

September 7, 1989

Docket Nos. 50-498
and 50-499

Mr. J. H. Goldberg
Group Vice-President, Nuclear
Houston Lighting & Power Company
P. O. Box 1700
Houston, Texas 77001

Dear Mr. Goldberg:

SUBJECT: ENVIRONMENTAL ASSESSMENT AND FINDING OF NO SIGNIFICANT
IMPACT - CHANGES TO THE FINAL SAFETY ANALYSES REPORT
REGARDING THE EFFECTS OF REACTOR COOLANT SYSTEM FLOW
ANOMALY, SOUTH TEXAS PROJECT, UNITS 1 AND 2
(TAC NOS. 72995 AND 72996)

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 April 18, 1989 (ST-HL-AE-3040) which proposed changes to the Final Safety Analysis Report documenting the results of safety analyses that consider the effects of the reactor coolant system flow anomaly. The changes were submitted to the staff as an unresolved safety question.

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

Sincerely,
Original Signed By
George F. Dick, Jr.
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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EA STP TACS 72995/6

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

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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 50-499ENVIRONMENTAL ASSESSMENT AND FINDING OFNO SIGNIFICANT IMPACT

The U.S. Nuclear Regulatory Commission (Commission) is considering the 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, Units 1 and 2, located at the licensee's site in Matagorda County, Texas.

ENVIRONMENTAL ASSESSMENTIdentification of Proposed Action:

By letter dated April 18, 1989 (ST-HL-AE-3040) the licensee submitted proposed changes to the Final Safety Analysis Report (FSAR) documenting the results of safety evaluations that account for the effects of the reactor coolant system (RCS) flow anomaly. The flow anomaly, believed to be multiple rotational flows in the lower reactor vessel plenum, causes coolant flow maldistributions in the core. The flow maldistribution results in increased coolant temperatures, local reductions in power, and a reduction in the margin to Departure from Nucleate Boiling (DNB). The core DNB criterion were reevaluated using the WRB-1 critical heat flux correlation which resulted in a recalculated generic margin of 7.8% to accommodate DNBR penalties.

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Need for Proposed Action:

The proposed changes are needed to support the minimum RCS flow rate specified in the plant Technical Specifications (TS).

Environmental Impacts of the Proposed Action:

The Commission has completed its evaluation of the proposed changes to the FSAR. It has concluded that the use of the WRB-1 correlation is acceptable and that there is sufficient margin to offset the DNBR penalty due to the RCS flow anomaly. Therefore, the proposed changes do not increase the probability or consequences of accidents, no changes are being made in the types of any effluents that may be released offsite, and there is no significant increase in the allowable individual or cumulative occupational radiation exposure. 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 June 15, 1989 (54 FR 25512). No request for hearing or petition for leave to intervene was filed following this notice.

Alternative to the Proposed Action:

Since the Commission concluded that there are no significant environmental effects that would result from the proposed action, any alternatives 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 Statements for the South Texas Project, Units 1 and 2, dated August 1986 (NUREG-1171).

Agencies and Persons Consulted:

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.

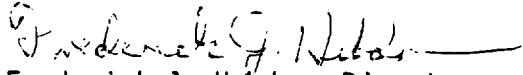
Based upon the foregoing environmental assessment, we conclude that the proposed action will not have a significant effect on the quality of the human environment.

For further details with respect to this action, see the application for license amendments dated April 18, 1989. Copies are available for public inspection at the Commission's Public Document Room, 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 7th day of September 1989.

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