Entergy

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BVY 12-036

May 14, 2012

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

Subject: Supplement to the Annual Radiological Environmental Operating Report for Year 2010
Vermont Yankee Nuclear Power Station
Docket No. 50-271
License No. DPR-28

REFERENCE: (1) Letter, VYNPS to USNRC,

Dear Sir or Madam,

The attachment to this letter contains a supplemental corrective update to the referenced report for the calendar year 2010.

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

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

Sincerely,

Robert J Wanczyk

[RJW/JTM]

Attachment 1: Supplement to the Annual Radiological Environmental Operating Report for Year 2010

cc listing (next page)

cc: Mr. William Dean, Region 1 Administrator
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VT Department of Public Service
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Vermont Department of Health
Division of Radiological Health
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Supplemental Report:

This supplemental corrective update to the year 2010 Vermont Yankee Annual Radiological Operating Report (AREOR) is presented to provide a revised Table 5.1 to correct minor errors in the original 2010 AREOR. These errors were discovered during a recent audit of the Radiological Environmental Monitoring Program (REMP).

Specifically, Table 5.1, REMP Annual Summary, was found to require minor changes to eight sub-sections of the table related to summarization of data collected from various environmental sample locations. The attached, revised Table 5.1 corrects these summarization errors. Changes to the table are highlighted in **bold** font. A summary of the corrections is provided below:

Radium-226 (Ra-226) for Air Particulate(Location with the Highest Annual Mean) was revised to indicate that Tyler Hill Road (Station 15) had a slightly higher mean, 0.0333 picocuries per cubic meter of air, than River Station (Station 11) with an annual mean of 0.0332 picocuries per cubic meter of air. All values for Radium-226 were below detection limits for each of these stations. This change was made on page 27 of the table.

Manganese-54 (Mn-54) for Sediments (Control Location) was revised to indicate that there were no detections of the radionuclide, as indicated by the data for these locations. The Control Location Mean format was revised to be mathematically consistent with other Means in the table (from "49" to "48.8"). The table information was revised from "(2/2)" was changed to "(0/2)" on page 31 of the table.

Cesium-134 (Cs-134) for Sediments (Control Location and Location with the Highest Annual Mean) was revised to be mathematically consistent with other Means in the table (from "41" to "40.9" and from "71" to "70.5").This change was made on page 31 of the table.
Manganese-54 (Mn-54) for Sediments (Control Location) was revised to indicate that there were no detections of the radionuclide, as indicated by the data for these locations. The table information was revised from "(2/2)" was changed to "(0/2)" on page 31 of the table.

Cesium-137 (Cs-1377) for Sediments (Control Location) was revised to be mathematically consistent with other Means in the table (from "68" to "68.0"). This change was made on page 32 of the table.

Uranium-238 (U-238) for Sediments (Indicator, Control and Location with the Highest Annual Mean) was revised to indicate that there were no detections of the radionuclide, as indicated by the data for these locations. The ratios for these three categories were corrected as follows; "(34/34)" was changed to "(0/34)", "(2/2)" was changed to "(0/2)" and "(2/2)" was changed to "(0/2)". Also, in this section, less than symbols "<" were omitted from the range data and these have been restored in this revision. These changes were made on page 32 of the table.

Americium-241 (Am-24) for Sediments (Indicator Location) was revised to reflect the absence of detection of the radionuclide, as indicated by the data for these locations. The table information was revised from "(2100/12700)" to "(<5.39/<188)" on page 32 of the table.

Strontium-90 (Sr-90) for Milk (Control Location) was revised to reflect the detections of the radionuclide, as indicated by the data for this location. Four of the eleven samples collected at these locations were found to contain detectable Sr-90. The table information was revised from a range of "<0.481/<2.45" to a range of "<0.481 to 2.45" on page 37 of the table.

