VERMONT YANKEE NUCLEAR POWER CORPORATION



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> August 25, 1995 BVY 95-93

U.S. Nuclear Regulatory Commission Washington, D.C. 20555

Attn:

Document Control Desk

References:

Operating License DPR-28

Docket No. 50-271

Reportable Occurrence No. LER 95-016

Dear Sir:

As defined by 10 CFR 50.73, we are reporting the attached Reportable Occurrence as LER 95-016.

Very truly yours,

Robert J. Wanczyk

Plans Manager

RJW/dm

cc:

Regional Administrator

USNRC Region I

475 Allendale Road

King of Prussia, PA 19406

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NRC Form 366 U.S. NUCLEAR REGULATORY COMMISSION (4-95)

LICENSEE EVENT REPORT (LER)

APPROVED BY OMB NO. 3150-0104 EXPIRES 04/30/98

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS MANDATORY INFORMATION COLLECTION REQUEST: 50.0 HRS. REPORTED LESSONS LEARNED ARE INCORPORATED INTO THE LICENSING PROCESS AND FED BACK TO INDUSTRY. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (T-6 F33), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

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ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)

On 7/28/95 at 1200 hours, with the plant at 100% power, a Chemistry Assistant discovered that one of the weekly stack gas particulate filters, stored for use as part of the monthly gross alpha and quarterly strontium 89-90 composite sample, was missing. The storage area for the filters, the Chemistry Laboratory and the Counting Room were subsequently searched but the filter could not be located.

Technical Specifications (TS) Table 4.8.2 requires stack samples be obtained to determine off-site dose rates contributed by various radionuclides. Contrary to this requirement, Vermont Yankee (VY) misplaced one of the filters that are used to monitor the plant stack for alpha emitters and strontium and therefore cannot determine the one week's contribution for these radionuclides, using actual measurements.

The root cause of this event is an inadequate tracking and storage program for the stack gas samples. Contributing causes include a non-specific sample control procedure and inadequate training.

Immediate corrective actions included a search of the lab and counting rooms to look for the missing sample and a revision to the method used to retain the filters.

Long term corrective actions include more secure storage, improved technician training and procedure revisions to retain samples for a longer period of time.

During this event, the plant was at steady state operations and a postulated activity level, based on levels found in prior and subsequent weeks, was used to determine the dose rates for the missing week.

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TEXT (If more space is required, use additional copies of NRC Form 366A) (17)

DESCRIPTION OF EVENT

On 7/28/95 at 1200 hours, with the plant at 100% power, a Chemistry Assistant discovered that one of the weekly stack particulate filters (EIIS = FLT), used as part of the monthly gross alpha and quarterly strontium 89-90 composite sample, was missing.

Normally, two stack particulate filters are collected each week and analyzed by gamma spectroscopy. The filter with the highest activity is identified and both filters are brought to the Chemistry Laboratory storage room where the filters are stored in separate drawers of a designated filter storage cabinet. The filter with the lower activity is retained for possible analysis by the State of Vermont, if they desire an independent analysis. The filter with higher activity is retained for use as a monthly and quarterly composite sample to be analyzed for gross alpha and strontium 89 & 90 respectively. Each week the previous lower-activity filter is discarded since it is no longer needed and replaced by the current low activity filter. During investigation into this event it was discovered that on July 4, 1995, a Chemistry Technician found that three of the drawers of the storage cabinet, used to store the filters, had been removed and placed next to the cabinet. The drawers were replaced, possibly out of order. It is believed that this event contributed to the loss of the filter cartridge.

Based on the investigation performed it is concluded that the missing filter cartridge was disposed of as radioactive waste.

CAUSE OF EVENT

The root cause of this event is an inadequate method to control the storage of the stack particulate filters.

Contributing causes are a non-specific sample control procedure and inadequate training regarding the consequences of lost or misplaced samples.

ANALYSIS OF EVENT

The filters that are used to determine gross alpha releases are collected each week and composited at the end of the month (a total of four filters for the month of July, 1995). Strontium 89 & 90 releases are assessed at the end of each quarter using the composited filters from each of the three months in the quarter for a total of thirteen filters.

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ANALYSIS OF EVENT (CONT.)

Due to the missing particulate filter, only three of the four filters could be analyzed to determine dose rate and dose contribution from gross alpha emitters. Similarly, of the thirteen samples expected from the current quarter, only twelve filters will be available for analysis of Strontium 89 & 90 (analysis to be performed at the end of the 3rd quarter, 1995). During the week in question, the plant operated in a steady state condition with no fuel problems or evidence of unusual releases; therefore it can be concluded that the production and release of these radionuclides remained constant during the period. This hypothesis is further supported by the gamma isotopic analysis performed on the missing filter prior to its disappearance which showed no abnormal or unexpected radionuclides. Given the information available, the dose rate and total dose for gross alpha and Strontium 89 & 90 can be closely approximated for the week corresponding to the missing filter by utilizing information obtained from samples collected prior to and immediately following the period in question.

Based on the above, the dose rate was calculated to be within applicable limits, therefore, there was no threat to the health and safety of the public due to this event.

CORRECTIVE ACTIONS

The immediate corrective actions included:

- A search of the Chemistry Laboratory and the Counting Room to attempt to find the missing filter, and
- A change in the method used to retain the filters.

Long term corrective actions include:

- A revision to the sample procedure to detail the identification, storage and disposal of filters. This is expected to be completed by 9/30/95.
- Replacement of the present storage cabinet with one that has non-removable drawers and that can be locked. This is expected to be completed by 9/15/95.
- 3) Additional training for all Chemistry Department Personnel dealing with the immediate reporting and disposition of any laboratory equipment, samples, etc, that are out of place and the consequences of mis-placed or lost samples. This is expected to be completed by 9/15/95.

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CORRECTIVE ACTIONS (CONT.)

4) A review of all Chemistry sampling procedures to determine the security of all samples. This is expected to be completed by 12/31/95.

ADDITIONAL INFORMATION

No similar events reported to the Commission within the past five years.