

August 24, 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: SOURCE AND INTERMEDIATE RANGE MONITOR AMENDMENT, HOPE CREEK  
GENERATING STATION (TAC NO. M83423)

The Commission has issued the enclosed Amendment No. 54 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 May 19, 1992, as supplemented by letter  
dated August 5, 1992.

This amendment allows an exception to the TS 4.0.4 surveillance requirements  
for the Intermediate Range Monitors (IRMs) and Source Range Monitors (SRMs)  
when Operational Condition 2 or 3 is entered from Operational Condition 1.

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 inform the NRC, in writing, when this has been implemented.

Sincerely,  
/s/

James C. Stone, Acting Project Manager  
Project Directorate I-2  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

9209010161 920824  
PDR ADOCK 05000354  
P PDR

Enclosures:

1. Amendment No. 54 to  
License No. NPF-57
2. Safety Evaluation

cc w/enclosures:  
See next page

310029

NRC FILE CENTER COPY

DISTRIBUTION w/enclosures:

Docket File	C Miller	GHill(4), P1-22	OPA
NRC & Local PDRs	MO'Brien(2)	Wanda Jones, 7103	OC/LFMB
PDI-2 Reading	JStone/AKeller	TDunning	EWenzinger, R-I
SVarga	OGC	CGrimes, 11E-21	JWhite, R-I
JCalvo	DHagan, 3206	ACRS(10)	

OFC : PDI-2/LA : PDI-2/PE : PDI-2/PM : OTSB : OGC : PDI-2/D

NAME : MO'BRIEN : AKELLER : JSTONE:rb : TDUNNING: R. Bachman : CMILLER :

DATE : 8/12/92 : 8/12/92 : 8/17/92 : 8/11/92 : 8/19/92 : 08/24/92 :

OFFICIAL RECORD COPY

DOCUMENT NAME: A:\HC83423.AMD

CP-1  
DFOI  
111



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

August 24, 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: SOURCE AND INTERMEDIATE RANGE MONITOR AMENDMENT, HOPE CREEK  
GENERATING STATION (TAC NO. M83423)

The Commission has issued the enclosed Amendment No. 54 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 May 19, 1992, as supplemented by letter dated August 5, 1992.

This amendment allows an exception to the TS 4.0.4 surveillance requirements for the Intermediate Range Monitors (IRMs) and Source Range Monitors (SRMs) when Operational Condition 2 or 3 is entered from Operational Condition 1.

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 inform the NRC, in writing, when this has been implemented.

Sincerely,

A handwritten signature in cursive script, reading "James C. Stone", is positioned above the typed name.

James C. Stone, Acting Project Manager  
Project Directorate I-2  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

Enclosures:

1. Amendment No. 54 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

cc:

M. J. Wetterhahn, Esquire  
Winston & Strawn  
1400 L Street, N.W.  
Washington, DC 20005-3502

Mr. J. A. Isabella  
MGR. - Generation Department  
Atlantic Electric Company  
Post Office Box 1500  
1199 Black Horse Pike  
Pleasantville, New Jersey 08232

R. Fryling, Jr., Esquire  
Law Department - Tower 5E  
80 Park Place  
Newark, New Jersey 07101

Richard Hartung  
Electric Service Evaluation  
Board of Regulatory Commissioners  
2 Gateway Center, Tenth Floor  
Newark, NJ 07102

Resident Inspector  
U.S. Nuclear Regulatory Commission  
P.O. Box 241  
Hancocks Bridge, New Jersey 08038

Lower Alloways Creek Township  
c/o Mary O. Henderson, Clerk  
Municipal Building, P.O. Box 157  
Hancocks Bridge, NJ 08038

Mr. S. LaBruna  
Vice President - Nuclear Operations  
Nuclear Department  
P.O. Box 236  
Hancocks Bridge, New Jersey 08038

Mr. J. J. Hagan  
General Manager - Hope Creek Operations  
Hope Creek Generating Station  
P.O. Box 236  
Hancocks Bridge, New Jersey 08038

Mr. Frank X. Thomson, Jr., Manager  
Licensing and Regulation  
Nuclear Department  
P.O. Box 236  
Hancocks Bridge, New Jersey 08038

