

PRELIMINARY NOTIFICATION OF EVENT OR UNUSUAL OCCURRENCE--PNO-I-88-49

This preliminary notification constitutes EARLY notice of events of POSSIBLE safety or public interest significance. The information is as initially received without verification or evaluation, and is basically all that is known by the Region I staff on this date.

Facility: Northeast Nuclear Energy Company  
Millstone Nuclear Station Unit 2  
Docket No. 50-336  
Waterford, Connecticut

Licensee Emergency Classification:  
 Notification of Unusual Event  
 Alert  
 Site Area Emergency  
 General Emergency  
 Not Applicable

Subject: PLANT SHUTDOWN IN EXCESS OF 48 HOURS

A plant shutdown was commenced at 9:00 p.m. on May 6, 1988 to locate the source of boric acid buildup on the Control Element Drive Mechanism (CEDM) coolers and ventilation shroud, and to locate the source of unidentified leakage (0.7 GPM on 5/3). The source of boron in containment was not located during a shutdown on April 8, (PNO-I-88-40). During control rod insertion at 1:45 a.m., May 7, CEAs-14, 16 (Group 6), dropped 43 steps, and CEA-31 (Group 1) dropped 17 steps, all from the initial fully withdrawn position. Each CEA was realigned with its respective group and rod insertion was completed. Inspections inside the containment were completed with the reactor in hot standby.

The initial inspections on May 7 identified minor valve packing and flange leaks on reactor coolant instrument isolation valves. Subsequent containment inspections to investigate the lower reactor vessel and reactor vessel flange areas identified boric acid on the north end of the biological shield, the floor of the biological shield, and a small deposit (approximately 1/16" x 6" of acid residue on the reactor vessel just below the flange. RCS water droplets originating from the flange area were observed flashing to steam. At 8:15 p.m. on May 7, upon further reactor vessel head inspections, the licensee concluded both the inner and outer reactor vessel "O" rings were leaking and commenced a plant cooldown to cold shutdown.

As of 6:00 p.m. on 5/8, the plant was in cold shutdown (Mode 5), at 190 F. The licensee plans to replace the reactor vessel head "O"-rings, repair CEAs 14, 16, and 31, clean the boric acid from the reactor vessel, CEDM coolers, and ventilation shroud, and complete other maintenance. The outage is scheduled to last approximately 17 days.

The licensee notified the news media of the shutdown. The State of Connecticut has been informed.

This information is current as of 6:00 p.m. (EDT), May 8, 1988.

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Licensee: \_\_\_\_\_  
(Reactor Licensees)

Region I Form 83  
(Rev. April 1988)