

May 5, 1990

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: ENVIRONMENTAL ASSESSMENT AND FINDING OF NO SIGNIFICANT IMPACT -
CHANGES TO TECHNICAL SPECIFICATIONS TO INCREASE THE MAXIMUM FUEL
ENRICHMENT TO 4.5 WEIGHT PERCENT, SOUTH TEXAS PROJECT, UNITS 1
AND 2 (TAC NOS. 76085 AND 76086)

Enclosed is a copy of an "Environmental Assessment and Finding of No Significant
Impact" for the South Texas Project, Units 1 and 2. The assessment relates to
the application from Houston Lighting & Power Company dated March 1, 1990
(ST-HL-AE-3387) which proposed changes to the Technical Specifications to
increase the maximum fuel enrichment to 4.5 weight percent Uranium 235.

This assessment has been forwarded to the Office of the Federal Register for
publication.

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

Enclosure:
As stated

cc w/enclosure:
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Mr. Donald P. Hall
Houston Lighting and Power Company

South Texas Project

cc:
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Project
c/o U.S. Nuclear Regulatory Commission
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Bay City, Texas 77414

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Director of Generation
City of Austin Electric Utility
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Mr. M. T. Hardt
City Public Service Board
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Bellport, New York 11713

Judge, Matagorda County
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Rufus S. Scott
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Houston Lighting & Power Company
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Houston, Texas 77208

UNITED STATES NUCLEAR REGULATORY COMMISSIONHOUSTON LIGHTING & POWER COMPANY, ET. AL.SOUTH TEXAS PROJECT, UNITS 1 AND 2DOCKET NOS. 50-498 AND 50-499NOTICE OF ENVIRONMENTAL ASSESSMENT ANDFINDING OF NO SIGNIFICANT IMPACT

The U.S. Nuclear Regulatory Commission (the Commission) is considering issuance of amendments to Facility Operating License Nos. NPF-76 and NPF-80, issued to Houston Lighting & Power Company, et al., (the licensee) for the South Texas Project (STP), Units 1 and 2 located in Matagorda County, Texas.

Environmental AssessmentIdentification of Proposed Action:

By letter dated March 1, 1990 (ST-HL-AE-3387) the licensee proposed to change the Technical Specifications (TSs) to allow an increase in fuel enrichment (Uranium 235) to 4.5 weight percent. The present TSs permit a maximum enrichment of 3.5 weight percent. The licensee proposed no change to presently approved core average burnup of 23,740 megawatt days/metric ton (MWD/MT).

Need for Proposed Action:

The licensee intends, in the future, to increase discharge burnups which will entail the storage and use of fuel with enrichments higher than the 3.5 weight percent currently allowed by TS 5.3.1. However, before the licensee extends plant operating cycles, it plans to receive shipments of 3.6 weight percent fuel in June 1990. Thus, the change to the TSs was requested.

Environmental Impact of the Proposed Action:

The Commission has completed its evaluation of the proposed revision to TSs and concludes that storage and use of optimized fuel assembly (OFA) fuel enriched with U-235 in excess of 4 weight percent and up to 4.5 weight percent at the South Texas Project, Units 1 and 2 is acceptable. The safety considerations associated with higher enrichments have been evaluated by the NRC staff and the staff has concluded that such changes would not adversely affect plant safety. The proposed changes have no adverse affect on the probability of any accident. There will be no changes to either authorized power or fuel burnup. As a result, there is no increase in individual or cumulative radiation exposure.

The environmental impacts of transportation resulting from the use of higher enrichment and extended irradiation are discussed in the staff assessment entitled "NRC Assessment of the Environmental Effects of Transportation Resulting from Extended Fuel Enrichment and Irradiation." This assessment was published in the FEDERAL REGISTER on August 11, 1988 (53 FR 30355) as corrected on August 24, 1988 (53 FR 32322) in connection with the Shearon Harris Nuclear Power Plant, Unit 1: Environmental Assessment and Finding of No Significant Impact. As indicated therein, the environmental cost contribution of an increase in fuel enrichment of up to 5 weight percent U-235 and irradiation limits of up to 60 Gigawatt Days per Metric Ton (GWD/MT) are either unchanged, or may in fact be reduced from those summarized in Table S-4 as set forth in 10 CFR 51.52(c). These findings are applicable to these proposed amendments for the South Texas Project, Units 1 and 2. Accordingly, the Commission concludes that this proposed action would result in no significant radiological environmental impact.

With regard to potential non-radiological impacts, the proposed changes involve systems located within the restricted area as defined in 10 CFR Part 20. It does not affect non-radiological plant effluents and has no other environmental impact. Therefore, the Commission concludes that there are no significant non-radiological environmental impacts associated with the proposed amendments.

The Notice of Consideration of Issuance of Amendments and Opportunity for Hearing in connection with this action was published in the FEDERAL REGISTER on April 4, 1990 (55 FR 12613). No request for hearing or petition for leave to intervene was filed following this notice.

Alternatives to the Proposed Action:

Since the Commission concluded that there are no significant environmental effects that would result from the proposed action, any alternative with equal or greater environmental impacts need not be evaluated.

The principal alternative would be to deny the requested amendments. This would not reduce environmental impacts of plant operation and would result in reduced operational flexibility.

Alternative Use of Resources:

This action does not involve the use of any resources not previously considered in the Final Environmental Statement for the South Texas Project, Units 1 and 2, dated August 1986 (NUREG-1171).

Agencies and Persons Contacted:

The NRC staff reviewed the licensee's request and did not consult other agencies or persons.

FINDING OF NO SIGNIFICANT IMPACT:

The Commission has determined not to prepare an environmental impact statement for the proposed license amendments.

Based upon the foregoing environmental assessment, we conclude that the proposed action will not have a significant effect on the quality of the human environment.

For further details with respect to this action, see the application for license amendments dated March 1, 1990. Copies are available for public inspection at the Commission's Public Document Room, the Gelman Building, 2120 L Street, N.W., Washington, D.C. 20555, and at the local public document rooms located at the Wharton County Junior College, J. M. Hodges Learning Center, 911 Boling Highway, Wharton, Texas 77488 and Austin Public Library, 810 Guadalupe Street, Austin, Texas 78701.

Dated at Rockville, Maryland, this 5th day of June 1990.

FOR THE NUCLEAR REGULATORY COMMISSION

Walter A. Paulson

Walter A. Paulson, Acting Director
Project Directorate IV-2
Division of Reactor Projects - III,
IV, V and Special Projects
Office of Nuclear Reactor Regulation