

Public Service
Electric and Gas
Company

Steven E. Miltenberger

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Vice President and Chief Nuclear Officer

September 25, 1989

NLR-N89129
HC LCR 89-11

United States Nuclear Regulatory Commission
Document Control Desk
Washington, D.C. 20555

Gentlemen:

REQUEST FOR AMENDMENT
FACILITY OPERATING LICENSE NPF-57
HOPE CREEK GENERATING FACILITY
DOCKET NO. 50-354

In accordance with 10 CFR 50.90, Public Service Electric and Gas Company (PSE&G) hereby transmits a Request for Amendment to Facility Operating License NPF-57 for Hope Creek Generating Station (HCGS). This amendment request revises various Technical Specifications to delete references to and certain conditions permitted during the Startup Test Program. A number of setpoints have also been revised to reflect finalized values determined during the Startup Test Program. These changes, shown in Attachment 2, would aid the operational use of the Technical Specifications and assure that information contained within the document accurately reflects the operation of HCGS.

Attachment 1 provides sufficient justification to demonstrate that the proposed changes do not involve a significant hazards consideration pursuant to 10 CFR 50.92. Since the proposed changes either involve administrative revisions or reflect revisions based on the completion of the construction and startup testing of HCGS, PSE&G believes that a detailed NRC Branch or specialist review is not required and thus the request can be processed as a Category 2 amendment request.

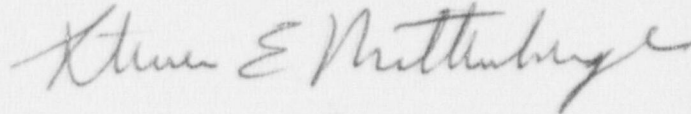
In accordance with the requirements of 10 CFR 50.4(b)(ii), this submittal includes one (1) signed original, including affidavit, and thirty-seven (37) copies. In accordance with 10 CFR 50.91(b)(1), a copy of this request has been sent to the State of New Jersey as indicated below. Upon NRC approval, please issue a License Amendment which will be effective upon issuance and shall be implemented within 60 days of issuance. This latitude permits appropriate procedural modifications necessary to implement the proposed changes.

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Should you have any questions or comments on this transmittal, do not hesitate to contact us.

Sincerely,



Affidavit
Attachments (2)

C Mr. C. Y. Shiraki
Licensing Project Manager

Mr. D. K. Allsopp
Resident Inspector

Mr. W. T. Russell, Administrator
Region I

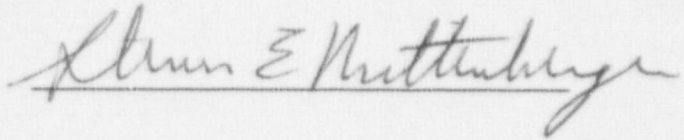
Mr. Kent Tosch, Chief
New Jersey Department of Environmental Protection
Division of Environmental Quality
Bureau of Nuclear Engineering
CN 415
Trenton, NJ 08625

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HCGS LCR 89-11

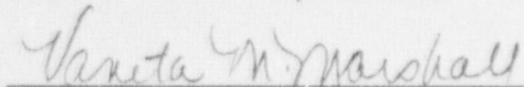
STATE OF NEW JERSEY)
) SS.
COUNTY OF SALEM)

Steven E. Miltenberger, being duly sworn according to law deposes and says:

I am Vice President and Chief Nuclear Officer of Public Service Electric and Gas Company, and as such, I find the matters set forth on our letter dated September 25, 1989, concerning the Hope Creek Generating Station, are true to the best of my knowledge, information and belief.



Subscribed and Sworn to before me
this 25th day of September, 1989


Notary Public of New Jersey

My Commission expires on _____
VANITA M. MARSHALL
NOTARY PUBLIC OF NEW JERSEY
My Commission Expires May 6, 1993

ATTACHMENT 1

PROPOSED CHANGES TO THE TECHNICAL SPECIFICATIONS
FACILITY OPERATING LICENSE NPF-57
HOPE CREEK GENERATING STATION
DOCKET NO. 50-354

NLR-N89129
HCLCR 89-11

I. Identification of the Proposed Changes

The following Technical Specifications (TS) should be revised as shown in Attachment 2 to reflect the completion of the Startup Test Program and provide information in the TS which more accurately reflects station operation. The following Specifications or Tables are being revised:

