendment involves no significant hazards consideration, and there has been no public comment on such finding (59 FR 29632). 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.

5.0 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: August 11, 1995