

September 2, 1994

Docket Nos. 50-498
and 50-499

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

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| TAlexion | WBeckner |

Dear Mr. Cottle:

SUBJECT: SOUTH TEXAS PROJECT, UNITS 1 AND 2 - AMENDMENT NOS. 65
AND 54 TO FACILITY OPERATING LICENSE NOS. NPF-76 AND NPF-80
(TAC NOS. M89388 AND M89389)

The Commission has issued the enclosed Amendment Nos. 65 and 54 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 April 14, 1994.

The amendments revise TS 5.3.1, "Fuel Assemblies," to permit fuel assembly reconstitution to restore the usefulness of fuel assemblies containing damaged or leaking fuel rods. The changes are consistent with the guidance in NRC Generic Letter 90-02, Supplement 1, "Alternative Requirements for Fuel Assemblies in the Design Features Section of Technical Specifications," dated July 31, 1992.

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: T. Alexion for
Lawrence E. Kokajko, Senior Project Manager
Project Directorate IV-1
Division of Reactor Projects III/IV
Office of Nuclear Reactor Regulation

Enclosures:

1. Amendment No. 65 to NPF-76
2. Amendment No. 54 to NPF-80
3. Safety Evaluation

cc w/enclosures:
See next page

| | | | | | | |
|--------|-----------|----------|-----------|---------|--------------|----------|
| OFFICE | PDIV-2/LA | I/PDIV-2 | PDIV-2/PM | BC:SRXB | OGC | PDIV-1/D |
| NAME | EPeyton | ABryant | LKokajko | R.Jones | M. [unclear] | WBeckner |
| DATE | 8/3/94 | 8/4/94 | 8/4/94 | 8/9/94 | 8/22/94 | 9/1/94 |

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

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for 
Lawrence E. Kokajko, Senior Project Manager
Project Directorate IV-1
Division of Reactor Projects III/IV
Office of Nuclear Reactor Regulation

Enclosures:

1. Amendment No. 65 to NPF-76
2. Amendment No. 54 to NPF-80
3. Safety Evaluation

cc w/enclosures:
See next page

Mr. William T. Cottle
Houston Lighting & Power Company

South Texas, Units 1 & 2

cc w/enclosures:
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Houston Lighting and Power Company
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Wadsworth, Texas 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. 65
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 April 14, 1994, 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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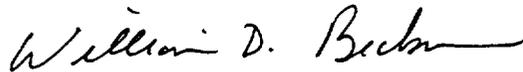
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment and Paragraph 2.C.(2) of Facility Operating License No. NPF-76 is hereby amended to read as follows:

2. Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 65, 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



William D. Beckner, Director
Project Directorate IV-1
Division of Reactor Projects III/IV
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: **September 2, 1994**



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. 54
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 April 14, 1994, 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.

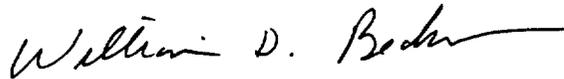
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment and Paragraph 2.C.(2) of Facility Operating License No. NPF-80 is hereby amended to read as follows:

2. Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 54, 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



William D. Beckner, Director
Project Directorate IV-1
Division of Reactor Projects III/IV
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: **September 2, 1994**

ATTACHMENT TO LICENSE AMENDMENT NOS. 65 AND 54
FACILITY OPERATING LICENSE NOS. NPF-76 AND NPF-80
DOCKET NOS. 50-498 AND 50-499

