

IMMEDIATE
PRELIMINARY NOTIFICATION

April 21, 1979

PRELIMINARY NOTIFICATION OF EVENT OR UNUSUAL OCCURRENCE -- PNO-79-67AB

This preliminary notification constitutes summary information of an event of safety or public interest significance. The information presented is a summary of information as of 7:00 a.m. on April 21, 1979.

Facility: Three Mile Island Unit 2
Middletown, Pennsylvania (DN 50-320)

Subject: NUCLEAR INCIDENT AT THREE MILE ISLAND

Plant Status

The average primary coolant temperature is being maintained at 175 degrees F by admitting steam directly to the main condensor through the main turbine. The highest incore thermocouple reading is 275 degrees F.

Train A of the Auxiliary Building Ventilation System was placed in service at 11:45 p.m. on April 20. Work is now in progress to change the charcoal filters in Train B of the Fuel Handling Building Ventilation System.

Environmental Status

Offsite radiation levels identified by NRC survey teams were consistent with normal background levels (0.02 mR/hr maximum). These results were obtained from routine surveys performed downwind on the east side of the Susquehanna River at distances up to five miles north and south of the site.

An Aerial Measuring System (AMS) survey was conducted 8:20 a.m. to 9:12 a.m. April 20, 1979. A small plume reading 0.008 mR/hr was located about 250 meters E of the Unit II vent stack at an altitude of 100 meters. Spectral analysis indicated small amount of Xenon-133. An AMS survey from 11:45 p.m. April 20 to 12:20 a.m. April 21 did not detect any airborne radioactivity. This flight occurred following the change from Filter Train B to Train A in the Auxiliary Building.

During the period from 5:30 a.m. April 20 to 5:30 a.m. April 21, seven air samples collected around the site showed no activity above the minimum detectable activity.

Dose rates (47 locations) as measured by NRC thermoluminescent dosimeters (TLDs) for the past 24-hour period are near expected natural background levels.

CONTINUED
IMMEDIATE PRELIMINARY NOTIFICATION

Iodine concentrations measured in the Unit 2 ventilation stack since PNO-79-67AA (April 20, 1979) are:

<u>Time</u>	<u>Activity (uCi/cc)</u>
4/20 (0351) - 4/20 (0820)	2.0×10^{-7}
4/20 (0820) - 4/20 (1105)	1.9×10^{-7}
4/20 (1105) - 4/20 (1300)	2.8×10^{-7}
4/20 (1300) - 4/20 (1621)	Not Analyzed
4/20 (1621) - 4/20 (2019)	1.8×10^{-7}
4/20 (2023) - 4/20 (2204)	2.3×10^{-7}
4/20 (2208) - 4/20 (2249)	3.0×10^{-7}
4/20 (2249) - 4/21 (0317)	1.1×10^{-7}
4/21 (0317) - 4/21 (0402)	7.6×10^{-8}

The NRC took the daily air sample near the observation center starting at 4:00 p.m. on April 19 and ending at 4:00 p.m. on April 20. Analysis of this sample indicated that the concentration of Iodine-131 during the 24-hour period averaged less than 1.0×10^{-12} microcuries per cubic centimeter (less than 1.0 picocuries per cubic meter).

EPA reported that of the air samples collected at 31 sampling locations on April 15 and 16 only nine showed Iodine-131 above the minimum detectable activity (MDA). The highest sample result was 2.3×10^{-12} microcuries per cubic centimeter (2.3 picocuries per cubic meter) for a sample collected April 15, 2.9 miles SSW of the plant. All other positive values were less than 4.5×10^{-13} microcuries per cubic centimeter (0.45 picocuries per cubic meter).

EPA reported that water samples taken at the plant discharges to the river on April 18, 19 and 20 and at Brunner Island on April 16, 17 and 18 downstream showed no activity above the MDA.

EPA reported no milk samples collected on April 15 or 16 contained Iodine-131 above the MDA of 15 picocuries per liter. The Pennsylvania DER reported that one sample of milk collected on April 19 at Elizabethtown contained about 15 picocuries of Iodine-131 per liter. The licensee reported that a cow's milk sample collected on April 17 contained 3.7 picocuries per liter and a goat's milk sample collected on April 16 contained 3.3 picocuries per liter. The action level is 12,000 picocuries per liter, at which time animals would be taken off pasture.

The Commonwealth of Pennsylvania has been informed of these results.

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