February 22, 1996

Mr. Leon R. Eliason
Chief Nuclear Officer & President-
Nuclear Business Unit
Public Service Electric & Gas
Company
Post Office Box 236
Hancocks Bridge, NJ 08038

SUBJECT: HOPE CREEK GENERATING STATION (TAC NO. M91008)

Dear Mr. Eliason:

The Commission has issued the enclosed Amendment No. 93 to Facility Operating License No. NPF-57 for the Hope Creek Generating Station. This amendment consists of changes to the Technical Specifications (TSs) in response to your application dated October 31, 1994.

This amendment deletes certain valves from TS Table 3.6.3-1, "Primary Containment Isolation Valves," that no longer need to be tested in accordance with 10 CFR Part 50, Appendix J.

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

Sincerely,
/S/
David H. Jaffe, Senior Project Manager
Project Directorate I-2
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Docket No. 50-354

Enclosures: 1. Amendment No. 93 to
License No. NPF-57
2. Safety Evaluation

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

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cc w/encls: See next page

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

PUBLIC SERVICE ELECTRIC & GAS COMPANY

ATLANTIC CITY ELECTRIC COMPANY

DOCKET NO. 50-354

HOPE CREEK GENERATING STATION

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 93
License No. NPF-57

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

   A. The application for amendment filed by the Public Service Electric & Gas Company (PSE&G) dated October 31, 1994, 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 set forth in 10 CFR Chapter I;

   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. NPF-57 is hereby amended to read as follows:

(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No. 93 , and the Environmental Protection Plan contained in Appendix B, are hereby incorporated into the license. PSE&G shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. The license amendment is effective as of its date of issuance and shall be implemented within 60 days from the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

John F. Stolz, Director
Project Directorate I-2
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical Specifications

Date of Issuance: February 22, 1996

ATTACHMENT TO LICENSE AMENDMENT NO. 93

FACILITY OPERATING LICENSE NO. NPF-57

DOCKET NO. 50-354

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
3/4 6-21	3/4 6-21
3/4 6-30	3/4 6-30
3/4 6-31	3/4 6-31
3/4 6-32	3/4 6-32
3/4 6-36	3/4 6-36

TABLE 3.6.3-1 (Continued)

PRIMARY CONTAINMENT ISOLATION VALVES

VALVE FUNCTION AND NUMBER	PENETRATION NUMBER	MAXIMUM ISOLATION TIME (Seconds)	NOTE(S)	P&ID
(c) RHR Shutdown Cooling Suction Isolation Valve				M-51-1
Outside: HV-F008 (BC-V164)	P3	45	3	
(d) RHR Head Spray Isolation Valve				M-51-1
Outside: HV-F023 (BC-V020)	P10	60	3	
(e) RHR Shutdown Cooling Return Isolation Valves				M-51-1
Outside:				
Loop A: HV-F015A (BC-V110)	P4B	45	3	
Loop B: HV-F015B (BC-V013)	P4A	45	3	
4. Group 4 - Core Spray System				
Outside:				
(a) Core Spray Test to Suppression Pool Isolation Valves				M-52-1
Loop A: HV-F015A (BE-V025)	P217B	80	11	
Loop B: HV-F015B (BE-V026)	P217A	80	11	
5. Group 5 - High Pressure Coolant Injection (HPCI) System				
(a) HPCI Turbine Steam Supply Isolation Valves				M-55-1
Inside: HV-F002 (FD-V001)	P7	NA	3	
HV-F100 (FD-V051)	P7	NA	3	
Outside: HV-F003 (FD-V002)	P7	NA	3	
(b) HPCI Pump Suction Isolation Valve				M-55-1
Outside:				
HV-F042 (BJ-V009)	P202	NA	11	

TABLE 3.6.3-1 (Continued)

PRIMARY CONTAINMENT ISOLATION VALVES

VALVE FUNCTION AND NUMBER	PENETRATION NUMBER	MAXIMUM ISOLATION TIME (Seconds)	NOTE(S)	P&ID
Outside:				
(b) RCIC Pump Suction Isolation Valve				
HV-F031 (BD-V003)	P208	NA	11	M-49-1
Outside:				
(c) RCIC Minimum Return Line Isolation Valve				
SV-F019	P209	NA	11	M-49-1
Outside:				
(d) RCIC Vacuum Pump Discharge				
HV-F060 (FC-V011)	P210	NA	4	M-49-1
(e) Feedwater Line Discharge Valve				
Outside:				
HV-F013 (BD-V005)	P2A	NA	2	M-49-1
4. Group 25 - Core Spray System				
(a) Core Spray injection Valves				M-52-1
Outside:				
Loop A&C HV-F005A (BE-V007)	P5B	NA	3	
Loop B&D HV-F005B (BE-V003)	P5A	NA	3	
(b) Core Spray Suppression Pool Suction Valves				M-52-1
Outside:				
Loop A HV-F001A (BE-V017)	P216D	NA	11	
Loop B HV-F001B (BE-V019)	P216A	NA	11	
Loop C HV-F001C (BE-V018)	P216C	NA	11	
Loop D HV-F001D (BE-V020)	P216B	NA	11	
(c) Core Spray Minimum Flow Valves				M-52-1
Outside:				
Loop A&C HV-F031A (BE-V035)	P217B	NA	11	
Loop B&D HV-F031B (BE-V036)	P217A	NA	11	

