



Entergy Nuclear Operations, Inc.
Vermont Yankee
P.O. Box 0500
185 Old Ferry Road
Brattleboro, VT 05302-0500
Tel 802 257 5271

December 14, 2006
BVY 06-104

ATTN: Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Reference: Letter, VYNPS to USNRC, "2005 Annual Radiological Effluent Release Report," BVY 06-46, dated May 15, 2006

**Subject: Vermont Yankee Nuclear Power Station
License No. DPR-28 (Docket No. 50-271)
Supplement to the Annual Radiological Effluent Release Report for
Year 2005**

The attachment to this letter contains a supplemental corrective update to the referenced report for calendar year 2005.

There are no new regulatory commitments contained in this submittal

We trust that the information provided is adequate; however, should you have questions or require additional information, please contact Mr. David Mannai at (802) 258-5422.

Sincerely,

A handwritten signature in black ink, appearing to read "Ted A. Sullivan".

Ted A. Sullivan
Site Vice President
Vermont Yankee Nuclear Power Station

Attachment (1)

cc: USNRC Region 1 Administrator
USNRC Resident Inspector – VYNPS
USNRC Project Manager – VYNPS
Vermont Department of Public Service
Vermont Division of Occupational and Radiological Health
Massachusetts Metropolitan District Commission
Massachusetts Department of Public Health

IE48

Docket No. 50-271
BVY 06-104

Attachment 1

Vermont Yankee Nuclear Power Station

Supplement to the
Annual Radiological Environmental Operating Report
For Year 2005

**ENTERGY NUCLEAR - VERMONT YANKEE
Vermont Yankee Nuclear Power Station**

**Supplement to the
ANNUAL RADIOACTIVE EFFLUENT
RELEASE REPORT**

**For
Year 2005**

Preparation coordinated by: *Stephen P. Skibmowsky* / *12/4/2006*
Stephen P. Skibmowsky, Sr. HP & Chem Specialist (Nuclear) Date

Reviewed by: *Stephen C. McAvoy* / *12/5/06*
Stephen C. McAvoy, Chemistry Supervisor Date

Approved for Distribution: *Samuel A. Wender IV* / *12/5/06*
Samuel A. Wender IV, Chemistry Superintendent Date

Supplemental Report:

This supplemental corrective update to the year 2005 Vermont Yankee Annual Radioactive Effluent Release Report (ARERR) is presented to provide a revised format in Table 3 of the original ARERR so as to be consistent with previous submittals of this annual report. These inconsistencies were discovered during a recent audit of this report Radiological Environmental Operating Program (REMP).

Specifically, Table 3, Solid Waste and Irradiated Fuel Shipments, was found to be inconsistently formatted with previous years' submittals. In both Section A and Section B of Table 3, an additional sub-table was provided which summarized shipments from Vermont Yankee Nuclear Power Station to its waste processors. This additional information inappropriately over-reported the total curie content and volume of waste shipments from Vermont Yankee. Previous years had presented data for shipments from Vermont Yankee to the burial sites and from Vermont Yankee's waste processors to the burial sites. The additional information presented in Table 3 for 2005 effectively counted the radioactive material twice, once when it left Vermont Yankee for shipment to the waste processors and the second time when the same radioactive material, in a reduced volume, was shipped from our waste processors to the burial locations. The attached, revised Table 3 corrects this reporting error.

TABLE 3

Vermont Yankee
Effluent and Waste Disposal Annual Report
First and Second Quarters, 2005 - Solid Waste and Irradiated Fuel Shipments
Reviewed by *Muh G. Udale* (RP Dept.)

A. SOLID WASTE SHIPPED OFFSITE FOR BURIAL OR DISPOSAL (not irradiated fuel)

1. Type of Waste

Shipped from VY for Burial or Disposal	Unit	1 ST and 2 ND Quarters 2005	Est. Total Error, %
a. Spent resins, filter sludges, evaporator bottoms, etc.	m ³ Ci	None	
b. Dry compressible waste, contaminated equipment, etc.	m ³ Ci	None	
c. Irradiated components, control rods, etc.:	m ³ Ci	None	

Shipped from Processor(s) for Burial or Disposal	Unit	1 ST and 2 ND Quarters 2005	Est. Total Error, %
a. Spent resins, filter sludges, evaporator bottoms, etc.	m ³ Ci	3.50 E+00 9.31 E+01	± 2.5 E+1
b. Dry compressible waste, contaminated equipment, etc.	m ³ Ci	None	
c. Irradiated components, control rods, etc.:	m ³ Ci	None	

2. Estimate of Major Nuclide Composition (By Type of Waste)

a. Spent resins, filter sludges, evaporator bottoms, etc.		b. Dry compressible waste, contaminated equipment, etc.		c. Irradiated components, control rods, etc.	
Isotope	Percent (1)	Isotope	Percent (1)	Isotope	Percent (1)
Zinc-65	3.38 E+01 %	Iron-55	6.51 E+01 %	N/A	N/A
Cesium-137	1.36 E+01 %	Zinc-65	4.94 E+00 %		
Cobalt-60	2.11 E+01 %	Cobalt-60	1.75 E+01 %		
Nickel-63	9.72 E+00 %	Manganese-54	4.16 E+00 %		
Manganese-54	4.60 E+00 %	Nickel-63	1.00 E+00 %		
Iron-55	1.09 E+01 %	Cesium-137	2.18 E+00 %		
Cesium-134	2.60 E+00 %	Cerium-144	3.27 E+00 %		
Antimony-122	3.83 E+00 %				

(1) Includes only those nuclides that are greater than 1% of the total activity.

