

July 2, 2007

Rick Libra, BWRVIP Chairman
DTE Energy
Fermi Nuclear Plant (M/S 280 OBA)
6400 N. Dixie Highway
Newport, MI 48166-9726

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION - BWRVIP-76:
BOILING WATER REACTOR (BWR) VESSEL AND INTERNALS PROJECT,
BWR CORE SHROUD INSPECTION AND FLAW EVALUATION GUIDELINES

Dear Mr. Libra:

The Nuclear Regulatory Commission staff is reviewing Electric Power Research Institute Technical Report 114232, "BWR Core Shroud Inspection and Flaw Evaluation Guidelines (BWRVIP-76)" submitted by the Boiling Water Reactor Vessel and Internals Project (BWRVIP) for compliance with the license renewal rule Title 10 of the *Code of Federal Regulations* Part 54. The BWRVIP-76 report defines 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 staff has determined that additional information is needed to complete the review. The staff's request for additional information (RAI) regarding the BWRVIP-76 report is enclosed. In order to complete the staff's review of the report in an efficient and effective manner, your complete response to the attached RAI is required no later than October 30, 2007. If you cannot provide a complete response by this date, please contact John Honcharik at (301) 415-1157 to discuss the withdrawal of the BWRVIP-76 report for compliance with the license renewal rule and its future resubmittal when you are prepared to respond to the RAI. In addition, if you have any other questions regarding the enclosed RAI, please contact Mr. Honcharik.

Sincerely,

/RA/

Matthew A. Mitchell, Chief
Vessels & Internals Integrity Branch
Division of Component Integrity
Office of Nuclear Reactor Regulation

Project No. 704

Enclosure:
Request for Additional Information

cc: BWRVIP Service List

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The staff has determined that additional information is needed to complete the review. The staff's request for additional information (RAI) regarding the BWRVIP-76 report is enclosed. In order to complete the staff's review of the report in an efficient and effective manner, your complete response to the attached RAI is required no later than September 28, 2007. If you cannot provide a complete response by this date, please contact John Honcharik at (301) 415-1157 to discuss the withdrawal of the BWRVIP-76 report for compliance with the license renewal rule and its future resubmittal when you are prepared to respond to the RAI. In addition, if you have any other questions regarding the enclosed RAI, please contact Mr. Honcharik.

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REQUEST FOR ADDITIONAL INFORMATION
BWRVIP-76 REPORT
BOILING WATER REACTOR (BWR) VESSEL AND INTERNALS PROJECT
BWR CORE SHROUD INSPECTION AND FLAW EVALUATION GUIDELINES
COMPLIANCE WITH THE LICENSE RENEWAL RULE

RAI 76(LR)-1

Discovery of intergranular stress corrosion cracking (IGSCC) on the upper support location of the tie rod repair at Hatch, Unit 1 during the unit's spring 2006 refueling outage suggests that the inspection criteria for the tie rod repair hardware for the extended period of operation should be reevaluated. The BWRVIP re-evaluation should take into consideration the presence of any high stress region that exceeds the threshold limits for IGSCC in the tie rod repair hardware.

RAI 76(LR)-2

Section 4.1, item 5 of the BWRVIP-100-A report, "Updated Assessment of the Fracture Toughness of Irradiated Stainless Steel for BWR Core Shrouds," states that fracture toughness values of stainless steel materials that are exposed to neutron fluence values greater than 1×10^{21} n/cm² (E > 1 MeV) are lower than those used in Appendix C of the BWRVIP-76 report. During a license renewal period, core shroud welds and base materials may be exposed to neutron fluence values 1×10^{21} n/cm² (E > 1 MeV) or greater. Since the inspection frequency in the BWRVIP-76 report is based on fracture toughness values which are not consistent with the BWRVIP-100-A report, the staff requests that the BWRVIP reevaluate the inspection frequency and strategy that are specified in Section 3 of Appendix K to the BWRVIP-76 report.