Regional Administrator, Region I  
U.S. Nuclear Regulatory Commission  
475 Allendale Road  
King of Prussia, Pennsylvania 19406

Dr. Jill Lipoti, Asst. Director  
Radiation Protection Programs  
NJ Department of Environmental  
Protection  
CN 415  
Trenton, New Jersey 08625-0415



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. 54  
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 May 19, 1992, as supplemented by letter dated August 5, 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. 54, 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 of the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

A handwritten signature in black ink, appearing to read "Charles L. Miller", is written over the typed name.

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: August 24, 1992

ATTACHMENT TO LICENSE AMENDMENT NO.54

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.\*

Remove

Insert

1-11

1-11

-

-

3/4 3-1

3/4 3-1

3/4 3-2

3/4 3-2\*

3/4 3-55

3/4 3-55\*

3/4 3-56

3/4 3-56

3/4 3-87

3/4 3-87\*

3/4 3-88

3/4 3-88

3/4 4-3

3/4 4-3\*

.. 3/4 4-4

3/4 4-4

TABLE 1.2  
OPERATIONAL CONDITIONS

<u>CONDITION</u>	<u>MODE SWITCH POSITION</u>	<u>AVERAGE REACTOR COOLANT TEMPERATURE</u>
1. POWER OPERATION	Run	Any temperature
2. STARTUP	Startup/Hot Standby	Any temperature
3. HOT SHUTDOWN	Shutdown <sup>#,***,</sup>	> 200°F
4. COLD SHUTDOWN	Shutdown <sup>#,##,***</sup>	≤ 200°F
5. REFUELING*	Shutdown or Refuel <sup>**,#</sup>	≤ 140°F

<sup>#</sup>The reactor mode switch may be placed in the Run, Startup/Hot Standby, or Refuel position to test the switch interlock functions and related instrumentation provided that the control rods are verified to remain fully inserted by a second licensed operator or other technically qualified member of the unit technical staff. If the reactor mode switch is placed in the Refuel position, the one-rod-out interlock shall be OPERABLE.

<sup>##</sup>The reactor mode switch may be placed in the Refuel position while a single control rod drive is being removed from the reactor pressure vessel per Specification 3.9.10.1.

\*Fuel in the reactor vessel with the vessel head closure bolts less than fully tensioned or with the head removed.

\*\*See Special Test Exceptions 3.10.1 and 3.10.3.

\*\*\*The reactor mode switch may be placed in the Refuel position while a single control rod is being recoupled or withdrawn provided that the one-rod-out interlock is OPERABLE.

### 3/4.3 INSTRUMENTATION

#### 3/4.3.1 REACTOR PROTECTION SYSTEM INSTRUMENTATION

##### LIMITING CONDITION FOR OPERATION

---

3.3.1 As a minimum, the reactor protection system instrumentation channels shown in Table 3.3.1-1 shall be OPERABLE with the REACTOR PROTECTION SYSTEM RESPONSE TIME as shown in Table 3.3.1-2.

APPLICABILITY: As shown in Table 3.3.1-1.

ACTION:

- a. With the number of OPERABLE channels less than required by the Minimum OPERABLE Channels per Trip System requirement for one trip system, place the inoperable channel(s) and/or that trip system in the tripped condition\* within twelve hours. The provisions of Specification 3.0.4 are not applicable.
- b. With the number of OPERABLE channels less than required by the Minimum OPERABLE Channels per Trip System requirement for both trip systems, place at least one trip system\*\* in the tripped condition within one hour and take the ACTION required by Table 3.3.1-1.

##### SURVEILLANCE REQUIREMENTS

---

4.3.1.1 Each reactor protection system instrumentation channel shall be demonstrated OPERABLE by the performance of the CHANNEL CHECK, CHANNEL FUNCTIONAL TEST and CHANNEL CALIBRATION operations for the OPERATIONAL CONDITIONS and at the frequencies shown in Table 4.3.1.1-1.

4.3.1.2 LOGIC SYSTEM FUNCTIONAL TESTS and simulated automatic operation of all channels shall be performed at least once per 18 months.