Strontium-90 (Sr-90) for Fish (Indicator, Control and Location with the Highest Annual Mean) was revised to reflect the detections of the radionuclide, as indicated by the data for this location. The Indicator Locations ratio of detections to total samples analyzed was revised from "(0/16)" to "(3/16)". The Control Location ratio of detections to total samples analyzed was revised from "(0/16)" to "(6/16)". The Location with Highest Annual Mean ratio of detections to total samples analyzed was revised from "(0/16)" to "(6/16)". Additionally, less than (<) symbols were removed from the upper range for each of the Control and Location with Highest Annual Mean columns to reflect the data collected from these fish samples. These changes were made on page 43 of the table.

None of the changes made in Table 5.1 alter the conclusion that no radionuclides attributed to Vermont Yankee plant operations were found in any REMP sample locations during year 2010.

TABLE 5.1 *SUPPLEMENTAL* RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM ANNUAL SUMMARY FOR THE VERMONT YANKEE NUCLEAR POWER PLANT, 2010

Note: Supplemental Changes are in **Bold** font in the table below

Name of Facility: VERMONT YANKEE NUCLEAR POWER PLANT **DOCKET NUMBER: 50-271**
Location of Facility: VERNON, VT **REPORTING PERIOD: 2010**

MEDIUM OR PATHWAY SAMPLED (UNIT OF MEASUREMENT)	TYPES OF ANALYSES PERFORMED	NUMBER OF ANALYSES PERFORMED	REQUIRED LOWER LIMIT OF DETECTION (LLD)	INDICATOR LOCATIONS MEAN (F) RANGE	CONTROL LOCATION MEAN (F) RANGE	LOCATION WITH HIGHEST ANNUAL MEAN MEAN (F) RANGE	LOCATION WITH HIGHEST ANNUAL MEAN STATION # NAME DISTANCE AND DIRECTION	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
AIR PARTICULATE (PCI/CU METER)	GROSS BETA	363	0.01	0.0105 (311/311) (0.0010/0.0290)	0.0098 (52/52) (0.0010/0.0240)	0.0112 (52/52) (0.0020/0.0250)	12 INDICATOR N. HINSDALE, NH 3.6 KILOMETERS NNW OF SITE	0
	GAMMA	28						
	BE-7		N/A	0.1070 (24/24) (0.0532/0.1542)	0.1190 (4/4) (0.0715/0.1589)	0.1275 (4/4) (0.0737/0.1542)	11 INDICATOR RIVER STATION NO. 3.3 1.9 KILOMETERS SSE OF SITE	0
	K-40		N/A	0.0361 (7/24) (<0.0068/0.0962)	0.0361 (1/4) (<0.0077/0.0927)	0.0559 (2/4) (<0.0201/0.0913)	15 INDICATOR TYLER HILL ROAD 3.1 KILOMETERS WNW OF SITE	0
	CS-134		0.05	0.0030 (0/24) (<0.0016/<0.0039)	0.0035 (0/4) (<0.0028/<0.0042)	0.0035 (0/4) (<0.0028/<0.0042)	21 CONTROL SPOFFORD LAKE 16.4 KILOMETERS NNE OF SITE	0
	CS-137		0.06	0.0019 (0/24) (<0.0004<0.0030)	0.0024 (0/4) (<0.0019/<0.0034)	0.0025 (0/4) (<0.0022/<0.0030)	15 INDICATOR TYLER HILL ROAD 3.1 KILOMETERS WNW OF SITE	0
	RA-226		N/A	0.0291 (0/24) (<0.0180/<0.0437)	0.0308 (0/4) (<0.0207/<0.0398)	**0.0333** (0/4) **(<0.0256/<0.0380)**	**15 INDICATOR TYLER HILL ROAD 3.1 KILOMETERS WNW OF SITE**	0
	AC/TH-228		N/A	0.0075 (0/24) (<0.0019/<0.0122)	0.0060 (0/4) (<0.0020/<0.0086)	0.0088 (0/4) (<0.0022/<0.0122)	14 INDICATOR NORTHFIELD, MA 11.6 KILOMETERS SSE OF SITE	0
AIR IODINE (PCI/CU METER)	I-131	363	0.07	0.0332 (0/311) (<0.0058/<0.0682)	0.0369 (0/52) (<0.0210/<0.0583)	0.0369 (0/52) (<0.0210/<0.0583)	21 CONTROL SPOFFORD LAKE 16.4 KILOMETERS NNE OF SITE	0

FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES (F)

TABLE 5.1 *SUPPLEMENTAL* RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM ANNUAL SUMMARY FOR THE VERMONT YANKEE NUCLEAR POWER PLANT, 2010

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MEDIUM OR PATHWAY SAMPLED (UNIT OF MEASUREMENT)	TYPES OF ANALYSES PERFORMED	NUMBER OF ANALYSES PERFORMED	REQUIRED LOWER LIMIT OF DETECTION (LLD)	INDICATOR LOCATIONS MEAN (F) RANGE	CONTROL LOCATION MEAN (F) RANGE	LOCATION WITH HIGHEST ANNUAL MEAN MEAN (F) RANGE	LOCATION WITH HIGHEST ANNUAL MEAN STATION # NAME DISTANCE AND DIRECTION	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
RIVER WATER (PCI/LITER)	GROSS BETA	24	4	1.37 (11/12) (0.650/2.01)	1.04 (10/12) (<0.500/1.78)	1.37 (11/12) (0.650/2.01)	11 INDICATOR RIVER STATION NO. 3.3 1.9 KILOMETERS SSE OF SITE	0
	TRITIUM *	8	3000	412 (0/4) (<398/<421)	412 (0/4) (<398/<421)	412 (0/4) (<398/<421)	11 INDICATOR RIVER STATION NO. 3.3 1.9 KILOMETERS SSE OF SITE	0
			* Stations 11 and 21 have the same average.					
	GAMMA	24						
	MN-54		15	1.97 (0/12) (<0.609/<2.84)	4.70 (0/12) (<1.91/<7.02)	4.70 (0/12) (<1.91/<7.02)	21 CONTROL RT. 9 BRIDGE 11.8 KILOMETERS NNW OF SITE	0
	CO-58		15	2.20 (0/12) (<0.786/<2.85)	4.39 (0/12) (<2.01/<6.28)	4.39 (0/12) (<2.01/<6.28)	21 CONTROL RT. 9 BRIDGE 11.8 KILOMETERS NNW OF SITE	0
	FE-59		30	6.28 (0/12) (<2.43/<8.79)	12.9 (0/12) (<6.59/<23.4)	12.9 (0/12) (<6.59/<23.4)	21 CONTROL RT. 9 BRIDGE 11.8 KILOMETERS NNW OF SITE	0
	CO-60		15	2.02 (0/12) (<0.585/<2.75)	5.05 (0/12) (<1.86/<8.45)	5.05 (0/12) (<1.86/<8.45)	21 CONTROL RT. 9 BRIDGE 11.8 KILOMETERS NNW OF SITE	0
	ZN-65		30	3.90 (0/12) (<0.831/<5.80)	12.3 (0/12) (<2.66/<20.5)	12.3 (0/12) (<2.66/<20.5)	21 CONTROL RT. 9 BRIDGE 11.8 KILOMETERS NNW OF SITE	0
	ZR-95		15	4.05 (0/12) (<1.41/<5.79)	7.45 (0/12) (<3.49/<11.6)	7.45 (0/12) (<3.49/<11.6)	21 CONTROL RT. 9 BRIDGE 11.8 KILOMETERS NNW OF SITE	0

FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES (F)

TABLE 5.1 *SUPPLEMENTAL* RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM ANNUAL SUMMARY FOR THE VERMONT YANKEE NUCLEAR POWER PLANT, 2010

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Location of Facility: VERNON, VT **REPORTING PERIOD: 2010**

