

Mr. Robert G. Byram
Senior Vice President-Nuclear
Pennsylvania Power and Light Company
2 North Ninth Street
Allentown, PA 18101

SUBJECT: SUSQUEHANNA STEAM ELECTRIC STATION, UNITS 1 AND 2 (TAC NOS. M99081 AND M99082)

Dear Mr. Byram:

The Commission has issued the enclosed Amendment No. 167 to Facility Operating License No. NPF-14 and Amendment No. 141 to Facility Operating License No. NPF-22 for the Susquehanna Steam Electric Station, Units 1 and 2. This amendment consists of changes to the Technical Specifications (TSs) in response to your application dated June 27, 1997, as supplemented by letter dated July 2, 1997.

These amendments clarify, in the TSs for each unit, the methodology used to satisfy surveillance requirements for the laboratory analysis of activated carbon (charcoal) samples from the standby gas treatment system (SGTS) and the control room emergency outside air supply system (CREOASS). The specific changes are made to Sections 4.6.5.3.b.2 and 4.6.5.3.c for the SGTS and to Sections 4.7.b.2 and 4.7.2.c for the CREOASS, to include a reference to American Society for Testing Materials (ASTM), "Radioiodine Testing of Nuclear-Grade Gas Phase Adsorbents," ASTM D3803-79.

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

Sincerely,

/s/
Chester Poslusny, Senior Project Manager
Project Directorate I-2
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Docket Nos. 50-387/388

- Enclosures: 1. Amendment No. 167 to License No. NPF-14
- 2. Amendment No. 141 to License No. NPF-22
- 3. Safety Evaluation

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cc w/encls: See next page

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UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

July 30, 1997

Mr. Robert G. Byram
Senior Vice President-Nuclear
Pennsylvania Power and Light Company
2 North Ninth Street
Allentown, PA 18101

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AND M99082)

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These amendments clarify, in the TSs for each unit, the methodology used to satisfy surveillance requirements for the laboratory analysis of activated carbon (charcoal) samples from the standby gas treatment system (SGTS) and the control room emergency outside air supply system (CREOASS). The specific changes are made to Sections 4.6.5.3.b.2 and 4.6.5.3.c for the SGTS and to Sections 4.7.b.2 and 4.7.2.c for the CREOASS, to include a reference to American Society for Testing Materials (ASTM), "Radioiodine Testing of Nuclear-Grade Gas Phase Adsorbents," ASTM D3803-79.

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Chester Poslusny, Senior Project Manager
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Division of Reactor Projects - I/II
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Docket Nos. 50-387/388

Enclosures: 1. Amendment No. 167 to
License No. NPF-14
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License No. NPF-22
3. Safety Evaluation

cc w/encls: See next page

Mr. Robert G. Byram
Pennsylvania Power & Light Company

Susquehanna Steam Electric Station,
Units 1 & 2

cc:

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

PENNSYLVANIA POWER & LIGHT COMPANY

ALLEGHENY ELECTRIC COOPERATIVE, INC.

DOCKET NO. 50-387

SUSQUEHANNA STEAM ELECTRIC STATION, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 167
License No. NPF-14

1. The Nuclear Regulatory Commission (the Commission or the NRC) having found that:
 - A. The application for the amendment filed by the Pennsylvania Power & Light Company, dated June 27, 1997, as supplemented by letter dated July 2, 1997, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's 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 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 the Facility Operating License No. NPF-14 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. 167 and the Environmental Protection Plan contained in Appendix B, are hereby incorporated in the license. PP&L shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective as of its date of issuance and is to be implemented within 30 days after its date 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 30, 1997

ATTACHMENT TO LICENSE AMENDMENT NO. 167

FACILITY OPERATING LICENSE NO. NPF-14

DOCKET NO. 50-387

Replace the following pages of the Appendix A Technical Specifications with enclosed pages. The revised pages are identified by Amendment number and contain vertical lines indicating the area of change.

