

March 6, 1998

Mr. J. P. O'Hanlon
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SUBJECT: ENVIRONMENTAL ASSESSMENT RELATED TO INCREASED ENRICHMENT OF REACTOR FUEL - SURRY POWER STATION, UNITS 1 & 2 (TAC NOS. MA0122 AND MA0123)

Dear Mr. O'Hanlon:

Enclosed for your information is a copy of the "Environmental Assessment and Finding of No Significant Impact." This assessment relates to your application dated November 5, 1997, as supplemented January 28, 1998, to revise the Surry Nuclear Power Station Technical Specifications to permit use of reactor fuel enriched to a maximum 4.3 weight percent U-235.

The assessment is being forwarded to the Office of the Federal Register for publication.

Sincerely,

(Original Signed By)

Gordon E. Edison, Senior Project Manager
Project Directorate II-1
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Docket Nos. 50-280
and 50-281

Enclosure: Environmental Assessment

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noted revisions

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Surry Power Station

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Letter Dated 3/6/1998

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UNITED STATES NUCLEAR REGULATORY COMMISSIONVIRGINIA ELECTRIC AND POWER COMPANYDOCKET NOS. 50-280 AND 50-281SURRY POWER STATIONENVIRONMENTAL ASSESSMENT AND FINDING OFNO SIGNIFICANT IMPACT

The U.S. Nuclear Regulatory Commission (the Commission) is considering issuance of amendments to Facility Operating Licenses Nos. DPR-32 and DPR-37, issued to Virginia Electric and Power Company, (the licensee), for operation of the Surry Power Station (SPS) located in Surry County, Virginia.

ENVIRONMENTAL ASSESSMENTIdentification of the Proposed Action:

By letter dated November 5, 1997, as supplemented by letter dated January 28, 1998, the licensee proposed to change the technical specifications (TS) to allow an increase in fuel enrichment (Uranium 235, U-235) to 4.3 weight percent. Surry TS currently limit fuel in the spent fuel pool and reactor to a maximum enrichment of 4.1 weight percent of U-235.

The Need for the Proposed Action:

The licensee intends, in the future, to use the more highly enriched fuel to support longer fuel cycles. Currently, TS 5.3.A.3 and 5.4.B limit the enrichment of reload fuel for the reactor core and the spent fuel storage racks to 4.1 weight percent U-235. The amendment is needed to give the licensee the flexibility to use more highly enriched fuel to support longer fuel cycles.

Environmental Impacts of the Proposed Action:

The Commission has completed its evaluation of the proposed revision to the TS and concludes that storage and use of fuel enriched with U-235 up to 4.3 weight is acceptable. The safety considerations associated with higher enrichments were evaluated by the NRC staff and the staff concluded that such changes would not adversely affect plant safety. The proposed changes will not increase the probability of any accident. The higher enrichment and increased fuel 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 accidents.

No changes are being made in the types or quantity of any effluents that may be released offsite, no changes are being made to the authorized power level, and there is no significant increase in the allowable individual or cumulative occupational 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," dated July 7, 1988. 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 an Environmental Assessment and Finding of No Significant Impact related to the Shearon Harris Nuclear Power Plant, Unit 1. 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 Surry Power Station, Units 1 and 2, given that the proposal involves less than 5% enrichment and burnup of less than 60 GWD/MT. Accordingly, the

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

With regard to potential nonradiological impacts, the proposed action involves features located entirely within the restricted area as defined in 10 CFR Part 20. It does not affect nonradiological plant effluents and has no other environmental impact. Accordingly, the Commission concludes that there are no significant nonradiological environmental impacts associated with the proposed action.

Alternatives to the Proposed Action:

Since the Commission has concluded there is no significant environmental impact associated with the proposed action, any alternatives with equal or greater environmental impact need not be evaluated. As an alternative to the proposed action, the staff considered denial of the proposed action. Denial of the application would result in no change in current 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 Surry Power Station.

Agencies and Persons Consulted:

In accordance with its stated policy, on February 4, 1998, the staff consulted with the Virginia State official, Mr. L. Foldese of the Virginia Department of Health, regarding the environmental impact of the proposed action. The State official had no comments.

FINDING OF NO SIGNIFICANT IMPACT

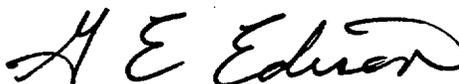
Based upon the environmental assessment, the Commission concludes that the proposed action will not have a significant effect on the quality of the human environment.

Accordingly, the Commission has determined not to prepare an environmental impact statement for the proposed action.

For further details with respect to the proposed action, see the licensee's letter dated November 5, 1997, as supplemented by letter dated January 28, 1998, which are available for public inspection at the Commission's Public Document Room, The Gelman Building, 2120 L Street, NW., Washington, DC, and at the local public document room located at The Swem Library, College of William and Mary, Williamsburg, Virginia 23185.

Dated at Rockville, Maryland, this 6th day of March 1998.

FOR THE NUCLEAR REGULATORY COMMISSION



Gordon E. Edison, Sr. Project Manager
Project Directorate II-1
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation