

June 1, 1992

Docket No. 50-354

Mr. Steven E. Miltenberger  
Vice President and Chief Nuclear  
Officer  
Public Service Electric & Gas  
Company  
Post Office Box 236  
Hancocks Bridge, New Jersey 08038

Dear Mr. Miltenberger:

SUBJECT: GENERIC LETTER 88-01 LICENSE AMENDMENT, HOPE CREEK GENERATING  
STATION (TAC NO. M81238)

The Commission has issued the enclosed Amendment No. 51 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 July 25, 1991, as supplemented by your letter dated May 11,  
1992.

This amendment revised the TS to conform to the guidance stated in Generic  
Letter 88-01, "NRC Position on IGSCC in BWR Austenitic Stainless Steel  
Piping."

A copy of our safety evaluation is also enclosed. Notice of Issuance will be  
included in the Commission's biweekly Federal Register notice. You are  
requested to notify the NRC in writing when this amendment has been  
implemented.

Sincerely,

/s/

Stephen Dembek, Project Manager  
Project Directorate I-2  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

Enclosures:

- 1. Amendment No. 51 to  
License No. NPF-57
  - 2. Safety Evaluation
- cc w/enclosures:  
See next page

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OFC	: PDI-2/LA	: PDI-2/PM	: EMCB	: OGC	: PDI-2/D
NAME	: MO'BRIEN	: SDEMBEK, tlc	: JWIGGINS	: CPW	: CMILLER
DATE	: 5/18/92	: 5/14/92	: 5/14/92	: 5/10/92	: 5/29/92

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

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This amendment revised the TS to conform to the guidance stated in Generic Letter 88-01, "NRC Position on IGSCC in BWR Austenitic Stainless Steel Piping."

A copy of our safety evaluation is also enclosed. Notice of Issuance will be included in the Commission's biweekly Federal Register notice. You are requested to notify the NRC in writing when this amendment has been implemented.

Sincerely,

A handwritten signature in cursive script, appearing to read "Stephen Dembek".

Stephen Dembek, Project Manager  
Project Directorate I-2  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

Enclosures:

1. Amendment No. 51 to License No. NPF-57
2. Safety Evaluation

cc w/enclosures:  
See next page

Mr. Steven E. Miltenberger  
Public Service Electric & Gas  
Company

Hope Creek Generating Station

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

PUBLIC SERVICE ELECTRIC & GAS COMPANY

ATLANTIC CITY ELECTRIC COMPANY

DOCKET NO. 50-354

HOPE CREEK GENERATING STATION

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 51  
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 July 25, 1991, as supplemented May 11, 1992, 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. 51, 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

*Charles L. Miller*

Charles L. Miller, 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: June 1, 1992

ATTACHMENT TO LICENSE AMENDMENT NO. 51

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. Overleaf pages provided to maintain document completeness.\*

<u>Remove</u>	<u>Insert</u>
3/4 0-3 -	3/4 0-3 -
3/4 4-9 3/4 4-10	3/4 4-9* 3/4 4-10
--- ---	3/4 4-10a 3/4 4-10b
3/4 4-11 3/4 4-12	3/4 4-11 3/4 4-12
B 3/4 0-5 B 3/4 0-6	B 3/4 0-5* B 3/4 0-6
B 3/4 4-3 B 3/4 4-4	B 3/4 4-3 B 3/4 4-4

APPLICABILITY

SURVEILLANCE REQUIREMENTS (Continued)

Pressure Vessel Code and applicable Addenda shall be applicable as follows in these Technical Specifications:

<u>ASME Boiler and Pressure Vessel Code and applicable Addenda terminology for inservice inspection and testing activities</u>	<u>Required frequencies for performing inservice inspection and testing activities</u>
Weekly	At least once per 7 days
Monthly	At least once per 31 days
Quarterly or every 3 months	At least once per 92 days
Semiannually or every 6 months	At least once per 184 days
Every 9 months	At least once per 276 days
Yearly or annually	At least once per 366 days

- c. The provisions of Specification 4.0.2 are applicable to the above required frequencies for performing inservice inspection and testing activities.
- d. Performance of the above inservice inspection and testing activities shall be in addition to other specified Surveillance Requirements.
- e. Nothing in the ASME Boiler and Pressure Vessel Code shall be construed to supersede the requirements of any Technical Specification.
- f. The Inservice Inspection Program for piping identified in NRC Generic Letter 88-01 shall conform to the staff positions on schedule, methods, and personnel, and sample expansion included in that generic letter, or as otherwise approved by the NRC.

## REACTOR COOLANT SYSTEM

### SAFETY/RELIEF VALVES LOW-LOW SET FUNCTION

#### LIMITING CONDITION FOR OPERATION

3.4.2.2 The relief valve function and the low-low set function of the following reactor coolant system safety/relief valves shall be OPERABLE with the following settings:

<u>Valve No.</u>	<u>Low-Low Set Function</u> <u>Setpoint* (psig) ±2%</u>	
	<u>Open</u>	<u>Close</u>
F013H	1017	905
F013P	1047	935

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2 and 3.

#### ACTION:

- a. With the relief valve function and/or the low-low set function of one of the above required reactor coolant system safety/relief valves inoperable, restore the inoperable relief valve function and low-low set function to OPERABLE status within 14 days or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.
- b. With the relief valve function and/or the low-low set function of both of the above required reactor coolant system safety/relief valves inoperable, be in at least HOT SHUTDOWN within 12 hours and in COLD SHUTDOWN within the next 24 hours.

#### SURVEILLANCE REQUIREMENTS

4.4.2.2.1 The relief valve function and the low-low set function pressure actuation instrumentation shall be demonstrated OPERABLE by performance of a:

- a. CHANNEL FUNCTIONAL TEST at least once per 31 days.
- b. CHANNEL CALIBRATION, LOGIC SYSTEM FUNCTIONAL TEST and simulated automatic operation of the entire system (excluding actual valve actuation) at least once per 18 months.

\*The lift setting pressure shall correspond to ambient conditions of the valves at nominal operating temperatures and pressures.



## REACTOR COOLANT SYSTEM

### 3/4.4.3 REACTOR COOLANT SYSTEM LEAKAGE

#### LEAKAGE DETECTION SYSTEMS

#### LIMITING CONDITION FOR OPERATION

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3.4.3.1 The following reactor coolant system leakage detection systems shall be OPERABLE:

- a. The drywell floor and equipment drain sump monitoring system,
- b. The drywell atmosphere gaseous radioactivity monitoring system,
- c. All three of the following:
  1. The drywell air cooler condensate flow rate monitoring system,
  2. The drywell pressure monitoring system, and
  3. The drywell temperature monitoring system.

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2 and 3.

#### ACTION:

- a. With the drywell floor and equipment drain sump monitoring system inoperable:
  1. operation may continue for 30 days provided that all monitoring systems in 3.4.3.1.b and 3.4.3.1.c are OPERABLE, and provided that preplanned manual calculation to quantify leak rate is performed at least once per four hours, or
  2. restore the system to OPERABLE status within 24 hours.
- b. With the drywell atmosphere gaseous radioactivity monitoring system inoperable, operation may continue for 30 days provided that the monitoring systems required by 3.4.3.1.a and 3.4.3.1.c are OPERABLE, and provided that grab samples of the drywell atmosphere are obtained and analyzed at least once per 24 hours.
- c. With one monitoring system in 3.4.3.1.c inoperable, exert best efforts to restore the system to OPERABLE status within 30 days and if unsuccessful, prepare and submit a Special Report to the Commission pursuant to Specification 6.9.2 within the next 10 days outlining the cause for the malfunction and plans for restoring the system to OPERABLE status.

With two less than the number of monitoring systems required by 3.4.3.1.c OPERABLE, operation may continue for up to 30 days, provided that the drywell floor and equipment drain sump monitoring system in 3.4.3.1.a and the drywell atmosphere gaseous radioactivity monitoring system in 3.4.3.1.b are OPERABLE.
- d. Otherwise, be in HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

## REACTOR COOLANT SYSTEM

### SURVEILLANCE REQUIREMENTS

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4.4.3.1 The reactor coolant system leakage detection systems shall be demonstrated OPERABLE by:

- a. Drywell atmosphere gaseous radioactivity monitoring system-performance of a CHANNEL CHECK at least once per 12 hours, a CHANNEL FUNCTIONAL TEST at least once per 31 days and a CHANNEL CALIBRATION at least once per 18 months.
- b. The drywell pressure shall be monitored at least once per 12 hours and the drywell temperature shall be monitored at least once per 24 hours.
- c. Drywell floor and equipment drain sump monitoring system-performance of a CHANNEL FUNCTIONAL TEST at least once per 31 days and a CHANNEL CALIBRATION TEST at least once per 18 months.
- d. Drywell air coolers condensate flow rate monitoring system-performance of a CHANNEL FUNCTIONAL TEST at least once per 31 days and a CHANNEL CALIBRATION at least once per 18 months.

REACTOR COOLANT SYSTEM

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## REACTOR COOLANT SYSTEM

### OPERATIONAL LEAKAGE

#### LIMITING CONDITION FOR OPERATION

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3.4.3.2 Reactor coolant system leakage shall be limited to:

- a. No PRESSURE BOUNDARY LEAKAGE.
- b. 5 gpm UNIDENTIFIED LEAKAGE.
- c. 25 gpm IDENTIFIED LEAKAGE averaged over any 24-hour period.
- d. 0.5 gpm leakage per nominal inch of valve size up to a maximum of 5 gpm from any reactor coolant system pressure isolation valve specified in Table 3.4.3.2-1, at rated pressure.
- e. 2 gpm increase in UNIDENTIFIED LEAKAGE within any period of 24 hours or less.

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2 and 3.

ACTION:

- a. With any PRESSURE BOUNDARY LEAKAGE, be in at least HOT SHUTDOWN within 12 hours and in COLD SHUTDOWN within the next 24 hours.
- b. With any reactor coolant system leakage greater than the limits in b and/or c, above, reduce the leakage rate to within the limits within 4 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.
- c. With any reactor coolant system pressure isolation valve leakage greater than the above limit, isolate the high pressure portion of the affected system from the low pressure portion within 4 hours by use of at least one other closed manual or deactivated automatic or check\* valves, or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.
- d. With one or more of the high/low pressure interface valve leakage pressure monitors shown in Table 3.4.3.2-2 inoperable, restore the inoperable monitor(s) to OPERABLE status within 7 days or verify the pressure to be less than the alarm setpoint at least once per 12 hours; restore the inoperable monitor(s) to OPERABLE status within 30 days or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.
- e. With any increase in UNIDENTIFIED LEAKAGE exceeding the limit in e above, implement preplanned leak location and isolation actions and either verify that the source of the leakage is not service-sensitive type 304 or 316 stainless steel or reduce the leakage rate-of-change to less than the limit within 4 hours or be in HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

\*Which have been verified not to exceed the allowable leakage limit at the last refueling outage or after the last time the valve was disturbed, whichever is more recent.

## REACTOR COOLANT SYSTEM

### SURVEILLANCE REQUIREMENTS

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4.4.3.2.1 The reactor coolant system leakage shall be demonstrated to be within each of the above limits by:

- a. Monitoring the drywell atmospheric gaseous radioactivity at least once per 8 hours (not a means of quantifying leakage),
- b. Monitoring the drywell floor and equipment drain sump flow rate at least once per 8 hours, and
- c. Monitoring the drywell air coolers condensate flow rate at least once per 8 hours, and
- d. Monitoring the drywell pressure at least once per 8 hours (not a means of quantifying leakage), and
- e. Monitoring the reactor vessel head flange leak detection system at least once per 24 hours (not a means of quantifying leakage), and
- f. Monitoring the drywell temperature at least once per 24 hours (not a means of quantifying leakage).

4.4.3.2.2 Each reactor coolant system pressure isolation valve specified in Table 3.4.3.2-1 shall be demonstrated OPERABLE by leak testing pursuant to Specification 4.0.5 and verifying the leakage of each valve to be within the specified limit:

- a. At least once per 18 months,\*\* and
- b. Prior to returning the valve to service following maintenance, repair or replacement work on the valve which could affect its leakage rate.

