

Westinghouse Electric Corporation Energy Systems

Nuclear and Advanced Technology Division

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NTD-NRC-94-4278 NTD-NSA-SAI-94-349 August 31, 1994

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

Reference:

- 1) W Letter NTD-NRC-94-4034, N. J. Liparulo (W) to US NRC Document Control Desk, "Slides from the January 12, 1994 NRC Meeting on Safety Injection in the Broken Loop and Westinghouse Topical Report WCAP-11767 (Proprietary) COSI/Steam Condensation Experiment Analysis, March 1988", January 11, 1994
- 2) W Letter ET-NRC-93-3971, N. J. Liparulo (W) to US NRC Document Control Desk, "Notification of a Significant Change to the Westinghouse Small Break LOCA ECCS Evaluation Model, Pursuant to 10CFR50.46 (a)(3)(ii): Safety Injection (SI) in the Broken Loop", September 21, 1993.

Attention:

Mr. R. C. Jones, Jr., Chief, Reactor Systems Branch,

Office of Nuclear Reactor Regulation

Subject:

Notification of Changes to the Westinghouse Small Break LOCA ECCS Evaluation Model and Transmittal of Topical Reports WCAP-10054-P, Addendum 2 and WCAP-10081-NP, Addendum 2

Dear Mr. Jones:

Westinghouse has completed work on developing methods for modeling SI to the broken loop and use of the improved SI steam condensation model (COSI). Attached are 10 copies each of WCAP-10054-P, Addendum 2 and WCAP-10081-NP, Addendum 2. This transmittal satisfies commitments made at our January 12, 1994 meeting (Reference 1) and addresses NRC issues related to the Reference (2) report. Additionally, 8 copies of WCAP-11767-P which serves as a reference, were provided to the staff at the January 12th meeting. Westinghouse can provide additional copies of this WCAP upon request.

Reference (2) reported results using the NOTRUMP small break evaluation model that indicated that broken loop SI can result in an increase in the calculated PCT. However, use of a more realistic model for condensation of steam by pumped SI is shown in WCAP-10054-P, Addendum 2/10081-NP, Addendum 2 to provide a benefit larger than any penalty seen for SI in the broken loop. These topical

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reports present the basis for these conclusions. The models described in these topical reports will be applied to all new analyses prior to NRC review and approval. Once the models described in this topical have been reviewed and approved by the NRC, it is expected that all Westinghouse plants analyzed with the NOTRUMP small break evaluation model will demonstrate increased margins to the 10 CFR 50.46 PCT limit.

This submittal contains Proprietary information of Westinghouse Electric Corporation. In conformance with the requirements of 10 CFR Section 2.790, as amended, of the Commission's regulations, we are enclosing with this submittal an application for withholding from public disclosure and an affidavit. The affidavit sets forth the basis on which the information identified as proprietary may be withheld from public disclosure by the Commission.

The COSI test data contained in WCAP-11767 is the property of foreign nation and is proprietary under the requirements of 10 CFR Section 2.790 (d) (2), as amended, of the Commission's regulations.

Correspondence with respect to the Affidavit or Application for Withholding should reference AW-94-560 (WCAP-11767-P) or AW-94-715 (WCAP-10054-P, Addendum 2) and should be addressed to N. J. Liparulo, Manager, Nuclear Safety Regulatory and Licensing Activities, Westinghouse Electric Corporation, P.O. Box 355, Pittsburgh, Pennsylvania, 15230-0355.

Very truly yours,

N. J. Liparulo, Marrager

Nuclear Safety Regulatory and Licensing Activities

CMT/sm

Enclosure(s)

cc: T. Marsh, RSB F. Orr, RSB NTD-NRC-94-4278 NTD-NSA-SAI-94-349 Page 3 Mr. R. C. Jones

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