

July 2, 2002

LICENSEE: FirstEnergy Nuclear Operating Company

FACILITY: Davis-Besse Nuclear Power Station, Unit 1

SUBJECT: DAVIS-BESSE NUCLEAR POWER STATION, UNIT 1 - MEETING SUMMARY OF JUNE 4, 2002, TO DISCUSS THE REACTOR PRESSURE VESSEL CLOSURE HEAD REPLACEMENT

On June 4, 2002, Nuclear Regulatory Commission management and staff conducted a public meeting in Rockville, Maryland, with representatives of FirstEnergy Nuclear Operating Company (FENOC). The purpose of the meeting was to discuss FENOC's decision to replace the reactor pressure vessel closure head (RPVCH) at the Davis-Besse Nuclear Power Station (DBNPS). A public notice that the meeting was to be held was issued on May 24, 2002. A telephone conference bridge was established for members of the public who were unable to attend. The meeting's participants are included as Enclosure 1 and the licensee's handouts are included as Enclosure 2.

The licensee has been pursuing the following three options with regard to the RPVCH:

- The repair plan option was discussed during the public meeting of April 10, 2002, and formally submitted for staff review on April 25, 2002. The repair plan has subsequently been deferred and the licensee's letters dated June 14, 2002, requested that the staff suspend all review activities associated with the repair plan and related requests for relief from the American Society of Mechanical Engineers (ASME) Code.
- Last fall, the licensee ordered a new RPVCH which is scheduled for delivery in Spring 2004. The licensee investigated the possibility of stepping ahead of other licensee orders for new RPVCHs in order to accelerate delivery. However, the earliest delivery would be Fall 2003 which would not provide a prompt resolution.
- Purchase of an existing RPVCH was considered from the Midland, Rancho Seco, and Three Mile Island, Unit 2 facilities. The licensee has decided to purchase the RPVCH from the Midland, Unit 2, facility because it is similar in design to DBNPS, is readily available, and is not contaminated.

The licensee described the three-way contract it has signed with Consumers Power, owner of the Midland facility, and Framatome-Advanced Nuclear Power (FRA-ANP). FRA-ANP has purchased the Midland RPVCH "as-is" from Consumers Power and is reconciling it against the Davis-Besse design requirements. FRA-ANP will compile/validate the ASME Code Data Package for the RPVCH and then sell the RPVCH to FirstEnergy as safety-related equipment.

The following comparisons were made between the RPVCH at Midland and DBNPS:

- The Midland and DBNPS control rod drive nozzles and J-groove welds are constructed of similar materials. Therefore, the nozzles and J-groove welds will have the same susceptibility for cracking.

- The alignment of control rods to RPVCH nozzles is consistent with DBNPS. Therefore, the core geometry will remain unchanged.
- Minor machining of vessel-to-head key-way surfaces will be required to permit alignment between the RPVCH and the vessel.
- Minor differences exist in the RPVCH O-ring design. A slightly smaller diameter O-ring (0.455 inch versus 0.500 inch) will be installed.

The licensee described the following non-destructive examinations planned for the Midland RPVCH that will supplement the ASME Code Data Package:

- Visual examinations
- Radiography of flange-to-dome weld and nozzle-to-flange welds
- Liquid-penetrant (PT) examination of the control rod drive mechanism (CRDM) nozzle J-groove welds
- Magnetic particle and ultrasonic examination of flange-to-dome welds
- PT examination of peripheral CRDM nozzle-to-flange welds, and
- Eddy current testing of CRDM nozzles

The licensee discussed the activities associated with removing the RPVCH from the Midland containment and constructing a temporary access opening in the Davis-Besse containment. Prior to plant restart, the licensee will bring the plant to normal operating temperature and pressure using reactor coolant pump heat and perform visual inspections for leakage. Following the technical meeting with the licensee, the staff took questions from members of the public.

/RA/

Douglas V. Pickett, Senior Project Manager, Section 2  
Project Directorate III  
Division of Licensing Projects Management  
Office of Nuclear Reactor Regulation

Docket No. 50-346

Enclosures: 1. Participants  
2. Meeting Slides

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JUNE 4, 2002

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Dale Thatcher  
Kamalakar Naidu

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