IMMEDIATE PRELIMINARY NOTIFICATION

April 18, 1979

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

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 18, 1979.

Facility: Three Mile Island Unit 2

Middletown, Pennsylvania (DN 50-320)

Subject: NUCLEAR INCIDENT AT THREE MILE ISLAND

<u>Plant Status</u>

The average primary coolant temperature is 236 degrees F. The decrease in primary coolant temperature was a result of an increase in the steaming rate. This increase was achieved by opening additional valves to the main condenser. Two of the incore thermocouple readings remain above 300 degrees F with the highest at 330 degrees F.

As of 0530 April 18, fifty of 90 charcoal filter elements in train A of the Auxiliary Building Ventilation system have been replaced. This work began on April 12.

Pressurizer level transmitter LT-2 became erratic over the period 1745 - 2235 on April 17 but is now tracking again. Calibration of the Heise gauge, to be used as a backup pressure level measurement, is continuing.

Environment 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.

By 2:15 p.m. on April 17, 632 local residents had been scanned with the whole body counter located in Middletown. Scan results indicate no radiation levels above normal body levels.

No Aerial Measuring System (AMS) survey was conducted on April 17. However, an AMS survey was requested by NRC based on a short lived increase in the iodine discharge rate between 3 and 4 a.m. on April 18. The AMS survey results are not yet available.

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During the 24-hour period ending midnight April 17, 1979, seven of 12 air samples showed no activity above the minimum detectable activity. None of the other five samples showed Iodine-131 greater that 1 x 10^{-10} uCi/cc (100 picocuries per cubic meter). On the morning of April 18, 1979, one of three samples showed Iodine-131 concentration of 2 x 10^{-10} microcuries/milliliter (200 picocuries per cubic meter) during the period of 3 to 4 a.m. The remaining two samples were approximately 5.0×10^{-11} microcuries/milliliter (50 picocuries/cubic meter). The last sample analyzed covered the period 0420 to 0527. The cause of the high reading is believed to be due primarily to meteorological conditions; however, several in-plant events were also in progress. They are being analyzed for possible contributions to this reading to determine appropriate corrective action. One grass sample taken downwind of the plant showed 6.13×10^{-4} microcuries per square meter (613 picocuries per square meter). Additional milk and vegetation samples have been taken, but have not been analyzed.

Dose rates (47 locations) as measured by NRC thermoluminescent dosimeters (TLD's) for the past 24-hour period of April 18 are near expected natural background levels.

Iodine concentrations measured in the Unit 2 ventilation stack since PNO-79-67X (April 17, 1979) are:

Time	Activity (uCi/ml)
4/16 (2356) - 4/17 (0402)	1.2 x 10 ⁻⁷
4/17 (0402) - 4/17 (0803)	1.2 x 10 ⁻⁷
4/17 (0803) - 4/17 (1226)	1.4 x 10 ⁻⁷
4/17 (1226) - 4/17 (1634)	1.3 x 10 ⁻⁷
4/17 (1640) - 4/17 (1946)	2.3 x 10 ⁻⁷
4/17 (1958) - 4/17 (2357)	2.1 x 10 ⁻⁷

The NRC took the daily air sample near the observation center starting at 1747 on April 16 and ending at 1620 on April 17. Analysis of this sample indicated that the concentration of Iodine-131 during the approximate 23-hour period averaged less than 2.4 x 10^{-12} uCi/cc (less than 2.4 pico-curies/cubic meter). The plume wind was not in this sector a large percentage of the time during the sampling period.

No new data were available from DOE, EPA, FDA or Commonwealth of Pennsylvania, Department of Environmental Resources.

The Commonwealth of Pennsylvania has been informed of these results.

Contact: BPaulus, IE x 27246; DThompson, IE x 28487

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