



NRC NEWS

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NRC DISPATCHES SPECIAL INSPECTION TEAM TO DAVIS-BESSE NUCLEAR POWER PLANT

The U.S. Nuclear Regulatory Commission has dispatched a Special Inspection Team to the Davis-Besse Nuclear Power Plant to review the circumstances surrounding the discovery of crack indications in multiple Control Rod Drive Mechanism (CRDM) nozzles, which guide the control rods into the reactor core to shut down the reactor. The Davis-Besse plant is located in Oak Harbor, Ohio roughly 40 miles southeast of Toledo and is operated by FirstEnergy Nuclear Operating Co.

On March 12, 2010, while performing NRC-required inspections of CRDM nozzles, plant workers discovered preliminary indications of cracks in some of the nozzles that penetrate the reactor vessel head. These inspections, which include bare metal visual and ultrasonic testing, are ongoing. When the testing of 69 CRDM nozzles is complete, the utility will determine the number of nozzles requiring repair.

"The Special Inspection will allow us to get a clear picture of how and why the damage to CRDM nozzles occurred at Davis-Besse, as well as to make sure that the utility's repairs to the nozzles are thorough and will ensure the safe operation of the plant," said Mark Satorius, regional administrator for the NRC's Region III office in Lisle, Ill.

There is no danger to the public from these cracks since the plant has been shut down for a scheduled refueling outage. Before the plant can resume operations, the NRC must be satisfied that the problem has been addressed.

The Special Inspection Team will conduct and assess the utility's activities including testing, flaw characterization and repairs.

The NRC is concerned about this issue because a crack in CRDM nozzles, which penetrate the reactor vessel head, can if not repaired, lead to structural damage of the reactor head - one of the barriers that prevent radioactive material in the reactor from escaping into the plant containment building.

In 2002, plant workers at Davis-Besse discovered a football-size cavity in the reactor vessel head caused by leakage of borated reactor water from severe cracks in CRDM nozzles. The leaks resulted in the accumulation of large quantities of boric acid residue on the reactor vessel head that was not cleaned

for a long period of time and caused a cavity to form in the carbon steel portion of the vessel head, leaving only the stainless steel liner between the nuclear material in the reactor vessel head and the plant containment building.

Davis Besse replaced the damaged reactor head in 2002.

At this time, there is evidence of a very small amount of what appears to be boric acid residue (roughly one cup) near two CRDM nozzles. The cracks in the nozzles were identified during inspections designed to find early indications of cracking before structural damage to the head would occur.

The NRC special inspection report will be available within 45 days of the inspection's completion through the NRC RIII Office of Public Affairs and at the NRC web site: <http://www.nrc.gov/reading-rm/adams/web-based.html>.

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