

DCD

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 III staff on this date.

at
with

Facility: Detroit Edison Company
Fermi 2
Newport, MI 48166

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

Docket No. 50-341

Subject: LEAK FROM REACTOR WATER CLEANUP SYSTEM AND RESULTING CONTAMINATION

About 3:15 a.m. (EDT) on May 28, 1988, a water hammer in the reactor water cleanup system damaged a fitting on a 5/8 inch instrument line and caused a leak of steam and water into the reactor water cleanup system pump room. The water hammer occurred when the system was restored to service following a routine surveillance test. Reactor operators promptly shut off the flow into the system, but water and steam continued to spray through the fitting for about 15 minutes until pressure in the line dropped. The licensee's examination showed that the compression fitting had separated as a result of the pressure caused by the water hammer. Additionally, there was evidence that the fitting may have been damaged by personnel working in the area, and/or may not have been properly made up with full engagement.

The reactor building was evacuated following the incident. The clothing of three workers in the area of the leak was contaminated, but there was no evidence of any internal deposition of radioactivity.

The unit was at 50 percent power. The incident did not affect plant operations. The licensee subsequently repaired the failed instrument line and took the unit to 75 percent power for planned testing.

Initial radiological surveys did not show any significant airborne radioactivity in the reactor building. Workers performing repair and decontamination work did not initially wear respirators.

As the water evaporated, however, there were increased levels of airborne contamination. The licensee reported that there was generalized removable contamination of the first four floors of the reactor building in excess of 1,000 disintegrations per minute (dpm) per 100 square centimeters. The contamination level in the area surrounding the leak was in excess of 100,000 dpm. Three workers were exposed to airborne contamination, but nasal smears and whole body counts showed the exposures to be minimal.

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Decontamination work is continuing. According to the licensee, there has been no evidence of any radioactive releases to the environment associated with this incident.

Region III (Chicago) has sent two radiation specialists to review the licensee's handling of the radiological aspect of this incident. The resident inspector has been following the repair activities and the licensee's evaluation of the cause of the incident.

The State of Michigan will be notified.

Region III received notification of this incident from the Headquarters Operation Center about 5:30 a.m. on May 28, 1988. This information is current as of 8 a.m., June 1, 1988.

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