

IMMEDIATE  
PRELIMINARY NOTIFICATION

April 20, 1979

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

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 20, 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 185 degrees F. The drop in temperature of 50 degrees F is due to steam being admitted directly to the main condensor through the main turbine. The highest incore thermocouple reading is 284 degrees F.

Replacement of the charcoal filter elements in Train A of the Auxiliary Building Ventilation System is completed. Work is in progress to replace several HEPA filters in the system. Train A is expected to be in service today.

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 and west sides of the Susquehanna River at distances up to five miles north and south of the site.

An Aerial Measuring System (AMS) survey was conducted beginning at 6:05 p.m. on April 19, 1979. A small plume reading 0.007 mR/hr was identified 0.25 miles SSE of the plant. Spectral analysis indicated the presence of a small amount of Xenon-133. An air sample taken in the plume showed no iodine-131.

During the period from 5:30 a.m. April 19 to 5:30 a.m. April 20, ten air samples collected around the site showed no activity above the minimum detectable activity (MDA). The five air samples taken between 5:30 a.m. April 18 and 5:30 a.m. April 19 (and not analyzed prior to issuance of PNO-79-67Z) showed no activity above the MDA. Two of three soil samples showed no activity above the MDA. The other soil sample showed  $2.8 \times 10^{-7}$  microcuries per gram of iodine-131. The MDA for soil was  $1.4 \times 10^{-7}$  microcuries per gram. All MDA's have been reduced (sensitivity increased) by a factor of two due to addition of a shield to the detector in the NRC's mobile laboratory.

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

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Iodine concentrations measured in the Unit 2 ventilation stack since PNO-79-67Z (April 19, 1979) are:

<u>Time</u>	<u>Activity (uCi/cc)</u>
4/19 (0358) - 4/19 (0800)	6.6 x 10 <sup>-8</sup>
4/19 (0803) - 4/19 (1210)	1.0 x 10 <sup>-7</sup>
4/19 (1226) - 4/19 (1634)	1.8 x 10 <sup>-7</sup>
4/19 (1728) - 4/19 (2025)	1.8 x 10 <sup>-7</sup>
4/19 (2025) - 4/20 (0001)	1.2 x 10 <sup>-7</sup>
4/20 (0001) - 4/20 (0351)	3.3 x 10 <sup>-7</sup>

The NRC took the daily air sample near the observation center starting at 4:00 p.m. on April 18 and ending at 4:00 p.m. on April 19. Analysis of this sample indicated that the concentration of Iodine-131 during the 24-hour period averaged less than 2.4 x 10<sup>-12</sup> microcuries per cubic centimeter (less than 2.4 picocuries per cubic meter).

No additional environmental data have been received from EPA or FDA.

The three persons found on Hill Island on April 18, 1979 have been whole body counted. No radiation levels above normal body levels were found.

As stated in PNO-79-67Z, the whole body scanning program for local residents has been completed. A joint press release on this subject was issued by the Commonwealth of Pennsylvania and the NRC on this date. A copy of the press release is attached to this PN.

The Commonwealth of Pennsylvania has been informed of these results.

Attachment: Press Release dated 4/20/79

Contact: RCPaulus, IE x27246 DThompson, IE x27246

Distribution: Transmitted H St 10:25  
Chairman Hendrie  
Commissioner Kennedy  
Commissioner Gilinsky  
Transmitted: MNBB 10:44  
L. V. Gossick, EDO 10:58  
H. L. Ornstein, EDO  
J. J. Fouchard, PA  
N. M. Haller, MPA  
R. G. Ryan, OSP  
H. K. Shapar, ELD  
Commissioner Bradford  
Commissioner Ahearne  
P. Bldg 11:05  
H. R. Denton, NRR  
R. C. DeYoung, NRR  
R. J. Mattson, NRR  
V. Stello, NRR  
R. S. Boyd, NRR  
SS Bldg 11:45  
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S. Levine, RES

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C. C. Kammerer, CA  
(For Distribution)  
J. G. Davis, IE  
Region I 11:15  
Region II 11:20  
Region III 11:25  
Region IV 11:32  
Region V 11:35  
(MAIL)  
J. J. Cummings, OIA  
R. Minogue, SD

IE (TMI) Site 11:50 (Provide copy to STATE)

White House Situation Room 3:53

FDA 12:40 (Provide copies to the Administrator and the Operations Center)

EPA 2:06

DOE/EOC 2:48

PEMA 12:00

BRP (State of PA) 10:40

DCPA 12:00

HEW (Pickup)

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ATTACHMENT 1



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

FOR IMMEDIATE RELEASE  
(Friday April 20, 1979)

Middletown, Pennsylvania -- An examination of 721 persons who live close to the site of the accident that occurred March 28, 1979 at Three Mile Island has shown them to have no internal contamination from the accident, officials of the Pennsylvania Departments of Health and Environmental Resources and the Nuclear Regulatory Commission announced today. The screening program by means of a process called whole body counting was conducted jointly by these agencies, using a portable computerized detector housed in a truck parked in front of the Middletown Community Building, about three miles from the site.

The examination of these people found no radioactive elements, such as iodine-131, that have been released from the Three Mile Island facility. Trace amounts of radionuclides that are normally found in people everywhere, such as potassium-40 and cesium-137, were found by the examination.

Nine of the persons examined showed slightly more than normal amounts of naturally occurring radioactive elements that come from the noble gas radon-222 and that are called "radon daughters", because these come from the radioactive decay of radon. All nine persons have been informed by agency officials of the finding of these radon daughters in more than normal amounts. They have been told that these elements are not related to the Three Mile Island incident and that the most likely source is the natural release of low amounts of radon gas from building materials used in their homes or possibly in work places, built of stone or brick, or from other natural sources. The levels detected do not warrant any concern for the health of these nine persons and others living with them.

The 721 persons tested generally lived within three-miles of the site, on both the east and west shores of the Susquehanna River. Children as well as adults were surveyed in this program, which took place over a period of eight days and ended at 7 p.m. Wednesday, April 18.

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