

May 21, 1992

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 -  
UNREVIEWED SAFETY QUESTION RELATED TO EXTENDED FUEL BURNUP, SOUTH  
TEXAS PROJECT, UNITS 1 AND 2 (TAC NOS. M82128 and M82129)

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 October 30, 1991 (ST-HL-AE-3906), which submitted an unreviewed safety question associated with changing fuel burnup limits due to increasing lengths of core operating cycles.

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

Sincerely,

William D. Reckley for

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

Enclosure:  
Environmental Assessment

cc w/enclosure:  
See next page

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| Docket File     | MVirgilio          |
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|--------|-----------|-----------|-----------|---------|-----------|
| NAME   | EPeyton   | WReckley  | GDick:nb  | WYoung  | SBlack    |
| DATE   | 4/29/92   | 4/29/92   | 4/29/92   | 5/12/92 | 5/20/92   |

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Mr. Donald P. Hall

- 2 -

cc w/enclosure:

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UNITED STATES NUCLEAR REGULATORY COMMISSIONHOUSTON LIGHTING & POWER COMPANYCITY PUBLIC SERVICE BOARD OF SAN ANTONIOCENTRAL POWER AND LIGHT COMPANYCITY OF AUSTIN, TEXASSOUTH 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 South Texas Project (STP), Units 1 and 2 located in Matagorda County, Texas.

Environmental AssessmentIdentification of Proposed Action:

By letter dated October 30, 1991 (ST-HL-AE-3906), the licensee submitted a request to amend its license to reflect changes to the Updated Final Safety Analysis Report (UFSAR) for Units 1 and 2. Those changes involve an unreviewed safety question related to an increase in the operating cycle lengths and associated fuel burnups. The licensee proposes to change the core average burnup from 23,740 megawatt days/metric ton uranium (MWD/MTU) to 40,000 MWD/MTU. A change to the Technical Specification maximum enrichment value was previously addressed by Amendment Nos. 16 and 6 and the

Environmental Assessment and Finding of No Significant Impact which was published in the Federal Register on June 8, 1990 (55 FR 23492).

Need for Proposed Action:

The licensee has planned a length of 456 effective full power days (EFPD) for the current operating cycle for Unit 1 (Cycle 4). The increase in core average discharge burnup is required to support this cycle length.

Environmental Impact of the Proposed Action:

The Commission has completed its evaluation of the proposed amendment. The proposed changes to the UFSAR would permit fuel to be irradiated above 33 gigawatt days per metric ton (GWD/MT) but not to exceed 60 GWD/MT. The safety considerations associated with reactor operation with extended irradiation have been evaluated by the NRC staff. The staff has concluded that such changes would not adversely affect plant safety. The proposed changes have no adverse impact on the probability of any accident. The increased burnup may slightly change the mix of fission products that might be released in the event of a serious accident but such small changes would not significantly affect the consequences of serious accidents. No changes are being made in the types or amounts of any radiological effluents that may be released offsite. There is no significant increase in the allowable individual or cumulative occupational radiation exposure.

With regard to potential nonradiological impacts of extended fuel burnup, the proposed changes involve systems located within the restricted area, as defined in 10 CFR Part 20. They do not affect nonradiological plant effluents and have no other environmental impact.

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 up to 5 weight percent U-235 and irradiation limits of up to 60 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 the changes associated with the extended burnup unreviewed safety question for the South Texas Project, Units 1 and 2.

Therefore, the Commission concludes that there are no significant radiological or nonradiological environmental impacts associated with the proposed action.

The Notice of Consideration of Issuance of Amendments and Opportunity for Hearing in connection with this action was published in the Federal Register on March 4, 1992 (57 FR 07812).

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 the environmental impacts of plant operation and would result in reduced operational flexibility.

Alternate 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:

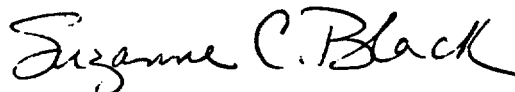
The Commission has determined not to prepare an environmental impact statement for the proposed amendments.

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 October 30, 1991. Copies are available for 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 room located at the Wharton County Junior College, J. M. Hodges Learning Center, 911 Boling Highway, Wharton, Texas 77488.

Dated at Rockville, Maryland, this 21st day of May 1991.

FOR THE NUCLEAR REGULATORY COMMISSION



Suzanne C. Black, Director  
Project Directorate IV-2  
Division of Reactor Projects III/IV/V  
Office of Nuclear Reactor Regulation