4.3.1.3 The REACTOR PROTECTION SYSTEM RESPONSE TIME of each reactor trip functional unit shown in Table 3.3.1-2 shall be demonstrated to be within its limit at least once per 18 months. Each test shall include at least one channel per trip system such that all channels are tested at least once every N times 18 months where N is the total number of redundant channels in a specific reactor trip system.

4.3.1.4 The provisions of Specification 4.0.4 are not applicable for entry into OPERATIONAL CONDITION 2 or 3 from OPERATIONAL CONDITION 1 for the Intermediate Range Monitors.

---

\*An inoperable channel need not be placed in the tripped condition where this would cause the Trip Function to occur. In these cases, the inoperable channel shall be restored to OPERABLE status within 6 hours or the ACTION required by Table 3.3.1-1 for that Trip Function shall be taken.

\*\*If more channels are inoperable in one trip system than in the other, place the trip system with more inoperable channels in the tripped condition, except when this would cause the Trip Function to occur.



TABLE 3.3.1-1  
REACTOR PROTECTION SYSTEM INSTRUMENTATION

<u>FUNCTIONAL UNIT</u>	<u>APPLICABLE OPERATIONAL CONDITIONS</u>	<u>MINIMUM OPERABLE CHANNELS PER TRIP SYSTEM (a)</u>	<u>ACTION</u>
1. Intermediate Range Monitors <sup>(b)</sup> :			
a. Neutron Flux - High	2 3, 4 5(c)	3 2 3(d)	1 2 3
b. Inoperative	2 3, 4 5	3 2 3(d)	1 2 3
2. Average Power Range Monitor <sup>(e)</sup> :			
a. Neutron Flux - Upscale, Setdown	2 3, 4 5(c)	2 2 2(d)	1 2 3
b. Flow Biased Simulated Thermal Power - Upscale	1	2	4
c. Fixed Neutron Flux - Upscale	1	2	4
d. Inoperative	1, 2 3, 4 5(c)	2 2 2(d)	1 2 3
3. Reactor Vessel Steam Dome Pressure - High	1, 2(f)	2	1
4. Reactor Vessel Water Level - Low, Level 3	1, 2	2	1
5. Main Steam Line Isolation Valve - Closure	1(g)	4	4

TABLE 4.3.5.1-1REACTOR CORE ISOLATION COOLING SYSTEM ACTUATION INSTRUMENTATION SURVEILLANCE REQUIREMENTS

<u>FUNCTIONAL UNITS</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL FUNCTIONAL TEST</u>	<u>CHANNEL CALIBRATION</u>
a. Reactor Vessel Water Level - Low Low, Level 2	S	M	R
b. Reactor Vessel Water Level - High, Level 8	S	M	R
c. Condensate Storage Tank Level - Low	NA	M	R
d. Manual Initiation	NA	M <sup>(a)</sup>	NA

(a) Manual initiation switches shall be tested at least once per 18 months during shutdown. All other circuitry associated with manual initiation shall receive a CHANNEL FUNCTIONAL TEST at least once per 31 days as part of circuitry required to be tested for automatic system actuation.

## INSTRUMENTATION

### 3/4.3.6 CONTROL ROD BLOCK INSTRUMENTATION

#### LIMITING CONDITION FOR OPERATION

---

3.3.6. The control rod block instrumentation channels shown in Table 3.3.6-1 shall be OPERABLE with their trip setpoints set consistent with the values shown in the Trip Setpoint column of Table 3.3.6-2.

APPLICABILITY: As shown in Table 3.3.6-1.

#### ACTION:

- a. With a control rod block instrumentation channel trip setpoint less conservative than the value shown in the Allowable Values column of Table 3.3.6-2, declare the channel inoperable until the channel is restored to OPERABLE status with its trip setpoint adjusted consistent with the Trip Setpoint value.
- b. With the number of OPERABLE channels less than required by the Minimum OPERABLE Channels per Trip Function requirement, take the ACTION required by Table 3.3.6-1.

