

May 2, 1995

Mr. William T. Cottle
Group Vice-President, Nuclear
Houston Lighting & Power Company
South Texas Project Electric
Generating Station
P. O. Box 289
Wadsworth, TX 77483

SUBJECT: SOUTH TEXAS PROJECT, UNITS 1 AND 2 - AMENDMENT NOS. 74
AND 63 TO FACILITY OPERATING LICENSE NOS. NPF-76 AND NPF-80
(TAC NOS. M91613 AND M91614)

Dear Mr. Cottle:

The Commission has issued the enclosed Amendment Nos. 74 and 63 to Facility Operating License Nos. NPF-76 and NPF-80 for the South Texas Project, Units 1 and 2 (STP). The amendments consist of changes to the Technical Specifications (TSs) in response to your application dated February 15, 1995.

The amendments modify TS 4.6.2.3.a.2 (and associated Bases) to reflect the reactor containment fan cooler flow rate assumed in the accident analyses and to specify that this flow is provided by the component cooling water system.

A copy of our related Safety Evaluation is enclosed. The Notice of Issuance will be included in the Commission's next biweekly Federal Register notice.

Sincerely,
ORIGINAL SIGNED BY:
Thomas W. Alexion, Project Manager
Project Directorate IV-1
Division of Reactor Projects III/IV
Office of Nuclear Reactor Regulation

Docket Nos. 50-498 and 50-499

- Enclosures: 1. Amendment No. 74 to NPF-76
2. Amendment No. 63 to NPF-80
3. Safety Evaluation

cc w/encls: See next page

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DATE	4/12/95	4/12/95	4/17/95	4/27/95
COPY	YES/NO	YES/NO	YES/NO	YES/NO

*signed by
TAC on 5/2/95*

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

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A copy of our related Safety Evaluation is enclosed. The Notice of Issuance will be included in the Commission's next biweekly Federal Register notice.

Sincerely,

A handwritten signature in cursive script that reads "Thomas W. Alexion".

Thomas W. Alexion, Project Manager
Project Directorate IV-1
Division of Reactor Projects III/IV
Office of Nuclear Reactor Regulation

Docket Nos. 50-498 and 50-499

Enclosures: 1. Amendment No. 74 to NPF-76
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cc w/encls: See next page

Mr. William T. Cottle
Houston Lighting & Power Company

South Texas, Units 1 & 2

cc:

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Wadsworth, TX 77483



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

HOUSTON LIGHTING & POWER COMPANY
CITY PUBLIC SERVICE BOARD OF SAN ANTONIO
CENTRAL POWER AND LIGHT COMPANY
CITY OF AUSTIN, TEXAS
DOCKET NO. 50-498
SOUTH TEXAS PROJECT, UNIT 1
AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 74
License No. NPF-76

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Houston Lighting & Power Company* (HL&P) acting on behalf of itself and for the City Public Service Board of San Antonio (CPS), Central Power and Light Company (CPL), and City of Austin, Texas (COA) (the licensees), dated February 15, 1995, 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, as amended, 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;
 - D. The issuance of this license 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.

*Houston Lighting & Power Company is authorized to act for the City Public Service Board of San Antonio, Central Power and Light Company and City of Austin, Texas and has exclusive responsibility and control over the physical construction, operation and maintenance of the facility.

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-76 is hereby amended to read as follows:

2. Technical Specifications

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 in the license. The licensee 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 to be implemented within 30 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Thomas W. Alexion, Project Manager
Project Directorate IV-1
Division of Reactor Projects III/IV
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical
Specifications

Date of Issuance: May 2, 1995



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

HOUSTON LIGHTING & POWER COMPANY
CITY PUBLIC SERVICE BOARD OF SAN ANTONIO
CENTRAL POWER AND LIGHT COMPANY
CITY OF AUSTIN, TEXAS
DOCKET NO. 50-499
SOUTH TEXAS PROJECT, UNIT 2
AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 63
License No. NPF-80

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Houston Lighting & Power Company* (HL&P) acting on behalf of itself and for the City Public Service Board of San Antonio (CPS), Central Power and Light Company (CPL), and City of Austin, Texas (COA) (the licensees), dated February 15, 1995, 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, as amended, 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;
 - D. The issuance of this license 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.

*Houston Lighting & Power Company is authorized to act for the City Public Service Board of San Antonio, Central Power and Light Company and City of Austin, Texas and has exclusive responsibility and control over the physical construction, operation and maintenance of the facility.

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-80 is hereby amended to read as follows:

2. Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 63, and the Environmental Protection Plan contained in Appendix B, are hereby incorporated in the license. The licensee 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 to be implemented within 30 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Thomas W. Alexion, Project Manager
Project Directorate IV-1
Division of Reactor Projects III/IV
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical
Specifications

Date of Issuance: May 2, 1995

ATTACHMENT TO LICENSE AMENDMENT NOS. 74 AND 63
FACILITY OPERATING LICENSE NOS. NPF-76 AND NPF-80
DOCKET NOS. 50-498 AND 50-499

Replace the following pages of the Appendix A Technical Specifications with the attached pages. The revised pages are identified by Amendment number and contain marginal lines indicating the areas of change. The corresponding overleaf pages are also provided to maintain document completeness.

