



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

June 29, 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. M90039 AND M91195)

Dear Mr. Eliason:

The Commission has issued the enclosed Amendment No. 74 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 two applications dated July 28, 1994 and December 15, 1994. The staff found it appropriate to combine these two applications into one amendment.

This amendment makes changes to TS Section 3/4.8.1 "AC SOURCES." The amendment removes the surveillance requirements, methodology and frequency for Emergency Diesel Generator (EDG) fuel oil from the TS and relocates them in a controlled plant procedure, VSH.SS-CA.ZZ-0013(Q) "Procedures for Testing Diesel Fuel and #2 Fuel Oil at Artificial Island for PSE&G Nuclear Operations." The changes also delete an unnecessary lab test for the fuel oil and extend the surveillance frequency from once per 92 days to once per 184 days. In addition and in accordance with 10 CFR 50.90, this amendment removes TS Surveillance Requirement 4.8.1.1.2.h.1 in order that PSE&G can utilize plant-controlled programs to govern diesel generator maintenance. To ensure procedural consistency and reduce the impact of this change on Hope Creek procedures, the remaining Surveillance Requirements of TS 4.8.1.1.2.h are not renumbered.

A copy of our safety evaluation is also enclosed. Notice of Issuance will be included in the Commission's biweekly Federal Register notice.

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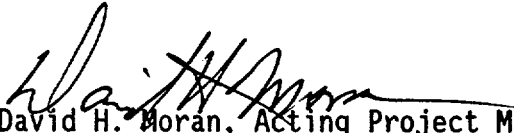
NRC FILE CENTER COPY

L. Eliason

- 2 -

You are requested to inform the NRC, in writing, when this amendment has been implemented within 60 days of issuance. This requirement affects nine or fewer respondents and, therefore, is not subject to Office of Management and Budget review under P.L. 96-511.

Sincerely,


David H. Moran, Acting 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. 74 to
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

cc:

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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. 74
License No. NPF-57

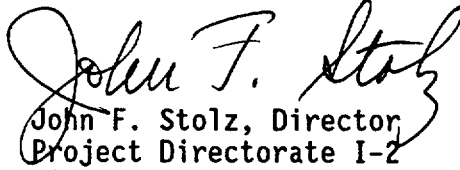
1. The Nuclear Regulatory Commission (the Commission or the NRC) has found that:
 - A. The applications for amendment filed by the Public Service Electric & Gas Company (PSE&G) dated July 28, 1994 and December 15, 1994, comply with the standards and requirements of the Atomic Energy Act of 1954, as amended (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. 74, 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.

FOR THE NUCLEAR REGULATORY COMMISSION

A handwritten signature in black ink, reading "John F. Stolz". The signature is written in a cursive style with a large, looping initial "J".

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: June 29, 1995

ATTACHMENT TO LICENSE AMENDMENT NO. 74

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

3/4 8-5
3/4 8-6

Insert

3/4 8-5
3/4 8-6

ELECTRICAL POWER SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

6. Verifying the diesel generator is aligned to provide standby power to the associated emergency busses.
7. Verifying the pressure in all diesel generator air start receivers to be greater than or equal to 325 psig.
8. Verifying the lube oil pressure, temperature and differential pressure across the lube oil filters to be within manufacturer's specifications.
 - b. At least once per 31 days by visually examining a sample of lube oil from the diesel engine to verify absence of water.
 - c. At least once per 31 days and after each operation of the diesel where the period of operation was greater than or equal to 1 hour by checking for and removing accumulated water from the fuel oil day tank.
 - d. At least once per 92 days by removing accumulated water from the fuel oil storage tanks.
 - e. At least once per 31 days by performing a functional test on the emergency load sequencer to verify operability.
 - f. In accordance with the surveillance interval specified in the Diesel Fuel Oil Testing Program and prior to the addition of new fuel oil to the storage tank, samples shall be taken to verify fuel oil quality. Sampling and testing of new and stored fuel oil shall be in accordance with the Diesel Fuel Oil Testing Program to maintain fuel oil properties within established limits.

