

*Docket*



UNITED STATES  
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D. C. 20555

March 11, 1991

Docket Nos. 50-498  
and 50-499

Mr. Donald P. Hall  
Group Vice-President, Nuclear  
Houston Lighting & Power Company  
P. O. Box 1700  
Houston, Texas 77251

Dear Mr. Hall:

SUBJECT: ISSUANCE OF AMENDMENT NOS. 22 AND 12 TO FACILITY OPERATING  
LICENSE NOS. NPF-76 AND NPF-80 - SOUTH TEXAS PROJECT, UNITS 1  
AND 2 (TAC NOS. 79078 AND 79079)

The Commission has issued the enclosed Amendment Nos. 22 and 12 to Facility Operating License Nos. NPF-76 and NPF-80 for the South Texas Project, Units 1 and 2. The amendments consist of changes to the Technical Specifications (TSs) in response to your application dated November 15, 1990 (ST-HL-AE-3627) as revised on January 17, 1991 (ST-HL-AE-3673).

The amendments change the Appendix A Technical Specifications by modifying TS 4.4.6.2.2d to require that certain reactor coolant system pressure isolation valves be demonstrated to be operable prior to entering MODE 2. Prior to this amendment, the pressure isolation valves needed an operation demonstration within 24 hours following valve actuation.

A Temporary Waiver of Compliance (TWOC) from the time requirement of TS 4.4.6.2.2d, requested by your letter dated November 19, 1990, was approved on November 29, 1990. The time requirement was extended from 24 to 72 hours in order to permit both surveillance of the pressure isolation valves and performance of RTD cross calibrations to be performed during a single heatup cycle for restart of Unit 2 from its first refueling outage. The TWOC allowed the staff sufficient time to process these technical specification changes in accordance with the procedures for review of proposed license amendments.

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Mr. Donald P. Hall

-2-

March 11, 1991

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

Sincerely,

Original Signed By

George F. Dick, Jr., Project Manager  
Project Directorate IV-2  
Division of Reactor Projects - III/IV/V  
Office of Nuclear Reactor Regulation

Enclosures:

- 1. Amendment No. 22 to NPF-76
- 2. Amendment No. 12 to NPF-80
- 3. Safety Evaluation

cc w/enclosures:  
See next page

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cc w/enclosures:

Senior Resident Inspector  
U.S. Nuclear Regulatory Commission  
P. O. Box 910  
Bay City, Texas 77414

Jack R. Newman, Esq.  
Newman & Holtzinger, P.C.  
1615 L Street, N.W.  
Washington, D.C. 20036

Mr. J. C. Lanier/M. B. Lee  
City of Austin  
Electric Utility Department  
P. O. Box 1088  
Austin, Texas 78767

Licensing Representative  
Houston Lighting and Power Company  
Suite 610  
Three Metro Center  
Bethesda, Maryland 20814

Mr. R. J. Costello  
Mr. M. T. Hardt  
City Public Service Board  
P. O. Box 1771  
San Antonio, Texas 78296

Bureau of Radiation Control  
State of Texas  
1101 West 49th Street  
Austin, Texas 78756

Mr. R. P. Verret  
Mr. D. E. Ward  
Central Power and Light Company  
P. O. Box 2121  
Corpus Christi, Texas 78403

Rufus S. Scott  
Associate General Counsel  
Houston Lighting & Power Company  
P. O. Box 61867  
Houston, Texas 77208

INPO  
Records Center  
1100 Circle 75 Parkway  
Atlanta, Georgia 30339-3064

Regional Administrator, Region IV  
U.S. Nuclear Regulatory Commission  
611 Ryan Plaza Drive, Suite 1000  
Arlington, Texas 76011

Mr. Joseph M. Hendrie  
50 Bellport Lane  
Bellport, New York 11713

Judge, Matagorda County  
Matagorda County Courthouse  
1700 Seventh Street  
Bay City, Texas 77414

Manager, Nuclear Licensing  
Houston Lighting & Power Company  
P. O. Box 289  
Wadsworth, Texas 77483



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

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. 22  
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 November 15, 1990, as revised on January 17, 1991, 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.

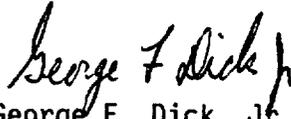
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment and Paragraph 2.C.(2) of Facility Operating License No. NPF-76 is hereby amended to read as follows:

2. Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 22, 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.

