

July 31, 2008

Mr. Mark B. Bezilla
Site Vice President
FirstEnergy Nuclear Operating Company
Perry Nuclear Power Plant
Mail Stop A-PY-A290
P.O. Box 97, 10 Center Road
Perry, OH 44081-0097

SUBJECT: PERRY NUCLEAR POWER PLANT, UNIT NO. 1 - REQUEST FOR
ADDITIONAL INFORMATION RELATED TO RELIEF REQUEST IR-056,
REVISION 0 (TAC NO. MD8198)

Dear Mr. Bezilla:

By letter to the Nuclear Regulatory Commission (NRC) dated February 20, 2008, FirstEnergy Nuclear Operating Company submitted a request to use various Boiling-Water Reactor Vessel and Internals Project guidelines as an alternative to certain requirements of Section XI of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code for its second 10-year interval inservice inspection program plan of reactor pressure vessel internal components, for the Perry Nuclear Power Plant, Unit No. 1.

The NRC staff is reviewing your submittal and has determined that additional information is required to complete the review. The specific information requested is addressed in the enclosure to this letter. During a discussion with your staff on July 21, 2008, it was agreed that you would provide a response within 30 days from the date of this letter.

The NRC staff considers that timely responses to requests for additional information help ensure sufficient time is available for staff review and contribute toward the NRC's goal of efficient and effective use of staff resources. If circumstances result in the need to revise the requested response date, please contact me at (301) 415-4037.

Sincerely,

/RA/

Cameron S. Goodwin, Project Manager
Plant Licensing Branch III-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-440

Enclosure:
Request for Additional Information

cc w/encl: See next page

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Perry Nuclear Power Plant, Unit No. 1

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REQUEST FOR ADDITIONAL INFORMATION

PERRY NUCLEAR POWER PLANT, UNIT NO. 1

DOCKET NO. 50-440

For the second 10-year inservice inspection (ISI) interval, the Perry Nuclear Power Plant, Unit No. 1 (PNPP) adopted the 1989 Edition of American Society of Mechanical Engineers (ASME) Code, Section XI with no Addenda as the ASME Code of record.

In reviewing the FirstEnergy Nuclear Operating Company's submittal dated February 20, 2008 (Agencywide Documents Access and Management System Accession No. ML080580410), related to Relief Request IR-056, Revision 0, for the PNPP. The licensee proposes to use Boiling-Water Reactor Vessel Internal Program (BWRVIP) guidelines for the inspection of reactor vessel internals components as an alternative to certain requirements of Section XI of the ASME Code for the second 10-year ISI interval. The Nuclear Regulatory Commission staff has reviewed the information the licensee provided that supports the proposed Relief Request IR-056, Revision 0, and has determined the following information is needed in order to complete its review:

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," dated August 2006, 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, "BWR Core Shroud Inspection and Flaw Evaluation Guidelines." Discuss the following:

- (1) Confirm that your planned inspections of the PNPP core shroud and/or core shroud repair hardware for the second 10-year ISI interval are consistent with both BWRVIP-76 and BWRVIP-100-A;
- (2) Identify components that will be inspected to BWRVIP guidelines and have a neutron fluence greater than 1×10^{21} n/cm² (E > 1 MeV);
- (3) For components with neutron fluence greater than 1×10^{21} n/cm² (E > 1 MeV), identify the fracture toughness to be used to determine the inspection requirements for the core shroud. Explain how the fracture toughness is used to determine the inspection requirements in accordance with BWRVIP-76.

ENCLOSURE