

May 30, 1990

Docket Nos. 50-338
and 50-339

Mr. W. L. Stewart
Senior Vice President - Nuclear
Virginia Electric and Power Company
5000 Dominion Blvd.
Glen Allen, Virginia 23060

Dear Mr. Stewart:

SUBJECT: ENVIRONMENTAL ASSESSMENT AND FINDING OF NO SIGNIFICANT
IMPACT RELATING TO PROPOSED AMENDMENTS TO FACILITY LICENSE
NOS. NPF-4 AND NPF-7 FOR THE NORTH ANNA POWER STATION, UNITS
NO. 1 & NO. 2 (NA-1&2) (TAC NOS. 69798 AND 69799)

Enclosed is an "Environmental Assessment and Finding of No Significant Impact"
for your information. This assessment relates to your application for amendments
dated September 30, 1988, as supplemented August 18, 1989, which would revise
the NA-1&2 Technical Specifications to permit the use of fuel enriched to 4.3
weight percent.

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

Sincerely,

Original Signed By

Leon B. Engle, Project Manager
Project Directorate II-2
Division of Reactor Projects-I/II
Office of Nuclear Reactor Regulation

Enclosure:
As stated

cc w/enclosure:
See next page

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Mr. W. L. Stewart
Virginia Electric & Power Company

North Anna Power Station
Units 1 and 2

cc:

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Mineral, Virginia 23117

UNITED STATES NUCLEAR REGULATORY COMMISSION
VIRGINIA ELECTRIC AND POWER COMPANY
OLD DOMINION ELECTRIC COOPERATIVE
NORTH ANNA POWER STATION, UNITS NO. 1 AND NO. 2
DOCKET NOS. 50-338 AND 50-339
ENVIRONMENTAL ASSESSMENT AND
FINDING OF NO SIGNIFICANT IMPACT

The U.S. Nuclear Regulatory Commission is considering the issuance of amendments to Facility Operating Licenses No. NPF-4 and NPF-7 to Virginia Electric and Power Company and Old Dominion Electric Cooperative (the licensee) for the North Anna Power Station, Units No. 1 and No. 2, located in Louisa County, Virginia.

ENVIRONMENTAL ASSESSMENT

Identification of Proposed Action

The proposed amendments would revise the Technical Specifications (TS) relating to fuel enrichment.

The proposed action is in accordance with the licensee's application dated September 30, 1988, as supplemented August 18, 1989.

The Need for the Proposed Action

The proposed changes are needed so that the licensee can use higher enrichment fuel which will result in significant fuel cost savings and enhancement of fuel management goals.

Environmental Impact of the Proposed Action:

The Commission has completed its evaluation of the proposed revisions to the TS. The proposed revisions would permit use of fuel enriched with Uranium 235 in excess of 4 weight percent and up to 4.3 weight percent. The licensee would expect the fuel to be irradiated to levels above 33 gigawatt days per metric ton (GWD/MT), but not to exceed 60 GWD/MT. The safety considerations associated with reactor operation with higher enrichment and extended irradiation have been evaluated by the NRC staff. The staff has concluded that such changes would not adversely affect plant safety. Also, the proposed changes have no adverse effect 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 accumulative occupational radiation exposure.

With regard to potential nonradiological impacts of reactor operation with higher enrichment and extended irradiation, the proposed changes to the TS 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 fuel and extended irradiation are discussed in 53 FR 30355 dated August 11, 1988. As indicated therein, the environmental cost contribution of the proposed increase in the fuel enrichment and irradiation limits 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).

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

Alternatives 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 principle 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 resources not previously considered in the Final Environmental Statement (as amended) for the North Anna Power Station, Units No. 1 and No. 2, dated April, 1973.

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

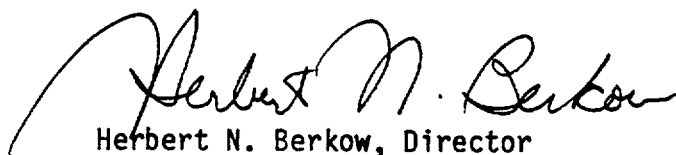
The Commission has determined not to prepare an environmental impact statement for the proposed amendments.

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 licensee's application for amendments dated September 30, 1988, as supplemented August 18, 1989, which is available for public inspection at the Commission's Public Document Room, 2120 L Street, N.W., Washington, D.C., and at the Alderman Library, Manuscripts Department, University of Virginia, Charlottesville, Virginia 22901.

Dated at Rockville, Maryland, this 30th day of May 1990.

FOR THE NUCLEAR REGULATORY COMMISSION



Herbert N. Berkow, Director
Project Directorate II-2
Division of Reactor Projects-I/II
Office of Nuclear Reactor Regulation