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NTD-NRC-96-4628
DCP/NRC0452
Docket No.: STN-52-003

January 23, 1996

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

ATTENTION: T. R. QUAY

SUBJECT: WESTINGHOUSE POSITION ON IN-VESSEL RETENTION OF MOLTEN
CORE DEBRIS FOR AP600

Reference 1: "In-Vessel Coolability and Retention of a Core Melt Report," Westinghouse
letter to Document Control Desk, NTD-NRC-95-4569, September 28, 1995.

Dear Mr. Quay:

Enclosed is a document that describes the Westinghouse position on resolution of the in-vessel retention of molten core debris and related severe accident issues for the AP600 Design Certification program.

The purpose of Enclosure 1 is to recommend an approach for the closure of issues related to preventing the release of core debris from the reactor vessel during a severe accident by flooding the cavity and cooling the external surface of the vessel wall. This severe accident management strategy is called in-vessel retention of molten core debris (IVR). It is the Westinghouse position that the DOE-supported Advanced Reactor Severe Accident Program ROAAM IVR report (see reference 1) provides a defensible technical basis for demonstrating vessel integrity and eliminating the consideration of ex-vessel phenomena related to debris relocation in the flooded configuration. As discussed in the enclosure, Westinghouse will demonstrate that the conditions and assumptions in the ROAAM IVR analysis are met in the AP600 design.

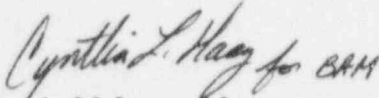
Enclosure 2 is a copy of the paper (reference 6) that is referenced in Enclosure 1. This enclosure is to be published in Reliability Engineering and Systems Safety.

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The Westinghouse position on resolution of the in-vessel retention of molten core debris should be reviewed by the NRC in preparation for a meeting which we will schedule to discuss the issue.

Please contact Cynthia L. Haag on (412) 374-4277 if you have any questions concerning this transmittal.



Brian A. McIntyre, Manager
Advanced Plant Safety and Licensing

/nja

Enclosures

cc: D. Jackson, NRC (1 copy Enclosures)
J. Kudrick, NRC (1 copy Enclosures)
J. Monninger, NRC (1 copy Enclosures)
N. J. Liparulo, Westinghouse (w/o Enclosures)

**Enclosure 1 to Westinghouse
Letter NTD-NRC-96-4628**

January 23, 1996