

UNITED STATES NUCLEAR REGULATORY COMMISSION

HOUSTON LIGHTING & POWER COMPANY

CITY PUBLIC SERVICE BOARD OF SAN ANTONIO

CENTRAL POWER AND LIGHT COMPANY

CITY OF AUSTIN, TEXAS

SOUTH TEXAS PROJECT, UNIT NOS. 1 AND 2

DOCKET NOS. 50-498 AND 50-499

ENVIRONMENTAL ASSESSMENT AND FINDING 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 (the licensee) for the South Texas Project, Units 1 and 2, located in Matagorda County, Texas.

ENVIRONMENTAL ASSESSMENT

Identification of Proposed Action:

By letter dated May 27, 1993, the licensee proposed to upgrade the fuel used in the South Texas Project to Westinghouse's VANTAGE 5 Hybrid (V5H) design and implement numerous safety analysis and operational margin improvements into the South Texas Project Technical Specifications and Updated Final Safety Analysis Report. The proposed changes include an increase in the maximum nominal enrichment for fuel assemblies from 4.5 weight percent (w/o) uranium-235 to 5.0 w/o.

The Need for the Proposed Action:

The licensee upgraded to a higher enrichment fuel type to improve fuel economy and reduce the cobalt source term.

Environmental Impacts of the Proposed Action:

The Commission has completed its evaluation of the proposed revision to the technical specifications and concludes that storage of new and spent fuel assemblies enriched with U-235 up to 5.0 w/o at the South Texas Project, Units 1 and 2 is acceptable. The safety considerations associated with higher enrichment 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 authorized power. As a result, there is no increase in individual or cumulative radiation exposure. The fuel burnup will increase to 60,000 MWD/MTU. The radiological consequences of accidents have been reanalyzed to reflect this increase and were determined not to be significantly changed.

The environmental impacts for 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 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 South Texas Project, Units 1 and 2. Accordingly, the Commission concludes

that this proposed action would result in no significant radiological environmental impact.

Alternative to the Proposed Action:

Because the Commission's staff has concluded that there are no significant environmental impacts associated with the proposed action, any alternatives would have either no significantly different environmental impact or greater environmental impact. The principal alternative would be to deny the requested amendments. This would not reduce the environmental impacts as a result of plant operations.

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 with 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 May 27, 1993 which is available for public inspection at the Commission's Public Document Room, The Gelman Building, Lower Level,

2120 L Street, N.W., Washington, D.C. 20555, and at Wharton County Junior College, J.M. Hodges Learning Center, 911 Boling Highway, Wharton, Texas 77488.

Dated at Rockville, Maryland, this 19th day of May 1994.

FOR THE NUCLEAR REGULATORY COMMISSION

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