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U.S. Nuclear Regulatory Commission
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Subject: Mitigation of Alloy 82/182 Pressurizer Butt Welds and Enhanced Reactor Coolant System Leakage Monitoring Program

Ladies and Gentlemen:

By letter dated January 25, 2007 (Serial Number 3304), FirstEnergy Nuclear Operating Company (FENOC) provided the Nuclear Regulatory Commission (NRC) with inspection information and current mitigation plans for the Alloy 82/182 pressurizer butt welds at the Davis-Besse Nuclear Power Station (DBNPS). The letter also provided a description of the current DBNPS leakage monitoring program. Based on feedback received from the NRC by electronic mail on January 26, 2007, FENOC submitted supplemental information on February 7, 2007 (Serial Number 3316) with commitments relating to inspection frequency of unmitigated pressurizer butt welds and reporting requirements for the DBNPS.

During a February 21, 2007 telephone conference call, the NRC staff provided feedback regarding the DBNPS reactor coolant system (RCS) leakage monitoring program, including associated reporting requirements, relevant to Alloy 82/182 pressurizer butt weld leakage concerns, and discussed additional details from the NRC staff's perspective. During a telephone conference call with NRC staff on February 23, 2007, FENOC provided verbal confirmation of the intent to establish regulatory commitments for the proposed leakage monitoring program. Specific details of the enhanced RCS leakage monitoring program are provided in Attachment 1.

Regulatory commitments associated with this letter are listed in Attachment 2, and supersede in their entirety the regulatory commitments established by FENOC in the January 25, 2007 and February 7, 2007 letters. If there are any questions or if additional information is required, please contact Mr. Gregory H. Halnon, Director - FENOC Fleet Regulatory Affairs at (330) 315-7500.

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Sincerely,

Mark B. Bezilla, Vice President-Nuclear

Attachments:

1. Mitigation of Alloy 82/182 Pressurizer Butt Welds and Enhanced Reactor Coolant System Leakage Monitoring Program.

2. Regulatory Commitments.

cc: NRC Executive Director for Operations
NRC Region III Regional Administrator
NRC Project Manager – Davis-Besse Nuclear Power Station
NRC Resident Inspector – Davis-Besse Nuclear Power Station

Mitigation of Alloy 82/182 Pressurizer Butt Welds and Enhanced Reactor Coolant System Leakage Monitoring Program

Due to primary water stress corrosion cracking issues, FENOC will remove the DBNPS from service no later than December 31, 2007 to support inspection or mitigation activities for the Alloy 82/182 pressurizer butt welds. In order to alleviate RCS leakage concerns prior to weld mitigation, an enhanced RCS leakage monitoring program will be implemented at DBNPS. The program will contain the following elements:

- RCS leakage monitoring will be conducted daily while in Modes 1, 2, and 3.

  This requirement is applicable only during steady-state operation.

- The following action levels will be incorporated:

  a. 0.1 gallon per minute (gpm) increase from one day to the next, sustained for 72 hours, with at least 0.1 gpm not confirmed from sources other than the pressurizer nozzle welds.

     As discussed during the February 21, 2007 telephone conference call, this requirement can be met by comparing the daily value with a 3-day average rather than the value from the previous day.

  b. 0.25 gpm increase above a baseline, sustained for 72 hours, with at least 0.25 gpm not confirmed from sources other than the pressurizer nozzle welds.

     As discussed during the February 21, 2007 telephone conference call, the intent of this action level is to ensure that the leakage is verified not to be from the Alloy 82/182 pressurizer butt welds. Actual confirmation of the source of the leak is not required if the pressurizer nozzle welds are verified not to be leaking at 0.25 gpm or greater.

- The baseline for RCS leakage monitoring will be established using reactor coolant system leak rate information collected during the first seven days of full power operation following an outage that included bare metal visual inspections.

  The current baseline for DBNPS is 0.013 gallons per minute, and was established by averaging data generated during the first seven days of full power operation following the last refueling outage.

- The following action level response will be incorporated into the DBNPS RCS leakage monitoring program:

  After the 72-hour sustained period is complete, and leak rate is still elevated, place the unit in Mode 3 within 6 hours and Mode 5 within the next 36 hours, and perform bare metal visual inspections of unmitigated pressurizer surge, spray, safety, and relief nozzle butt welds and safe-end butt welds containing Alloy 82/182 material.

