

November 13, 2003

MEMORANDUM TO: Laura A. Dudes, Section Chief
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FROM: John Segala, Senior Project Manager */RA/*
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SUBJECT: JUNE 26, 2003, AP1000 TELEPHONE CONFERENCE CALL SUMMARY

On Thursday, June 26, 2003, a telephone conference call was held with Westinghouse Electric Company (Westinghouse) representatives and Nuclear Regulatory Commission (NRC) staff to discuss containment sump performance issues. The NRC staff specifically discussed the Westinghouse response to draft safety evaluation report (DSER) open items (OIs) 6.2.1.8.1-1, 6.2.1.8.2-1, 6.2.1.8.3-1, 6.2.1.8.3-2, and 6.2.1.8.3-3. Westinghouse submitted responses to these open items on June 23, 2003 (ADAMS Accession No. ML031760598). A list of call participants is included in Attachment 1.

The following is a brief summary of the discussions regarding identified topics:

OI 6.2.1.8.1-1:

This OI is related to whether the post-loss of coolant accident (LOCA) generation of debris from fibrous insulation is located beyond the 12 pipe diameter sphere that Westinghouse assumes for the jet impingement zones in the presence of intervening structures.

Westinghouse stated that they performed a survey of fibrous insulation located inside containment. There is very little fiberglass insulation used inside containment. The only place where the reactor coolant pressure boundary piping is located near fibrous insulation is for the chilled water lines for the fan coolers near the top of the pressurizer. The fiberglass insulation is provided to prevent condensation forming on the chilled water lines. Westinghouse proposed to look into increasing the 12 pipe diameter spherical zone of destruction to account for the possibility of LOCA blowdown jets being reflected and attenuated by intervening structures.

OIs 6.2.1.8.2-1, 6.2.1.8.3-1, 6.2.1.8.3-2, and 6.2.1.8.3-3:

OIs 6.2.1.8.2-1, 6.2.1.8.3-1, and 6.2.1.8.3-3 are related to the potential for debris blockage in the in-containment refueling water storage tank (IRWST) screens, in a debris bed located in the reactor core, and in the containment recirculation screens, respectively. OI 6.2.1.8.3-2 is related to the potential for paint particles significantly smaller than 200 mils in diameter to block the containment recirculation screens following a LOCA.

The NRC staff asked Westinghouse why the face velocity of the water calculated at the protective grid (P-Grid) at the bottom of the fuel assemblies (flow area of 47 ft²) was not consistent with the face velocity of the water calculated at the containment sump screens (flow area of 70 ft²). Westinghouse stated that they would review their calculation and then revise the open item response accordingly.

The staff also asked questions regarding Westinghouse's calculated pressure drop across the IRWST screens, a debris bed located in the reactor core, and the containment recirculation screens. In addition, the staff asked questions regarding Westinghouse's porosity and compaction assumptions used in their calculations. To facilitate answering the staff's questions, Westinghouse agreed to make their calculations available for the staff to audit.

Docket No. 52-006

Attachment: As stated

OIs 6.2.1.8.2-1, 6.2.1.8.3-1, 6.2.1.8.3-2, and 6.2.1.8.3-3:

OIs 6.2.1.8.2-1, 6.2.1.8.3-1, and 6.2.1.8.3-3 are related to the potential for debris blockage in the in-containment refueling water storage tank (IRWST) screens, in a debris bed located in the reactor core, and in the containment recirculation screens, respectively. OI 6.2.1.8.3-2 is related to the potential for paint particles significantly smaller than 200 mils in diameter to block the containment recirculation screens following a LOCA.

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JUNE 26, 2003
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