

November 1, 1993

Docket No. 50-346

Mr. Louis F. Storz
Vice President, Nuclear - Davis-Besse
Centerior Service Company
c/o Toledo Edison Company
300 Madison Avenue
Toledo, Ohio 43652

Dear Mr. Storz:

SUBJECT: DAVIS-BESSE NUCLEAR POWER STATION - ENVIRONMENTAL ASSESSMENT RELATED
TO AN APPLICATION FOR AMENDMENT TO FACILITY OPERATING LICENSE
NO. NPF-3 (TAC NO. M86933)

Enclosed for your information is a copy of an Environmental Assessment and
Finding of No Significant Impact related to the license amendment requested in
your application dated June 23, 1993, as supplemented on October 5, 1993.

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

Sincerely,

ORIGINAL SIGNED BY

Jon B. Hopkins, Sr. Project Manager
Project Directorate III-3
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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Mr. Louis F. Storz
Toledo Edison Company

Davis-Besse Nuclear Power Station
Unit No. 1

cc:

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UNITED STATES NUCLEAR REGULATORY COMMISSION
TOLEDO EDISON COMPANY
CENTERIOR SERVICE COMPANY
AND THE CLEVELAND ELECTRIC ILLUMINATING COMPANY
DAVIS-BESSE NUCLEAR POWER STATION, UNIT NO. 1
DOCKET NO. 50-346
ENVIRONMENTAL ASSESSMENT AND FINDING OF
NO SIGNIFICANT IMPACT

The U. S. Nuclear Regulatory Commission (the Commission) is considering issuance of an amendment to Facility Operating License No. NPF-3 in response to a request filed by the Toledo Edison Company, Centerior Service Company and the Cleveland Electric Illuminating Company (the licensee), for the Davis-Besse Nuclear Power Station (DBNPS), Unit No. 1, located in Ottawa County, Ohio.

ENVIRONMENTAL ASSESSMENT

Identification of Proposed Action

The proposed amendment would allow storage of new and spent fuel assemblies with an initial enrichment of uranium - 235 no greater than 5.0 weight percent versus 3.8 weight percent currently allowed.

The proposed action is in accordance with the licensee's application for amendment dated June 23, 1993, as supplemented on October 5, 1993.

The Need for the Proposed Action

The proposed amendment is needed because the licensee intends to use fuel of higher enrichment than currently used, which will permit longer fuel cycles with smaller fuel assembly feed batches resulting in more efficient uranium

utilization. Along with the reduction in reload batch size, there will be an increase in the fuel assembly average discharge burnup not to exceed 60,000 megawatt days per metric ton (MWD/MTU). Also, since fewer spent fuel assemblies will be produced, spent fuel transportation and storage capacity requirements will be reduced.

Environmental Impacts of the Proposed Action

The NRC staff generically reviewed the potential environmental impact of a proposed increase in fuel enrichment to 5.0 weight percent and in burnup to 60,000 MWD/MTU and published its evaluation in the Federal Register, (53 FR 6040) dated February 29, 1988, "Extended Burnup Fuel Use in Commercial LWRs; Environmental Assessment and Finding of No Significant Impact," and (53 FR 30355) dated August 11, 1988, "NRC Assessment of the Environmental Effects of Transportation Resulting from Extended Fuel Enrichment and Irradiation." The NRC staff concluded that the environmental impacts summarized in Table S-3 of 10 CFR 51.51 and in Table S-4 of 10 CFR 51.52 for a burnup level of 33,000 MWD/MTU are conservative and bound the corresponding impacts for burnup levels up to 60,000 MWD/MTU and uranium-235 enrichments up to 5.0 weight percent. The proposed action is bounded by these assessments. In addition, the licensee reevaluated the fuel handling accident and found that the results still meet acceptance criteria. Accordingly, the NRC staff concludes that the proposed action would result in no significant radiological environmental impact.

With regard to potential nonradiological impacts, the proposed increase in fuel enrichment and burnup will not cause significant increase in the

nonradiological impacts and will not change any conclusions reached by the staff in the "Final Environmental Statement for the Davis-Besse Nuclear Power Station, Unit 1" dated March 1973 and its supplement dated October 1975. Therefore, the staff concludes that there are no significant nonradiological environmental impacts associated with the proposed amendment.

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 amendment. This would not reduce 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 Statements for the Davis-Besse Nuclear Power Station, Unit 1, dated March 1973 and its supplement dated October 1975.

Agencies and Persons Consulted

The NRC staff consulted with the State of Ohio regarding the environmental impact of the proposed action.

FINDING OF NO SIGNIFICANT IMPACT

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

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 amendment dated June 23, 1993, as supplemented on October 5, 1993, which is available for public inspection at the Commission's Public Document Room, 2120 L Street, NW, Washington DC, 20555 and at the University of Toledo Library, Documents Department, 2801 Bancroft Avenue, Toledo, Ohio 43606.

Dated at Rockville, Maryland, this 1st day of November 1993.

FOR THE NUCLEAR REGULATORY COMMISSION

Original signed by John N. Hannon

John N. Hannon, Director
Project Directorate III-3
Division of Reactor Projects III/IV/V
Office of Nuclear Reactor Regulation

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