1. Table 3.3.1-1, Reactor Protection System Instrumentation - revise Table Notation (j) to delete the double asterisk footnote and revise the turbine first stage pressure setpoint.
2. Table 3.3.2-2, Isolation Actuation Instrumentation - delete the double asterisk footnote and revise the RCIC and HPCI Steam Line High Flow trip setpoints and allowable values.
3. Table 3.3.4.2-1, End of Cycle Recirculation Pump Trip Instrumentation - delete the asterisk footnote and revise the turbine first stage pressure setpoint.
4. Table 3.3.7.1-1, Radiation Monitoring Instrumentation - delete the asterisk footnote.
5. Specification 4.4.2.1, Safety/Relief Valves - revise the double asterisk footnote's discussion of noise level adjustments.
6. Specification 3.4.3.1.a, Leakage Detection Systems - delete the asterisk footnote.
7. Specification 3.4.5 Action c.1, Specific Activity - delete the asterisk footnote.
8. Specification 4.5.1.c, Emergency Core Cooling System, Operating - delete the # footnote.
9. Specification 3.10.2.d, Rod Sequence Control System Special Test Exception - delete Limiting Condition for Operation (d) which discusses the Startup Test Program.
10. Specification 3/4.10.4, Recirculation Loops Special Test Exception - delete Limiting Condition for Operation (b) and modify the applicability and Surveillance Requirement 4.10.4.1 to delete reference to the Start Up Test Program.

11. Specification 3/4.10.5 and Bases 3/4.10.5, Oxygen Concentration Special Test Exception - delete this entire specification.
12. Specification 4.10.7, Special Instrumentation Special Test Exception - delete this entire specification.

II. Reason for the Proposed Changes

The changes requested in this submittal are necessary to update TS which permitted various allowances and initial values during the Startup Test Program. These changes generally consist of specifications which either: (i) reference conditions that do not exist or are no longer applicable, (ii) do not contain a specific value but rather reference the fact that the value will be determined later, or (iii) contain a specific value but identify the value as preliminary.

The changes shown in Attachment 2 should be made since the Startup Test Program has been completed and the original TS values can now be finalized. These changes would aid operational use of the TS and assure that information contained within the document is accurate, even if more conservative.

III. Justification for the Proposed Changes

The following discussion addresses each of the 12 identified changes and provides a justifiable bases for the revision.

1. Table 3.3.1-1, Reactor Protection System Instrumentation, Functional Unit 9 (Turbine Stop Valve - Closure) and Functional Unit 10 (Turbine Control Valve Fast Closure Valve Trip System Oil Pressure - Low) reference Notation (j) which indicates that these functions are automatically bypassed when the turbine first stage pressure is less than 30% of Rated Thermal Power. The values for 30% of Rated Thermal Power and the turbine first stage pressure setpoint are listed as 153.3 psig and 132.4 psig, respectively. An asterisk footnote to Notation (j) indicates that these values are initial setpoints with the final setpoints to be determined during the startup test program.

During the Startup Test Program reactor heat balance and turbine first stage pressure were measured at several power levels over a power range from 14.7% to 31.8% of Rated Thermal Power. A linear relationship between first stage turbine pressure and percent power was derived by a Least Squares Fit and the following equation was derived:

$$\text{Pressure} = 7.707(\% \text{ power}) - (65.54 - \text{head correction})$$

With a 6 psi head correction, the main turbine first stage pressure at 30% of Rated Thermal Power is 159.7 psig. Accordingly, the trip setpoint, which accounts for instrument accuracy, calibration, and drift, has also increased from 132.4 psig to 135.7 psig as derived by Calculation SC-SB-0001, Revision 3.

2. Table 3.3.2-2, Isolation Actuation Instrumentation contains three changes:
 - a. First, the double asterisk footnote has been deleted from Trip Function 1.c (Reactor Building Exhaust Radiation - High, Primary Containment Isolation) and Trip Functions 2.c and 2.d (Refueling Floor Exhaust Radiation - High and Reactor Building Exhaust Radiation - High, Secondary Containment Isolation) because the Trip Setpoints and Allowable Values identified as initial values were confirmed as final values during the startup test program.
 - b. Second, Trip Function 5.a (RCIC Steam Line Flow - High) identifies the Trip Setpoint as 609.6" of water and the Allowable Value as 622.1" of water. These values are currently identified as initial values; however, as a result of the completion of the Startup Test Program, these values should be changed to 598.501" and 611.001" of water, respectively. These final values, based on a revision of the Setpoint Calculation for RCIC Turbine Steam Supply Leak Detection SC-BD-0031-1, Revision 3, account for the total instrument loop accuracy (from the flow sensing element to the trip unit and pressure differential switch) and reflect more recent, up-to-date source documentation and reference material. Included in the setpoint calculation are corrections for high line pressure effects, environmental effects, instrumentation drift and tolerance, calibration error, and process element and measurement accuracies. The values have been conservatively rounded to 598" and 611" for inclusion in the T/Ss since any additional number of significant figures is beyond the accuracy which can reasonably be entered into the existing equipment. With these changes, the double asterisk footnote should be removed from this trip function, and the revised values considered final.
 - c. Third, Trip Function 6.a (HPCI Steam Line Flow - High) identifies a Trip Setpoint as 1025.0" of water and an Allowable Value of 1044.5" of water. These values are currently identified as initial values; however, as a result of the completion of the Startup Test Program, these values should be changed to 1032.44" of water (conservatively rounded to 1032" for inclusion in the

