

May 9, 1990

Docket Nos. 50-498
and 50-499

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

Dear Mr. Hall:

SUBJECT: ISSUANCE OF AMENDMENT NOS. 15 AND 5 TO FACILITY OPERATING
LICENSE NOS. NPF-76 AND NPF-80 - SOUTH TEXAS PROJECT, UNITS 1
AND 2 (TAC NOS. 72002 AND 72225)

The Commission has issued the enclosed Amendment Nos. 15 and 5 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 an application dated January 25, 1989 (ST-HL-AE-2856).

The amendments change the Appendix A Technical Specifications by clarifying
potential conflicting action statements between the Chemical Detection System
and the Control Room Ventilation System.

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,

/s/

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

Enclosures:

1. Amendment No. 15 to NPF-76
2. Amendment No. 5 to NPF-80
3. Safety Evaluation

cc w/enclosures:

See next page

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*See previous concurrence:

*subject to need
for modification*

CP-1

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

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Group Vice-President, Nuclear
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P. O. Box 1700
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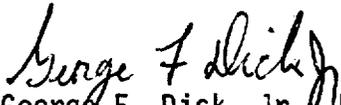
SUBJECT: ISSUANCE OF AMENDMENT NOS. 15 AND 5 TO FACILITY OPERATING
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The amendments change the Appendix A Technical Specifications by clarifying potential conflicting action statements between the Chemical Detection System and the Control Room Ventilation System.

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See next page

Mr. Donald P. Hall
Houston Lighting and Power Company

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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. 15
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 January 25, 1989, 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.

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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. 15 , 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



Frederick J. Heddon, Director
Project Directorate IV
Division of Reactor Projects - III,
IV, V and Special Projects
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: May 9, 1990



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. 5
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 January 25, 1989, 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.

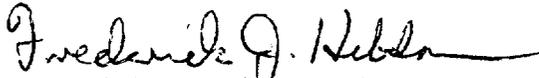
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment and Paragraph 2.C.(2) of Facility Operating License No. NPF-80 is hereby amended to read as follows:

2. Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 5, 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


Frederick J. Hebdon, Director
Project Directorate IV
Division of Reactor Projects - III,
IV, V and Special Projects
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: May 9, 1990

ATTACHMENT TO LICENSE AMENDMENT NOS. 15 AND 5

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 numbers and contain vertical lines indicating the areas of change. The corresponding overleaf pages are also provided to maintain document completeness.

Remove

3/4 3-75
B 3/4 3-5

Insert

3/4 3-75
B 3/4 3-5

INSTRUMENTATION

CHEMICAL DETECTION SYSTEMS

LIMITING CONDITION FOR OPERATION

3.3.3.7 Two independent Chemical Detection Systems shall be OPERABLE with their Alarm/Trip Setpoints adjusted to actuate at the following concentrations:

- a. Vinyl Acetate ≤ 10 ppm
- b. Anhydrous Ammonia/
Ammonium Hydroxide/ ≤ 25 ppm

APPLICABILITY: All MODES.*

ACTION:

- a. With one Chemical Detection System inoperable, restore the inoperable system to OPERABLE status within 7 days or within the next 6 hours initiate and maintain operation of the Control Room Emergency Ventilation System in the recirculation mode of operation.
- b. With both Chemical Detection Systems inoperable, within 1 hour initiate and maintain operation of the Control Room Emergency Ventilation System in the recirculation mode of operation.

SURVEILLANCE REQUIREMENTS

4.3.3.7 Each Chemical Detection System shall be demonstrated OPERABLE by performance of a CHANNEL CHECK at least once per 12 hours, an ANALOG CHANNEL OPERATIONAL TEST at least once per 31 days and a CHANNEL CALIBRATION at least once per 18 months.

*In MODES 5 and 6, if it becomes necessary to place the Control Room Emergency Ventilation System in the recirculation mode of operation and if other Technical Specifications (3.7.7 "Control Room Makeup and Cleanup Filtration System" and/or Table 3.3-3, Item 10 "Control Room Ventilation") require placing the system in the recirculation and makeup filtration mode, then in this situation, place the system in the filtered recirculation mode only.

INSTRUMENTATION

3.3.3.8 (This specification number is not used.)

INSTRUMENTATION

BASES

REMOTE SHUTDOWN SYSTEM (Continued)

The OPERABILITY of the Remote Shutdown System ensures that a fire will not preclude achieving safe shutdown. The Remote Shutdown System instrumentation, control, and power circuits and transfer switches necessary to eliminate effects of the fire and allow operation of instrumentation, control and power circuits required to achieve and maintain a safe shutdown condition are independent of areas where a fire could damage systems normally used to shut down the reactor. This capability is consistent with General Design Criterion 3 and Appendix R to 10 CFR Part 50.

