On May 27, 1983, it was determined that a reportable deficiency was present during the April 20, 1983, performance of Surveillance 4331-SA1, Air Intake Tunnel (AIT).

The deficiency was one halon bottle which was below specification. This event concerns Tech Spec 3.7.10.1, and is considered reportable pursuant to Section 6.9.1.9(b) due to discovery during surveillance of an out-of-spec bottle. This event had no effect on the plant, its operation, or the health and safety of the public.

The probable cause of the low pressure/weight halon bottle was a pressure test connection valve left cracked open. The bottle was replaced and surveillance testing was completed. Surveillance 4331-SA1 was revised to ensure the test connection valves on all the bottles are secured upon completion of the surveillance.

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The probable cause of the low pressure/weight halon bottle was a pressure test connection valve left cracked open. The bottle was replaced and surveillance testing was completed. Surveillance 4331-SA1 was revised to ensure the test connection valves on all the bottles are secured upon completion of the surveillance.
1. **EXPLANATION OF THE OCCURRENCE**

A condition considered thirty (30) day reportable under Technical Specification 6.9.1.9(b) was determined to exist on May 27, 1983.

On April 20, 1983, during the performance of Surveillance Procedure 4331-SA1, "Air Intake Tunnel Halon System Inspection, one of the halon bottles was found to be out-of-specification for pressure and weight. The halon bottle is located in position EI-5A and had a pressure of 220 psig and weight of 90 lbs. (vs. minimums of 240 psig and 95 lbs., respectively). The bottle was replaced, the surveillance completed, and the halon system returned to service on April 21, 1983. With the identified deficiency of an out-of-spec halon bottle, this event became reportable pursuant to Technical Specification 6.9.1.9(b) due to an equipment failure resulting in entry into the Action Statement of Technical Specification 3.7.10.3. However, during the Operations' Department review, the Shift Supervisor failed to generate an Incident/Event Report (IER) for evaluation of the cleared surveillance deficiency (out-of-spec halon bottle). The failure to generate an IER resulted in the non-timely determination of reportability. An IER was generated on May 27, 1983, by the Fire Protection Engineer and the necessary reportability determination was then accomplished.

2. **CAUSE OF THE OCCURRENCE**

Since the halon bottle in position EI-5A was within specification for pressure and weight during previous surveillances, it was believed that either the bottle or its fittings developed a leak. However, an examination by the bottle's manufacturer could not determine any mechanical reason for the leakage. Since the bottle had not previously shown a history of leakage, this tends to confirm the manufacturer's findings. Therefore, the most likely cause of this event was a pressure test connection valve left cracked open after that portion of the surveillance was completed.

3. **CIRCUMSTANCES SURROUNDING THE OCCURRENCE**

At the time of the occurrence, the Unit 2 facility was in a long-term cold shutdown state. The reactor decay heat was being removed via loss to ambient. Throughout the event there was no effect on the Reactor Coolant System or the core.

4. **CORRECTIVE ACTIONS TAKEN OR TO BE TAKEN**

**Immediate** - On April 20, 1983, the EI-5A bottle was confirmed to be both low in pressure and halon weight and subsequently was replaced with a spare bottle that was within specifications.
Long-Term - The Shift Foreman/Supervisors received clarification/reinforcement, by memorandum, of the requirements for initiating an IER regarding deficiencies and exceptions on Technical Specification related surveillance testing. Surveillance Procedure 4331-SA1 was revised on August 3, 1984, to ensure the test connection valves on all the bottles are tightly shut upon completion of the surveillance.

5. COMPONENT FAILURE DATA

Halon bottle with fittings manufactured by Fenwal. Fenwal Bottle Model No. 92022-6; Extinguisher 30L-HRD.
US Nuclear Regulatory Commission
Document Control Desk
Washington, DC 20555

Dear Sir:

Three Mile Island Nuclear Station, Unit 2 (TMI-2)
Operating License No. DPR-73
Docket No. 50-320
Updated Licensee Event Report 83-015, Revision 1

Attached is updated Licensee Event Report 83-015/03X-1 concerning the identification of a below spec halon bottle during Air Intake Tunnel Halon System surveillance testing on April 20, 1983.

Sincerely,

F. R. Standerfer
Vice President/Director, TMI-2

FRS/RDW/jep

Attachments

cc: Regional Administrator - Office of I & E, Dr. T. E. Murley
Program Director - TMI Program Office, Dr. B. J. Snyder
Deputy Program Director - TMI Program Office, Dr. W. D. Travers