T/Ss) and 1064.94" of water (conservatively rounded to 1064" for inclusion in the T/Ss). These final values, based on a revision of the HPCI Turbine Steam Flow High Setpoint Calculation SC-BJ-0015, Revision 5, account for the same items listed above for the RCIC Steam Line Flow setpoint and allowable value. With these changes, the double asterisk footnote should be removed from this trip function, and the revised values considered final.

3. Table 3.3.4.2-1, End of Cycle Recirculation Pump Trip Instrumentation contains the same setpoints for turbine first stage pressure which should be revised as discussed in Subitem 1 above.
4. Table 3.3.7.1-1, Radiation Monitoring Instrumentation, Action 73 permits the use of a Local Radiation Processor (LRP) rather than obtaining and analyzing grab samples due to an inoperable radiation monitor in the Reactor Auxiliaries Cooling System or Safety Auxiliaries Cooling System prior to 120 days after initial fuel load. Initial fuel load occurred in April 1986 and hence the use of an LRP has not been permitted since August 1986. Accordingly, the asterisk footnote is being deleted.
5. Specification 4.4.2.1, Safety/Relief Valves, requires the acoustic monitor setpoint to be less than or equal to 30% of full open noise level; however, the initial setting could be adjusted during the Startup Test Program. Since S/RVs are periodically replaced with spares as part of the ongoing maintenance program, adjustment of these spares from their initial settings may be necessary throughout plant life. Accordingly, the double asterisk footnote is being reworded to permit adjustment "...after the initial noise traces have been analyzed" (i.e. the initial noise levels for the replaced spare SR/V) since adjustments may still be necessary even though the Startup Test Program is complete.
6. Specification 3.4.3.1.a, Leakage Detection Systems does not require the drywell atmosphere gaseous radioactivity monitoring system to be Operable prior to 150 days after initial fuel load. Since September 1986 this exception has expired and the system is required to be Operable; therefore, the asterisk footnote is being deleted.
7. Specification 3.4.5.c.1, Specific Activity, Action c.1 specifies the sampling and analysis requirements for primary coolant activity if Thermal Power changes by more than 15% of Rated Thermal Power in one hour. This action was not applicable during the Startup Test Program and activity does not meet defined limits. Since the Startup Test Program is now complete, this TS is being revised to delete the asterisk footnote.

8. Specification 4.5.1.c, Emergency Core Cooling System - Operating, Surveillance Requirements c.4 and c.5 identify the setpoints for the Core Spray System (CSS) and Low Pressure Coolant Injection (LPCI) system header pressure differential instrumentation. This value is currently shown with an asterisk indicating that the setpoint is an initial value. With the completion of the startup test program these values have been confirmed as final and accordingly the number-sign footnote can be deleted.
9. Specification 3.10.2.d, Rod Sequence Control System Special Test Exception permits the Rod Worth Minimizer (RWM) and Rod Sequence Control System (RSCS) to be bypassed during a variety of tests, one of which was during the "Startup Test Program with the Thermal Power less than 20% of Rated Thermal Power" (TS 3.10.2.d.). With the completion of the Startup Test Program, this condition is no longer permitted and accordingly Item d under TS 3.10.2 is being deleted.
10. Specification 3/4.10.4, Recirculation Loops Special Test Exception permits mismatched recirculation pump speed for up to 24 hours during the Startup Test Program. With the completion of the Startup Test Program, TS 3.10.4.b is no longer applicable; and accordingly Item b under TS 3.10.4 is being deleted and other portions of the TS Applicability, Surveillance Requirements, and Bases are being revised.
11. Specification 3/4.10.5 and Bases 3/4.10.5, Oxygen Concentration Special Test Exception permitted the suspension of the requirements of TS 3.6.6.2 during the Startup Test Program until 6 months after initial criticality (June 1986 HCGS went critical.) The Startup Test Program has been completed and the 6 month window has expired; hence this TS is not applicable. Accordingly, the entire TS and its' Bases are being deleted and a historical reference to the TS is provided.
12. Specification 4.10.7, Special Instrumentation Special Test Exception was deleted with the issuance of Amendment 14; however, only the information on Page 3/4 10-7 was deleted. The back of this sheet, Page 3/4 10-3 was inadvertently overlooked during the processing of the amendment. Since this TS was only applicable during the initial core loading, the TS is no longer needed and can be deleted.

