

## LICENSEE EVENT REPORT

LER 83-23/3L

CONTROL BLOCK: 1

(PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)

7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80

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LICENSEE CODE LICENSE NUMBER LICENSE TYPE CAT 58

CON'T

7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80

0 1 L 6 0 5 0 0 0 2 7 1 7 0 9 2 3 8 3 8 1 0 1 2 8 3 9

REPORT SOURCE DOCKET NUMBER EVENT DATE REPORT DATE

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES 10

0 2 (See Attached)

0 3

0 4

0 5

0 6

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0 8

7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80

0 9 M C 11 X 12 Z 13 Z Z Z Z Z Z 14 Z 15 Z 16

SYSTEM CODE CAUSE CODE CAUSE SUBCODE COMPONENT CODE COMP. SUBCODE VALVE SUBCODE

17 LER/RO REPORT NUMBER 18 8 3 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80

EVENT YEAR SEQUENTIAL REPORT NO. OCCURRENCE CODE REPORT TYPE REVISION NO.

ACTION TAKEN FUTURE ACTION EFFECT ON PLANT SHUTDOWN METHOD HOURS ATTACHMENT SUBMITTED NPRD-4 FORM SUB. PRIME COMP. SUPPLIER COMPONENT MANUFACTURER

18 X 19 G 20 Z 21 Z 22 0 0 0 0 23 Y 24 N 25 Z 26 Z 9 9 9

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS 27

1 0

1 1

1 2 (See Attached)

1 3

1 4

7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80

1 5 E 28 1 0 0 29 NA 30 C 31 H.P. Augmented Sampling Program 32

FACILITY STATUS % POWER OTHER STATUS METHOD OF DISCOVERY DISCOVERY DESCRIPTION

1 6 Z 33 Z 34 NA 35 NA 36

ACTIVITY CONTENT RELEASED OF RELEASE AMOUNT OF ACTIVITY LOCATION OF RELEASE

7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80

1 7 0 0 0 37 Z 38 NA 39

PERSONNEL EXPOSURES NUMBER TYPE DESCRIPTION

7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80

1 8 0 0 0 40 NA 41

PERSONNEL INJURIES NUMBER DESCRIPTION

7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80

1 9 Z 42 NA 43

LOSS OF OR DAMAGE TO FACILITY TYPE DESCRIPTION

7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80

1 9 Z 42 NA 43

PUBLICITY

7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80

2 0 N 44 NA 45

ISSUED DESCRIPTION

NAME OF PREPARER J. P. Pelletier

PHONE: (802) 257-7711

NRC USE ONLY

#### EVENT DESCRIPTION AND PROBABLE CONSEQUENCES

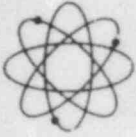
An augmented health physics sampling program revealed that a Co-60 concentration of 620 picocuries per kilogram river silt existed at the north storm drain outfall. Further, a review of the situation revealed that:

1. The Co-60 found in the river sediment near the north storm drain apparently resulted from very low level airborne releases of this nuclide from the turbine building roof vents. The Co-60 impacted on the gravel roof surface of the turbine building and was subsequently washed into the storm drain by rain. Based on recent measurements at the roof vents, and assuming that none of the Co-60 is deposited on the roof, the annual average off-site concentration using worst case meteorology of the site boundary is calculated to be  $8 \times 10^{-17}$   $\mu\text{Ci/cc}$  from this source. This is a factor of  $3.8 \times 10^6$  below the MPC specified in 10CFR20, Appendix B, Table II. The air in the turbine building is monitored by a continuous air monitor on the operating floor level.
2. The resultant dose from the river sediment containing Co-60 particulate was conservatively estimated at 0.01 mR per year which is less than 0.1% of the 10CFR50 Appendix I radiation dose limit.
3. No other evidence of radioactive liquid effluent releases to the north storm drain were identified.
4. The north storm drain outfall sediments are not specifically included in the environmental sampling program.

Based on the above, there were no adverse consequences to the public health or safety as a result of this event. There have been no previous similar occurrences.

#### CAUSE DESCRIPTION AND CORRECTIVE ACTION

Technical Specification Table 3.9.1 did not specifically include the north storm drain outfall as a river sediment sample location. Therefore, the extent of the Co-60 reconcentration at the outfall was not periodically determined. This sample point will be added to administrative procedures to require semiannual monitoring. The Technical Specification requirement will be subsequently submitted with our 10CFR50 Appendix I proposed change.



# VERMONT YANKEE NUCLEAR POWER CORPORATION

P. O. BOX 157  
GOVERNOR HUNT ROAD  
VERNON, VERMONT 05354

VYV 83-209

October 12, 1983

United States Nuclear Regulatory Commission  
Office of Inspection and Enforcement  
Region I  
631 Park Avenue  
King of Prussia, Pennsylvania 19406

Attention: Ronald C. Haynes, Director

References: Operating License DPR-28  
Docket No. 50-271  
Reportable Occurrence No. LER 83-23/3L

Dear Sir:

As defined by Technical Specifications for the Vermont Yankee Nuclear Power Station, Section 6.7.B.2, we are reporting the attached Reportable Occurrence as LER 83-23/3L.

Very truly yours,

VERMONT YANKEE NUCLEAR POWER CORPORATION

*James P. Pelletier*  
James P. Pelletier  
Plant Manager

HMM/caf  
Attachment

IE22  
1/1