

IMMEDIATE
PRELIMINARY NOTIFICATION

April 6, 1979

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

This preliminary notification constitutes summary information of an event of safety or public interest significance. The information presented in a summary of information as of 7:00 a.m. on 4/6/79.

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

Subject: NUCLEAR INCIDENT AT THREE MILE ISLAND

Plant Status

Reactor pressure is about 1075 psi with bulk core coolant inlet and outlet temperatures at about 285 degrees F. Core thermocouple readings are relatively unchanged and indicate a maximum temperature of 448 degrees F, well below saturation temperature for the present reactor pressure. Three thermocouple readings remain above 400 degrees F. Thirty thermocouples are being monitored.

Containment atmosphere measurements indicate less than 2% hydrogen. One hydrogen recombiner is in operation, with the second unit on standby.

A Heise pressure gauge, installed to provide an alternate method of monitoring pressurizer level, has been unsatisfactorily pressure tested. (Boron crystals indicate leakage from an elbow in the bypass line around the sample cooler.)

Plans to vent Make-Up Tank (MUT) and one of the Waste Gas Decay Tanks (WGDT) gases to containment have been approved by the NRC. Waste Gas Decay Tank "A" venting to the containment was started at approximately 0545 on April 6, 1979. Venting was terminated at 0630 following an approximately ten-fold increase in radiation levels detected by the auxiliary building exhaust monitor.

Environmental Status

Periodic ground level radiation surveys performed on April 5, 1979 by the NRC survey teams on the east and west sides of the Susquehanna River from a distance of 4 miles north to 4 miles south of TMI detected radiation levels averaging less than 0.01 mR/hr on the west side and from 0.01 to 0.15 mR/hr on the east side. Prevalent wind direction during the day was from the west-northwest.

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ARMS surveys were performed on April 5, 1979 at 0600, 0950, 1430, 1515, 1649, and 2120 hours. The flights identified the plume in the sector 110° to 130°. The maximum radiation levels were detected during the 0950 flight during which levels of 0.3 mR/hr were measured at 1 mile. Between 3 and 10 miles, the measured levels were from 0.03 to 0.05 mR/hr.

The State of Pennsylvania reported data on milk, water, precipitation and grass samples. Analysis of ten milk samples collected on April 4 and 5 detected no radioiodine above the minimum detectable activity (MDA). Also, the results of analysis of water samples collected from five cities surrounding TMI from March 31, 1979 to April 4, 1979 detected no levels of iodine above the MDA, as did analysis of precipitation and grass samples for April 2 and 4.

Dose rates in populated areas as measured by NRC thermoluminescent dosimeters (TLDs) showed only minor changes from the previous day. Minor fluctuations are expected at these low dose rates. Ten additional TLD stations at area schools were established on April 5 (making a total of 47 stations). Following are the exposure rates for previously reported locations:

Dose Rate (Milliroentgens per Hour)

	<u>4/1/79</u>	<u>4/2/79</u>	<u>4/3/79</u>	<u>4/4/79</u>	<u>4/5/79</u>
Falmouth	0.15	0.01	0.20	0.04	0.02
Middletown	0.04	0.01	0.02	0.01	0.01
Goldsboro	0.13	0.05	0.07	0.07	0.05
Goldsboro	0.04	0.02	0.05	0.02	0.03
Lewisberry	0.05	0.02	0.04	0.03	0.02
Pleasant Grove	0.04	0.02	0.06	0.01	0.01
York Haven	0.07	0.02	0.10	0.05	0.01
Conewago Heights	0.04	0.02	0.07	0.02	0.01
Emigsville	0.05	0.02	0.07	0.02	0.02

Population Exposure Estimates

Representatives from NRC, EPA and HEW have made estimates of the radiation doses to the public around TMI based primarily on TLD data. The calculated population dose increment for 4/3/79 to 4/4/79 is 70 man-rems. The total cumulative, 50 mile radius population dose since 3/28/79 is estimated to be 2100 man-rems with an average dose to an individual of 1.1 millirems. The estimated maximum dose to an individual offsite (hypothetical, continuously present 0.5 mile NE of plant) is estimated to be less than 100 millirem.

Industrial Waste Treatment System (IWTS)

Industrial waste discharge (other than sewage) began about 3 a.m., 4/6/79 at an average rate of 100 gpm with Iodine 131 radioactivity of 2.3×10^{-5} microcuries per milliliter into the 58,000 gpm cooling tower discharge to the river. The Unit 1 waste evaporator condensate storage tank is also being discharged. The licensee has calculated the release to the river to be about two-thirds the MPC for continuous discharge of Iodine 131 from both units. The discharge from the Unit 2 Industrial Waste Treatment System was stopped at approximately 0400 on 4/6/79 to collect and analyze a sample.

Other Information

IE Bulletin 79-05A was issued on April 5, 1979 and required additional actions by Babcock and Wilcox power reactor facilities with a operating license.

Contact:

Distribution: Transmitted H St 12:00
Chairman Hendrie
Commissioner Kennedy
Commissioner Glinsky

Commissioner Bradford
Commissioner Ahearne

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(For Distribution)

Transmitted: MNBB 12:10p
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12:15
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IE (TMI) Site 11:30p.m. (Provide copy to STATE)

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- BRP (State of PA) _____
- DCEPA _____
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Handcarry (FAA)

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