REMOVE

3/4 6-16
B 3/4 6-3
B 3/4 6-4

INSERT

3/4 6-16
B 3/4 6-3
B 3/4 6-4

CONTAINMENT SYSTEMS

RECIRCULATION FLUID PH CONTROL SYSTEM

LIMITING CONDITION FOR OPERATION

3.6.2.2 The recirculation fluid pH control system shall be operable with between 11,500 lbs. (213 cu. ft.) and 15,100 lbs (252 cu. ft.) of trisodium phosphate (w/12 hydrates) available in the storage baskets in the containment.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

With the amount of trisodium phosphate outside the specified range, restore the system to the correct amount within 72 hours or be in at least HOT STANDBY within the next 6 hours; restore the system to the correct amount within the next 48 hours or be in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.6.2.2 During each refueling outage, as a minimum, the recirculation fluid pH control system shall be demonstrated operable by visually verifying that:

- a. 6 trisodium phosphate storage baskets are in place, and
- b. have maintained their integrity, and
- c. are filled with trisodium phosphate such that the level is within the specified range.

CONTAINMENT SYSTEMS

CONTAINMENT COOLING SYSTEM

LIMITING CONDITION FOR OPERATION

3.6.2.3 Three independent groups of Reactor Containment Fan Coolers (RCFC) shall be OPERABLE with a minimum of two units in two groups and one unit in the third group.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

With one group of the above required Reactor Containment Fan Coolers inoperable, restore the inoperable group of RCFC to OPERABLE status within 7 days or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.6.2.3 Each group of Reactor Containment Fan Coolers shall be demonstrated OPERABLE:

- a. At least once per 92 days by:
 - 1) Starting each non-operating fan group from the control room, and verifying that each fan group operates for at least 15 minutes, and
 - 2) Verifying a component cooling water flow rate of greater than or equal to 1800 gpm to each cooler.
- b. At least once per 18 months by verifying that each fan group starts automatically on a Safety Injection test signal.

CONTAINMENT SYSTEMS

BASES

CONTAINMENT VENTILATION SYSTEM (Continued)

fore, the SITE BOUNDARY dose guidelines of 10 CFR 100 would not be exceeded in the event of an accident during containment PURGING operation.

Leakage integrity tests with a maximum allowable leakage rate for containment purge supply and exhaust supply valves will provide early indication of resilient material seal degradation and will allow opportunity for repair before gross leakage failures could develop. The 0.60 L_a leakage limit of Specification 3.6.1.2b shall not be exceeded when the leakage rates determined by the leakage integrity tests of these valves are added to the previously determined total for all valves and penetrations subject to Type B and C tests.

3/4.6.2 DEPRESSURIZATION AND COOLING SYSTEMS

3/4.6.2.1 CONTAINMENT SPRAY SYSTEM

The OPERABILITY of the Containment Spray System ensures that containment depressurization and cooling capability will be available in the event of a LOCA or steam line break. The pressure reduction and resultant lower containment leakage rate are consistent with the assumptions used in the safety analyses.

The Containment Spray System and the Containment Cooling System both provide post-accident cooling of the containment atmosphere. However, the Containment Spray System also provides a mechanism for removing iodine from the containment atmosphere and therefore the time requirements for restoring an inoperable Spray System to OPERABLE status have been maintained consistent with that assigned other inoperable ESF equipment.

3/4.6.2.2 RECIRCULATION FLUID PH CONTROL SYSTEM

The operability of the recirculation fluid pH control system ensures that there is sufficient trisodium phosphate available in containment to guarantee a sump pH of ≥ 7.0 during the recirculation phase of a postulated LOCA. This pH level is required to reduce the potential for chloride induced stress corrosion of austenitic stainless steel and assure the retention of iodine in the recirculating fluid. The specified amounts of TSP will result in a recirculation fluid pH between 7.0 and 9.5.

3/4.6.2.3 CONTAINMENT COOLING SYSTEM

The OPERABILITY of the Containment Cooling System ensures that: (1) the containment air temperature will be maintained within limits during normal operation, and (2) adequate heat removal capacity is available when operated in conjunction with the Containment Spray Systems during post-LOCA conditions.