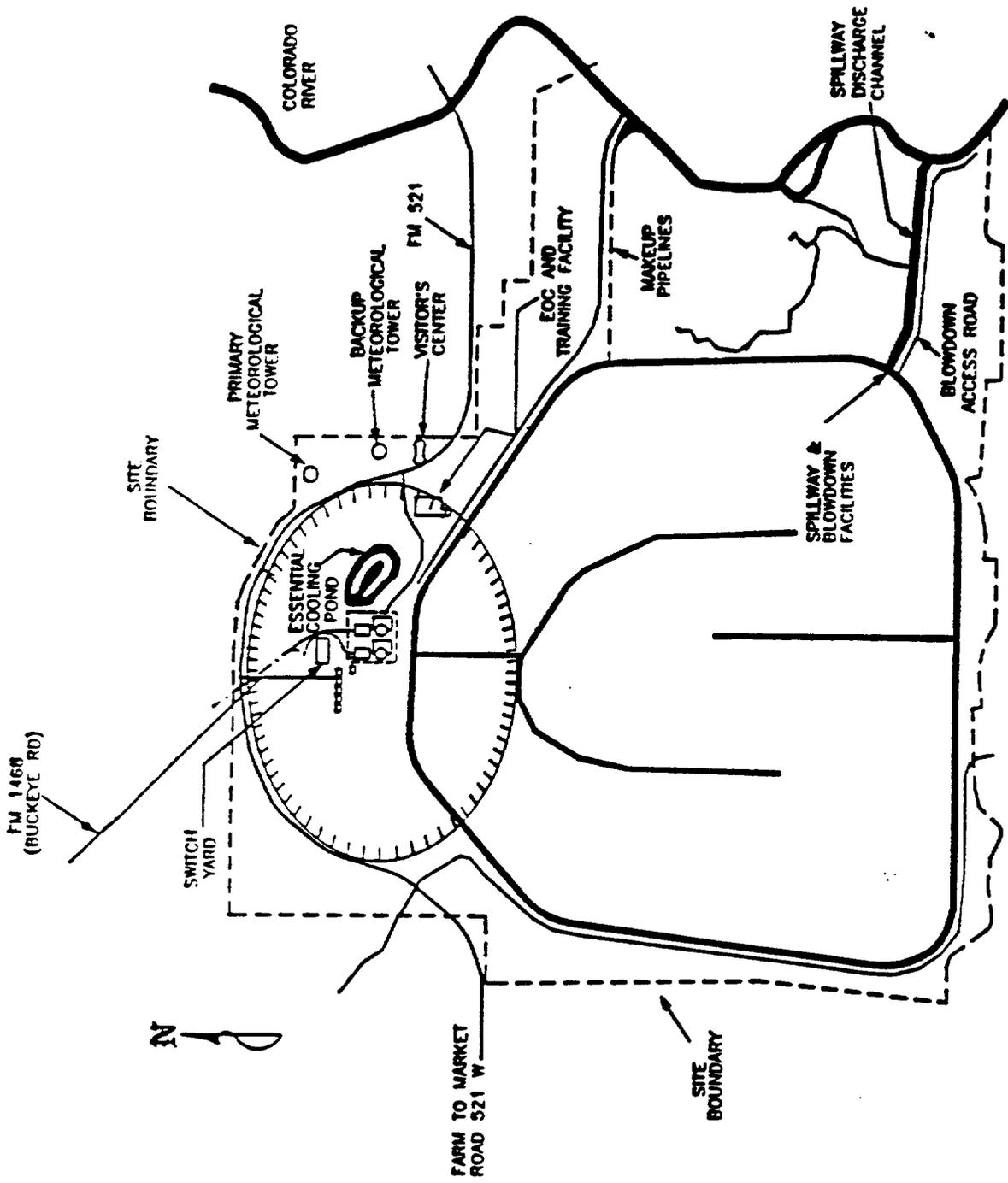
Replace the following page of the Appendix A Technical Specifications with the attached page. The revised page is identified by Amendment number and contains marginal lines indicating the areas of change. The corresponding overleaf page is also provided to maintain document completeness.

REMOVE

5-6

INSERT

5-6



• The UNRESTRICTED AREA consists of the area beyond the SITE BOUNDARY.

SOUTH TEXAS PROJECT
UNITS 1 & 2

FIGURE 5.1-4
UNRESTRICTED AREA AND SITE BOUNDARY FOR RADIOACTIVE LIQUID EFFLUENTS

DESIGN FEATURES

5.3 REACTOR CORE

FUEL ASSEMBLIES

5.3.1 The reactor core shall contain 193 fuel assemblies. Each fuel assembly shall consist of a matrix of zircaloy clad fuel rods with an initial composition of natural or slightly enriched uranium dioxide as fuel material. Limited substitutions of zirconium alloy or stainless steel filler rods for fuel rods, in accordance with NRC-approved applications of fuel rod configurations, may be used. Fuel assemblies shall be limited to those fuel designs that have been analyzed with applicable NRC staff-approved codes and methods, and shown by tests or analyses to comply with all fuel safety design bases. A limited number of lead test assemblies that have not completed representative testing may be placed in non-limiting core regions.

