

July 9, 2004

Bill Eaton, BWRVIP Chairman  
Entergy Operations, Inc.  
Echelon One  
1340 Echelon Parkway  
Jackson, MS 39213-8202

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION - REVIEW OF THE BOILING  
WATER REACTOR VESSEL AND INTERNALS PROJECT REPORT,  
BWRVIP-76, "BOILING WATER REACTOR CORE SHROUD INSPECTION &  
FLAW EVALUATION GUIDELINES"

Dear Mr. Eaton:

By letter dated September 23, 2002, you submitted for NRC staff review, Electric Power Research Institute (EPRI) proprietary report, BWRVIP-76, "Boiling Water Reactor Core Shroud Inspection & Flaw Evaluation Guidelines." The purpose of this report is to provide generic acceptance standards and inspection intervals for horizontal and vertical welds in repaired and unrepaired core shrouds, and procedures for determining plant-specific inspection intervals when the generic acceptance standards are not applicable. The report also includes generic inspection intervals and acceptance standards for radial ring welds, repair hardware and repair anchorages in repaired core shrouds.

The NRC staff has completed its initial review of the BWRVIP-76 report. As indicated in the attached request for additional information, the NRC staff has determined that additional information is needed to complete the review. If you have any questions, please contact Meena Khanna at (301) 415-2150.

Sincerely,

*/RA/*

Matthew A. Mitchell, Acting Chief  
Vessels & Internals Integrity and Welding Section  
Materials and Chemical Engineering Branch  
Division of Engineering  
Office of Nuclear Reactor Regulation

Project No. 704

Enclosure: As stated

cc: BWRVIP Service List

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REQUEST FOR ADDITIONAL INFORMATION  
OF THE BWRVIP VESSEL AND INTERNALS PROJECT REPORT BWRVIP-76

The staff has completed its initial review of the topical report BWRVIP-76, "Boiling Water Reactor Core Shroud Inspection & Flaw Evaluation Guidelines," dated November 1999. In order to complete the review, the staff needs additional information from the Boiling Water Reactor Vessels and Internals Program (BWRVIP). The staff's request for additional information (RAI) is provided below. The RAIs have been discussed with the BWRVIP during the meeting that was held on July 1, 2004, at NRC Headquarters in Rockville, Maryland.

BWRVIP-76-1

In paragraph 2.3.2 of the BWRVIP-76 report, surface examinations are identified in several places as including visual examinations. To be consistent with Section XI of the American Society of Mechanical Engineers (ASME) Code, surface examinations are identified as magnetic particle, liquid penetrant and eddy current examinations. Visual examinations (VT-1, VT-2, and VT-3) are identified in a separate category. Therefore, the staff requests that the BWRVIP revise the inspection categories, as identified above, in a future supplement to the BWRVIP-76 report.

BWRVIP-76-2

Section 2.3.1 of the BWRVIP-76 report states that end of intervals (EOIs) will be determined for any cracks found in vertical welds in the un-repaired Category C shrouds by using "an acceptable crack growth rate." The staff requests that the BWRVIP provide more detail regarding "an acceptable crack growth rate (i.e., is the crack growth rate going to be in accordance with a BWRVIP, Materials Reliability Program, Westinghouse Commercial Atomic Power topical report?).

BWRVIP-76-3

Section 3.2 of the BWRVIP-76 report states that inspections are not required for horizontal or vertical welds that are structurally replaced by a repair. The staff requests that the BWRVIP provide a definition of "structurally replaced." The staff also requests that the BWRVIP provide examples and sketches of how horizontal and vertical welds would be structurally replaced by a repair that would not require any future inspections. Please provide a list of BWR plants that have structurally replaced horizontal welds and structurally replaced vertical welds.

ENCLOSURE

cc:

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