May 27, 1997

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. 87 AND 74 TO FACILITY OPERATING LICENSE NOS. NPF-76 AND NPF-80 (TAC NOS. M96338 AND M96339)

Dear Mr. Cottle:

The Commission has issued the enclosed Amendment Nos. 87 and 74 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 August 8, 1996.

The amendments allow the transition from Mode 4 to Mode 3 with the turbine-driven auxiliary feedwater pump inoperable and allow a 72-hour period after the entry into Mode 3 to complete all necessary operability testing.

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. 87 to NPF-76
2. Amendment No. 74 to NPF-80
3. Safety Evaluation

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Document Name: STP96338.AMD #96-151

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DATE	12/31/96	12/30/96	12/31/96	5/15/97	5/21/97
COPY	YES/NO	YES/NO	YES/NO	YES/NO	YES/NO

TWA signed on 5/27/97

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

May 27, 1997

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Executive Vice-President &
General Manager, Nuclear
Houston Lighting & Power Company
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cc w/encls: See next page

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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. 87
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 August 8, 1996, 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. 87, 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

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 27, 1997

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. 74
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 August 8, 1996, 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. 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

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 27, 1997

ATTACHMENT TO LICENSE AMENDMENT NOS. 87 AND 74

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	INSERT
3/4 7-4	3/4 7-4
3/4 7-5	3/4 7-5

TABLE 3.7-2

STEAM LINE SAFETY VALVES PER LOOP

VALVE NUMBER					LIFT SETTING[1] (±3%)[2]	ORIFICE SIZE
	LOOP A	LOOP B	LOOP C	LOOP D		
1.	PSV-7410	PVS-7420	PSV-7430	PSV-7440	1285 psig	16 in.²
2.	PSV-7410A	PVS-7420A	PSV-7430A	PSV-7440A	1295 psig	16 in.²
3.	PSV-7410B	PVS-7420B	PSV-7430B	PSV-7440B	1305 psig	16 in.²
4.	PSV-7410C	PVS-7420C	PSV-7430C	PSV-7440C	1315 psig	16 in.²
5.	PSV-7410D	PVS-7420D	PSV-7430D	PSV-7440D	1325 psig	16 in.²

[1]The lift setting pressure shall correspond to ambient conditions of the valve at nominal operating temperature and pressure.

[2]The as left lift setting shall be within ±1% following valve testing.

Unit 1 - Amendment No. 78
Unit 2 - Amendment No. 67
JUL 25 1995

AUXILIARY FEEDWATER SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.1.2 At least four independent steam generator auxiliary feedwater pumps and associated flow paths shall be OPERABLE with:

a. Three motor-driven auxiliary feedwater pumps, each capable of being powered from separate emergency busses, and

b. One steam turbine-driven auxiliary feedwater pump capable of being powered from an OPERABLE steam supply system.

APPLICABILITY: MODES 1, 2, and 3.

ACTION:

a. With the Train A motor-driven auxiliary feedwater pump inoperable, initiate corrective actions to restore the pump to OPERABLE status as soon as possible. The provisions of Specification 4.0.4 are not applicable.

b. With any of the following combinations of auxiliary feedwater pumps inoperable:

1) Train B or Train C motor-driven pump,
2) Train D turbine-driven pump and any one motor-driven pump,
3) Train A and either Train B or Train C motor-driven pump, or
4) Train D turbine-driven pump

Restore the affected auxiliary feedwater pump(s) to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours. The provisions of Specification 3.0.4 are not applicable for entry into Mode 3 for the turbine driven pump.

c. With Train B and Train C motor driven pumps, or any three auxiliary feedwater pumps inoperable, be in at least HOT STANDBY within 6 hours and in HOT SHUTDOWN within the following 6 hours.

d. With four auxiliary feedwater pumps inoperable, immediately initiate corrective action to restore at least one auxiliary feedwater pump to OPERABLE status as soon as possible.

SURVEILLANCE REQUIREMENTS

4.7.1.2.1 Each auxiliary feedwater pump shall be demonstrated OPERABLE:

a. At least once per 31 days on a STAGGERED TEST BASIS by:

1) Verifying that each motor-driven pump develops a discharge pressure of greater than or equal to 1454 psig at a flow of greater than or equal to 500 gpm;

2) Verifying that the steam turbine-driven pump develops a discharge pressure of greater than or equal to 1454 psig at a flow of greater than or equal to 500 gpm when tested at a secondary steam supply pressure greater than 1000 psig within 72 hours after entry into MODE 3;

3) Verifying that each non-automatic valve in the flow path that is not locked, sealed, or otherwise secured in position is in its correct position; and

4) Verifying that each automatic valve in the flow path is in the correct position whenever the Auxiliary Feedwater System is placed in automatic control or when above 10% RATED THERMAL POWER.

b. At least once per 18 months during shutdown by:

1) Verifying that each automatic valve in the flow path actuates to its correct position upon receipt of an Auxiliary Feedwater Actuation test signal, and

2) Verifying that each auxiliary feedwater pump starts as designed automatically upon receipt of an Auxiliary Feedwater Actuation test signal.

3) Verifying that each auxiliary feedwater flow regulating valve limits the flow to each steam generator between 550 gpm and 675 gpm.

4.7.1.2.2 An auxiliary feedwater flow path to each steam generator shall be demonstrated OPERABLE following each COLD SHUTDOWN of greater that 30 days prior to entering MODE 2 by verifying normal flow to each steam generator.

AUXILIARY FEEDWATER STORAGE TANK

LIMITING CONDITION FOR OPERATION

3.7.1.3 The auxiliary feedwater storage tank (AFST) shall be OPERABLE with a contained water volume of at least 485,000 gallons of water.