FOR THE NUCLEAR REGULATORY COMMISSION



George F. Dick, Jr., Acting Director  
Project Directorate IV-2  
Division of Reactor Projects - III/IV/V  
Office of Nuclear Reactor Regulation

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: March 11, 1991



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

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. 12  
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 November 15, 1990, as revised on January 17, 1991, 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.

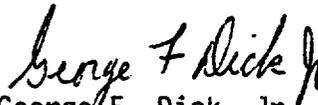
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment and Paragraph 2.C.(2) of Facility Operating License No. NPF-80 is hereby amended to read as follows:

2. Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 12, 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.

FOR THE NUCLEAR REGULATORY COMMISSION



George F. Dick, Jr., Acting Director  
Project Directorate IV-2  
Division of Reactor Projects - III/IV/V  
Office of Nuclear Reactor Regulation

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: March 11, 1991

ATTACHMENT TO LICENSE AMENDMENT NOS. 22 AND 12  
FACILITY OPERATING LICENSE NOS. NPF-76 AND NPF-80  
DOCKET NOS. 50-498 AND 50-499

Replace the following page of the Appendix A Technical Specifications with the attached page. The revised page is identified by Amendment number and contains vertical lines indicating the areas of change. The corresponding overleaf page is also provided to maintain document completeness.

REMOVE

3/4 4-21

INSERT

3/4 4-21

## REACTOR COOLANT SYSTEM

### OPERATIONAL LEAKAGE

#### SURVEILLANCE REQUIREMENTS (Continued)

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4.4.6.2.1 Reactor Coolant System leakages shall be demonstrated to be within each of the above limits by:

- a. Monitoring the containment atmosphere gaseous radioactivity and particulate radioactivity channels at least once per 12 hours;
- b. Monitoring the containment normal sump inventory and discharge at least once per 12 hours;
- c. Performance of a Reactor Coolant System water inventory balance at least once per 72 hours; and
- d. Monitoring the Reactor Head Flange Leakoff System at least once per 24 hours.

4.4.6.2.2 Each Reactor Coolant System Pressure Isolation Valve specified in Table 3.4-1 shall be demonstrated OPERABLE by verifying leakage to be within its limit:

- a. At least once per 18 months,
- b. Prior to entering MODE 2 whenever the plant has been in COLD SHUTDOWN for 72 hours or more and if leakage testing has not been performed in the previous 9 months,
- c. Prior to returning the valve to service following maintenance, repair or replacement work on the valve, and
- d. Prior to entering MODE 2 following valve actuation due to automatic or manual action or flow through the valve except for valves XRH0060 A,B,C and XRH0061 A,B,C.
- e. As outlined in the ASME Code, Section XI, paragraph IWV-3427(b).

The provisions of Specification 4.0.4 are not applicable for entry into MODE 3 or 4.

TABLE 3.4-1

REACTOR COOLANT SYSTEM PRESSURE ISOLATION VALVES

<u>VALVE NUMBER</u>	<u>FUNCTION</u>
XSI0007 A, B, C	HHSI Cold Leg Injection Check Valves (RCS Loops 1, 2, 3)
XSI0009 A, B, C	HHSI Hot Leg Recirculation Check Valves (RCS Loops 1, 2, 3)
XSI0010 A, B, C	LHSI/HHSI Hot Leg Recirculation Check Valves (RCS Loops 1, 2, 3)
XRH0020 A, B, C	LHSI Hot Leg Recirculation Check Valves (RCS Loops 1, 2, 3)
XRH0032 A, B, C	LHSI/RHR Cold Leg Injection Check Valves (RCS Loops 1, 2, 3)
XSI0038 A, B, C	LHSI/HHSI/RHR/Accumulator Cold Leg Injection Check Valves (RCS Loops 1, 2, 3)
XSI0046 A, B, C	Accumulator Cold Leg Injection Check Valves (RCS Loops 1, 2, 3)
XRH0060 A, B, C	RHR Suction Isolation Valves (RCS Loops 1, 2, 3)
XRH0061 A, B, C	RHR Suction Isolation Valves (RCS Loops 1, 2, 3)



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NOS. 22 AND 12 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 November 15, 1990 (ST-HL-AE-3627), as revised on January 17, 1991 (ST-HL-AE-3673), Houston Lighting & Power Company, et. al., (the licensee) requested changes to the Technical Specifications (Appendix A to Facility Operating License Nos. NPF-76 and NPF-80) for the South Texas Project, Units 1 and 2. The proposed changes would modify Technical Specification (TS) 4.4.6.2.2d to require that certain reactor coolant system (RCS) pressure isolation valves (PIVs) be demonstrated operable prior to entering MODE 2. Prior to this amendment, the PIVs had to be demonstrated operable within 24 hours following valve actuation.

