

September 15, 1995

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. M89425)

Dear Mr. Eliason:

The Commission has issued the enclosed Amendment No. 79 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 April 25, 1994.

This amendment revises TS Section 3.8.1.1, "A.C. Sources - Operating," TS Section 3.8.1.2, "A.C. Sources - Shutdown," and associated Bases, to increase the required quantity of fuel in the Emergency Diesel Generator Fuel Oil Day Tanks from 200 to 360 gallons.

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 amendment has been implemented. This requirement affects nine or fewer respondents and, therefore, is not subject to the Office of Management and Budget review under P.L. 96-511.

Sincerely,

original signed by C. Poslusny for  
David H. Jaffe, Senior Project Manager  
Project Directorate I-2  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

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Docket No. 50-354

Enclosures: 1. Amendment No. 79 to  
License No. NPF-57  
2. Safety Evaluation

cc w/encls: See next page

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NAME	:MO'Brien	:DJaffe:rb	:S Hom	:JStolz	:	:
DATE	:8/9/95	:8/29/95	:9/11/95	:9/13/95	:	:

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

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Sincerely,

A handwritten signature in cursive script, reading "David H. Jaffe", is written over a horizontal line.

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

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License No. NPF-57  
2. Safety Evaluation

cc w/encls: See next page

Mr. Leon R. Eliason  
Public Service Electric & Gas  
Company

Hope Creek Generating Station

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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. 79  
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 April 25, 1994, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
  - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
  - C. There is reasonable assurance: (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations set forth in 10 CFR Chapter I;
  - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
  - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. NPF-57 is hereby amended to read as follows:

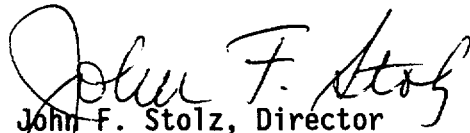
(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No. 79, 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.

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

FOR THE NUCLEAR REGULATORY COMMISSION

A handwritten signature in black ink, appearing to read "John F. Stolz", is written over the typed name and title.

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: September 15, 1995

ATTACHMENT TO LICENSE AMENDMENT NO. 79

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 8-1

3/4 8-1

3/4 8-11

3/4 8-11

B 3/4 8-1

B 3/4 8-1

### 3/4.8 ELECTRICAL POWER SYSTEMS

#### 3/4.8.1 A.C. SOURCES

##### A.C. SOURCES - OPERATING

##### LIMITING CONDITION FOR OPERATION

=====

3.8.1.1 As a minimum, the following A.C. electrical power sources shall be OPERABLE:

- a. Two physically independent circuits between the offsite transmission network and the onsite Class 1E distribution system, and
- b. Four separate and independent diesel generators, each with:
  1. A separate fuel oil day tank containing a minimum of 360 gallons of fuel,
  2. A separate fuel storage system consisting of two storage tanks containing a minimum of 48,800 gallons of fuel\*\*, and
  3. A separate fuel transfer pump for each storage tank.

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2, and 3.

##### ACTION:

- a. With one offsite circuit of the above required A.C. electrical power sources inoperable, demonstrate the OPERABILITY of the remaining A.C. sources by performing Surveillance Requirement 4.8.1.1.1.a within 1 hour and at least once per 8 hours thereafter. Restore the inoperable offsite circuit to OPERABLE status within 72 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.
- b. With one diesel generator of the above required A.C. electrical power sources inoperable, demonstrate the OPERABILITY of the above required A.C. offsite sources by performing Surveillance Requirement 4.8.1.1.1.a within 1 hour and at least once per 8 hours thereafter. If the diesel generator became inoperable due to any cause other than an inoperable support system, an independently testable component, or preplanned preventive maintenance or testing, demonstrate the OPERABILITY of the remaining diesel generators by performing Surveillance Requirement 4.8.1.1.2.a.4 and 4.8.1.1.2.a.5 separately for each diesel generator within 16 hours\* unless the absence of any potential common mode failure for the remaining diesel generators is demonstrated. Restore the inoperable diesel generator to OPERABLE status within 72 hours for diesel generators A or B, or within 14 days for diesel generators C or D, or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.
- c. With one offsite circuit of the above required A.C. sources and one diesel generator of the above required A.C. electrical power sources inoperable, demonstrate the OPERABILITY of the remaining A.C. sources by performing Surveillance Requirement 4.8.1.1.1.a within 1 hour and

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\*This test is required to be completed regardless of when the inoperable diesel generator is restored to OPERABILITY.