APPLICABILITY: MODES 1, 2, and 3.

ACTION:

With the AFST inoperable, within 4 hours restore the AFST to OPERABLE status or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.

SURVEILLANCE REQUIREMENTS

4.7.1.3 The AFST shall be demonstrated OPERABLE at least once per 12 hours by verifying the contained water volume is within its limits.

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NOS. 87 AND 74 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 August 8, 1996, 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 allow the transition from Mode 4 to Mode 3 with the turbine-driven auxiliary feedwater (AFW) pump inoperable and allow a 72-hour period after the entry into Mode 3 to complete all necessary operability testing. The proposed changes are intended to allow the plant to achieve the secondary temperatures and pressures required to perform the post-maintenance and surveillance testing necessary to declare the turbine-driven AFW pump operable. The proposed change would affect TS 3/4.7.1.2, "Auxiliary Feedwater System."

2.0 BACKGROUND

The AFW system at each of the STP units consists of three motor-driven AFW pumps and one steam-turbine-driven AFW pump configured into four independent trains. Each motor-driven pump and the turbine-driven pump provide 100% of the required capacity to the steam generators, as assumed in the accident analysis. Each motor-driven pump is powered from an independent Class 1E power supply and feeds one steam generator, although each pump has the capability to be realigned from the control room to feed other steam generators. The turbine-driven pump receives steam from, and feeds, the remaining steam generator (Train D). Like the motor-driven pumps, it can also be realigned to feed (but cannot be supplied steam from) any of the other steam generators. The fact that the STP AFW system design includes four AFW pumps (in lieu of three like most other Westinghouse-designed plants) and the fact that the STP design does not rely on the turbine-driven AFW pump for its station blackout (SBO) analysis provide the plant-specific basis for the licensee's proposed change.

3.0 EVALUATION

There are two basic changes associated with the licensee's proposed TS revision. The first change would revise Action Statement b. of TS 3.7.1.2 to identify that "The provisions of Specification 3.0.4 are not applicable for entry into Mode 3 for the turbine driven pump." Presently, TS 3.7.1.2 would allow the turbine-driven pump to be inoperable for up to 72 hours in Modes 1, 2, and 3. However, entry into Mode 3 from Mode 4 with the turbine-driven pump inoperable is not allowed by TS 3.0.4 which applies to all the plant TSs unless otherwise stated in the individual TS. On the other hand, the turbine-driven pump cannot be demonstrated fully operable in Mode 4 since surveillance testing requires one of the tests to be done at a steam pressure of greater than or equal to 1000 pounds per square inch gauge (psig). Therefore, testing cannot be performed until the plant is in Mode 3, where steam pressure of at least 1000 psig is available. Thus, the exception to TS 3.0.4 is acceptable because it is necessary to enter Mode 3 to fully demonstrate operability of the turbine-driven pump (currently, the turbine-driven pump is declared operable in Mode 4, prior to entry into Mode 3, if all other surveillance tests are acceptable). Additionally, TS 3.0.4 still applies to the three motor-driven pumps such that they must be operable before entering Mode 3.

The second change is related to the first change in that the proposed revision would allow 72 hours after entry into Mode 3 to perform the surveillance requirement for the turbine-driven pump. The 72 hours is consistent with the existing TS for an inoperable turbine-driven pump in Mode 3. The 72 hours is also consistent with NUREG-1431, "Standard Technical Specifications, Westinghouse Plants," for an inoperable turbine-driven pump in Mode 3. However, NUREG-1431 requires that the surveillance test be performed within 24 hours after reaching 1000 psig in Mode 3. The 24 hours is based on an AFW system with two motor-driven pumps and one turbine-driven pump where the turbine-driven pump is relied upon to meet the SBO Rule, 10 CFR Part 50.63, "Loss of all alternating current power." At STP, the turbine-driven pump is not relied upon to meet the SBO Rule. Therefore, the allowed 72 hours to perform the surveillance after entry into Mode 3 is considered at least as conservative for STP as the 24 hours identified in NUREG-1431 is for other Westinghouse-designed plants. In some instances the proposed changes could be considered more conservative than NUREG-1431 because NUREG-1431 would allow continued operation in Mode 3 as long as steam pressure is below 1000 psig. I.e., according to NUREG-1431, indefinite operation is allowed in Mode 3 without performing the turbine-driven pump surveillance test provided steam pressure remains below 1000 psig. 1000 psig corresponds to a reactor coolant system (RCS) temperature of about 540 degrees Fahrenheit (°F). Therefore, according to NUREG-1431, operation with RCS temperature between 350°F and 540°F could continue indefinitely without performing the turbine-driven pump surveillance test to assure operation of the pump. At STP, operation could only continue for 72 hours without performing the test under the same RCS conditions. Thus, under these conditions the STP proposed change can be more limiting. Based on the STP system design which does not rely on the turbine-

driven AFW pump to meet the SBO rule, the staff finds that the proposed 72 hours after entry into Mode 3 to perform the required surveillance is adequately conservative and consistent with the remainder of the AFW system TS. The proposed change is, therefore, acceptable.

4.0 SUMMARY

Based on its evaluation, the staff finds that the licensee's proposed changes to TS 3/4.7.1.2 are necessary to perform the required testing of the turbine-driven pump, are consistent with the plant-specific AFW system design at STP, which does not rely on the turbine-driven pump to meet the SBO Rule, and provide added plant flexibility without any significant decrease in safety. The staff, therefore, finds the proposed changes acceptable.

5.0 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.

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 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 (61 FR 44359). 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.

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.

Principal Contributor: W. LeFave

Date: May 27, 1997