IMMEDIATE

PRELIMINARY NOTIFICATION

April 3, 1979

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

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 4/3/79.

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

Subject: NUCLEAR INCIDENT AT THREE MILE ISLAND

Plant Status

Reactor pressure remains near 1000 psi, with bulk core coolant inlet and outlet temperatures at 280°F. Core thermocouple readings are relatively unchanged and indicate a maximum temperature of 477°F which is well below saturation temperature for this pressure. (Only 3 thermocouples read above 400°F). The gas bubble still appears to be present at a much reduced volume, with bubble size calculations still being evaluated. Degasification continues. Containment atmosphere measurements indicate about 1.9 percent hydrogen. One hydrogen recombiner is operating, and a 12 day time period is projected for reduction of the hydrogen concentration to about 1%.

Plans to use a robot device to obtain a primary coolant sample are being evaluated. Preoperational testing with the robot is in progress.

Environmental Status

No surveillance flights have been conducted since 6:00 AM on April 2 because of weather. All offsite ground surveys indicate about 0.02 millirem/hour, except for a brief period during periodic venting of the Primary System Makeup Tank to the vent header. During this venting, an offsite team detected a brief, downwind 1.5 millirentgen/hour ground level dose rate with a rapid return to 0.02 millirentgen/hour. This level is less than others reported previously for similar operational activities.

Dose rates in populated areas as measured by NRC thermoluminescent dosimeters (TLD) showed a decrease from the previous day. Following are the data for the first two days.

CONTINUED

Dose Rate (Milliroentgens per Hour)

	4/1/79	4/2/79
Falmouth	No Sample	0.01
Middletown	0.044	0.01
Goldsboro	0.13	0.05
Goldsboro	0.040	0.02
Lewisberry	0.053	0.02
Pleasant Grove	0.041	0.02
York Haven	0.074	0.02
Conewago Heights	0.044	0.02
Emigeville	0.053	0.02

On April 2, the Food and Drug Administration reported concentrations of radioiodine in eight milk samples. The results ranged from 10 picocuries per liter (the minimum detectable activity) to 20 $\pm$ 10 picocuries per liter.

Since March 30, there have been controlled releases of several hundred thousand gallons of water from the industrial waste tank to the Susquehanna River. The effluents contain radioiodine. On April 2, the FDA reported that a sample of river water collected two miles from the plant was analyzed and found to contain 3.9×10^{-8} microcuries per milliliter of iodine-131, or about 13% of maximum permissible concentration (MPC).

Other Information

Exposure data collected at 1:00 am on April 3 indicated a level of <0.1 mR/hr in the Unit 2 control room compared to a level of 0.4 mR/hr measured early on April 2. On April 3, the auxiliary building access corridor showed 0.05 mR/hr and the personnel access hatch to the reactor building indicated 4 mR/hr.

Analysis of a second sample of containment building gas showed a decrease from concentrations determined as of March 31. Following are the data for the two analyses:

Concentration in Microcuries per Milliliter

Isotope	3/31/79 at 7:00 am	4/2/79 at 10:30 am
Xe 133	676	65
Xe 133m	16	0.27
Xe 135	8.1	0.62
I 131	0.063	0.0097
I 133	<0.03	<0.0061

CONTINUED

Contact: DThompson, IE x28487 NCMoseley, IE x28160

Distribution: Transmitted H St 5:20

Chairman Hendrie	Commissioner Bradford	S. J. Chilk, SECY
Commissioner Kennedy	Commissioner Ahearne	C. C. Kammerer, CA
Commissioner Gilinsky		(For Distribution)
Transmitted: MNBB 5:21	P. Bldg 5:25	J. G. Davis, IE
L. V. Gossick, EDO	H. R. Denton, NRR	Region I
H. L. Ornstein, EDO	R. C. DeYoung, NRR	Region II
J. J. Fouchard, PA	R. J. Mattson, NRR	Region III
H. M. Haller, MPA	V. Stello, NRR	Region IV
R. G. Ryan, OSP	R. S. Boyd, NRR	Region V
H. K. Shapar, ELD	SS Bldg	(MAIL)
	W. J. Dircks, NMSS	J. J. Cummings, OIA
		R. Minogue, SD

White House Situation Room _____
(Handcarry ____)
EPA _____
FDA/BRH _____
DOE/EOC _____
FAA _____
FDAA _____

IMMEDIATE

PRELIMINARY NOTIFICATION