The provisions of Specification 4.0.4 are not applicable for entry into OPERATIONAL CONDITION 3.

4.4.3.2.3 The high/low pressure interface valve leakage pressure monitors shall be demonstrated OPERABLE with alarm setpoints per Table 3.4.3.2-2 by performance of a:

- a. CHANNEL FUNCTIONAL TEST at least once per 31 days, and
- b. CHANNEL CALIBRATION at least once per 18 months.

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\*\*P.I.V. leak test extension to the first refueling outage is permissible for each RCS P.I.V. listed in Table 3.4.3.2-1, that is identified in Public Service Electric & Gas Company's letter to the NRC (letter No. NLR-N87047), dated April 3, 1987, as needing a plant outage to test. For this one time test interval, the requirements of Section 4.0.2 are not applicable.

### 3/4.0 APPLICABILITY

#### BASES (Con't)

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be construed as implying that systems or components are OPERABLE when they are found or known to be inoperable although still meeting the Surveillance Requirements. This specification also clarifies that the ACTION requirements are applicable when Surveillance Requirements have not been completed within the allowed surveillance interval and that the time limits of the ACTION requirements apply from the point in time it is identified that a surveillance has not been performed and not at the time that the allowed surveillance interval was exceeded. Completion of the Surveillance Requirement within the allowable outage time limits of the ACTION requirements restores compliance with the requirements of Specification 4.0.3. However, this does not negate the fact that the failure to have performed the surveillance within the allowed surveillance interval, defined by the provisions of Specification 4.0.2, was a violation of the OPERABILITY requirements of a Limiting Condition for Operation that is subject to enforcement action. Further, the failure to perform a surveillance within the provisions of Specification 4.0.2 is a violation of a Technical Specification requirement and is, therefore, a reportable event under the requirements of 10 CFR 50.73(a)(2)(i)(B) because it is a condition prohibited by the plant's Technical Specifications.

If the allowable outage time limits of the ACTION requirements are less than 24 hours or a shutdown is required to comply with ACTION requirements, e.g., Specification 3.0.3., a 24-hour allowance is provided to permit a delay in implementing the ACTION requirements. This provides an adequate time limit to complete Surveillance Requirements that have not been performed. The purpose of this allowance is to permit the completion of a surveillance before a shutdown would be required to comply with ACTION requirements or before other remedial measures would be required that may preclude the completion of a surveillance. The basis for this allowance includes consideration for plant conditions, adequate planning, availability of personnel, the time required to perform the surveillance, and the safety significance of the delay in completing the required surveillance. This provision also provides a time limit for the completion of Surveillance Requirements that become applicable as a consequence of CONDITION changes imposed by ACTION requirements and for completing Surveillance Requirements that are applicable when an exception to the requirements of Specification 4.0.4 is allowed. If a surveillance is not completed within the 24-hour allowance, the time limits of the ACTION requirements are applicable at that time. When a surveillance is performed within the 24-hour allowance and the Surveillance Requirements are not met, the time limits of the ACTION requirements are applicable at the time that the surveillance is terminated.

Surveillance Requirements do not have to be performed on inoperable equipment because the ACTION requirements define the remedial measures that apply. However, the Surveillance Requirements have to be met to demonstrate that inoperable equipment has been restored to OPERABLE status.

Specification 4.0.4 establishes the requirement that all applicable surveillances must be met before entry into an OPERATIONAL CONDITION or other

### 3/4.0 APPLICABILITY

#### BASES (Con't)

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condition of operation specified in the Applicability statement. The purpose of this specification is to ensure that system and component OPERABILITY requirements or parameter limits are met before entry into an OPERATIONAL CONDITION or other specified condition for which these systems and components ensure safe operation of the facility. This provision applies to changes in OPERATIONAL CONDITIONS or other specified conditions associated with plant shutdown as well as startup.

Under the provisions of this specification, the applicable Surveillance Requirements must be performed within the specified surveillance interval to assume that the Limiting Conditions for Operation are met during initial plant startup or following a plant outage.

When a shutdown is required to comply with ACTION requirements, the provisions of Specification 4.0.4 do not apply because this would delay placing the facility in a lower CONDITIONS of operation.

Specification 4.0.5 establishes the requirement that inservice inspection of ASME Code Class 1, 2, and 3 components and inservice testing of ASME Code Class 1, 2, and 3 pumps and valves shall be performed in accordance with a periodically updated version of Section XI of the ASME Boiler and Pressure Vessel Code and Addenda as required by 10 CFR 50.55a. These requirements apply except when relief has been provided in writing by the Commission.

This specification includes a clarification of the frequencies for performing the inservice inspection and testing activities required by Section XI of the ASME Boiler and Pressure Vessel Code and applicable Addenda. This clarification is provided to ensure consistency in surveillance intervals throughout the Technical Specifications and to remove any ambiguities relative to the frequencies for performing the required inservice inspection and testing activities.

Under the terms of this specification, the more restrictive requirements of the Technical Specifications take precedence over the ASME Boiler and Pressure Vessel Code and applicable Addenda. The requirements of Specification 4.0.4 to perform surveillance activities before entry into an OPERATIONAL CONDITION or other specified condition takes precedence over the ASME Boiler and Pressure Vessel Code provision that allows pumps and valves to be tested up to one week after return to normal operation. The Technical Specification definition of OPERABLE does not allow a grace period before a component, which is not capable of performing its specified function, is declared inoperable and takes precedence over the ASME Boiler and Pressure Vessel Code provision that allows a valve to be incapable of performing its specified function for up to 24 hours before being declared inoperable.

This specification includes inservice inspection requirements that conform to the guidance of Generic Letter 88-01, "NRC Position on IGSCC in BWR Austenitic Stainless Steel Piping."

## REACTOR COOLANT SYSTEM

### BASES

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#### 3/4.4.3 REACTOR COOLANT SYSTEM LEAKAGE

##### 3/4.4.3.1 LEAKAGE DETECTION SYSTEMS

The RCS leakage detection systems required by this specification are provided to monitor and detect leakage from the reactor coolant pressure boundary. These detection systems are consistent with the recommendations of Regulatory Guide 1.45, "Reactor Coolant Pressure Boundary Leakage Detection Systems", May 1973 and Generic Letter 88-01, "NRC Position on IGSCC in BWR Austinitic Stainless Steel Piping."

Proceduralized, manual quantitative monitoring and calculation of leakage rates, found by the NRC staff, in GL 88-01, Supp. 1, to be an acceptable alternative during repair periods of up to 30 days, should be demonstrated to have accuracy comparable to the installed drywell floor and equipment drain sump monitoring system.

##### 3/4.4.3.2 OPERATIONAL LEAKAGE

The allowable leakage rates from the reactor coolant system have been based on the predicted and experimentally observed behavior of cracks in pipes. The normally expected background leakage due to equipment design and the detection capability of the instrumentation for determining system leakage was also considered. The evidence obtained from experiments suggests that for leakage somewhat greater than that specified for UNIDENTIFIED LEAKAGE the probability is small that the imperfection or crack associated with such leakage would grow rapidly. However, in all cases, if the leakage rates exceed the values specified or the leakage is located and known to be PRESSURE BOUNDARY LEAKAGE, the reactor will be shutdown to allow further investigation and corrective action.

The Surveillance Requirements for RCS pressure isolation valves provide added assurance of valve integrity thereby reducing the probability of gross valve failure and consequent intersystem LOCA. Leakage from the RCS pressure isolation valves is IDENTIFIED LEAKAGE and will be considered as a portion of the allowed limit.

The limit placed upon the rate of increase in UNIDENTIFIED LEAKAGE meets the guidance of Generic Letter 88-01, "NRC Position on IGSCC in BWR Austinitic Stainless Steel Piping."

##### 3/4.4.4 CHEMISTRY

The water chemistry limits of the reactor coolant system are established to prevent damage to the reactor materials in contact with the coolant. Chloride limits are specified to prevent stress corrosion cracking of the stainless steel. The effect of chloride is not as great when the oxygen concentration in the coolant is low, thus the 0.2 ppm limit on chlorides is permitted during POWER OPERATION. During shutdown and refueling operations, the temperature necessary for stress corrosion to occur is not present so a 0.5 ppm concentration of chlorides is not considered harmful during these periods.



