



Entergy Nuclear Operations, Inc.
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Licensing Manager

BVY 11-041

May 11, 2011

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

SUBJECT: 2010 Radioactive Effluent Release Report
Vermont Yankee Nuclear Power Station
Docket No. 50-271
License No. DPR-28

Dear Sir or Madam,

In accordance with Vermont Yankee (VY) Technical Specifications (TS) 6.6.D, attached is a copy of the annual 2010 Radioactive Effluent Release Report.

In addition, VY TS 6.7.B requires reporting of changes to the Off-Site Dose Calculation Manual (ODCM). The changes made to the ODCM during 2010 are provided in Appendix H of the subject report.

There are no new regulatory commitments being made in this submittal.

Should you have any questions concerning this submittal, please contact me at (802) 451-3166.

Sincerely,



[RJW/JTM]

Attachment: 1. Radioactive Effluent Release Report for 2010
2. CD-ROM with Revision 33 of the VY ODCM

cc listing (next page)

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RADIOACTIVE EFFLUENT
RELEASE REPORT
FOR 2010
INCLUDING ANNUAL RADIOLOGICAL
IMPACT ON MAN

Entergy Nuclear Vermont Yankee, LLC
Docket No. 50-271
License No. DPR-28

Prepared by: Edward R. Cumming 15/9/2011
Edward R. Cumming, CHP, Advisory Scientist, AREVA, Inc. Date

Preparation coordinated by: Stephen P. Skibniowsky 15/10/2011
Stephen P. Skibniowsky, Senior Environmental Specialist (REM) Date

Reviewed by: Stephen C. McAvoy 15/10/11
Stephen C. McAvoy, Chemistry Supervisor Date

Approved for Distribution: Jeffery A. Hardy 15-10-2011
Jeffery A. Hardy, Chemistry Manager Date

TABLE 1C

**Entergy Nuclear Vermont Yankee
Effluent and Waste Disposal Annual Report for 2010
Gaseous Effluents - Ground Level Releases ⁽²⁾**

Nuclides Released	Continuous Mode			Batch Mode	
	Units	Quarter		Quarter	
		1	2(1)	1(1)	2(1)
1. Fission Gases					
Krypton-85	Ci	ND			
Krypton-85m	Ci	ND			
Krypton-87	Ci	ND			
Krypton-88	Ci	ND			
Xenon-133	Ci	ND			
Xenon-135	Ci	ND			
Xenon-135m	Ci	ND			
Xenon-138	Ci	ND			
Unidentified	Ci	ND			
Total for Period	Ci	ND			
2. Iodines					
Iodine-131	Ci	ND			
Iodine-133	Ci	ND			
Iodine-I 35	Ci	ND			
Total for Period	Ci	ND			
3. Particulates					
Strontium-89	Ci	5.30E-08			
Strontium-90	Ci	3.17E-08			
Cesium-134	Ci	5.92E-08			
Cesium-137	Ci	1.80E-06			
Barium-Lanthanum-140	Ci	ND			
Manganese-54	Ci	ND			
Chromium-51	Ci	ND			
Cobalt-58	Ci	ND			
Cobalt-60	Ci	3.92E-06			
Cerium-141	Ci	ND			
Zinc-65	Ci	ND			
Iron-55	Cl	4.69E-07			
Total for Period	Ci	6.33E-06			

- (1) There were no ground level gaseous releases for this reporting period.
- (2) Radioactively contaminated used oil was burned only during the first quarter of 2010.