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

July 9, 1997

50-354

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. M98308)

Dear Mr. Eliason:

The Commission has issued the enclosed Amendment No. 99 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 March 31, 1997.

This amendment changes Technical Specification (TS) Section 3.6.5.3.2, "Filtration, Recirculation and Ventilation System (FRVS)," to provide an appropriate Limiting Condition for Operation and ACTION Statement that reflects the design basis for the FRVS.

A second proposed change to TS 4.6.5.3.2b would have permitted the FRVS heaters to have been OPERABLE rather than ON during the 31-day test. After careful review, the NRC staff has concluded that this request cannot be approved. The basis for this finding is documented in the enclosed safety evaluation. The NRC staff also notes that the existing Bases associated with TS 4.6.5.3.2b should be clarified to state that the FRVS heater coil (heaters) should be "ON" rather than "OPERABLE" during the duration of the 10-hour monthly test. This change to the Bases can be made at the convenience of the licensee.

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Notice of Issuance will be included in the Commission's biweekly Federal Register notice for the 3.6.5.3.2 TS change. A copy of the Notice of Partial Denial regarding TS 4.6.5.3.2b, to be published in the Federal Register, is enclosed for your information.

Sincerely,

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. 99 to License No. NPF-57
2. Safety Evaluation
3. Notice of Partial Denial

cc w/encls: See next page

Notice of Issuance will be included in the Commission's biweekly Federal Register notice for the 3.6.5.3.2 TS change. A copy of the Notice of Partial Denial regarding TS 4.6.5.3.2b, to be published in the Federal Register, is enclosed for your information.

Sincerely,

(Original signed by)
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. 99 to License No. NPF-57
2. Safety Evaluation
3. Notice of Partial Denial

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. 99
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 March 31, 1997, 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:

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(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No. 99, 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 to be implemented within 60 days 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: July 9, 1997

ATTACHMENT TO LICENSE AMENDMENT NO. 99

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 6-52a	3/4 6-52a

3.6.5.3 FILTRATION, RECIRCULATION AND VENTILATION SYSTEM (FRVS)
FRVS RECIRCULATION SUBSYSTEM

LIMITING CONDITION FOR OPERATION

3.6.5.3.2 Six FRVS recirculation units shall be OPERABLE.

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2, 3 and *.

ACTION:

a. With one or two of the above required FRVS recirculation units inoperable, restore all the inoperable unit(s) to OPERABLE status within 7 days, or:

   1. In OPERATIONAL CONDITION 1, 2, or 3, be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

   2. In Operational Condition *, suspend handling of irradiated fuel in the secondary containment, CORE ALTERATIONS and operations with a potential for draining the reactor vessel. The provisions of Specification 3.0.3 are not applicable.

b. With three or more of the above required FRVS recirculation units inoperable in Operational Condition *, suspend handling of irradiated fuel in the secondary containment, CORE ALTERATIONS or operations with a potential for draining the reactor vessel. The provisions of Specification 3.0.3 are not applicable.

c. With three or more of the above required FRVS recirculation units inoperable in OPERATIONAL CONDITION 1, 2, or 3, be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

SURVEILLANCE REQUIREMENTS

4.6.5.3.2 Each of the six FRVS recirculation units shall be demonstrated OPERABLE:

a. At least once per 14 days by verifying that the water seal bucket traps have a water seal and making up any evaporative losses by filling the traps to the overflow.

b. At least once per 31 days by initiating, from the control room, flow through the HEPA filters and charcoal adsorbers and verifying that the subsystem operates for at least 10 hours with the heaters on in order to reduce the buildup of moisture on the carbon adsorbers and HEPA filters.

*When irradiated fuel is being handled in the secondary containment and during CORE ALTERATIONS and operations with a potential for draining the reactor vessel.

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 99 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 March 31, 1997, Public Service Electric & Gas Company (the licensee) requested changes to the Hope Creek Generating Station (HCGS) Technical Specifications (TSs). The proposed changes to the TSs would change TS Section 3.6.5.3.2, "Filtration, Recirculation and Ventilation System (FRVS)," to provide an appropriate Limiting Condition for Operation and ACTION Statement that reflects the design basis for the FRVS. A second proposed change to TS 4.6.5.3.2b would permit the FRVS heaters to be OPERABLE rather than ON during the 31-day test.

2.0 DISCUSSION

The FRVS recirculation system is described in the HCGS Updated Final Safety Analysis Report, Section 6.8. This system consists of six 25%-capacity units, each consisting of a fan and filter unit located inside the Reactor Building. The filter unit consists of an electric heating coil, high efficiency particulate air (HEPA) filter, charcoal filters, HEPA after-filters, and water cooling coils. The water cooling coils are supplied by the Safety Auxiliary Cooling System (SACS). Following a Reactor Building Isolation Signal, all six of the FRVS units start (two of the units are manually stopped and placed in "Auto" mode) and function to reduce offsite doses significantly below 10 CFR Part 100 guidelines during a loss-of-coolant accident, refueling accident, or any other condition resulting in high radioactivity in the Reactor Building.

In Licensee Event Report 97-002, dated February 14, 1997, the licensee informed the NRC staff that:

> On January 17, 1997, during preparation of a 10CFR50.59 safety evaluation to support a plant modification, an inconsistency was discovered between the Hope Creek Generating Station (HCGS) Technical Specifications (TS) and the design basis documents of the Filtration, Recirculation, and Ventilation System (FRVS). TS 3.6.5.3.2 does not assure the availability of the prescribed number of FRVS recirculation units to fulfil system functions in the presence of a postulated single failure in accordance with the updated Final Safety Analysis Report (UFSAR).

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Specifically, given the TS (3.6.5.3.2) required complement of only five of the total of six recirculation units, and in the event of a design basis Loss of Coolant Accident (LOCA) with a Loss of Offsite Power (LOOP) and either the active single failure of the "A" or "B" Emergency Diesel Generator (EDG) or the passive failure of one Safety Auxiliaries Cooling System (SACS) loop [train], the available number of recirculation units would have been less than that assumed in the UFSAR.

In order to address the issues associated with LER 97-002, the licensee has proposed that the number of FRVS units, required to be operable per TS 3.6.5.3.2 be increased from five to six units and suitable changes to the TS ACTION statement to accommodate the increased number of FRVS units that must be operable. The licensee has also proposed a change to the surveillance requirements for the FRVS electric heating coils. The proposed change to TS 4.6.5.3.2b would permit the FRVS heaters to be OPERABLE rather than ON during a 10-hour test every 31 days.

3.0 EVALUATION

As indicated above, the HCGS UFSAR assumes that four FRVS recirculation units are operating, two units having been manually stopped and maintained in standby, following a Reactor Building Isolation Signal. In the event of a coincident Loss of Offsite Power (LOOP), and the worst single active failure (the "A" or "B" Emergency Diesel Generator [EDG]), two of the available FRVS recirculation units would be inoperable. In this regard, the "A" EDG provides power to the "A" and "E" FRVS recirculation units, the "B" EDG provides power to the "B" and "F" FRVS recirculation units and the "C" and "D" EDGs provide power to the "C" and "D" FRVS recirculation units, respectively. Potential loss of SACS cooling would involve a "passive" failure and need not be considered in the initial stages of a LOCA. Accordingly, all six FRVS recirculation units must be operable at the initiation of the LOCA to assure that at least four units remain operable to ameliorate the consequences of a LOCA coincident with LOOP and the worst single, active, failure.

Consistent with the above, the licensee has proposed a change to TS 3.6.5.3.2 to increase the required number of operable FRVS recirculation units from five to six units. This proposed change is acceptable because it assures that at least four FRVS recirculation units will be available to ameliorate the consequences of a LOCA with coincident LOOP. The licensee has also proposed changes to the TS 3.6.5.3.2 ACTION statements which require remedial action when one or more FRVS recirculation units are inoperable:

1. ACTION statement "a." currently requires remedial action within 7 days when one FRVS recirculation unit becomes inoperable. The licensee has proposed to change this ACTION statement to apply to "one or two" inoperable FRVS recirculation units. This proposed change is conservative, and acceptable, in that it requires the licensee to restore up to two inoperable FRVS recirculation units in the same time frame as is currently required for one FRVS recirculation unit and it is compatable with the requirement to have six operable FRVs units as contained in the proposed change to TS 3.6.5.3.2.

2. ACTION statement "b." currently requires the suspension of specified activities (handling of irradiated fuel, CORE ALTERATIONS, or operations with the potential of draining the reactor vessel) when two FRVS recirculation units become inoperable during specified COLD SHUTDOWN or REFUELING conditions. The proposed ACTION statement would require the suspension of specified activities when three or more FRVS recirculation units become inoperable. In both the existing and proposed TS, the specified activities may continue if four FRVS recirculation units are operable. Since the proposed ACTION statement provides an equivalent degree of FRVS redundancy, compared to the existing requirement, it is acceptable.

3. The licensee has proposed a new ACTION statement "c." to address the inoperability of three or more FRVS recirculation units. The associated remedial action would require the facility to be, "...in at least HOT SHUTDOWN within 12 hours and in COLD SHUTDOWN within the following 24 hours." Since the proposed ACTION statement "c." could be applicable to a situation where all of the FRVS recirculation units are inoperable, the provision of sufficient time for an orderly facility shutdown is appropriate and is acceptable.

With regard to FRVS recirculation unit surveillance, TS 4.6.5.3.2b requires the conduct of a test of the FRVS recirculation units every 31 days for 10 hours to assure operability and reduce the build-up of moisture on the carbon absorbers and HEPA Filters. The TS requires that the heater coils be "on" for the duration of the test. The Hope Creek licensee has been testing the FRVS recirculation units in a manner that does not provide compliance with TS 4.6.5.3.2b. Specifically, the licensee has been energizing the heaters only at the beginning of the 10-hour test, every 31 days, to assure that they are "operable." During the remainder of the test, the heater coils are energized as necessary to maintain constant humidity but are not continuously energized.