## REACTOR COOLANT SYSTEM

### BASES

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#### CHEMISTRY (Continued)

Conductivity measurements are required on a continuous basis since changes in this parameter are an indication of abnormal conditions. When the conductivity is within limits, the pH, chlorides and other impurities affecting conductivity must also be within their acceptable limits. With the conductivity meter inoperable, additional samples must be analyzed to ensure that the chlorides are not exceeding the limits.

The surveillance requirements provide adequate assurance that concentrations in excess of the limits will be detected in sufficient time to take corrective action.

#### 3/4.4.5 SPECIFIC ACTIVITY

The limitations on the specific activity of the primary coolant ensure that the 2 hour thyroid and whole body doses resulting from a main steam line failure outside the containment during steady state operation will not exceed small fractions of the dose guidelines of 10 CFR 100. The values for the limits on specific activity represent interim limits based upon a parametric evaluation by the NRC of typical site locations. These values are conservative in that specific site parameters, such as site boundary location and meteorological conditions, were not considered in this evaluation.

The ACTION statement permitting POWER OPERATION to continue for limited time periods with the primary coolant's specific activity greater than 0.2 microcuries per gram DOSE EQUIVALENT I-131, but less than or equal to 4.0 microcuries per gram DOSE EQUIVALENT I-131, accommodates possible iodine spiking phenomenon which may occur following changes in THERMAL POWER. Monitoring the iodine activity in the primary coolant and taking responsible actions to maintain it at a reasonably low level will aid in ensuring the accumulated time of plant operation with high iodine activity will not exceed 800 hours in a consecutive 12-month period. The results of all primary coolant specific activity analyses which exceed the limits of Specification 3.4.5 will be documented pursuant to Specification 6.9.1.5.

Information obtained on iodine spiking will be used to assess the parameters associated with spiking phenomena. A reduction in frequency of isotopic analysis following power changes may be permissible if justified by the data obtained.

Closing the main steam line isolation valves prevents the release of activity to the environs should a steam line rupture occur outside containment. The surveillance requirements provide adequate assurance that excessive specific activity levels in the reactor coolant will be detected in sufficient time to take corrective action.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 51 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 July 25, 1991, as supplemented by letter dated May 11, 1992, the Public Service Electric & Gas Company (PSE&G) and Atlantic City Electric Company (the licensees) submitted a request for changes to the Hope Creek Generating Station, Technical Specifications (TS). The requested license amendment would change the TS to conform to the NRC staff position on Inservice Inspection (ISI) and monitoring of unidentified leakage as stated in Generic Letter (GL) 88-01, "NRC Position on IGSCC in BWR Austenitic Stainless Steel Piping." Additionally, PSE&G is proposing TS changes to clarify TS 3.4.3.1. TS 3.4.3.1 was found to be confusing and open to different interpretations in an NRC letter dated November 8, 1989. The May 11, 1992 letter provided clarifying information that did not change the initial proposed no significant hazards consideration determination.

2.0 DISCUSSION

NRC GL 88-01, issued January 25, 1988, provided guidance in the form of NRC positions regarding Intergranular Stress Corrosion Cracking (IGSCC) problems in Boiling Water Reactor (BWR) piping made of austenitic stainless steel that is 4 inches or larger in nominal diameter and contains reactor coolant at a temperature above 200°F during reactor power operation, regardless of ASME Code Classification. NRC GL 88-01 requested licensees of operating BWRs and holders of construction permits for BWRs to provide information regarding conformance with the NRC positions. Two of the items which the GL requested licensees to address were: 1) a TS change to include a statement in the TS section on ISI that the program for piping covered by the scope of GL 88-01 will be in conformance with the NRC positions on schedule, methods and personnel, and sample expansion included in the GL, and 2) confirmation of the licensees' plans to ensure that the TS related to leakage detection will be in conformance with the NRC positions on leak detection included in the GL. The NRC position on leakage detection specifically stated that unidentified leakage be limited to an increase of 2 gpm over a 24-hour period, and that leakage be monitored every 8 hours.