ELECTRICAL POWER SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

- g. Deleted.
- h. At least once per 18 months[#], during shutdown, by:
 - 1. Deleted.
 - 2. Verifying the diesel generator capability to reject a load of greater than or equal to that of the RHR pump motor (1003 kW) for each diesel generator while maintaining voltage at 4160 ± 420 volts and frequency at 60 ± 1.2 Hz.
 - 3. Verifying the diesel generator capability to reject a load of 4430 kW without tripping. The generator voltage shall not exceed 4785 volts during and following the load rejection.
 - 4. Simulating a loss of offsite power by itself, and:
 - a) Verifying loss of power is detected and deenergization of the emergency busses and load shedding from the emergency busses.
 - b) Verifying the diesel generator starts* on the auto-start signal, energizes the emergency busses with permanently connected loads within 10 seconds after receipt of the start signal, energizes the autoconnected shutdown loads through the load sequencer and operates for greater than or equal to 5 minutes while its generator is loaded with the shutdown loads. After energization, the steady state voltage and frequency of the emergency busses shall be maintained at 4160 ± 420 volts and 60 ± 1.2 Hz during this test.

* This diesel generator start (10 sec) and subsequent loading (130 sec) from ambient conditions may be preceded by an engine prelube period and/or other warmup procedures recommended by the manufacturer so that mechanical stress and wear on the diesel engine is minimized.

For any start of a diesel generator, the diesel must be loaded in accordance with the manufacturer's recommendations.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 74 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 letters dated July 28, 1994 and December 15, 1994, the Public Service Electric & Gas Company (the licensee) submitted requests for changes to the Hope Creek Generating Station, Technical Specifications (TSs). This amendment changes TS Section 3/4.8.1 "AC SOURCES," by removing the surveillance requirement TS 4.8.1.1.2.f methodology and frequency for Emergency Diesel Generator (EDG) fuel oil from the TSs and relocates them in a controlled plant procedure, VSH.SS-CA.ZZ-0013(Q) "Procedures for Testing Diesel Fuel and #2 Fuel Oil at Artificial Island for PSE&G Nuclear Operations." The changes also delete an unnecessary lab test for the fuel oil and extend the surveillance frequency from once per 92 days to once per 184 days. This amendment also changes TS Surveillance Requirement 4.8.1.1.2.h.1 by removing the requirement that each diesel generator be inspected in accordance with procedures prepared in conjunction with its manufacturer's recommendations for this class of standby service. Pursuant to the improved, Standard Technical Specifications (NUREG-1433), the licensee's plant-controlled programs will continue to govern diesel generator maintenance. To ensure procedural consistency and reduce the impact of this change on Hope Creek procedures, the remaining Surveillance Requirements of TS 4.8.1.1.2.h are not renumbered.

2.0 EVALUATION

The licensee's amendment application notes that NUREG-1433, Standard Technical Specifications (STS) for General Electric Boiling Water Reactors (BWR/4), allows for the removal of EDG fuel oil surveillance frequency and surveillance methodology from the TSs and relocation in a controlled plant procedure. The licensee's application further states that, this change along with the elimination of an unnecessary lab test and the reduction in surveillance frequency will allow better allocation of plant resources while maintaining a high confidence in fuel oil quality and EDG operability. The licensee has proposed revising TS 4.8.1.1.2.f by replacing the current surveillance requirements with:

In accordance with the surveillance interval specified in the Diesel Fuel Oil Testing Program and prior to the addition of new fuel oil to the storage tank, samples shall be taken to verify fuel oil quality. Sampling and testing of new and stored fuel oil shall be in accordance with the Diesel Fuel Oil Testing Program to maintain fuel oil properties within established limits.

