

PRELIMINARY NOTIFICATION OF EVENT OR UNUSUAL OCCURRENCE--PNO-I-90-71

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:
Three Mile Island, Unit 2
Middletown, Pennsylvania
D/N 50-320

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

Subject: Potential Leakage of Accident Generated Water

On August 29, 1990, the resident inspectors were informed that a concentration value of 29,000 pCi/liter of tritium was found in the August sample of groundwater monitoring station MS-2. The sample was collected on August 3, 1990. The groundwater monitoring station is located in the protected area between the Borated Water Storage Tank (BWST) and the Processed Water Storage Tank (PWST), Number 1. The sample is collected at a depth of about 40 feet. Thus far, it is the only one of ten normally sampled on-site monitoring stations that has shown elevated tritium levels. The BWST and PWST both contain Accident Generated Water (AGW). Tritium is the principal radionuclide contained in the tanks.

The sample results report was published on August 22, 1990. On August 27, 1990, three groundwater stations closest to MS-2 were sampled, including a re-sample of MS-2. These samples are awaiting expedited analyses and will be analyzed for other radionuclides. Sample results are expected on August 31, 1990. The August sample of MS-2 showed no other radionuclides.

Tritium levels have been steadily increasing over the last several months from the normal background levels of 500 to 1,000 pCi/liter. The May tritium level was 1,200 pCi/liter, the June level was 3,800 pCi/liter, the July level was 6,700 pCi/liter and the 1989 yearly average was 1,100 pCi/liter. The EPA drinking water standard is 20,000 pCi/liter. The concentration value of 29,000 pCi/liter tritium represents about 1% of the NRC maximum permissible concentration value (MPC) for tritium, in liquid, in unrestricted areas. No Technical Specification release limits were exceeded. The licensee is re-sampling the on-site monitoring stations to collect additional data to determine the exact source of the activity. Also, the licensee's personnel are visually inspecting outside tanks to identify leakage.

Resident and Regional inspectors are monitoring the licensee's activities associated with this event and will review subsequent engineering evaluations.

The Commonwealth of Pennsylvania has been notified. Region I is prepared to respond to media inquiries. The licensee does not plan to make a press release at this time.

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