By letter dated July 29, 1988, and supplemented on June 2, 1989, PSE&G responded to GL 88-01. By letter dated November 8, 1989, the staff informed PSE&G that their programs were fully acceptable and satisfied all of the requirements in GL 88-01 except for the TSs on ISI and leak detection. Specifically, PSE&G did not propose to incorporate into its TS 1) the unidentified leakage limit of 2 gpm increase in any 24-hour period or less, and 2) a statement regarding a piping ISI program that conforms to the staff positions in GL 88-01.

### 3.0 EVALUATION

In its July 25, 1991 letter, as supplemented May 11, 1992, PSE&G proposed the following TS changes to fully conform with the guidance in GL 88-01 and Supplement 1 to GL 88-01:

1. Add new Surveillance Requirement 4.0.5.f to read "The Inservice Inspection Program for piping identified in NRC Generic Letter 88-01 shall conform to the staff positions on schedule, methods, and personnel, and sample expansion included in that generic letter, or as otherwise approved by the NRC." Additionally, a revision to the applicable bases section was proposed to indicate that TS 4.0.5 conforms to the ISI guidance contained in GL 88-01. The staff has reviewed this proposed TS change and concludes that it meets the intent of GL 88-01. Therefore, the licensees' proposal is acceptable.
2. Rewrite TS 3.4.3.1, LEAKAGE DETECTION SYSTEMS, to clearly identify the individual OPERABILITY requirements and ACTIONS for each leakage detection system. The staff has reviewed this proposed TS change and concludes that it addresses the concerns that the staff previously expressed in an NRC letter dated November 8, 1989. The proposed changes also conform with the guidance of NUREG 1433, BWR 4 Standard Technical Specifications (final draft) and Supplement 1 to GL 88-01. Therefore, the licensees' proposal is acceptable.
3. The licensees requested to add a new Limiting Condition for Operation (LCO) 3.4.3.2.e to read "2 gpm or greater increase in UNIDENTIFIED LEAKAGE within any period of 24 hours or less." With the licensees' concurrence an editorial change was made to the new LCO. The words "or greater" were determined to be unnecessary and left the new LCO open to misinterpretation. For clarity the words "or greater" were deleted. This change was editorial and did not change the intent of the licensees' proposed LCO. The licensees' proposed LCO, as edited, meets the intent of GL 88-01 and is therefore acceptable.

Additionally, a new TS ACTION statement was added to specify actions required when the new LCO is exceeded. With the licensees' concurrence an editorial change was made to the new TS ACTION statement 3.4.3.2.e. The phrase "...exceeding the above limit, implement..." was changed to read "...exceeding the limit in e above,

implement..." This change was made to improve the clarity of the TS ACTION statement and did not change the intent or the applicability of the proposed ACTION statement. The staff has reviewed this proposed TS ACTION statement and concludes that it meets the intent of GL 88-01. Therefore, the licensees' proposal is acceptable.

The licensees' May 11, 1992, letter contained a paragraph to be added to TS Bases Section 3/4.4.3.1. With the licensees' concurrence the staff made editorial changes to the new paragraph. The phrase "...manual quantitative calculation..." was changed to read "...manual quantitative monitoring and calculation..." This editorial change was made to clearly state that the manual method for determining leakage rate involves both monitoring and calculation. Additionally, the phrase "...is of comparable accuracy to..." was changed to read "...should be demonstrated to have accuracy comparable to..." This editorial change was made to improve the clarity of the proposed Bases statement and did not change the intent of the proposed Bases statement.

4. Rewrite parts a, b, c and d of TS 4.4.3.2.1 to change the monitoring frequency from "at least once per 12 hours" to "at least once per 8 hours." The revised monitoring frequency is in conformance with the guidance provided in Supplement 1 to GL 88-01 and the staff's November 8, 1989 letter. Therefore, the licensees' proposal is acceptable.

The above changes did not change the original proposed no significant hazards consideration determination.

#### 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 no comments.

#### 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. 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 (56 FR 43812). 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: June 1, 1992