Westinghouse
Electric Corporation

Water Reactor
Divisions

Nuclear Technology Division

Box 355
Pittsburgh Pennsylvania 15230

February 19, 1985

NS-NRC-85-3008

Mr. Harold R. Denton, Director
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Reference: 1) Letter from C. Eicheldinger to J. F. Stolz, NS-CE-1220, dated September 29, 1976. Subject: Mass and Energy Releases Following a Steam Line Rupture, WCAP-8822 (Proprietary) and WCAP-8860 (Non-proprietary).

2) Letter from E. P. Rahe, Jr. to J. R. Miller, NS-EPR-2563, dated February 17, 1982. Subject: Additional Information on WCAP-8822 (Proprietary) and WCAP-8860 (Non-proprietary).

3) Letter from E. P. Rahe, Jr. to C. O. Thomas, NS-EPR-85-3009, dated February, 1985. Subject: Mass and Energy Releases Following a Steam Line Rupture, WCAP-8822PS1 (Proprietary) and WCAP-8860S1 (Non-Proprietary).

Dear Mr. Denton:

Subject: STEAM SUPERHEATING DURING SLB FOR DRY CONTAINMENTS

Enclosed are:

1. One (1) copy of selected Westinghouse slides presented at a Westinghouse/NRC meeting on steam superheat during steam line breaks on January 25, 1985 (Proprietary).

2. One (1) copy of selected Westinghouse slides presented at a Westinghouse/NRC meeting on steam superheat during steam line breaks on January 25, 1985 (Non-Proprietary).

DESIGNATED ORIGINAL

Certified By Hazel Smith 3/8/85

T007
1/1

Also enclosed are:

1. One (1) copy of Application for Withholding, AW-85-012 (Non-Proprietary).

2. One (1) copy of Affidavit (Non-Proprietary).

On January 25, 1985, a meeting was held between members of your staff and Westinghouse. The purpose of this meeting was to discuss steam superheating during steamline break events and its impact on containment temperature and pressure for large dry and sub-atmospheric containment designs. Westinghouse had previously transmitted results (ref. 2) of studies of this effect in response to an NRC question during the review of the mass and energy release topical report, WCAP-8822 (ref. 1). At the meeting, results from reference 2 were presented along with results from recent superheat sensitivity analyses. The latter analyses were performed for the purpose of verification of results presented in reference 2 and utilized a version of the LOFTRAN code (ref. 3) which explicitly accounts for steam superheating during steam line breaks.

Based on the results of reference 2 and the verification analyses, Westinghouse has concluded that for large dry and sub-atmospheric containment designs, there is no need for reanalysis of steam line break M/E releases inside large dry and sub-atmospheric containments. However, all future analyses associated with original license applications will incorporate steam superheating using the models described in reference 3. At the January 25, 1985 meeting, Westinghouse agreed to provide a supplement to WCAP-8822 (Supplement 2) detailing the information and conclusions of the attached slides.

This letter will be referenced as part of license applications for Georgia Power Company (Vogtle) and Northeast Utilities Service Company (Millstone 3).

This submittal contains proprietary information of Westinghouse Electric Corporation. In conformance with the requirements of 10CFR 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 may be withheld for public disclosure by the Commission. Correspondence with respect to the affidavit or application for withholding should reference AW-85-012 and should be addressed to R. A. Wiesemann, Manager, Regulatory and Legislative Affairs, Westinghouse Electric Corporation, P. O. Box 355, Pittsburgh, Pennsylvania 15230.

Please feel free in contacting M. P. Osborne, Manager, Plant Transient Analysis (412/374-4481) if you have any questions concerning this matter.

Very truly yours,

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

JCB/mh

Attachments