Note: Sections A.1. and A.2. above do not include the data for the waste shipments from VY to the processors. The data for this waste will be included in the report that covers the year that this waste is shipped from the processor for burial or disposal.

TABLE 3
(Continued)

Vermont Yankee
Effluent and Waste Disposal Annual Report
First and Second Quarters, 2005 - Solid Waste and Irradiated Fuel Shipments
Reviewed by M. Y. Vardole (RP Dept.)

3. Disposition of solid waste shipments (1st and 2nd Quarters)

Number of Shipments	From VY	From Processor	Mode of Transportation	Destination	
				Processor	Burial or Disposal
1		x	Truck	Studsvik, Erwin, TN	Envirocare Clive, UT
8		x	Truck	Studsvik, Erwin, TN	Duratek Barnwell, SC
1		x	Truck	GTS Duratek & RACE Oak Ridge & Memphis, TN	Envirocare Clive, UT
1	x		Truck	GTS Duratek Oak Ridge, TN	
1	x		Truck	RACE Memphis, TN	
4	x		Truck	Studsvik, Erwin, TN	

4. Irradiated Fuel Shipments (Disposition): None

5. Additional Data (1st and 2nd Quarters)

Supplemental Information	Shipments from VY to Processors	Shipments from VY for Burial or Disposal	Shipments from Processors for Burial or Disposal
Class of solid waste shipped	AU, B	None	AU, B
Type of containers used	Strong Tight, Type A	None	Strong Tight, Type B
Solidification agent or absorbent	None	None	None

TABLE 3
(Continued)

Vermont Yankee
Effluent and Waste Disposal Annual Report
Third and Fourth Quarters, 2005 – Solid Waste and Irradiated Fuel Shipments
Reviewed by *Mark Y. Vandele* (RP Dept.)

B. SOLID WASTE SHIPPED OFFSITE FOR BURIAL OR DISPOSAL (not irradiated fuel)

1. Type of Waste

Shipped from VY for Burial or Disposal	Unit	3 rd and 4 th Quarters 2005	Est. Total Error, %
a. Spent resins, filter sludges, evaporator bottoms, etc.	m ³ Ci	None	
b. Dry compressible waste, contaminated equipment, etc.	m ³ Ci	None	
c. Irradiated components, control rods, etc.	m ³ Ci	None	

Shipped from Processor(s) for Burial or Disposal	Unit	3 rd and 4 th Quarters 2005	Est. Total Error, %
a. Spent resins, filter sludges, evaporator bottoms, etc.	m ³ Ci	4.80 E+00 1.09 E+02	±2.50 E+01
b. Dry compressible waste, contaminated equipment, etc.	m ³ Ci	5.27 E+01 5.20 E+00	±2.50 E+01
c. Irradiated components, control rods, etc.	m ³ Ci	None	

2. Estimate of Major Nuclide Composition (By Type of Waste)

a. Spent resins, filter sludges, evaporator bottoms, etc.		b. Dry compressible waste, contaminated equipment, etc.		c. Irradiated components, control rods, etc.	
Isotope	Percent (1)	Isotope	Percent (1)	Isotope	Percent (1)
Zinc-65	2.18 E+01 %	Iron-55	6.12 E+01 %	N/A	N/A
Cesium-137	1.18 E+01 %	Zinc-65	8.85 E+01 %		
Cesium-134	1.11 E+00 %	Cobalt-60	1.95 E+01 %		
Cobalt-60	2.34 E+01 %	Manganese-54	5.45 E+00 %		
Nickel-63	7.74 E+00 %	Cesium-137	1.38 E+00 %		
Manganese-54	6.55 E+00 %	Cerium-144	3.01 E+00 %		
Iron-55	2.11 E+01 %				
Cobalt-58	1.09 E+00 %				
Chromium-51	3.27 E+00 %				

(1) Includes only those nuclides that are greater than 1% of the total activity.

Note: Sections A.1. and A.2. above do not include the data for the shipments from VY to the processors.

The data for this waste will be included in the report that covers the year that this waste is shipped from the processor for burial or disposal.

TABLE 3
(Continued)

Vermont Yankee
Effluent and Waste Disposal Annual Report
Third and Fourth Quarters, 2005 - Solid Waste and Irradiated Fuel Shipments
Reviewed by *Mark Vandale* (RP Dept.)

3. Disposition of Solid Waste Shipments (3rd and 4th Quarters)

Number of Shipments	From VY	From Processor	Mode of Transportation	Destination	
				Processor	Burial or Disposal
6	X		Truck	Studsvik Erwin, TN	
6	X		Truck	GTS Duratek Oak Ridge, TN	
1		X	Truck	Studsvik Erwin, TN	Envirocare Clive, UT
13		X	Truck	GTS Duratek & RACE Oak Ridge & Memphis, TN	Envirocare Clive, UT
10		X	Truck	Studsvik Erwin, TN	CNS, Inc. Barnwell, SC
5	X		Truck	RACE Memphis, TN	

4. Irradiated Fuel Shipments (Disposition): None

5. Additional Data (3rd and 4th Quarters)

Supplemental Information	Shipments from VY to Processors	Shipments from VY for Burial or Disposal	Shipments from Processors for Burial or Disposal
Class of solid waste shipped	AU, B	None	AU, B, C
Type of containers used	Strong Tight, Type A	None	Strong Tight, Type B
Solidification agent or absorbent	None	None	None