#### SURVEILLANCE REQUIREMENTS

---

4.3.6 Each of the above required control rod block trip systems and instrumentation channels shall be demonstrated OPERABLE by the performance of the CHANNEL CHECK, CHANNEL FUNCTIONAL TEST and CHANNEL CALIBRATION operations for the OPERATIONAL CONDITIONS and at the frequencies shown in Table 4.3.6-1. The provisions of Specification 4.0.4 are not applicable for entry into OPERATIONAL CONDITION 2 from OPERATIONAL CONDITION 1 for the Source Range Monitors or the Intermediate Range Monitors.

TABLE 4.3.7.5-1

## ACCIDENT MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

INSTRUMENT	CHANNEL CHECK	CHANNEL CALIBRATION	APPLICABLE OPERATIONAL CONDITIONS
1. Reactor Vessel Pressure	M	R	1,2,3
2. Reactor Vessel Water Level	M	R	1,2,3
3. Suppression Chamber Water Level	M	R	1,2,3
4. Suppression Chamber Water Temperature	M	R	1,2,3
5. Suppression Chamber Pressure	M	R	1,2,3
6. Drywell Pressure	M	R	1,2,3
7. Drywell Air Temperature	M	R	1,2,3
8. Primary Containment Hydrogen/Oxygen Concentration Analyzer and Monitor	M	Q*	1,2,3
9. Safety/Relief Valve Position Indicators	M	R	1,2,3
10. Drywell Atmosphere Post-Accident Radiation Monitor	M	R**	1,2,3
11. North Plant Vent Radiation Monitor#	M	R	1,2,3
12. South Plant Vent Radiation Monitor#	M	R	1,2,3
13. FRVS Vent Radiation Monitor#	M	R	1,2,3
14. Primary Containment Isolation Valve Position Indication	M	R	1,2,3

\*Using sample gas containing:

- Five volume percent oxygen balance nitrogen (oxygen analyzer channel).
- Five volume percent hydrogen, balance nitrogen (hydrogen analyzer channel).

\*\*CHANNEL CALIBRATION shall consist of an electronic calibration of the channel, not including the detector for range decades above 10 R/hr and a one point calibration check of the detector below 10 R/hr with an installed or portable gamma source.

#High range noble gas monitors.

## INSTRUMENTATION

### SOURCE RANGE MONITORS

#### LIMITING CONDITION FOR OPERATION

---

3.3.7.6 At least the following source range monitor channels shall be OPERABLE:

- a. In OPERATIONAL CONDITION 2\*, three.
- b. In OPERATIONAL CONDITION 3 and 4, two.

APPLICABILITY: OPERATIONAL CONDITIONS 2\*, 3 and 4.

#### ACTION:

- a. In OPERATIONAL CONDITION 2\* with one of the above required source range monitor channels inoperable, restore at least 3 source range monitor channels to OPERABLE status within 4 hours or be in at least HOT SHUTDOWN within the next 12 hours.
- b. In OPERATIONAL CONDITION 3 or 4 with one or more of the above required source range monitor channels inoperable, verify all insertable control rods to be inserted in the core and lock the reactor mode switch in the Shutdown position within one hour.

