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# NRC NEWS

**U.S. NUCLEAR REGULATORY COMMISSION**

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## **NRC RECOMMENDS SUPPLEMENTAL INSPECTIONS FOR PRESSURIZED WATER REACTOR VESSEL HEADS**

The Nuclear Regulatory Commission has sent a bulletin to companies that hold licenses for operating pressurized water reactors (PWRs) advising them they may need to supplement inspection programs for reactor vessel heads.

The discoveries of cracked and leaking vessel head penetration nozzles at several PWRs and significant corrosion of the reactor vessel head at the Davis-Besse nuclear power plant in Oak Harbor, Ohio, have raised concerns about the adequacy of current inspection programs that primarily rely on visual examinations to identify nozzle cracking, boric acid leakage, and corrosion. The concerns prompted NRC to issue the bulletin to the nation's 69 PWR licensees.

On August 3, 2001, NRC sent a bulletin to the licensees that described the discoveries of circumferentially cracked and leaking penetration nozzles in reactor pressure vessel heads. In response to that bulletin, PWR licensees provided their plans for inspecting their reactor pressure vessel head penetration nozzles and/or the outside surface of the reactor pressure vessel head to determine whether the nozzles were leaking. Following the discovery of vessel head degradation at Davis-Besse, the NRC issued a bulletin on March 18, 2002 requiring PWR licensees to supply additional information on vessel head inspection programs.

NRC staff has analyzed the data supplied by the PWR licensees in response to the March 18 bulletin and concluded that inspection programs that primarily rely on visual examinations may need to be supplemented with volumetric or surface examinations. The bulletin provides suggested inspection schedules and examples of acceptable supplemental inspection techniques. These include the use of ultrasound, electric currents, and liquid dyes to check for cracking and corrosion in metal structures.

The bulletin requests that within 30 days licensees provide written responses, describing their plans for future inspections.

A copy of the bulletin is available from the NRC Public Document Room, Washington, D.C. 20555; telephone: 301/415-4737 or 800/397-4209. A copy will be available electronically through the NRC's web site at <http://www.nrc.gov/reactors/operating/ops-experience/vessel-head-degradation.html>

The staff of the NRC will meet August 23 in Rockville, Maryland, to discuss the bulletin with the Nuclear Energy Institute and PWR licensees. The meeting, which is open to public observation and participation at designated points, will be held from 9:00 a.m. to 12:15 p.m. at the agency's One White Flint North Building, 11555 Rockville Pike, Rockville, Maryland. The meeting contact is Michael Marshall at (301) 415-2734.

Interested individuals may listen to the meeting via telephone by calling: (888) 566-5771 and entering passcode 31063 at the prompt. One hundred and fifty phone lines will be available.

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