2.0 BACKGROUND

On July 6, 1990, the licensee concluded that its interpretation of Technical Specification (TS) 4.4.6.2.2d was incorrect and as such, there were at least two occasions when the TS was violated. In accordance with 10 CFR 50.73, a Licensee Event Report (90-017) was submitted. The licensee recognized that on certain occasions (e.g., startup from a refueling outage), it was not possible to comply in total with TS 4.4.6.2.2d without subjecting the plant to an additional pressure and temperature cycle. Part of the corrective action plan by the licensee was to submit an amendment request to the NRC staff for a change to the TS.

During the first refueling outage on Unit 2 and while the license amendment request was in preparation, the licensee concluded that during plant restart the surveillance required by TS 4.4.6.2.2d could not be completed within the allotted 24 hours. By letter dated November 19, 1990 (ST-HL-AE-3628), the licensee requested and was granted a Waiver of Compliance to extend the time

requirement from 24 to 72 hours. The staff concluded that the additional safety risk encountered during the additional 48 hours was offset, at least in part, by not subjecting the plant to another pressure/temperature cycle. On November 29, 1990, the staff granted the Temporary Waiver of Compliance (TWOC).

The TWOC allowed the staff sufficient time to process these technical specification changes in accordance with the procedures for review of proposed license amendments.

### 3.0 DISCUSSION

Technical Specification 4.4.6.2.2 currently specifies that the Reactor Coolant System PIVs shall be demonstrated operable by verifying leakage to be within its limit at least once per 18 months, each time the plant is placed in cold shutdown for 72 hours if testing has not been accomplished in the preceding 9 months, 24 hours following valve actuation or flow through the valve, and following repair or replacement work. The safety function of the surveillance tests is to ensure that the disks are fully seated prior to plant startup and that any leakage of high pressure flow from the Reactor Coolant System to the low pressure piping of the RHR system is within acceptable criteria. The current requirement of testing within 24 hours of flow through the valves is especially burdensome when the plant is starting up from a refueling outage, during which all of the valves have been actuated to fulfill in-service testing requirements. During heatup, temperature cross calibrations are performed which require a time period of 38 hours to reach normal operating temperature and pressure (NOT/NOP) from Mode 4 entry. Three of the PIVs must be tested at NOT/NOP to avoid injection of water into the reactor vessel and therefore cannot be tested within 24 hours. Also, if a problem which requires lengthy repair time is discovered after heat-up begins, the valves cannot be tested until maintenance is completed and NOT/NOP is reached. In both of these cases, the unit must be cooled down again to ensure that the valves are not left closed and untested for greater than 24 hours. Requiring that the pressure isolation valves be tested prior to Mode 2 entry eliminates the need to run extra pressure cycles on the equipment and allows for indefinite operation in Mode 3 during repairs.

### 4.0 EVALUATION

Although probably delaying testing, the new surveillance requirement still fulfills the purpose of the technical specification by ensuring that the valves are fully closed prior to power operation and eliminates the need for going through an additional pressure cycle. In addition, the design of South Texas minimizes the risk of overpressurization of piping. Each system with PIVs covered by this technical specification is separated from the Reactor Coolant System by two normally closed leak-tested check valves within containment, and is isolated by an additional, normally closed, leak-tested check valve. The effectiveness of the check valves to isolate the low pressure systems is further ensured by the remaining surveillance requirements of TS 4.4.6.2.2, which include the ASME, Section XI, leak testing requirements for Category A

check valves. Based on the above, the staff determined that implementing the new surveillance requirement that leak testing be performed before entering Mode 2 rather than within 24 hours, would not compromise the safety functions of the valves affected by this extension.

#### 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. 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 (56 FR 4865). 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.

Date: March 11, 1991

Principal Contributor: Donna Skay