NS-EPR-2940
SED-SA-00733

Westinghouse Electric Corporation
Water Reactor Divisions

Box 355
Pittsburgh Pennsylvania 15230
(412) 374-4868

August 10, 1984

Dr. Cecil O. Thomas, Chief
Special Projects Branch
Division of Project Management
U.S. Nuclear Regulatory Commission
Phillips Building
7920 Norfolk Avenue
Bethesda, Maryland 20814

SUBJECT: Draft Answers to NRC Request Number 2 for Additional Information on WCAP-10054(P) and submittal of WCAP-10054, Addendum 1, "Westinghouse Small Break ECCS Evaluation Model Using the NOTRUMP Code for the Combustion Engineering NSSS."

Dear Dr. Thomas:

REFERENCES:
(1) Letter to E. P. Rahe (W) from C. O. Thomas (NRC) dated August 16, 1983.

(2) Westinghouse Letter, E. P. Rahe to C. O. Thomas, NS-EPR-2828, September 26, 1983

(3) Westinghouse Letter, E. P. Rahe to C. O. Thomas, NS-EPR-2838, October 10, 1983

Enclosed are the draft answers to the several questions in the NRC request Number 2, Reference 1, for additional information on WCAP-10054 (P) that Westinghouse did not provide a response to in the information transmitted in Reference 2. In addition, information is supplied on all remaining NUREG-0611 items that have not been previously addressed. This submittal covers the following items:

- Simulation of semiscale test S-UT-08
- Steam generator secondary side noding sensitivity
- Breaks in the pressurizer vapor space
- Small break LOCA with RCP seal leak
- Small break LOCA with RCPs running

Add: J. Guttmann - 3 Complete Encl
N. Lauben - Complete Encl
B. Sheron - WCAP Only + Ltr

T007
1/22 WCAP-10054A Addn 1

8408230340 840810
PDR TOPRP EMVWEST
C PDR

- o Reactor kinetics model
- o Steam generator condensation heat transfer model
- o Additional discussion on break flow modeling
- o Application of the small break evaluation model to Combustion Engineering plants

This submittal completes the Westinghouse response to all NRC questions on WCAP-10054 (P). All questions on WCAP-10079 (P) were responded to in Reference 3. This submittal completes the Westinghouse response to NUREG-0737, Section II.K.3.30

I will take this opportunity to inform you of the directions Westinghouse is taking to comply with NUREG-0737, Section II.K.3.31, other plans Westinghouse has to apply NOTRUMP and what is needed from the staff to support these efforts. Generic letter 83-35 informed licensees that the plant specific small break LOCA analyses required by NUREG-0737, Section II.K.3.31 could be performed on a generic basis. It is the intent of Westinghouse to submit a set of studies covering the basic Westinghouse plant types that will demonstrate over a range of small break sizes the maximum peak cladding temperature calculated by WFLASH is higher than the maximum peak cladding temperature calculated by NOTRUMP. This report will be submitted within one year of issuance of the NOTRUMP SER. One utility plans to submit a plant specific small break analysis using NOTRUMP as a part of an uprating in the fourth quarter of 1984. These analyses are expensive and time consuming by nature and as a result we will not begin these analyses until we have a high degree of confidence that the model we use is the model the staff will approve. We would like to begin these analyses in September of 1984, thus a timely review of our responses to your questions is imperative.

This submittal also includes for your review and approval, twenty-two copies of WCAP-10054, Addendum 1 (P), which describes the application of NOTRUMP to reloads of Combustion Engineering design nuclear steam supply systems. This report is subject to change upon completion of our internal verification and modifications required by your review. Previous correspondence indicated that the report describing the new small break model application would be submitted several months following submittal of WCAP-10054 (P). However, in order to expedite the review process, WCAP-10054, Addendum 1 is being submitted at this time so that the staff may begin its review effort.

Potential future application of the CE-NOTRUMP Model in support of Westinghouse reload fuel for the Millstone II plant is anticipated. Thus, a timely review of this report is requested.

Note that at this time, only the proprietary version, appropriately bracketed to identify proprietary information, has

been provided. This is consistent with the guidelines given in NUREG-0390, Vol. 6, No. 1, "Topical Report Review Status". Westinghouse will combine this new information with the submitted report to prepare a revised report. Both proprietary and nonproprietary version of the revised report will be submitted upon receipt of an NRC acceptance letter and SER, and/or when the licensing topical report is referenced in a specific license application in accordance with NUREG-0390.

This submittal contains proprietary information of Westinghouse Electric Corporation. In conformance with the requirements of 10CFR2.790, 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 may be withheld from public disclosure by the Commission.

Correspondence with respect to the affidavit or application for withholding should reference AW-84-74 and should be addressed to R. A. Wiesemann, Manager of Regulatory and Legislative Affairs, Westinghouse Electric Corporation, P.O. Box 355, Pittsburgh, Pennsylvania 15230.

Very truly yours,

E. P. Rahe, Jr., Manager
Nuclear Safety Department

cc: 3
J. Guttmann, NRC-RSB
N. Lauben, NRC-RSB
B. Sheron, NRC-RSB
D. Moran, NRC-SPB