REMOVE

3/4 6-35

3/4 7-6

INSERT

3/4 6-35

3/4 7-6

CONTAINMENT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

- b. At least once per 18 months or (1) after any structural maintenance on the HEPA filter or charcoal adsorber housings, or (2) following painting, fire or chemical release in any ventilation zone communicating with the subsystem by:
 1. Verifying that the subsystem satisfies the in-place penetration and bypass leakage testing acceptance criteria of less than 0.05% and uses the test procedures of Regulatory Positions C.5.a, C.5.c and C.5.d of Regulatory Guide 1.52, Revision 2, March 1978, and the system flow rate is 10,100 cfm \pm 10%.
 2. Verifying within 31 days after removal that a laboratory analysis of a representative carbon sample obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, meets the laboratory testing criteria of Regulatory Position C.6.a of Regulatory Guide 1.52, Revision 2, March 1978, for a methyl iodide penetration of less than 0.175%; and
 3. Verifying a subsystem flow rate of 10,100 cfm \pm 10% during system operation when tested in accordance with ANSI N510-1975.
- c. After every 720 hours of charcoal adsorber operation by verifying within 31 days after removal that a laboratory analysis of a representative carbon sample obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, meets the laboratory testing criteria of Regulatory Position C.6.a of Regulatory Guide 1.52, Revision 2, March 1978, for a methyl iodide penetration of less than 0.175%.
- d. At least once per 18 months by:
 1. Verifying that the pressure drop across the combined HEPA filters and charcoal adsorber banks is less than 13 inches Water Gauge while operating the filter train at a flow rate of 10,100 cfm \pm 10%.
 2. Verifying that the filter train starts and associated dampers open on each of the following test signals:
 - a. Manual initiation from the control room, and
 - b. Simulated automatic initiation signal.
 3. Verifying that the filter cooling bypass and outside air dampers open and the fan start on filter cooling initiation.
 4. Verifying that the temperature differential across each heating coil is \geq 17°F when tested in accordance with ANSI N510-1975.

* Except that the test is performed at 30°C and 95% Relative Humidity and in accordance with ASTM D3803-79 Method A.

PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

1. Verifying that the subsystem satisfies the in-place penetration and bypass leakage testing acceptance criteria of less than 0.05% and uses the test procedures of Regulatory Positions C.5.a, C.5.c and C.5.d of Regulatory Guide 1.52, Revision 2, March 1978, and the system flow rate is 5810 cfm \pm 10%.
 2. Verifying within 31 days after removal that a laboratory analysis of a representative carbon sample obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, meets the laboratory testing criteria of Regulatory Position C.6.a of Regulatory Guide 1.52, Revision 2, March 1978, for a methyl iodide penetration of less than 0.175%; and
 3. Verifying a subsystem flow rate of 5810 cfm \pm 10% during subsystem operation when tested in accordance with ANSI N510-1975.
- c. After every 720 hours of charcoal adsorber operation by verifying within 31 days after removal that a laboratory analysis of a representative carbon sample obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, meets the laboratory testing criteria of Regulatory Position C.6.a of Regulatory Guide 1.52, Revision 2, March 1978, for a methyl iodide penetration of less than 0.175%.
- d. At least once per 18 months by:
1. Verifying that the pressure drop across the combined prefilter, upstream and downstream HEPA filters and charcoal adsorber banks is less than 9.1 inches Water Gauge while operating the subsystem at a flow rate of 5810 cfm \pm 10%.
 2. Verifying that on the below isolation mode actuation test signal, the subsystem automatically switches to the isolation mode of operation and the isolation dampers close within 8 seconds:
 - a) Outside air intake chlorine - high.
 3. Verifying that on each of the below pressurization mode actuation test signals, the subsystem automatically switches to the pressurization mode of operation and the control structure is maintained at a positive pressure of 1/8 inch W.G. relative to the outside atmosphere during subsystem operation at a flow rate less than or equal to 5810 cfm:
 - a. Reactor Building isolation, and
 - b. Outside air intake radiation - high.
 4. Verifying that the heaters dissipate 30 \pm 3.0 Kw when tested in accordance with ANSI N510-1975.

* Except that the test is performed at 30°C and 95% Relative Humidity and in accordance with ASTM D3803-79 Method A.



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

PENNSYLVANIA POWER & LIGHT COMPANY

ALLEGHENY ELECTRIC COOPERATIVE, INC.