#### SURVEILLANCE REQUIREMENTS

---

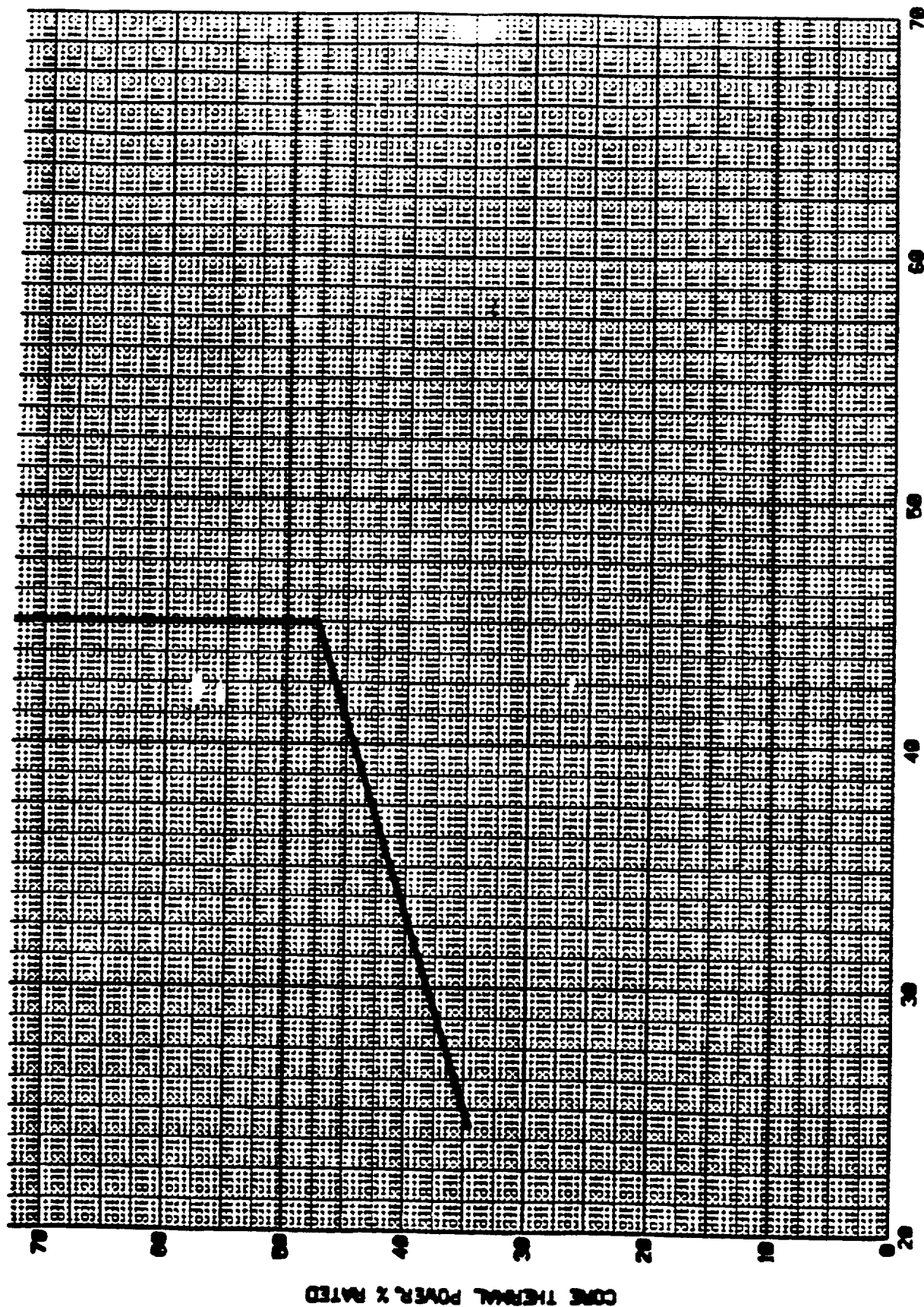
4.3.7.6 Each of the above required source range monitor channels shall be demonstrated OPERABLE by:

- a. Performance of a:
  1. CHANNEL CHECK at least once per:
    - a) 12 hours in CONDITION 2\*, and
    - b) 24 hours in CONDITION 3 or 4.
  2. CHANNEL CALIBRATION\*\* at least once per 18 months.
- b. Performance of a CHANNEL FUNCTIONAL TEST:
  1. Within 24 hours prior to moving the reactor mode switch from the Shutdown position, if not performed within the previous 7 days, and
  2. At least once per 31 days.
- c. Verifying, prior to withdrawal of control rods, that the SRM count rate is at least 3 cps with the detector fully inserted.
- d. The provisions of Specification 4.0.4 are not applicable for entry into OPERATIONAL CONDITION 2\* or 3 from OPERATIONAL CONDITION 1.

---

\*With IRM's on range 2 or below.

\*\*Neutron detectors may be excluded from CHANNEL CALIBRATION.



CORE FLOW % RATED  
 THERMAL POWER VERSUS CORE FLOW  
 FIGURE 3.4.1.1-1

## REACTOR COOLANT SYSTEM

### JET PUMPS

#### LIMITING CONDITION FOR OPERATION

---

3.4.1.2 All jet pumps shall be OPERABLE.

APPLICABILITY: OPERATIONAL CONDITIONS 1 and 2.

ACTION:

With one or more jet pumps inoperable, be in at least HOT SHUTDOWN within 12 hours.

#### SURVEILLANCE REQUIREMENTS\*

---

4.4.1.2 All jet pumps shall be demonstrated OPERABLE as follows:

- a. Each of the above required jet pumps shall be demonstrated OPERABLE prior to THERMAL POWER exceeding 25% of RATED THERMAL POWER and at least once per 24 hours by determining recirculation loop flow, total core flow and diffuser-to-lower plenum differential pressure for each jet pump and verifying that no two of the following conditions occur when the recirculation pumps are operating in accordance with Specification 3.4.1.3.
  1. The indicated recirculation loop flow differs by more than 10% from the established pump speed-loop flow characteristics.
  2. The indicated total core flow differs by more than 10% from the established total core flow value derived from recirculation loop flow measurements.
  3. The indicated diffuser-to-lower plenum differential pressure of any individual jet pump differs from the established patterns by more than 10%.
- b. During single recirculation loop operation, each of the above required jet pumps shall be demonstrated OPERABLE at least once per 24 hours by verifying that no two of the following conditions occur:
  1. The indicated recirculation loop flow in the operating loop differs by more than 10% from the established\* pump speed-loop flow characteristics.
  2. The indicated total core flow differs by more than 10% from the established\* total core flow value derived from single recirculation loop flow measurements.
  3. The indicated diffuser-to-lower plenum differential pressure of any individual jet pump differs from established\* single recirculation loop patterns by more than 10%.
- c. The provisions of Specification 4.0.4 are not applicable provided that this surveillance is performed within 24 hours after exceeding 25% of RATED THERMAL POWER.

\*During startup following any refueling outage and in order to obtain single loop or two loop operation baseline data, data shall be recorded for the parameters listed to provide a basis for establishing the specified relationships. Comparisons of the actual data in accordance with the criteria listed shall commence upon conclusion of the baseline data analysis.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 54 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 May 19, 1992, as supplemented by letter dated August 5, 1992, the Public Service Electric & Gas Company and Atlantic City Electric Company (the licensees) submitted a request to amend the Hope Creek Generating Station (HCGS) Technical Specification (TS). The requested changes would allow an exception to TS 4.0.4 for the Intermediate Range Monitors (IRMs) and Source Range Monitors (SRMs) when Operational Condition 2 or 3 is entered from Operational Condition 1. Additionally, two administrative changes were proposed. The August 5, 1992 letter provided clarifying information that did not change the initial proposed no significant hazards consideration determination.

Specifically, the licensee proposed the following changes:

1. Revise TS 3.3.1, "Reactor Protection System Instrumentation," to provide an exception to the provisions of TS 4.0.4 for entry into Operational Condition 2 or 3 from Operational Condition 1 for the IRMs.
2. Revise TS 3.3.6, "Control Rod Block Instrumentation," to provide an exception to the provisions of TS 4.0.4 for entry into Operational Condition 2 from Operational Condition 1 for the SRMs and IRMs.
3. Revise TS 3.3.7.6, "Source Range Monitors," to provide an exception to the provisions of TS 4.0.4 for entry into Operational Condition 2 or 3 from Operational Condition 1 for the SRMs.
4. Administratively revise Table 1.2, "Operational Conditions," to permit the reactor mode switch to be placed in the Refueling position, while in Hot or Cold Shutdown, to test the switch interlock functions and related instrumentation. Currently, only the Run and Startup/Hot Standby switch positions are specified for this purpose.
5. Revise TS 3.4.1.2, "Jet Pumps," to correct a typographical error in Surveillance Requirement 4.4.1.2.b.3 by changing "difference-to-lower plenum differential pressure" to "diffuser-to-lower plenum differential pressure."