3/4.3.3.6 ACCIDENT MONITORING INSTRUMENTATION

The OPERABILITY of the accident monitoring instrumentation ensures that sufficient information is available on selected plant parameters to monitor and assess these variables following an accident. This capability is consistent with the recommendations of Regulatory Guide 1.97, Revision 2, "Instrumentation for Light-Water-Cooled Nuclear Power Plants to Assess Plant Conditions During and Following an Accident," December 1980 and NUREG-0737, "Clarification of TMI Action Plan Requirements," November 1980. The instrumentation listed in Table 3.3-10 corresponds to the Category 1 instrumentation for which selection, design, qualification and display criteria are described in Regulatory Guide 1.97, Revision 2.

3/4.3.3.7 CHEMICAL DETECTION SYSTEMS

The OPERABILITY of the Chemical Detection Systems ensures that sufficient capability is available to promptly detect and initiate protective action in the event of an accidental chemical release. This capability is required to protect control room personnel and is consistent with the recommendations of Regulatory Guide 1.78, "Assumptions for Evaluating the Habitability of a Nuclear Power Plant Control Room During a Postulated Hazardous Chemical Release," June 1974.

Provision in the Action Statement is included for conditions whereby the inoperability of the Chemical Detection System precludes the use of makeup as required for Action Statement a. for MODES 5 and 6 of Technical Specification 3.7.7 or Table 3.3-3, Item 10, ACTION 27, 28.

The automatic actuation of the Control Room HVAC makeup mode while in the Action Statement for the Chemical Detection System does not constitute a violation of Technical Specification 3.3.3.7 ACTION a. or b. because this actuation protects the operators from a radiological event.

3/4.3.3.8 (Not Used)

INSTRUMENTATION

BASES

3/4.3.3.9 (Not Used)

3/4.3.3.10 RADIOACTIVE LIQUID EFFLUENT MONITORING INSTRUMENTATION

The radioactive liquid effluent instrumentation is provided to monitor and control, as applicable, the releases of radioactive materials in liquid effluents during actual or potential releases of liquid effluents. The Alarm/Trip Setpoints for these instruments shall be calculated and adjusted in accordance with the methodology and parameters in the ODCM to ensure that the alarm/trip will occur prior to exceeding the limits of 10 CFR Part 20. The OPERABILITY and use of this instrumentation is consistent with the requirements of General Design Criteria 60, 63, and 64 of Appendix A to 10 CFR Part 50.

3/4.3.3.11 RADIOACTIVE GASEOUS EFFLUENT MONITORING INSTRUMENTATION

The radioactive gaseous effluent instrumentation is provided to monitor and control, as applicable, the releases of radioactive materials in gaseous effluents during actual or potential releases of gaseous effluents. The Alarm/Trip Setpoints for these instruments shall be calculated and adjusted in accordance with the methodology and parameters in the ODCM to ensure that the alarm/trip will occur prior to exceeding the limits of 10 CFR Part 20. This instrumentation also includes provisions for monitoring (and controlling) the concentrations of potentially explosive gas mixtures in the GASEOUS WASTE PROCESSING SYSTEM. The OPERABILITY and use of this instrumentation is consistent with the requirements of General Design Criteria 60, 63, and 64 of Appendix A to 10 CFR Part 50. The sensitivity of any noble gas activity monitors used to show compliance with the gaseous effluent release requirements of Specification 3.11.2.2 shall be such that concentrations as low as 1×10^{-6} $\mu\text{Ci/cc}$ are measurable.

3/4.3.4 TURBINE OVERSPEED PROTECTION

This specification is provided to ensure that the turbine overspeed protection instrumentation and the turbine speed control valves are OPERABLE and will protect the turbine from excessive overspeed. Protection from turbine excessive overspeed is required since excessive overspeed of the turbine could generate potentially damaging missiles which could impact and damage safety-related components, equipment, or structures.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NOS. 15 AND 5 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 January 25, 1989, 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 clarify potentially conflicting action statements between the Chemical Detection System and the Control Room Ventilation System.

2.0 DISCUSSION

The Control Room Heating, Ventilation and Air Conditioning (HVAC) System has two emergency modes of operation:

1) Toxic Gas Release

For toxic gas, the Chemical Detection System senses the gas and places the system in the unfiltered recirculation mode (i.e., no outside air is drawn into the control room).

2) Radiological Release

For a radiological release, the control room is placed in the filtered recirculation and makeup (filtered) mode, and the makeup mode provides outside air for breathing requirements for long term accidents and is the mechanism for ensuring positive pressurization of the control room.

Operability requirements for the Chemical Detection System are specified in Technical Specification (TS) 3.3.3.7. The system, which consists of two detectors, must be operable in all modes of operation. The action statement associated with one or both detectors inoperable requires that the Control Room HVAC system be placed in the recirculation mode. This maintains the plant in a safe condition if a toxic gas event occurs, because the operators would be protected from breathing outside air since makeup air would not be introduced.