\*\*With the fuel storage system of one or more diesel generators containing less than 48,800 gallons of fuel, but greater than 44,709 gallons, the associated diesel generator is considered operable for up to 48 hours to allow for fuel replenishment

## ELECTRICAL POWER SYSTEMS

### A.C. SOURCES - SHUTDOWN

#### LIMITING CONDITION FOR OPERATION

=====

3.8.1.2 As a minimum, the following A.C. electrical power sources shall be OPERABLE:

- a. One circuit between the offsite transmission network and the onsite Class 1E distribution system, and
- b. Two diesel generators, one of which shall be diesel generator A or diesel generator B, each with:
  1. A separate fuel oil day tank containing a minimum of 360 gallons of fuel.
  2. A fuel storage system consisting of two storage tanks containing a minimum of 48,800 gallons of fuel.
  3. A separate fuel transfer pump for each storage tank.

APPLICABILITY: OPERATIONAL CONDITIONS 4, 5 and \*.

#### ACTION:

- a. With less than the above required A.C. electrical power sources OPERABLE, suspend CORE ALTERATIONS, handling of irradiated fuel in the secondary containment, operations with a potential for draining the reactor vessel and crane operations over the spent fuel storage pool when fuel assemblies are stored therein. In addition, when in OPERATIONAL CONDITION 5 with the water level less than 22'-2" above the reactor pressure vessel flange, immediately initiate corrective action to restore the required power sources to OPERABLE status as soon as practical.
- b. The provisions of Specification 3.0.3 are not applicable.

#### SURVEILLANCE REQUIREMENTS

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4.8.1.2 At least the above required A.C. electrical power sources shall be demonstrated OPERABLE per Surveillance Requirements 4.8.1.1.1, 4.8.1.1.2, and 4.8.1.1.3, except for the requirement of 4.8.1.1.2.a.5.

\*When handling irradiated fuel in the secondary containment.



### 3/4.8 ELECTRICAL POWER SYSTEMS

#### BASES

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3/4.8.1. 3/4.8.2 and 3/4.8.3 A.C. SOURCES, D.C. SOURCES and ONSITE POWER

#### DISTRIBUTION SYSTEMS

The OPERABILITY of the A.C. and D.C. power sources and associated distribution systems during operation ensures that sufficient power will be available to supply the safety related equipment required for (1) the safe shutdown of the facility and (2) the mitigation and control of accident conditions within the facility. The minimum specified independent and redundant A.C. and D.C. power sources and distribution systems satisfy the requirements of General Design Criteria 17 of Appendix "A" to 10 CFR 50.

The ACTION requirements specified for the levels of degradation of the power sources provide restriction upon continued facility operation commensurate with the level of degradation. The OPERABILITY of the power sources are consistent with the initial condition assumptions of the safety analyses and are based upon maintaining at least one of the onsite A.C. and the corresponding D.C. power sources and associated distribution systems OPERABLE during accident conditions coincident with an assumed loss of offsite power and single failure of the other onsite A.C. or D.C. source.

The A.C. and D.C. source allowable out-of-service times are based on Regulatory Guide 1.93, "Availability of Electrical Power Sources", December 1974 as modified by plant specific analysis and diesel generator manufacturer recommendations. When two diesel generators are inoperable, there is an additional ACTION requirement to verify that all required systems, subsystems, trains, components and devices, that depend on the remaining OPERABLE diesel generators as a source of emergency power, are also OPERABLE. This requirement is intended to provide assurance that a loss of offsite power event will not result in a complete loss of safety function of critical systems during the period two or more of the diesel generators are inoperable. The term verify as used in this context means to administratively check by examining logs or other information to determine if certain components are out-of-service for maintenance or other reasons. It does not mean to perform the surveillance requirements needed to demonstrate the OPERABILITY of the component. The primary intent of the extended AOT is that the extended EDG AOT from 72 hours to 14 days may be needed to perform preplanned EDG maintenance such as teardowns and modifications that would otherwise extend beyond the original 72 hour AOT.