TABLE 3.6.3-1 (Continued)

PRIMARY CONTAINMENT ISOLATION VALVES

VALVE FUNCTION AND NUMBER	PENETRATION NUMBER	MAXIMUM ISOLATION TIME (Seconds)	NOTE(S)	P&ID
5. Group 26 - Residual Heat Removal System				
(a) Low Pressure Coolant Injection Valves				M-51-1
Outside:				
Loop A: HV-F017A (BC-V113)	P6C	NA	3	
Loop B: HV-F017B (BC-V016)	P6B	NA	3	
Loop C: HV-F017C (BC-V101)	P6D	NA	3	
Loop D: HV-F017D (BC-V004)	P6A	NA	3	
(b) RHR Containment Spray				M-51-1
Outside:				
Loop A: HV-F021A (BC-V116)	P24B	NA	3	
Loop B: HV-F021B (BC-V019)	P24A	NA	3	
(c) RHR Suppression Pool Suction				M-51-1
Outside:				
Loop A: HV-F004A (BC-V103)	P211C	NA	11	
Loop B: HV-F004B (BC-V006)	P211B	NA	11	
Loop C: HV-F004C (BC-V098)	P211D	NA	11	
Loop D: HV-F004D (BC-V001)	P211A	NA	11	
(d) RHR Minimum Flow Isolation Valves				M-51-1
Outside:				
Loop A: HV-F007A (BC-V128)	P212B	NA	11	
Loop B: HV-F007B (BC-V031)	P212A	NA	11	
Loop C: HV-F007C (BC-V131)	P212B	NA	11	
Loop D: HV-F007D (BC-V034)	P212A	NA	11	

TABLE 3.6.3-1 (Continued)

PRIMARY CONTAINMENT ISOLATION VALVES

VALVE FUNCTION AND NUMBER	PENETRATION NUMBER	MAXIMUM ISOLATION TIME (Seconds)	NOTE(S)	P&ID
6. Group 27 - Standby Liquid Control				M-48-1
Outside:				
HV-F006A (BH-V028)	P18	NA	3	
HV-F006B (BH-V054)	P18	NA	3	
7. Group 28 - Containment Atmosphere Control System				
Suppression Chamber Vacuum Relief				M-57-1
Outside:				
HV-5031 (GS-V038)	P220	NA	3	
HV-5029 (GS-V080)	P219	NA	3	
8. Group 69 - TIP System				
Explosive Shear Valves				M-59-1
Outside:				
SE-XV-J004B1 (SE-V021)	P34A	NA	7	
SE-XV-J004B2 (SE-V022)	P34B	NA	7	
SE-XV-J004B3 (SE-V023)	P34C	NA	7	
SE-XV-J004B4 (SE-V024)	P34D	NA	7	
SE-XV-J004B5 (SE-V025)	P34E	NA	7	

TABLE 3.6.3-1 (Continued)

PRIMARY CONTAINMENT ISOLATION VALVES

VALVE FUNCTION AND NUMBER	PENETRATION NUMBER	MAXIMUM ISOLATION TIME (Seconds)	NOTE(S)	P&ID
(d) RHR Suppression Pool Return Valves				M-51-1
Outside:				
HV-F011A (BC-V126)	P212B	NA	11	
HV-F011B (BC-V026)	P212A	NA	11	
10. Group 40 - Core Spray System				
Thermal Relief Valves				M-52-1
Outside:				
Loop A&C: BE-PSV-F012A	P217B	NA	5	
Loop B&D: BE-PSV-F012B	P217A	NA	5	
11. Group 41 - Drywell Pressure Instrumentation				M-42-1
Outside:				
BB-V563	J6A	NA	6	
BB-V564	J8D	NA	6	
BB-V565	J7A	NA	6	
BB-V566	J10D	NA	6	

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 93 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 October 31, 1994, the Public Service Electric and Gas Company (PSE&G) requested an amendment to the Hope Creek Generating Station Facility Operating License. The proposed amendment would revise the Technical Specifications (TS) to delete certain valves from Table 3.6.3-1, "Primary Containment Isolation Valves." This action would reclassify those valves such that they would no longer be subject to the operability, surveillance testing and 10 CFR Part 50, Appendix J leakage testing requirements to which containment isolation valves (CIVs) are subjected.

The proposed TS changes involve no physical plant hardware modifications. The reclassified valves will remain installed and functional in the facility. Most, but not all of the affected valves also serve, and will continue to serve as "High/Low Interface" pressure isolation valves (PIVs). These PIVs are subject to special (non-Appendix J) leakage testing requirements intended to protect low pressure piping from overpressurization. Those PIV testing requirements would not be affected.

2.0 DISCUSSION AND EVALUATION

Under the provisions of the General Design Criteria (GDC) of Appendix A to 10 CFR Part 50, containment piping penetrations must incorporate two (redundant) isolation valves except in cases where an alternative arrangement is acceptable on an "other defined basis." One such "other defined basis" is the case where a qualified "closed system outside containment" may be credited as a substitute for one of the two CIVs. Paragraph 3.6.7 of N271-1976/ANS-56.2, "American National Standard Containment Isolation Provisions for Fluid Systems," which is endorsed by Regulatory Guide 1.141, specifies the design criteria applicable to a closed system outside containment. Under the terms of these criteria, a single CIV in conjunction with a qualified closed system constitutes an acceptable containment piping penetration arrangement.

Certain systems at Hope Creek having two containment isolation valves in their containment penetrations have been found to qualify as closed systems outside containment. These systems include the Residual Heat Removal (RHR) System, the Core Spray (CS) System, and the High Pressure Coolant Injection (HPCI) System. The licensee's position is that, where the containment penetrations

presently contain two CIVs and a qualified closed system, one of the CIVs may be reclassified to no longer be considered a CIV. Since containment isolation valves, and only containment isolation valves, are subject to the leakage testing requirements of 10 CFR Part 50, Appendix J, the reclassification would eliminate the requirement for Appendix J leakage testing of the reclassified valves and thus provide a substantial monetary saving for the licensee. Also, there would be a reduction in occupational radiation exposure.

Because the reclassified valves would continue to have safety functions to open as necessary for engineered safety feature system operability purposes, the ASME Section XI Inservice Testing (including "MOV Program") requirements would not be eliminated. It is only the Appendix J leakage testing requirements that would be eliminated.

The staff's Safety Evaluation Report (SER) related to the operation of Hope Creek Generating Station (NUREG-1048), dated October 1984, considered the licensee's containment leakage testing program in Section 6.2.6. The staff's review included the licensee's proposal to test isolation valves in several systems that penetrated containment, including the HPCI, CS, and RHR systems. The SER noted that hydrostatic testing of HPCI, CS, and RHR containment isolation valves was acceptable for meeting the requirements of Appendix J testing. The SER, however, did not consider whether or not the portions of HPCI, CS, and RHR outside containment actually performed a containment isolation function for potential primary containment atmospheric pathways to the environment. This evaluation considers that issue.

As noted above, in order for a piping system loop located outside containment to be considered "closed," specific design criteria must be met. A closed system outside containment must:

1. Not communicate with the outside atmosphere;

2. Meet Safety Class 2 design requirements;

3. Withstand temperature and pressure equal to the containment design conditions;

4. Withstand loss-of-coolant accident transient and environment;

5. Meet seismic Category I design requirements;

6. Be protected against overpressure from thermal expansion when isolated, if required; and

7. Be protected against a high energy line break outside of containment when the closed system is needed for containment isolation.

The licensee has evaluated the RHR, CS, and HPCI systems and confirmed that the above criteria are met and that the systems thus qualify as closed systems outside containment.

In addition to meeting the above criteria, the closed loops are located within the secondary containment fission product control barrier and are water-filled systems. These features significantly reduce the potential for fission product leakage to the outside environment.

Based on the above, the NRC staff agrees with the licensee's finding that the affected isolation valves are installed in closed systems outside containment. Moreover, a defined basis for conformance to General Design Criteria 55 and 56, of Appendix A to 10 CFR Part 50, exists in that such an arrangement may serve as one of the two required containment isolation valves in each containment piping penetration. Accordingly, the NRC staff has concluded that the proposed changes to TS Table 3.6.3-1 are acceptable.

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. On January 30, 1996, the NRC staff spoke with the New Jersey State Official who commented that the licensee should have taken the opportunity, afforded by the October 31, 1994 application, to propose an update to TS 3/4.6.3, "Primary Containment Isolation Valves", to correspond to the latest revision of the Standard Technical Specifications. While the licensee has proposed changes to TS Table 3.6.3-1, which is referenced by TS 3/4.6.3, the licensee has not proposed changes to TS 3/4.6.3. Since there is no regulatory requirement for the licensee to make changes to TS 3/4.6.3, no such changes will be required and TS 3/4.6.3 continues to be acceptable.

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 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 a proposed finding that the amendment involves no significant hazards consideration, and there has been no public comment on such finding (60 FR 16198). 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.

Principal Contributor: W. Long

Date: February 22, 1996