- Within 60 days of returning to operation from an outage in which examinations of the DBNPS pressurizer Alloy 82/182 butt welds were performed, FENOC will submit a report detailing the inspection results of any unmitigated weld examinations and any corrective or mitigative actions taken as a result of these inspections.

- In the event that the DBNPS should be shut down due to exceeding the criteria in the DBNPS enhanced leakage monitoring program, FENOC will submit a report, within 60 days of returning the DBNPS to operation, detailing the inspection results for any bare metal visual inspections.

- Alloy 82/182 pressurizer butt welds that are not mitigated or removed from service will be reinspected every four years.

Each of the activities related to the RCS leakage monitoring program will be incorporated into DBNPS procedures or standing instructions no later than March 7, 2007, and will remain in effect until completion of Alloy 82/182 pressurizer butt weld mitigation activities at the DBNPS. In accordance with FENOC's commitment management program and Nuclear Energy Institute's "Guideline for Managing NRC Commitments," the NRC will be notified, in writing, in advance of any changes to these commitments.

Regulatory Commitments

The following list identifies those actions committed to by the FirstEnergy Nuclear Operating Company (FENOC) in this document. Any other actions discussed in the submittal represent intended or planned actions by FENOC. They are described only for information and are not regulatory commitments. Please contact, Mr. Gregory H. Halnon, Director - FENOC Fleet Regulatory Affairs (330-315-7500) with any questions regarding this document or associated regulatory commitments.

Commitment	Due Date
1. FENOC will remove the DBNPS from service no later than December 31, 2007 to support inspection or mitigation activities for the Alloy 82/182 pressurizer butt welds.	December 31, 2007
2. In order to alleviate RCS leakage concerns prior to weld mitigation, an enhanced RCS leakage monitoring program will be implemented at DBNPS. The program will contain the following elements: • RCS leakage monitoring will be conducted daily while in Modes 1, 2, and 3. • The following action levels will be incorporated: a. 0.1 gallon per minute (gpm) increase from one day to the next, sustained for 72 hours, with at least 0.1 gpm not confirmed from sources other than the pressurizer nozzle welds. As discussed during the February 21, 2007 telephone conference call, this requirement can be met by comparing the daily value with a 3-day average rather than the value from the previous day. b. 0.25 gpm increase above a baseline, sustained for 72 hours, with at least 0.25 gpm not confirmed from sources other than the pressurizer nozzle welds. • The baseline for RCS leakage monitoring will be established using reactor coolant system leak rate information collected during the first seven days of full power operation following an outage that included bare metal visual inspections. (Continued)	March 7, 2007

Commitment	Due Date
(Continued from previous page) • The following action level response will be incorporated into the DBNPS RCS leakage monitoring program: After the 72-hour sustained period is complete, and leak rate is still elevated, place the unit in Mode 3 within 6 hours and Mode 5 within the next 36 hours, and perform bare metal visual inspections of unmitigated pressurizer surge, spray, safety, and relief nozzle butt welds and safe-end butt welds containing Alloy 82/182 material. • Within 60 days of returning to operation from an outage in which examinations of the DBNPS pressurizer Alloy 82/182 butt welds were performed, FENOC will submit a report detailing the inspection results of any unmitigated weld examinations and any corrective or mitigative actions taken as a result of these inspections. • In the event that the DBNPS should be shut down due to exceeding the criteria in the DBNPS enhanced leakage monitoring program, FENOC will submit a report, within 60 days of returning the DBNPS to operation, detailing the inspection results for any bare metal visual inspections. • Alloy 82/182 pressurizer butt welds that are not mitigated or removed from service will be reinspected every four years. Each of the activities related to the RCS leakage monitoring program will be incorporated into DBNPS procedures or standing instructions no later than March 7, 2007, and will remain in effect until completion of Alloy 82/182 pressurizer butt weld mitigation activities at the DBNPS.	
3. In accordance with FENOC's commitment management program and Nuclear Energy Institute's "Guideline for Managing NRC Commitments," the NRC will be notified, in writing, in advance of any changes to these commitments.	Ongoing