The Control Room HVAC operability requirements are specified in TS 3.7.7. The system, which consists of three trains, is required in all modes. In MODES 1, 2, 3 and 4 the action statements associated with one or more trains being inoperable ultimately can result in a plant shutdown. During cold shutdown and refueling condition (Modes 5 and 6), the action statements specify that if one or more trains are inoperable then the remaining trains (or train) are placed in the filtered recirculation and makeup mode of operation. Should a radiological event occur (e.g., fuel handling accident), the system would already be in the proper mode of operation.

In addition, the Engineered Safety Feature Actuation System (ESFAS) Instrumentation requirements (Table 3.3-3) for the Control Room HVAC actuation system specify actions similar to those of TS 3.7.7. Specifically, in Modes 5 and 6, Action Statements 27 and 28 would ultimately require the Control Room HVAC system to be placed in the filtered recirculation and makeup mode.

A conflict occurs should it become necessary during Modes 5 and 6 to meet the action statements for an inoperable Chemical Detection System and an inoperable Control Room HVAC system or ESFAS simultaneously. As previously stated, an inoperable Chemical Detection System requires that the Control Room HVAC system be placed in the recirculation mode; in the event that the Control Room HVAC system was also declared inoperable, Technical Specifications would require entry into the filtered recirculation and makeup mode. With this action the operators would no longer be protected in the event of an actual toxic gas event.

While in the Action Statement of TS 3.3.3.7 (Chemical Detection System), an ESFAS actuation would require entry into the recirculation mode of the Control Room HVAC system. However, an ESFAS actuation of the Control Room HVAC system would initiate the recirculation and makeup filtration mode. This would be contrary to the Action Statement for TS 3.3.3.7

3.0 EVALUATION

The licensee has proposed that a clarifying footnote be added to TS 3.3.3.7. The footnote reads:

In MODES 5 and 6, if it becomes necessary to place the Control Room Ventilation System in the recirculation mode of operation and if other Technical Specification Actions Statements (3.7.7 "Control Room Makeup and Cleanup Filtration System," and/or Table 3.3-3, Item 10 "Control Room Ventilation") require placing the system in the recirculation and makeup filtration modes, then in this situation, place the system in the filtered recirculation mode only.

The licensee also proposed modifying the bases explaining the proposed TS change. In the event of a toxic gas release, with an inoperable Chemical Detection System and an inoperable Control Room HVAC system, the operable HVAC components would be in the filtered recirculation mode. The proposed change would have the Control Room HVAC system operating in the mode required to protect control room operators from the toxic gas release. Since makeup is not operating, no outside air will be drawn into the control room.

With initial conditions of a inoperable Chemical Detection System and an inoperable Control Room HVAC system, the operable Control Room HVAC system would be in the filtered recirculation mode. As long as the control room ventilation ESFAS instrumentation (Table 3.3-3, Item 10) is operable, a Safety Injection signal or Control Room Intake Radioactivity High signal would initiate makeup filtration while filtered recirculation continues. This would provide outside air for long term breathing requirements and would ensure positive pressurization of the control room and protection from radiological accidents.

If the ESFAS instrumentation of Table 3.3-3, Item 10 is not operable in Modes 5 or 6, again the Control Room HVAC system would be placed in the filtered recirculation mode of operation. Should a radiological event take place, the control room would not be at a positive pressure relative to the outside air. However, if such an event should occur concurrent with a toxic gas release, the filtered recirculation would afford the operators immediate protection for both events.

Based on the foregoing, the staff finds that the proposed amendment will remove the conflict in the action statements while maintaining the safety of the control room operators, and is acceptable.

In a recent telephone conversation with the licensee, the staff requested clarification of the operator action in response to a high radiation alarm in the Fuel Handling Building or in the Reactor Containment for a condition where the Control Room Makeup and Cleanup Filtration System is in the filtered recirculation mode. Additionally, when in the filtered recirculation mode the operator action in response to indications of high radiation on the other unit was questioned. In response, the licensee in a letter dated March 1, 1990 committed to revise the appropriate procedures to direct the operators to place and maintain Control Room Makeup and Cleanup Filtration System in the recirculation and makeup filtration mode for the above conditions. This clarification provides additional protection to the operators and does not alter the staff's initial determination that the amendment entails no significant hazards consideration, and is acceptable.

4.0 ENVIRONMENTAL CONSIDERATION

The amendments involve a change in a requirement with respect to the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and changes in surveillance requirements. The 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 exposures. 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. Accordingly, the amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR Section 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.

5.0 CONCLUSION

Based upon its evaluation of the proposed changes to the South Texas Project, Units 1 and 2, Technical Specifications, the staff has concluded that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (2) such activities will be conducted in compliance with the Commission's regulations and the issuance of the amendments will not be inimical to the common defense and security or to the health and safety of the public. The staff, therefore, concludes that the proposed changes are acceptable, and are hereby incorporated into the South Texas Project, Units 1 and 2 Technical Specifications.

Date: May 9, 1990

Principal Contributors: G. Dick
C. Nichols