CONTROL ROD ASSEMBLIES

5.3.2 The core shall contain 57 full-length control rod assemblies. The full-length control rod assemblies shall contain a nominal 158.9 inches of absorber material. The absorber material within each assembly shall be silver-indium-cadmium or hafnium. Mixtures of hafnium and silver-indium-cadmium are not permitted within a bank. All control rods shall be clad with stainless steel tubing.

5.4 REACTOR COOLANT SYSTEM

DESIGN PRESSURE AND TEMPERATURE

- 5.4.1 The Reactor Coolant system is designed and shall be maintained:
- In accordance with the Code requirements specified in Section 5.2 of the FSAR, with allowance for normal degradation pursuant to the applicable Surveillance Requirements,
 - For a pressure of 2485 psig, and
 - For a temperature of 650°F, except for the pressurizer which is 680°F.

VOLUME

5.4.2 The total water and steam volume of the Reactor Coolant System is 13,814 ± 100 cubic feet at a nominal T_{avg} of 561°F.

5.5 METEOROLOGICAL TOWER LOCATION

5.5.1 The meteorological towers shall be located as shown on Figure 5.1-1.

5.6 FUEL STORAGE

5.6.1 CRITICALITY

5.6.1.1 The spent fuel storage racks are designed and shall be maintained with:



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NOS. 65 AND 54 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 April 14, 1994, 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 to TS 5.3.1 would permit fuel assembly reconstitution to restore the usefulness of fuel assemblies containing damaged or leaking fuel rods. These changes are consistent with the guidance in NRC Generic Letter (GL) 90-02, Supplement 1, "Alternative Requirements for Fuel Assemblies in the Design Features Section of Technical Specifications."

2.0 DISCUSSION

The proposed changes will allow fuel assembly reconstitution with zircaloy or stainless steel filler rods, in accordance with NRC-approved methodologies. Supplement 1 to GL 90-02 defines the acceptability of the use of reconstituted fuel assemblies, including inert filler rods. The GL also provides model TS wording. The reconstitutions may be performed under provisions of 10 CFR 50.59 provided that the required safety analyses are performed with NRC staff-approved methodologies, which are applied to assembly configurations that lie within the scope of the reviewed fuel lattice configurations.

The proposed revision also allows the use of a limited number of lead test assemblies without requiring a specific TS change, provided they are placed in nonlimiting core regions.

3.0 EVALUATION

The proposed amendment would modify TS 5.3.1, "Fuel Assemblies," to allow limited substitutions of zirconium alloy or stainless steel filler rods for fuel rods, in accordance with NRC-approved applications of fuel rod configurations." The licensee states that cycle-specific reload safety evaluation analyses will be performed in accordance with NRC-approved topical report WCAP-13060-P-A, "Westinghouse Fuel Assembly Reconstitution Evaluation Methodology," and other applicable NRC-approved methodologies. WCAP-13060-P-A describes the methodology for using inert filler rods to replace failed or damaged fuel rods during reconstitution of fuel assemblies for core reloads.

The WCAP-13060-P-A methodology is applicable for Westinghouse reconstituted assemblies with mixing vane grid designs. The approval of WCAP-13060-P-A, and this evaluation, is contingent upon analytical confirmation that the exact configuration and associated core power distribution of proposed reconstituted assemblies do not introduce a change in radial gradients in the flow and enthalpy distribution that could invalidate the applicability of the critical heat flux (CHF) correlation used for departure from nucleate boiling (DNB) predictions. These limitations are consistent with the guidance from Supplement 1 to GL 90-02, ensure compliance with General Design Criteria (GDC) 10, and are acceptable.

In the application, the licensee states that it will meet the above requirement by performing a cycle-by-cycle evaluation of correlation parameters of the departure from nucleate boiling ratio (DNBR) correlation for the reconstituted assembly. The limited substitution of filler rods in accordance with NRC-approved methodology will ensure that relevant thermal-hydraulic and design issues are considered to establish values for core parameters and placement of rods. Also, the staff notes that the proposed TS 5.3.1 wording is consistent with the model TS provided in the GL.

Based on the evaluation described above, the staff finds that the proposed changes to the South Texas Project TSs to allow fuel assembly reconstitution with zircaloy or stainless steel filler rods in accordance with NRC-approved methodologies, are consistent with the requirements described in Supplement 1 to GL 90-02 and are acceptable.

4.0 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.

5.0 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 (59 FR 29628). 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: A. Bryant

Date: September 2, 1994