The replaced Surveillance Requirements are to be relocated to the Diesel Fuel Oil Testing Program and the tested parameters revised to reflect the requirements established in Regulatory Guide 1.137, Revision 1 and ASTM-D975-77. In addition, the licensee proposes to revise the surveillance frequency for stored fuel oil from once per 92 days, as found in the current TSs, to once per 184 days and place the revised surveillance frequency in the Diesel Fuel Oil Testing Program. The current Surveillance Requirement 4.8.1.1.2.f also requires that new fuel oil shall be sampled and tested prior to addition to the storage tanks. Regulatory Guide (RG) 1.137 Section 2.b. States: Prior to adding new fuel oil to supply tanks, on-site samples should be taken. As a minimum, prior to the addition new fuel, tests for the following properties should be conducted:

- (1) Specific or API gravity
- (2) Water and sediment
- (3) Viscosity

The licensee notes that ASTM-2274-70, which provides guidance for determining impurity levels in the fuel oil, and which was referenced in the initial issuance of RG 1.137, had been withdrawn April 1974. The licensee proposes to omit the laboratory test to determine total insolubles since this test was withdrawn by ASTM.

The surveillance requirements for EDG fuel oil currently require testing for the following properties:

- * water and sediment content
- * kinematic viscosity
- * specific or API gravity
- * total insolubles (impurity levels)
- * % ash
- * % sulfur
- * flashpoint
- * cloudpoint
- * cetane number
- * copper corrosion
- * distillation (90%)
- * ramsbottom carbon

PSE&G's license amendment application notes that extending the EDG fuel oil surveillance interval from 92 days to 184 days is based on past test results for fuel oil quality. PSE&G states they have reviewed these test results for the previous 2 years. Their review indicated the quality of stored fuel has consistently remained within the acceptable limits of the TS requirements. PSE&G found the effects of long term storage of fuel oil shows up as an insignificant increase in particulates, mostly due to oxidation. This finding coincides with the staff's experience. PSE&G further states that the presence of the particulates in the quantities found does not prevent the fuel oil from burning properly in the EDGs. The Commission's position on surveillance

frequencies, established in the STS, is to take into consideration fuel oil degradation trends which indicate that particulate concentration is unlikely to change significantly between frequency intervals.

The staff finds that based on past test records of Hope Creek's stored EDG fuel oil quality, extending the testing surveillance from once per 92 days to once per 184 days will not affect the acceptability of the quality of the stored fuel oil nor the performance of the EDGs.

Inspecting diesel generators in accordance with the manufacturer's recommendations is common industry practice and has typically been included as a requirement in technical specifications. By relocating the inspection requirements from the TSs to Hope Creek's plant controlled preventative maintenance program, the licensee states the diesel generators will continue to be maintained in a manner which ensures system operability. Any changes to the Hope Creek preventative maintenance program will be controlled by the 10 CFR 50.59 process. Further, all other surveillance requirements demonstrating that the AC power systems function as required, remain unchanged because sufficient surveillance requirements are retained in the TSs to demonstrate the functional capability of the diesel generators. This change is consistent with the STS, NUREG-1433.

The staff concludes that these inspection and testing provisions can be controlled by the maintenance program because sufficient surveillance requirements are retained in the TSs to demonstrate the functional capability of the diesel generators.

In their application, PSE&G states they will continue to utilize EDG performance history, engineering analyses and manufacturer's recommendations to perform diesel generator inspections/maintenance as appropriate and removal of the Surveillance Requirement 4.8.1.1.2.h.1 from the Technical Specifications will have no detrimental effect on operability or reliability of the diesel generators. The diesel generators will continue to be maintained, under the PSE&G preventative maintenance program, in a manner which ensures system operability, and any changes to the Hope Creek preventative maintenance program will be controlled by the 10 CFR 50.59 process. All other surveillance requirements demonstrating that the AC power system functions as required remain unchanged.

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 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