

Nonroutine 10-Day Report 75-05
Report of an Unplanned Release of Radioactive Material
Occurring on September 4, 1975

Description of Occurrence:

On September 4, 1975, between the hours of 1530 and 1800 (two (2) hours and thirty (30) minutes) an inadvertant release of radioactive material occurred due to a drain pot drain valve (WDG-V14) associated with the Waste Gas System Delay Tank being left in the open position following the routine draining of the drain pot. At 1535 an alert level alarm was received on the Auxiliary Building Ventilation Exhaust Radiation Monitor Gas Channel (RM-A6) and the Auxiliary Building was evacuated. At 1635 a reduction in the vent header pressure was noticed and a search was conducted to determine the location of the leak from the vent header. At approximately 1705, the Waste Gas Delay Tank Drain Pot Drain Valve (WDG-V14) was found open. Upon closing the valve, the levels indicated on the Ventilation Exhaust Radiation Monitors RM-A6 and RM-A8 slowly returned to normal background. The release path due to the open drain valve was determined to be directly to the Auxiliary Building Sump and then released to the atmosphere via the Auxiliary Building Ventilation System.

Apparent Cause of the Occurrence:

Personnel error was the apparent cause of the occurrence in that the Waste Gas Delay Tank Drain Pot Drain Valve, WDG-V14, was inadvertantly left in the open position following the routine draining of the drain pot.

Analysis of the Occurrence:

For the following reasons it is believed that the release of radioactive material on the 4th of September did not endanger either the health or safety of the public.

- a. None of the limits in the TMI-1 Technical Specifications were exceeded.
- b. None of the maximum permissible concentration limits for non-radiation workers as given in 10CFR20 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 of radiation workers specified in 10CFR20.

Corrective Action:

Immediate corrective action as described above was taken to terminate the release. Procedural changes have also been implemented to maintain higher levels in drain pot sight glasses, thus allowing positive indication (by low level in sight glasses) of open drain valves.

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Failure Data:

Not Applicable

Release Data:

NOTE: In no case did any member of the public or any station or contractor personnel receive a radiation dose near the applicable limits given in 10CFR20.

The total release consisted of 5.75 curies of predominantly (>97%) Xe-133 based on Radiation Monitoring System Strip Chart Recordings and samples of the station vent during the release. The maximum instantaneous noble gas release rate during the two hour and thirty minute period was 4.30×10^3 m³/sec which is below the Technical Specification limit of 1.2×10^5 m³/sec. The average release rate during the period was 2.14×10^3 m³/sec. The 24 hour average concentration in the Auxiliary Building Sump, the point of release, was 1.59×10^{-4} uCi/cc, (based on a measured air flow of 885 CFM), and this concentration constituted a violation of 10CFR20.403(b)(2) and is reportable under 10CFR20.405(a)(2). There were no personnel exposures involved since the release was confined to the Auxiliary Building Sump which was unoccupied at the time. Also, corrective action which terminated the release was performed in the Waste Gas Delay Tank cubicle which was free of airborne contamination.

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