IV. Significant Hazards Consideration Evaluation

The twelve changes discussed in this submittal can be grouped into three major areas. These areas are addressed below with reference to the change number, i.e. the 12 proposed changes detailed in Items I and III above. The 12 proposed changes to the Technical Specifications:

1. Do not involve a significant increase in the probability or consequences of an accident previously evaluated.
- A. Changes 2a, 4, 6, 7, 8, 9, 10, 11, and 12 involve the deletion of footnotes which either permitted various modes of operation during some or all of the Startup Test Program or identified a setpoint as an initial value with the final value to be determined during the Startup Test Program. These conditions were permitted for the brief time associated with startup in order for the performance of testing or to determine the actual long-term operating conditions for the plant. Since these footnotes only applied during the Startup Test Program, which was completed in December 1986, they are no longer applicable and can be removed. In the case of initial versus final setpoint values, the existing Technical Specification values have been confirmed as correct and can be considered final. Accordingly, the deletion of the subject footnotes does not involve a significant increase in the probability or consequences of an accident previously evaluated.
- B. Changes 1, 2b, 2c, and 3 involve the revision of setpoints, currently identified as initial values, as a result of actual plant conditions measured during the Startup Test Program and the completion of updated calculations. These changes are similar to those identified in Item A above; however, the initial setpoints do not reflect plant conditions and should be revised. The existing Technical Specifications recognized this possibility by stating in the footnote accompanying these values that final setpoints would be developed as a result of the Startup Test Program. Therefore, these changes do not involve a significant increase in the probability or consequences of an accident previously evaluated.
- C. Change 5 involves the continued use of a footnote originally developed for the Startup Test Program. Namely, an acoustic monitor is provided for each Safety/Relief Valve (SRV) to monitor whether the valve is open based on noise levels. These monitors indicate the valve is open when a noise level of 30% of the valve's full open noise level is detected. A footnote is provided which permits adjustment of the full open noise level, and hence the setpoint, during the Startup Test Program. However, during the course of the operational life at HCGS, SRVs must be removed, replaced with spares and tested in accordance with Surveillance Requirement 4.4.2.2. In order to accommodate slight variances in replacement SR/Vs, it may be necessary to adjust the acoustic monitors setpoint as a result of different full open noise levels associated with different SR/Vs. Therefore, the existing footnote is being revised to permit this adjustment. This change will assure that the acoustic monitor's setpoint accurately reflects the actual

SR/V in service and as a result, this change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. Do not create the possibility of a new or different kind of accident from any accident previously evaluated.

- A. Changes 2a, 4, 6, 7, 8, 9, 10, 11, and 12

The removal of footnotes associated with conditions which no longer apply has no bearing on an accident analysis. Similarly, the removal of footnotes which indicate that a certain setpoint is an initial value which has subsequently been confirmed as the final value do not affect any accident analyzes. These changes are strictly administrative revisions to the Technical Specifications and involve no changes to the plant or procedures. Therefore, these changes do not create the possibility of a new or different kind of accident from any accident previously evaluated.

- B. Changes 1, 2b, 2c, and 3

These changes involve the revision of setpoints based on results from the Startup Test Program. These final setpoints support system operation and satisfy the purpose of the Startup Test Program, namely to accurately test the plant for identification of the correct operational mode. Actual system function is not changing and therefore, these changes do not create the possibility of a new or different kind of accident from any accident previously evaluated.

- C. Change 5

This change does not affect the ability of the SR/V to function nor affect the ability of the monitor to measure the SR/V noise level. Therefore, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. Do not involve a significant reduction in a margin of safety.

These changes are necessary to reflect the results of the Startup Test Program. The changes are either administrative in nature, in that certain TS footnotes are no longer applicable, or represent revisions based upon the completion of the construction and startup testing of HCGS. In the

case of the SR/V acoustic monitor setpoint, the change permits the necessary operational flexibility to accommodate variances among spare SR/Vs. Accordingly, these changes do not involve a significant reductions in a margin of safety.

V. Conclusion

As discussed in Item IV above, PSE&G has concluded that the proposed changes to the Technical Specifications do not involve a significant hazards consideration since the changes (i) do not involve a significant increase in the probability or consequences of an accident previously evaluated, (ii) do not create the possibility of a new or different kind of accident from any accident previously evaluated, and (iii) do not involve a significant reduction in a margin of safety.