

ENCLOSURE

Regulatory

FEB 1975

Metropolitan Edison Company
Three Mile Island Nuclear Station, Unit 1 (TMI-1)
Docket No. 50-289
Operating License DPR-50
Nonroutine 10-Day Report 74-09

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Report of an Unplanned Release of Radioactive Material
Occurring on November 22, 1974

1. Description of Release

Between the hours of 2030 and 2037 (7 minutes) on November 22, 1974, while conducting routine sampling of the Makeup Tank (i.e., that part of the Makeup and Purification System which serves as a receiver for letdown, seal return, chemical addition, and system makeup and which also accomodates temporary changes in system coolant volume) was being performed, an unplanned release of radioactive material occurred due to a leak in a sample line fitting. An increased magnitude of readings on the Auxiliary and Fuel Handling Building Exhaust Radiation Monitor (RM-A8) were observed by Control Room personnel. Plant Operations personnel then proceeded to try to locate the source and cause of the release. Because of the short time it took to complete the sampling procedure, the release was quickly terminated, and no further actions were possible.

Only one individual, a Chemistry Technician, was in the vicinity of the Primary Sampling Room at the time of the release. He was monitored and found to be only slightly contaminated about the head and face; and subsequent decontamination reduced the contamination to acceptable levels.

2. Apparent Cause of Release

Component failure was the apparent cause of the release in that a sample line fitting did not provide an adequate seal during sampling.

3. Analysis of Release

For the following reasons it is believed that the unplanned release of radioactive material on November 22 did not endanger either the health or safety of the public:

- a. None of the limits in the TMI-1 Technical Specifications were exceeded.

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- b. None of the Maximum Permissible Concentration limits for non-radiation workers listed in 10 CFR 20 were exceeded at the site boundary.
- c. No individual on site at the time of the release received a radiation dose in excess of the limits for radiation workers given in 10 CFR 20.

4. Corrective Action

As described above, immediate actions were taken to locate the source and cause of the release; and the source of the release was terminated upon completion of taking the sample.

To prevent further unplanned releases from the subject sample line, the leaky sample line fitting was replaced.

5. Failure Data

Previous Failures:
None

Equipment Identification:
Hoke Co. Sample Bomb Fitting #CA-S1

6. Release Data

Note:

*** In no case did any member of the public or any plant or contractor personnel receive a radiation dose in excess of the limits given in 10 CFR 20. ***

The total release consisted of 0.23 curies of predominately Xe-133. This value was obtained from both the chart recordings of radiation monitor RM-A8 and from the sample being collected at the time of the release. The gross gaseous release rate was $2.6 \times 10^3 \text{ m}^3/\text{sec}$, which is well below the Technical Specification limit of $1.2 \times 10^5 \text{ m}^3/\text{sec}$.