Regulatory Guide (RG) 1.52, "Design, Testing, and Maintenance Criteria for Post Accident Engineered-Safety-Feature Atmosphere Cleanup System and Filtration and Absorption Units of Light-Water-Cooled Nuclear Power Plants," Revision 2, provides the design basis for the FRVS. Regulatory Position C.4.d of RG 1.52 states that, "Each ESF atmospheric cleanup train should be operated at least 10 hours per month, with the heaters on (if so equipped), in order to reduce the buildup of moisture on the absorber and HEPA filters." The licensee has indicated conformance to this guidance in the HCGS UFSAR, Table 6.8-3, and does not note any deviations in UFSAR Section 1.8.1.52. It is clear from TS 4.6.5.3.2b (consistent with RG 1.52, C.4.d) that the purpose of the test, to reduce the buildup of moisture on the charcoal absorbers and the HEPA filters, is to be accomplished by utilizing the energized heater coils during the full 10-hour duration of the test, given the current system design. Accordingly, after careful review, the NRC staff has concluded that the licensee's request to change TS 4.6.5.3.2b to permit the FRVS heaters to be OPERABLE rather than ON during the 10 hour test, every 31 days, cannot be approved.

The NRC staff notes that the Bases associated with TS 4.6.5.3.2b should be clarified to state that the heater coil (heaters) should be "ON" rather than "OPERABLE" for the duration of the 10-hour monthly test. This change to the Bases can be made at the convenience of the licensee.

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. By letter dated April 28, 1997, the State official indicated that there were 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 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 (62 FR 27798). 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.

Principal Contributor: D. H. Jaffe

Date: July 9, 1997

UNITED STATES NUCLEAR REGULATORY COMMISSION

PUBLIC SERVICE ELECTRIC & GAS COMPANY

ATLANTIC CITY ELECTRIC COMPANY

HOPE CREEK GENERATING STATION

DOCKET NO. 50-354

NOTICE OF PARTIAL DENIAL OF AMENDMENT TO FACILITY OPERATING LICENSE

AND OPPORTUNITY FOR HEARING

The U.S. Nuclear Regulatory Commission (the Commission) has denied part of a request by Public Service Electric & Gas Company, (licensee) for an amendment to Facility Operating License No. NPF-57 issued to the licensee for operation of the Hope Creek Generating Station, located at the licensee's site in Salem County, New Jersey. Notice of Consideration of Issuance of this amendment was published in the FEDERAL REGISTER on May 21, 1997 (62 FR 27798).

The purpose of the licensee's amendment request was to revise the Technical Specifications (TS) to change TS 3.6.5.3.2, "Filtration, Recirculation and Ventilation System (FRVS)," to provide an appropriate Limiting Condition for Operation and ACTION Statement that reflects the design basis for the FRVS. A second proposed change to TS 4.6.5.3.2b would permit the FRVS heaters to be OPERABLE rather than ON during the 31-day test. The change to TS 3.6.5.3.2 was found to be acceptable and issued as License Amendment No. 99 on July 9, 1997.

With regard to the proposed change to TS 4.6.5.3.2b, the NRC staff has concluded that the licensee's request cannot be granted. The licensee was notified of the Commission's denial of the proposed change by a letter dated July 9, 1997.

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By August 15, 1997, the licensee may demand a hearing with respect to the denial described above. Any person whose interest may be affected by this proceeding may file a written petition for leave to intervene.

A request for hearing or petition for leave to intervene must be filed with the Secretary of the Commission, U.S. Nuclear Regulatory Commission, Washington, DC 20555, Attention: Rulemakings and Adjudications Staff, or may be delivered to the Commission's Public Document Room, the Gelman Building, 2120 L Street, NW., Washington, DC, by the above date.

A copy of any petitions should also be sent to the Office of the General Counsel, U.S. Nuclear Regulatory Commission, Washington, DC 20555, and to M. J. Wetterhahn, Esquire, Winston and Strawn, 1400 L Street, NW., Washington, DC 20005-3502, attorney for the licensee.

For further details with respect to this action, see (1) the application for amendment dated March 31, 1997, and (2) the Commission's letter to the licensee dated July 9, 1997.

These documents are available for public inspection at the Commission's Public Document Room, the Gelman Building, 2120 L Street, NW., Washington, DC, and at the local public document room located at the Pennsville Public Library, 190 S. Broadway, Pennsville, New Jersey 08070.

Dated at Rockville, Maryland, this 9th day of July 1997.

FOR THE NUCLEAR REGULATORY COMMISSION

Chester Poslusny, Acting Director
Project Directorate I-2
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation