Westinghouse Electric Corporation
Water Reactor Divisions

Box 855
Pittsburgh Pennsylvania 15230

NS-EPR-2745

March 31, 1983

Project No. 668

Darrell G. Eisenhut, Director
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Phillips Building
7920 Norfolk Avenue
Bethesda, Maryland 20014

SUBJECT: Westinghouse Advanced Pressurized Water Reactor Pretendering Module No. 4 - Emergency Seal Injection System

REF:
1. Westinghouse letter (NS-EPR-2675) dated November 1, 1982, E. P. Rahe, Jr. to F. J. Miraglia, Jr.
2. Westinghouse letter (NS-EPR-2590) dated June 7, 1982. E. P. Rahe, Jr. to W. J. Dircks
3. NRC letter dated July 14, 1982, H. R. Denton to E. P. Rahe, Jr.

Dear Mr. Eisenhut:

Enclosed are thirty-five (35) copies of a Westinghouse proprietary document entitled, "WAPWR Pretendering Module 4 - Emergency Seal Injection System." This document supplements the previous submittal material (see Reference 1).

Also enclosed are one (1) copy of an Affidavit and one (1) copy of an Application for Withholding Proprietary Information from Public Disclosure, AW-83-23 (Non-Proprietary).

Westinghouse is in the process of developing an Advanced Pressurized Water Reactor (WAPWR) design for domestic as well as international application in the late 1980's-1990's time frame. This total plant design is being developed through a major cooperative effort with a Japanese vendor and is directed toward the establishment of final design detail and completion of an extensive test program by the end of 1985.

In regard to domestic licensing of this design, Westinghouse intends to apply for final one-step licensing certification based upon final design approval with rulemaking completed in 1987. As an interim step, preliminary design approval is targeted for 1985.

The overall WAPWR licensing program was briefly outlined in Reference 2. In response to Reference 1, NRR has agreed to support the WAPWR review (see Reference 3).

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The material provided for the Emergency Seal Injection System (ESIS) consists of: 1) a description of the system functions (safety and non-safety), 2) a description of the design basis (limiting safety criteria and performance and design goals), and 3) a detailed system description including the engineering flow diagram.

This module is the fourth of a series of modules to be submitted through 1983. The purpose of these modules is to: 1) provide WAPWR design detail, 2) establish SAR documentation requirements, and 3) reflect licensing control document commitments in order to obtain NRC agreement with design basis and to obtain NRC feedback on design options.

It should be recognized that there are analyses and tests underway which will improve our understanding of RCP seal leakage characteristics under loss of all AC conditions. It is becoming more apparent that seal support is not required during such events. As a result Westinghouse is currently reviewing the need for an ESIS and may propose that some non-safety upgrades of the CVCS be used in lieu of an ESIS.

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-83-23 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

MDB/kk
Enclosures

cc: H. R. Denton (NRC)
R. Mattson (NRC)
F. R. Miraglia, Jr. (NRC)
C. Thomas (NRC)
G. C. Meyer (NRC)