

**NRC ORDERS DAVIS-BESSE NUCLEAR POWER PLANT, UNIT NO. 1
TO SHUT DOWN BY DECEMBER 31 TO PERFORM
REACTOR PRESSURE VESSEL HEAD PENETRATION NOZZLE INSPECTIONS**

The Nuclear Regulatory Commission has ordered the Davis-Besse Nuclear Power Plant, Unit No. 1, to shut down by December 31, 2001, and demonstrate, by inspection, that there is reasonable assurance that the vessel head penetration (VHP) nozzles, which form part of the reactor coolant pressure boundary, are free of significant defects prior to subsequent operation.

Davis-Besse, located near Toledo, Ohio, is owned by FirstEnergy Nuclear Operating Company. It is among a group of 13 plants that have either already identified VHP nozzle cracking or are considered highly susceptible to VHP nozzle cracking based on the susceptibility rankings established by the nuclear power industry.

On August 31, 2001, the NRC issued a Bulletin requesting information regarding the structural integrity of VHP nozzles including control rod drive mechanism (CRDM) nozzles at 69 pressurized water reactors (PWRs) following discoveries of cracked and leaking CRDM nozzles at the Oconee Nuclear Station, Unit Nos. 2 and 3, located in South Carolina. The cause of the VHP nozzle cracking is primary water stress corrosion cracking, which is affecting VHP nozzles fabricated from Alloy 600.

The discoveries raised concerns about the structural integrity of VHP nozzles, which are welded to the top of the reactor pressure vessel head and form a part of the reactor coolant system pressure boundary. Cracking of the VHP nozzles represents a possible degradation of the reactor coolant system pressure boundary integrity, and hence, is potentially safety significant.

Davis-Besse has not yet performed the NRC staff recommended inspections of all of the VHP nozzles in response to the August 3, 2001, Bulletin. Additionally, the licensee has not provided an adequate basis to operate beyond December 31, 2001, without performing inspections to verify the integrity of the VHP nozzle portion of the reactor coolant pressure boundary at Davis-Besse Nuclear Power Station, Unit No. 1. Performance of the recommended inspections prior to operation beyond December 31, 2001, is timely and necessary given Davis-Besse's high-susceptibility ranking and the extent of cracking and leakage found at other similarly-designed facilities.