The OPERABILITY of the minimum specified A.C. and D.C. power sources and associated distribution systems during shutdown and refueling ensures that (1) the facility can be maintained in the shutdown or refueling condition for extended time periods and (2) sufficient instrumentation and control capability is available for monitoring and maintaining the unit status.

The surveillance requirements for demonstrating the OPERABILITY of the diesel generators are in accordance with the recommendations of Regulatory Guide 1.9, "Selection of Diesel Generator Set Capacity for Standby Power Supplies", March 10, 1971, Regulatory Guide 1.108, "Periodic Testing of Diesel Generator Units Used as Onsite Electric Power Systems at Nuclear Power Plants", Revision 1, August 1977 and Regulatory Guide 1.137 "Fuel-Oil Systems for Standby Diesel Generators", Revision 1, October 1979 as modified by plant specific analysis, diesel generator manufacturer's recommendations, and Amendment 59, to the Facility Operating License, issued November 22, 1993.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 79 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 April 25, 1994, the Public Service Electric & Gas Company (the licensee) submitted a request for changes to the Hope Creek Generating Station, Technical Specifications (TSs). The requested changes would revise TS Section 3.8.1.1, "A.C. Sources - Operating," TS Section 3.8.1.2, "A.C. Sources - Shutdown," and associated Bases, to increase the required quantity of fuel in the Emergency Diesel Generator Fuel Oil Day Tanks from 200 to 360 gallons.

2.0 EVALUATION

The Hope Creek Generating Station has four Emergency Diesel Generators (EDGs) to supply A.C. power to safety-related components upon loss of offsite power. Each EDG is supplied with diesel fuel via two Fuel Oil Storage Tanks, a skid-mounted Fuel Oil Day Tank, and associated transfer pumps and piping.

As indicated in the licensee's April 25, 1994 letter, the EDG fuel oil storage system is sized in accordance with Regulatory Guide 1.137, Revision 1, which incorporates the ANSI N195-1976 requirements. With regard to Fuel Oil Day Tanks, Section 6.1 of ANSI N195-1976 requires that sufficient fuel oil be provided for a 60-minute EDG run time at 100% loading, with 10% margin, at which time fuel oil would be automatically added to the Day Tank. Amendment No. 59 to the Facility Operating License changed the required EDG run time, prior to fuel being added to the Day Tank, to 55-to-60 minutes.

At the present time, TS Section 3.8.1.1, "A.C. Sources - Operating," TS Section 3.8.1.2, "A.C. Sources - Shutdown," and associated Bases, requires that each Emergency Diesel Generator Fuel Oil Day Tank contain 200 gallons of fuel. As noted in NRC Inspection Report 50-354/92-80, the licensee stated that Fuel Oil Day Tank capacity provides for only 47 minutes of EDG operation prior to automatic fuel transfer from the storage tanks. The licensee's proposed increase in minimum Fuel Oil Day Tank capacity, in the TS, from 200 to 360 gallons, is intended to restore the required Fuel Oil Day Tank capacity to that required by Amendment No. 59.

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By letter dated May 28, 1993, the licensee provided information regarding EDG fuel storage capacity and consumption. Based upon a stated EDG fuel consumption of 5.8 gal/min at 100% of rated capacity, and approximately 39 gallons of unuseable fuel in the day tank, an indicated level of 360 gallons of fuel in the day tank will provide approximately 55 minutes of EDG operation. Accordingly, the proposed changes to the TS are acceptable.

### 3.0 STATE CONSULTATION

In accordance with the Commission's regulations, the New Jersey State Official was notified of the proposed issuance of the amendment. 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. 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 (59 FR 29632). 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: D. H. Jaffe

Date: September 15, 1995