DOCKET NO. 50-388

SUSQUEHANNA STEAM ELECTRIC STATION, UNIT 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 141
License No. NPF-22

1. The Nuclear Regulatory Commission (the Commission or the NRC) having found that:
 - A. The application for the amendment filed by the Pennsylvania Power & Light Company, dated June 27, 1997, as supplemented by letter dated July 2, 1997, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's 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 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 the Facility Operating License No. NPF-22 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. 141 and the Environmental Protection Plan contained in Appendix B, are hereby incorporated in the license. PP&L shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective as of its date of issuance and is to be implemented within 30 days after its date 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 30, 1997

ATTACHMENT TO LICENSE AMENDMENT NO. 141

FACILITY OPERATING LICENSE NO. NPF-22

DOCKET NO. 50-388

Replace the following pages of the Appendix A Technical Specifications with enclosed pages. The revised pages are identified by Amendment number and contain vertical lines indicating the area of change.

REMOVE

3/4 6-37

3/4 7-6

INSERT

3/4 6-37

3/4 7-6

CONTAINMENT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

- b. At least once per 18 months or (1) after any structural maintenance on the HEPA filter or charcoal adsorber housings, or (2) following painting, fire or chemical release in any ventilation zone communicating with the subsystem by:
 1. Verifying that the subsystem satisfies the in-place penetration and bypass leakage testing acceptance criteria of less than 0.05% and uses the test procedures of Regulatory Positions C.5.a, C.5.c and C.5.d of Regulatory Guide 1.52, Revision 2, March 1978, and the system flow rate is 10,100 cfm \pm 10%.
 2. Verifying within 31 days after removal that a laboratory analysis of a representative carbon sample obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, meets the laboratory testing criteria of Regulatory Position C.6.a of Regulatory Guide 1.52, Revision 2, March 1978, for a methyl iodide penetration of less than 0.175%; and
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- c. After every 720 hours of charcoal adsorber operation by verifying within 31 days after removal that a laboratory analysis of a representative carbon sample obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, meets the laboratory testing criteria of Regulatory Position C.6.a of Regulatory Guide 1.52, Revision 2, March 1978, for a methyl iodide penetration of less than 0.175%.
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 2. Verifying that the filter train starts and associated dampers open on each of the following test signals:
 - a. Manual initiation from the control room, and
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 3. Verifying that the filter cooling bypass and outside air dampers open and the fan start on filter cooling initiation.
 4. Verifying that the temperature differential across each heating coil is \geq 17°F when tested in accordance with ANSI N510-1975.

* Except that the test is performed at 30°C and 95% Relative Humidity and in accordance with ASTM D3803-79 Method A.

PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

1. Verifying that the subsystem satisfies the in-place penetration and bypass leakage testing acceptance criteria of less than 0.05% and uses the test procedures of Regulatory Positions C.5.a, C.5.c and C.5.d of Regulatory Guide 1.52, Revision 2, March 1978, and the system flow rate is 5810 cfm \pm 10%.
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* Except that the test is performed at 30°C and 95% Relative Humidity and in accordance with ASTM D3803-79 Method A.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO.167 TO FACILITY OPERATING LICENSE NO. NPF-14
AMENDMENT NO.141 TO FACILITY OPERATING LICENSE NO. NPF-22
PENNSYLVANIA POWER & LIGHT COMPANY
ALLEGHENY ELECTRIC COOPERATIVE, INC.
SUSQUEHANNA STEAM ELECTRIC STATION, UNITS 1 AND 2
DOCKET NOS. 50-387 AND 388

1.0 INTRODUCTION

By letter dated June 27, 1997, as supplemented by letter dated July 2, 1997, the Pennsylvania Power and Light Company (PP&L, the licensee) submitted a request for changes to the Susquehanna Steam Electric Station (SSES), Units 1 and 2, Technical Specifications (TSs). The requested changes would clarify, in the TSs for each unit, the methodology used to satisfy surveillance requirements for the laboratory analysis of activated carbon (charcoal) samples from the standby gas treatment system (SGTS) and the control room emergency outside air supply system (CREOASS). The specific changes are made to Sections 4.6.5.3.b.2 and 4.6.5.3.c for the SGTS and to Sections 4.7.b.2 and 4.7.2.c for the CREOASS, to include a reference to American Society for Testing Materials (ASTM), "Radioiodine Testing of Nuclear-Grade Gas Phase Adsorbents," ASTM D3803-79. The supplemental letter provided clarifying information and did not change the initial proposed no significant hazards consideration determination, which appeared in the Notice of Consideration of Issuance of Amendments to Facility Operating Licenses, Proposed No Significant Hazards Consideration Determination and Opportunity for a Hearing in the Federal Register on July 8, 1997 (62 FR 36580).

Currently the licensee tests charcoal in the SGTS and CREOASS per ASTM D-3803-1979. Although this method of testing provides assurance that these air filtration systems will perform their design function, it does not specifically meet the requirements of the TSs which indicate that testing of the charcoal is to be performed in accordance with Regulatory Position c.6.b of Regulatory Guide (RG) 1.52, "Design, Testing, and Maintenance Criteria for Post Accident Engineered-Safety-Feature [ESF] Atmosphere Cleanup System Air Filtration and Adsorption Units of Light-Water-Cooled Nuclear Power Plants," Revision 2, March 1978. Therefore, the exigent TS amendment recognizes the current testing methodology. Absent relief from the Nuclear Regulatory Commission (NRC), a plant shutdown would be required due to the licensee's inability to conduct the test required by the TSs.

2.0 EVALUATION

The proposed amendment changes the testing requirements in the TSs used to determine the operability of the charcoal in the ESF filtration units for the SGTS and CREOASS. The charcoal is provided to remove iodine from the air as it passes through the ESF filtration systems. There are no changes to the physical design or operation of the facility.

The current TS references Regulatory Position C.6.a of RG 1.52 for the laboratory testing of used activated charcoal samples. Regulatory position C.6.a refers to Table 2 of RG 1.52. Table 2 references Test 5.b of Table 5-1 of American National Standards Institute (ANSI) N509-1976, "Nuclear Power Plant Air-Cleaning Units and Components." Test 5.b references the test method from Paragraph 4.5.3 of Military Specification RDT M 16-1T, "Gas Phase Adsorbents for Trapping Radioactive Iodine and Iodine Components." The essential elements of this test are:

- 70 percent Relative Humidity (RH)
- A pre-load sweep at 25°C and 70 percent RH
- A test medium temperature of 80°C
- A post-load sweep for 2 hours at 25°C
- Methyl iodide penetration of less than .175 percent.

The essential elements of the proposed TS change are those required by RG 1.52 and ASTM D 3803-1979. ASTM D 3803-1979 is updated guidance based on RDT M16-1T. The essential elements of the proposed TS change for testing per ASTM D 3803-1979 (Method A for used carbon) and from RG 1.52 are:

- Test at 95% RH
- No pre-load humidity equilibration
- Equilibration of the sample to test temperature
- A test medium temperature of 30°C
- A post-load sweep for 4 hours at test temperature and humidity
- Methyl iodide penetration less than .175 percent.

The differences between the current TS and the proposed TS change requirements for carbon testing are:

- A test temperature of 80°C versus 30°C
- Pre-load humidity equilibration at 70 percent RH versus no pre-load humidity equilibration
- A pre-load equilibration of the test carbon at 25°C versus 30°C
- A 2-hour post-load sweep at 25°C versus a 4-hour post-load sweep at 30°C
- A test RH of 70 percent versus 95 percent.

These differences will be addressed individually.

The quantity of water retained by charcoal (carbon) is dependent on temperature. Generally, the higher the temperature the less water retained. The water retained by the carbon decreases the efficiency of the carbon to adsorb other contaminants. At 30°C and 95% RH, carbon will retain about 40 weight percent water. At 80°C and 95% RH, carbon retains only about 2 to 3 weight percent water. Therefore, the lower temperature test medium of the proposed TS will yield more conservative results than the current TS.