MEDIUM OR PATHWAY SAMPLED (UNIT OF MEASUREMENT)	TYPES OF ANALYSES PERFORMED	NUMBER OF ANALYSES PERFORMED	REQUIRED LOWER LIMIT OF DETECTION (LLD)	INDICATOR LOCATIONS MEAN (F) RANGE	CONTROL LOCATION MEAN (F) RANGE	LOCATION WITH HIGHEST ANNUAL MEAN MEAN (F) RANGE	LOCATION WITH HIGHEST ANNUAL MEAN STATION # NAME DISTANCE AND DIRECTION	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
RIVER WATER (PCI/LITER)	I-131		15	9.52 (0/12) (<6.68/<12.6)	7.75 (0/12) (<3.92/<14.7)	9.52 (0/12) (<6.68/<12.6)	11 INDICATOR RIVER STATION NO. 3.3 1.9 KILOMETERS SSE OF SITE	0
	CS-134		15	1.67 (0/12) (<0.448/<2.66)	3.44 (0/12) (<1.95/<5.17)	3.44 (0/12) (<1.95/<5.17)	21 CONTROL RT. 9 BRIDGE 11.8 KILOMETERS NNW OF SITE	0
	CS-137		18	1.96 (0/12) (<0.593/<3.04)	4.80 (0/12) (<1.84/<8.03)	4.80 (0/12) (<1.84/<8.03)	21 CONTROL RT. 9 BRIDGE 11.8 KILOMETERS NNW OF SITE	0
	BA-LA-140		15	6.27 (0/12) (<4.84/<8.61)	8.19 (0/12) (<4.93/<12.9)	8.19 (0/12) (<4.93/<12.9)	21 CONTROL RT. 9 BRIDGE 11.8 KILOMETERS NNW OF SITE	0
	RA-226		N/A	79.4 (12/12) (54.4/122)	95.8 (9/12) (53.2/<156)	95.8 (9/12) (53.2/<156)	21 CONTROL RT. 9 BRIDGE 11.8 KILOMETERS NNW OF SITE	0
GROUND WATER (PCI/LITER)	GROSS BETA	21	4	3.71 (16/16) (1.51/6.41)	1.67 (5/5) (1.12/2.23)	6.02 (1/1) N/A	13 INDICATOR COB WELL 0.3 KILOMETERS ON-SITE	0
	TRITIUM *	21	3000	409 (0/16) (<400/<420)	412 (0/5) (<400/<420)	412 (0/5) (<400/<420)	22 CONTROL COPELAND WELL 13.7 KILOMETERS N OF SITE	0
	I-131	21	1	0.510 (0/16) (<0.375/<0.928)	0.600 (0/5) (<0.440/<0.800)	0.627 (0/5) (<0.490/<0.928)	11 INDICATOR RIVER STATION NO. 3.3 1.9 KILOMETERS SSE OF SITE	0

* Stations 14 and 22 have the same average. Station 14 has a minimum value of 406 and station 22 has a minimum value of 400.

FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES (F)

TABLE 5.1 *SUPPLEMENTAL* RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM ANNUAL SUMMARY FOR THE VERMONT YANKEE NUCLEAR POWER PLANT, 2010

