NorthStar Nuclear Decommissioning Co., LLC
Vermont Yankee Nuclear Power Station
320 Governor Hunt Rd.
Vernon, VT 05354
802-451-5354

Corey R. Daniels
ISFSI Senior Manager

10 CFR 50.36a

BVY 23-019

July 24, 2023

ATTN: Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

SUBJECT: Update to 2022 Radiological Effluent Release Report
Vermont Yankee Nuclear Power Station
Docket No. 50-271
License No. DPR-28

Dear Sir or Madam:

On May 10, 2023, Vermont Yankee (VY) submitted a copy of the Annual Radiological Effluent Release Report (ARERR) for 2022 in accordance with 10 CFR 50.36a and the VY Off-site Dose Calculation Manual. It has subsequently been identified that there was an error in Table 3 of the ARERR. Accordingly, please find attached a corrected Table 3 to the previously submitted ARERR.

The VY Renewed Facility Operating License Condition 3.E.10 requires that similar information to that contained within the subject report be provided to the Massachusetts Metropolitan District Commission (MDC). However, since the MDC is currently part of the Massachusetts Department of Conservation and Recreation (DCR), this report is being provided to the DCR to satisfy License Condition 3.E.10.

This letter contains no new regulatory commitments.

Should you have any questions concerning this letter, or require additional information, please contact Mr. Thomas B. Silko at (802) 451-5354, Ext 2506.

Sincerely,

CRD/tbs

Attachment: Corrected Table 3 to Annual Radiological Effluent Release Report for 2022.

cc: Regional Administrator, Region 1
U.S. Nuclear Regulatory Commission
475 Allendale Road, Suite 102
King of Prussia, PA 19406-1415

Commissioner
Vermont Department of Public Service
112 State Street – Drawer 20
Montpelier, Vermont 05602-2601

Massachusetts Department of Public Health
Director, Radiation Control Program
529 Main Street, Suite 1 M2A
Charlestown, MA 02129

Commissioner
Massachusetts Department of Conservation and Recreation
251 Causeway Street
Boston, MA 02114

Attachment

Vermont Yankee Nuclear Power Station

Corrected Table 3 to Annual Radiological Effluent Release Report for 2022
(2 pages excluding this cover sheet)

Table 3 – Solid Waste and Irradiated Fuel Shipments

A. Solid Waste Shipped Off-Site for Burial or Disposal (not Irradiated Fuel)

1. Type of Waste

Shipped from VY for Burial	Unit	Quarters 1 & 2	Est. Total Error %
a.Spent resins, filter sludges, etc.	m^3	1.28E+01	±25%
	Ci	1.33E+02	±25%
b.Dry Compressible Waste, equipment, etc.	m^3	1.38E+03	±25%
	Ci	1.42E00	±25%
c. Irradiated components, control rods, etc.	m^3	8.41E+01	±25%
	Ci	7.29E+03	±25%
d.Other	m^3	3.27E+03	±25%
	Ci	1.65E00	±25%

Shipped from Processor(s) for Burial	Unit	Quarters 1 & 2	Est. Total Error %
a.Spent resins, filter sludges, etc.	m^3	0	N/A
	Ci	0	N/A
b.Dry Compressible Waste, equipment, etc.	m^3	0	N/A
	Ci	0	N/A
c. Irradiated components, control rods, etc.	m^3	0	N/A
	Ci	0	N/A
d.Other	m^3	0	N/A
	Ci	0	N/A

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

Spent resins, filter sludges		Dry Compressible Waste, equipment, etc.		Irradiated components, control rods, etc.		Other Waste	
Nuclide	Percent(1)	Nuclide	Percent(1)	Nuclide	Percent(1)	Nuclide	Percent(1)
Fe-55	42.2	Fe-55	29.16	Fe-55	20.79	H-3	87.91
Co-60	41.07	Co-60	60.47	Co-60	68.55	Co-60	6.26
Ni-63	16.59	Ni-63	2.94	Ni-63	10.58	Cs-137	4.75
		Cs-137	6.81				

(1) Includes only those nuclides that are greater than 0.1% of the total activity

3. Disposition of Solid Waste Shipments (1st & 2nd Quarters)

No. of Shipments	From VY	From Processor	Mode	To Processor	To Burial
60	60	0	Rail	0	60
3	3	0	Truck	0	3

B. Irradiated Fuel Shipments (Disposition): None

C. Additional Data (1st & 2nd Quarters)

Supplemental Information	VY to Processor	VY to Burial	Processors to Burial
Class of Solid Waste Shipped	N/A	A/B/C	N/A
Type of Containers Used	N/A	GDC/IP-1/IP-2/Type B	N/A
Solidification Agent or Absorbent Used	N/A	None	N/A

GDC = General Design Container

Table 3 – Solid Waste and Irradiated Fuel Shipments (Continued)

A. Solid Waste Shipped Off-Site for Burial or Disposal (not Irradiated Fuel)

1. Type of Waste

Shipped from VY for Burial	Unit	Quarters 3 & 4	Est. Total Error %
a.Spent resins, filter sludges, etc.	m^3	2.30E+01	±25%
	Ci	3.05E+01	±25%
b.Dry Compressible Waste, equipment, etc.	m^3	1.75E+03	±25%
	Ci	6.70E00	±25%
c. Irradiated components, control rods, etc.	m^3	2.58E+02	±25%
	Ci	1.84E+01	±25%
d.Other	m^3	2.33E+03	±25%
	Ci	1.66E+01	±25%

Shipped from Processor(s) for Burial	Unit	Quarters 3 & 4	Est. Total Error %
a.Spent resins, filter sludges, etc.	m^3	0	N/A
	Ci	0	N/A
b.Dry Compressible Waste, equipment, etc.	m^3	0	N/A
	Ci	0	N/A
c. Irradiated components, control rods, etc.	m^3	0	N/A
	Ci	0	N/A
d.Other	m^3	0	N/A
	Ci	0	N/A

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

Spent resins, filter sludges		Dry Compressible Waste, equipment, etc.		Irradiated components, control rods, etc.		Other Waste	
Nuclide	Percent(1)	Nuclide	Percent(1)	Nuclide	Percent(1)	Nuclide	Percent(1)
Fe-55	28.27	Fe-55	31.29	Fe-55	60.97	H-3	5.92
Co-60	60.71	Co-60	57.55	Co-60	30.98		
Ni-63	10.55	Ni-63	4.87	Ni-63	7.97	Cs-137	93.34
		Cs-137	5.73				

(1) Includes only those nuclides that are greater than 0.1% of the total activity

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

No. of Shipments	From VY	From Processor	Mode	To Processor	To Burial
52	52	N/A	Rail	N/A	52
8	8	N/A	Truck	N/A	8

B. Irradiated Fuel Shipments (Disposition): None

C. Additional Data (3rd & 4th Quarters)

Supplemental Information	VY to Processor	VY to Burial	Processors to Burial
Class of Solid Waste Shipped	N/A	A/B/C	N/A
Type of Containers Used	N/A	GDC/IP-1/IP-2/Type B	N/A
Solidification Agent or Absorbent Used	N/A	None	N/A

GDC = General Design Container