9209010168 920824  
PDR ADDCK 05000354  
PDR



## 2.0 EVALUATION

TS Section 4.0.4 states that an Operational Condition may not be entered unless the associated surveillance requirements have been performed. This proposed amendment would provide an exception to TS 4.0.4 for the IRMs and SRMs for entry into Operational Condition 2 or 3 from Operational Condition 1 (mode switch in run). The design of the IRM and SRM instrument circuits prevents the performance of channel functional tests or calibrations when the mode switch is in run because all rod block and scram functions are bypassed. Consequently, in order to conduct a routine plant-shutdown, either the subject instrumentation must be temporarily modified or the associated action statement must be invoked. Temporary modifications, such as installing jumpers and/or lifting leads, would be required before testing could be performed with the mode switch in the run position, which would increase the likelihood of failure or inadvertent actuation.

The action statements associated with the Reactor Protection System (RPS) instrumentation require the insertion of a rod withdrawal block, which could potentially and unnecessarily complicate plant operation, and the insertion of a half scram, which increases the probability of unwarranted transients.

The action statements associated with the SRM specification do not address the condition in which more than two SRMs are inoperable. Therefore, if the required functional testing cannot be completed during a routine plant shutdown prior to the point at which reactor power decreases below range 2 of the IRMs, the provisions of Specification 3.0.3 must be invoked. Although plant shutdown could continue, it is not prudent to intentionally enter Specification 3.0.3 to conduct routine plant evolutions. Additionally, this could potentially and unnecessarily complicate plant operation.

While there is a very low safety significance in allowing the reactor mode to be changed from Operational Condition 1 to Operational Condition 2 or 3 without first performing channel functional tests or calibrations, it is important to perform these surveillances as soon as the plant is in a condition where the testing is feasible. In GL 87-09, "Sections 3.0 and 4.0 of the Standard Technical Specifications on the Applicability of Limiting Conditions for Operation and Surveillance Requirements," the NRC staff position was that a 24-hour allowance to permit completing missed surveillance requirements was reasonable and appropriate. Permitting an exception to the provisions of Specification 4.0.4 during plant shutdown allows the plant to be placed into Operational Condition 2 or 3 prior to performance of the surveillance requirements for the SRMs and IRMs without the invocation of the associated action statements which include the insertion of rod blocks and half scrams. Once the plant is placed into Operational Condition 2 or 3, the surveillance requirements are required to be completed within 24 hours. This exception would only apply during the performance of a plant shutdown (i.e. entry into Operational Condition 2 or 3 from Operational Condition 1). The staff finds this specific exception to TS Section 4.0.4 acceptable.

The licensee also requested two administrative changes. One of the proposed administrative revisions pertains to Table 1.2. This table currently contains a provision, in the form of a note, which permits the reactor mode switch to be placed in the Run or Startup/Hot Standby position while in Operational Condition 3, 4, or 5 to test the switch interlock functions and related instrumentation. The note further specifies that while the mode switch is in either of these positions, the control rods must be verified to remain fully inserted by a second licensed operator or other technically qualified member of the unit technical staff.

A method preferred by the licensee of performing this testing while in hot or cold shutdown is to place the mode switch in Refueling. By enabling the one-rod-out interlock, this switch position automatically provides an additional margin of safety beyond the required administrative controls in preventing the occurrence of inadvertent rod withdrawal events. The mode switch would be placed in the Refuel position, in lieu of the Run or Startup/Hot Standby positions, for testing only when this configuration would verify the operability of all the same switch contacts, interlocks, and instrumentation as when the test is performed with the reactor mode switch in the Run or Startup/Hot Standby positions, and only when the one-rod-out interlock is operable.

The proposed change would modify the note to permit the mode switch to be placed in the Refueling position while retaining the option of placing it in the Run or Startup/Hot Standby positions. This will provide the operational flexibility to accommodate potential situations which specifically require the mode switch to be in Run or Startup/Hot Standby while in Operational Condition 3 or 4.

The second administrative change is a correction of a typographical error in Surveillance Requirement 4.4.1.2.b.3.

The staff finds these administrative changes 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. The State official had no 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 and changes 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 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 (57 FR 24678). 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: A. Keller

Date: August 24, 1992