

Westinghouse Electric Corporation Nuclear Manufacturing Divisions

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June 30, 1994 NTD-NRC-94-4180

U.S. Nuclear Regulatory Commission ATTN: Document Control Desk Washington, DC 20555

Attention:

T. E. Collins, Acting Chief

Reactor Systems Branch

Division of Systems Technology

Subject:

Addendum 1 to WCAP-10851-P-A, "Uranium Dioxide - Gadolinia Fuel Material

Properties for Gadolinia Concentrations > 6 w/o [Proprietary]

References:

R. A. Weiner, et al., "Improved Fuel Performance Models for Westinghouse Fuel

Rod Design and Safety Evaluations," WCAP-10851-P-A, August 1988.

## Dear Mr. Collins:

In Reference (1) Westinghouse submitted material properties to be used in fuel performance calculations for fuel with UO<sub>2</sub> - Gd<sub>2</sub>O<sub>3</sub> (gadolinia) pellets. The SER for Reference (1) limited the use of the gadolinia models to concentrations of 6 w/o or less, primarily due to the lack of gas release data from fuel with gadolinia concentrations above 4 w/o and the concerns about the fission gas release at higher gadolinia concentrations.

Enclosed are six (6) copies of a submittal that provides the basis for extending the licensing of the Westinghouse models for gadolinia fuel performance calculations to gadolinia concentrations above 6 w/o. As discussed with your staff, this submittal is being made in lieu of your approval of the use of gadolinia concentrations > 6 w/o addressed in the review of topical report WCAP-12488," Westinghouse Fuel Criteria Evaluation Process." Your timely review and approval of this information is requested.

This submittal contains Westinghouse proprietary information of trade secrets, commercial or financial information which we consider privileged or confidential pursuant to 10 CFR 9.5(4). Therefore, it is requested that the Westinghouse proprietary information attached hereto be handled on a confidential basis and be withheld from public disclosure.

This material is for your internal use only and may be used solely for the purpose for which it is submitted. It should not be otherwise used, disclosed, duplicated, or disseminated, in whole or in part, to any other person or organization outside the Office of Nuclear Reactor Regulation without the expressed prior written approval of Westinghouse.

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Correspondence with respect to any Application for Withholding should reference AW-94-654 and should be placessed to N. J. Liparulo, Manager of Nuclear Safety Regulatory and Licensing Activities, Westinghouse Electric Corporation, P. O. Box 355, Pittsburgh, Pennsylvania 15230-0355.

Very truly yours,

Mesey

Nicholas J. Liparulo, Manager

Nuclear Safety Regulatory and Licensing Activities

cc: L. W. Barnett, NRC (MS 12H5)

L. E. Phillips, NRC (MS8E23)

S. L. Wu, NRC (MS 8E23)

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