Pre-load humidity equilibration is achieved by sweeping air of the appropriate humidity through the test carbon. A pre-load equilibration with humid air is more conservative than without humid air because it will saturate the representative charcoal sample until it is in the condition to which the subject charcoal adsorbers are expected to be exposed during design-basis conditions. Although the ASTM D3803-1979 pre-load equilibration period in the proposed TS is less conservative than the test required in the current TS, the licensee committed, in a July 2, 1997 letter, to implement the ASTM D3803-1989, "Standard Test Methods for Radioiodine Testing of Nuclear-Grade Gas Phase Adsorbents," with the appropriate test conditions and acceptance limits, through reference conditions in the Unit 1 and Unit 2 SSES TSs. The proposed changes to the Unit 1 and Unit 2 TSs will be submitted by the end of 1997. The staff considers ASTM D3803-1989 to be the most accurate and most realistic protocol for testing charcoal in ESF ventilation systems because it offers the greatest assurance of accurately and consistently determining the capability of the charcoal. For example, it requires the test to be performed at a constant low temperature of 30°C; it provides for smaller tolerances in temperature, humidity, and air flow; and it has a humidity pre-equilibration.

ASTM D3803-1979 specifies a test temperature of 30°C for both the pre- and post-load sweep rather than 25°C. There is little difference in the adsorption behavior of charcoal between these two temperatures. A temperature of 25°C is more conservative; however, the increase from 25°C to 30°C does not represent a significant variation in the test results.

The post-test sweep of the carbon is performed to evaluate the ability of the carbon to hold the adsorbate once it is captured. The current TS test specifies a 2-hour test at 25°C. The proposed TS change will use a 4-hour sweep at the test medium temperature of 30°C. The longer time is more conservative as more radioiodine would be swept off.

Ninety-five percent RH versus 70 percent RH for the CREOASS and SGTS carbon produces higher moisture content of the carbon which in turn results in lower adsorption of radioiodines. At a constant temperature the weight percent of water adsorbed by the carbon increases with increasing RH. Therefore, the proposed TS is more conservative because it requires testing at a higher RH.

The current TS (indirect) reference to N509-1976 (RDT M16-1T) requires the carbon to be equilibrated to 25°C and 70% RH and then instantaneously loaded with methyl iodide at 80°C and 70 percent RH. Carbon testing is not performed this way because this would cause condensation to form on the carbon (the dew

point temperature of the test medium at these conditions is approximately 67°C). Condensation on the carbon sample itself ("wetting the bed") results in the test being invalid. This is supported by paragraph 12.4.1 of ASTM D3803-1979 which states with respect to RH of the test medium that, "tests at saturation or above give very erratic results." Therefore, testing the charcoal using the ASTM D3803-1979 methodology at 30°C for all stages of the test (pre-sweep, loading, and post-sweep) does not result in condensation forming on the charcoal.

The requested changes revise TS Sections 4.6.5.3.b.2, 4.6.5.3.c, 4.7.2.b.2, and 4.7.2.c relating to Surveillance Requirements for charcoal filter laboratory testing, such that existing flawed test methodology in the TSs will be changed to reflect the currently utilized acceptable test methodology in accordance with industry standards. The staff has evaluated this change and concludes that the testing methodology proposed by the licensee is more conservative than the test required in the current TSs. Based on this conclusion, the staff finds this proposed TS change acceptable. The NRC staff notes the licensee's commitment to revise their TSs to test charcoal in accordance with the ASTM D3803-1989 Standard.

3.0 EXIGENT CIRCUMSTANCES

In its June 27, 1997, application, the licensee requested that this amendment be treated as an exigent amendment. In accordance with 10 CFR 50.91(a)(6), the licensee provided the following information regarding why this exigent situation occurred and how it could not have been avoided.

PP&L recently discovered that a standard cited in TS surveillances (as a tertiary reference) was not being used for laboratory analyses of charcoal samples. Instead PP&L has been relying on a testing standard which is equivalent to or better than that referenced in the TS. The TS refers to RG 1.52, Revision 2, which references ANSI Standard N509-1976. However, the licensee has been using ASTM D-3803-1979 to meet the TS requirements. The licensee has determined that this method of testing better demonstrates the ability of these ESF systems to perform their functions than the test specified in the TSs. The licensee requested the exigent amendment to correct this discrepancy and avoid an unnecessary plant shutdown of each unit.

In discussions with the staff the licensee noted that NRC Information Notice (IN) 87-32, "Deficiencies in the Testing of Nuclear-Grade Activated Charcoal," dated July 10, 1987, identified that serious problems existed with the testing capabilities of many of the testing companies and the testing standards. All areas were vendor-specific. Guidance to licensees was to seek direct contact with the individual testing companies to improve test accuracy. Idaho National Engineering and Environmental Laboratory Report, EGG-CS-7653, referenced in IN 87-32, recognized the vendor used by SSES as one of the few vendors whose laboratory performance meets NRC criteria. IN 87-32 further identified serious shortcomings with the Standard (RG 1.52, Revision 2) which has not been revised since 1978. Based on the information provided in IN 87-32, the licensee took action to verify the test methodology and accuracy. However the licensee did not review the TS for any needed changes at that point in time.

The licensee has identified the inconsistency between their existing practice and the TS requirements, and proposed this exigent amendment to resolve the inconsistency. As a result of prior information about problems with the testing of charcoal, the licensee took action to ensure that the testing done to support operation of SSES, Units 1 and 2, was conservative. Absent relief from the NRC, a dual unit plant shutdown would be required due to the inconsistency between the testing procedures used and the TS requirements.

The staff concludes that an exigent condition exists in that failure to act in a timely way would result in shutdown of SSES Units 1 and 2. In addition, the staff has assessed the licensee's reasons for failing to file an application sufficiently in advance to preclude an exigency, and concludes that the licensee identified the deficiency in the TSs, promptly notified the staff of the deficiency, and promptly proposed this amendment to remedy the situation. Thus, the staff concludes that the licensee has not abused the exigent provisions by failing to make timely application for the amendment. Thus, conditions needed to satisfy 10 CFR 50.91(a)(6) exist, and the amendment is being processed on an exigent basis.

4.0 FINAL NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION

The Commission's regulations in 10 CFR 50.92(c) state that the Commission may make a final determination that a license amendment involves no significant hazards consideration if operation of the facility in accordance with the amendment would not:

- (1) Involve a significant increase in the probability or consequences of an accident previously evaluated; or,
- (2) Create the possibility of a new or different kind of accident from any accident previously evaluated; or,
- (3) Involve a significant reduction in a margin of safety.

The following evaluation was provided by PP&L:

1. The proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

The methods used to test charcoal samples do not increase the probability or consequences of an accident or malfunction of equipment important to safety as previously evaluated in the FSAR. The capability of the charcoal in SGTS and CREOASS to adsorb iodine is a consideration in assessing the consequences of an accident. The limit on methyl iodide penetration assures that the activated carbon in these safety-related systems will provide the iodine removal efficiencies assumed in the accident analyses. The charcoal testing

methodology currently being used is equivalent or more conservative than that specified in Technical Specifications, and thus provides assurance that charcoal meeting the acceptance criteria will perform as designed. These changes do not affect the probability of event initiators or any ESF actuation setpoints or accident mitigation capabilities.

2. The proposed change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

Testing on carbon samples is performed offsite, and residual samples are not returned to the SGTS or CREOASS. Therefore, the testing methodology has no effect on system operation. No new or different accident scenarios, transient precursors, failure mechanisms or limiting single failures will be introduced as a result of these changes.

3. The proposed change does not involve a significant reduction in the margin of safety.

The limit on methyl iodide penetration assures that the activated carbon in these safety-related systems will provide the iodine removal efficiencies assumed in the accident analyses. Use of the ASTM D-3803-1979 methodology more accurately assures that the SGTS and CREOASS perform their intended design functions. This change will not affect system operation or performance. Therefore, there is no reduction in the margin of safety. Offsite and control room dose analyses are not affected by this change. All offsite and control room doses will remain within the limits established in the accident analyses.

The NRC staff has reviewed the licensee's analysis and, based on this review finds that the amendment request does not involve a significant hazards consideration.

5.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Pennsylvania State official was notified of the proposed issuance of the amendments. The State official had no comments.

6.0 ENVIRONMENTAL CONSIDERATION

The amendments change 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 change the surveillance requirements. The NRC staff has determined that the amendments involve 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 made a final finding that the amendments involve no significant hazards consideration. Accordingly, the amendments meet 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 amendments.

7.0 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 amendments will not be inimical to the common defense and security or to the health and safety of the public.

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