CONTAINMENT SYSTEMS

BASES

3/4.6.2.3 CONTAINMENT COOLING SYSTEM (continued)

STPEGS has three groups of Reactor Containment Fan Coolers with two fans in each group (total of six fans). Five fans are adequate to satisfy the safety requirements including single failure. The fan cooler units are designed to remove heat from the containment during both normal operation and accident conditions. In the event of an accident, all fan cooler units are automatically placed into operation on receipt of a safety injection signal. During normal operation, cooling water flow to the fan cooler units is supplied by the non-safety grade chilled water system. Following an accident, cooling water flow to the fan coolers is supplied by the safety grade component cooling water system. The chilled water system supplies water at a lower temperature than that of the component cooling water system and therefore requires a lower flow rate to achieve a similar heat removal rate.

3/4.6.3 CONTAINMENT ISOLATION VALVES

The OPERABILITY of the containment isolation valves ensures that the containment atmosphere will be isolated from the outside environment in the event of a release of radioactive material to the containment atmosphere or pressurization of the containment and is consistent with the requirements of General Design Criteria 54 through 57 of Appendix A to 10 CFR Part 50. Containment isolation within the time limits specified for those isolation valves designed to close automatically ensures that the release of radioactive material to the environment will be consistent with the assumptions used in the analyses for a LOCA.

3/4.6.4 COMBUSTIBLE GAS CONTROL

The OPERABILITY of the equipment and systems required for the detection and control of hydrogen gas ensures that this equipment will be available to maintain the hydrogen concentration within containment below its flammable limit during post-LOCA conditions. Either recombiner unit is capable of controlling the expected hydrogen generation associated with: (1) zirconium-water reactions, (2) radiolytic decomposition of water, and (3) corrosion of metals within containment. These Hydrogen Control Systems are consistent with the recommendations of Regulatory Guide 1.7, "Control of Combustible Gas Concentrations in Containment Following a LOCA," Revision 2, November 1978.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NOS. 74 AND 63 TO

FACILITY OPERATING LICENSE NOS. NPF-76 AND NPF-80

HOUSTON LIGHTING & POWER COMPANY

CITY PUBLIC SERVICE BOARD OF SAN ANTONIO

CENTRAL POWER AND LIGHT COMPANY

CITY OF AUSTIN, TEXAS

DOCKET NOS. 50-498 AND 50-499

SOUTH TEXAS PROJECT, UNITS 1 AND 2

1.0 INTRODUCTION

By application dated February 15, 1995, Houston Lighting & Power Company, et al., (the licensee) requested changes to the Technical Specifications (TSs) (Appendix A to Facility Operating License Nos. NPF-76 and NPF-80) for the South Texas Project, Units 1 and 2 (STP). The proposed changes would modify TS 4.6.2.3.a.2 (and associated Bases) to reflect the reactor containment fan cooler (RCFC) flow rate assumed in the accident analyses and to specify that this flow is provided by the component cooling water system.

2.0 BACKGROUND

The function of the STP containment heat removal system is to remove heat from the containment atmosphere to limit, reduce, and maintain the containment pressure and temperature at acceptably low levels following a loss-of-coolant accident or a secondary system pipe rupture. The active containment heat removal systems consist of the RCFC system and the containment spray system. The RCFC system also functions during normal operation to maintain a suitable atmosphere for the equipment located within the containment.

The RCFC system consists of three trains, with two RCFC units per train, for a total of six RCFC units. Each unit consists of an axial fan, a fan motor, cooling coils, and backdraft dampers. Accident analysis assume that only three of the six RCFC units operate.

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3.0 EVALUATION

TS 4.6.2.3.a.2 currently requires verifying a cooling water flow rate of greater than or equal to 550 gallons-per-minute (gpm) to each RCFC unit. TS 4.6.2.3.a.2, however, does not reflect accident assumptions or conditions. Table 6.2.2-2 of the STP Updated Final Safety Evaluation Report indicates that an acceptance criteria of greater than or equal to 1800 gpm should be used to verify compliance with accident analysis assumptions.

The difference in required flow to the RCFCs is due to the RCFCs performing both a normal and post-accident function. During normal operation, cooling flow to the RCFCs is supplied by the chilled water system at a flow rate of greater than or equal to 500 gpm. Following an accident, the cooling flow to the RCFCs is supplied by the component cooling water system at a flow rate of greater than or equal to 1800 gpm. The difference in the flow rates from the two different systems is due to the temperature difference of cooling water supplied to the RCFCs for normal and post-accident operation.

The staff agrees that TS 4.6.2.3.a.2 should reflect accident assumptions or conditions (instead of normal operating conditions). The staff also finds that the proposed change to TS 4.6.2.3.a.2, to change the cooling water flow to the RCFCs from 550 gpm to 1800 gpm and to specify that this flow is provided by the component cooling water system, is consistent with the cooling water source and flow rate to the RCFCs assumed in the accident analyses. Therefore, the staff finds the proposed change to be acceptable.

3.0 STATE CONSULTATION

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

4.0 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 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 previously issued a proposed finding that the amendments involve no significant hazards consideration, and there has been no public comment on such finding (60 FR 16189). 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 amendments.

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

Principal Contributor: T. Alexion

Date: May 2, 1995