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GROUND WATER (PCI/LITER)	GAMMA	21						
	MN-54		15	6.18 (0/16) (<4.23/<10.72)	7.06 (0/5) (<4.38/<8.96)	7.06 (0/5) (<4.38/<8.96)	22 CONTROL COPELAND WELL 13.7 KILOMETERS N OF SITE	0
	CO-58		15	5.13 (0/16) (<3.39/<7.34)	6.75 (0/5) (<4.04/<8.78)	6.75 (0/5) (<4.04/<8.78)	22 CONTROL COPELAND WELL 13.7 KILOMETERS N OF SITE	0
	FE-59		30	17.6 (0/16) (<14.3/<27.0)	18.3 (0/5) (<11.0/<22.7)	20.7 (0/5) (<17.6/<27.0)	14 INDICATOR PLANT SUPPORT BLDG WELL 0.3 KILOMETERS ONSITE	0
	CO-60		15	7.57 (0/16) (<5.77/<10.7)	7.13 (0/5) (<5.06/<8.90)	8.96 (0/5) (<7.51/<10.7)	14 INDICATOR PLANT SUPPORT BLDG WELL 0.3 KILOMETERS ONSITE	0
	ZN-65		30	10.3 (0/16) (<8.20/<14.4)	9.77 (0/5) (<5.92/<12.6)	11.8 (0/5) (<9.97/<14.4)	14 INDICATOR PLANT SUPPORT BLDG WELL 0.3 KILOMETERS ONSITE	0
	ZR-95		15	12.0 (0/16) (<7.28/<14.9)	10.5 (0/5) (<6.97/<13.7)	14.2 (0/5) (<12.8/<14.9)	14 INDICATOR PLANT SUPPORT BLDG WELL 0.3 KILOMETERS ONSITE	0
	CS-134		15	5.58 (0/16) (<3.89/<7.86)	5.10 (0/5) (<2.92/<8.15)	6.04 (0/5) (<4.59/<7.86)	11 INDICATOR RIVER STATION NO. 3.3 1.9 KILOMETERS SSE OF SITE	0
	CS-137		18	4.92 (0/16) (<3.34/<8.39)	6.28 (0/5) (<2.63/<9.75)	6.86 (0/1) N/A	13 INDICATOR COB WELL 0.3 KILOMETERS ON-SITE	0

FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES (F)

TABLE 5.1 *SUPPLEMENTAL* RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM ANNUAL SUMMARY FOR THE VERMONT YANKEE NUCLEAR POWER PLANT, 2010

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MEDIUM OR PATHWAY SAMPLED (UNIT OF MEASUREMENT)	TYPES OF ANALYSES PERFORMED	NUMBER OF ANALYSES PERFORMED	REQUIRED LOWER LIMIT OF DETECTION (LLD)	INDICATOR LOCATIONS MEAN (F) RANGE	CONTROL LOCATION MEAN (F) RANGE	LOCATION WITH HIGHEST ANNUAL MEAN MEAN (F) RANGE	LOCATION WITH HIGHEST ANNUAL MEAN STATION # NAME DISTANCE AND DIRECTION	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
GROUND WATER (PCI/LITER)	BA-LA-140		15	10.2 (0/16) (<7.02/<14.4)	9.12 (0/5) (<6.24/<13.6)	11.4 (0/5) (<9.02/<14.4)	14 INDICATOR PLANT SUPPORT BLDG WELL 0.3 KILOMETERS ONSITE	0
	RA-226		N/A	213 (4/16) (<149/<304)	156 (1/5) (101/<211)	248 (3/5) (206/<282)	14 INDICATOR PLANT SUPPORT BLDG WELL 0.3 KILOMETERS ONSITE	**0**
SEDIMENT (PCI/KG DRY)	GAMMA	36						
	BE-7		N/A	941 (1/34) (<271/<1970)	717 (1/2) (<472/962)	1395 (0/2) (<1210/<1580)	23 INDICATOR NORTH STORM DRAIN OUTFALL 0.1 KILOMETERS E OF SITE	0
	K-40		N/A	16241 (34/34) (9140/21900)	12050 (2/2) (11900/12200)	19850 (2/2) (19000/20700)	29 INDICATOR NORTH STORM DRAIN OUTFALL 0.1 KILOMETERS E OF SITE	0
	MN-54		N/A	72.0 (0/34) (<22.1/<138)	**48.8** **(0/2)** (<41.7/<55.9)	116 (0/2) (<94.2/<138)	23 INDICATOR NORTH STORM DRAIN OUTFALL 0.1 KILOMETERS E OF SITE	0
	CO-60		N/A	71.2 (1/34) (<16.9/240)	42.2 (0/2) (<31.6/<52.7)	157 (1/2) (<74.9/240)	31 INDICATOR NORTH STORM DRAIN OUTFALL 0.1 KILOMETERS E OF SITE	0
	NB-95		N/A	109 (0/34) (<29.7/<206)	80.3 (0/2) (<58.6/<102)	170 (0/2) (<151/<188)	23 INDICATOR NORTH STORM DRAIN OUTFALL 0.1 KILOMETERS E OF SITE	0
	CS-134		150	54.7 (0/34) (<18.2/<73.7)	**40.9** (0/2) (<33.5/<48.3)	**70.5** (0/2) (<68.0/<73.0)	30 INDICATOR NORTH STORM DRAIN OUTFALL 0.1 KILOMETERS E OF SITE	0

FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES (F)

TABLE 5.1 *SUPPLEMENTAL* RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM ANNUAL SUMMARY FOR THE VERMONT YANKEE NUCLEAR POWER PLANT, 2010

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MEDIUM OR PATHWAY SAMPLED (UNIT OF MEASUREMENT)	TYPES OF ANALYSES PERFORMED	NUMBER OF ANALYSES PERFORMED	REQUIRED LOWER LIMIT OF DETECTION (LLD)	INDICATOR LOCATIONS MEAN (F) RANGE	CONTROL LOCATION MEAN (F) RANGE	LOCATION WITH HIGHEST ANNUAL MEAN MEAN (F) RANGE	LOCATION WITH HIGHEST ANNUAL MEAN STATION # NAME DISTANCE AND DIRECTION	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
SEDIMENT (PCI/KG DRY)	CS-137		180	**107** (19/34) (<25.7/221)	**68.0** (1/2) (66.2/<69.8)	150 (1/2) (<78.3/221)	36 INDICATOR NORTH STORM DRAIN OUTFALL 0.1 KILOMETERS E OF SITE	0
	BA-LA-140		N/A	636 (0/34) (<131/<1140)	460 (0/2) (<322/<597)	913 (0/2) (<685/<1140)	23 INDICATOR NORTH STORM DRAIN OUTFALL 0.1 KILOMETERS E OF SITE	0
	RA-226		N/A	2053 (19/34) (<746/3680)	1345 (2/2) (1200/1490)	2825 (2/2) (2650/<3000)	36 INDICATOR NORTH STORM DRAIN OUTFALL 0.1 KILOMETERS E OF SITE	0
	AC-228		N/A	1924 (26/34) (<106/4640)	1690 (2/2) (1170/2210)	3915 (2/2) (3190/4640)	35 INDICATOR NORTH STORM DRAIN OUTFALL 0.1 KILOMETERS E OF SITE	0
	TH-228		N/A	1321 (34/34) (484/2190)	958 (2/2) (835/1080)	1725 (2/2) (1260/2190)	36 INDICATOR NORTH STORM DRAIN OUTFALL 0.1 KILOMETERS E OF SITE	0
	TH-232		N/A	1146 (34/34) (452/1660)	933 (2/2) (886/980)	1385 (2/2) (1340/1430)	35 INDICATOR NORTH STORM DRAIN OUTFALL 0.1 KILOMETERS E OF SITE	0
	U-238		N/A	7355 **(0/34)** **(<2100/<12700)**	5075 **(0/2)** **(<4140/<6010)**	10400 **(0/2)** **(<10000/<10800)**	23 INDICATOR NORTH STORM DRAIN OUTFALL 0.1 KILOMETERS E OF SITE	0
	AM-241	6	N/A	95.0 (0/4) **(<5.39/<188)**	103 (0/2) (<8.80/<198)	103 (0/2) (<8.80/<198)	21 INDICATOR NORTH STORM DRAIN OUTFALL 0.1 KILOMETERS E OF SITE	0

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Name of Facility: VERMONT YANKEE NUCLEAR POWER PLANT **DOCKET NUMBER: 50-271**

Location of Facility: VERNON, VT **REPORTING PERIOD: 2010**

MEDIUM OR PATHWAY SAMPLED (UNIT OF MEASUREMENT)	TYPES OF ANALYSES PERFORMED	NUMBER OF ANALYSES PERFORMED	REQUIRED LOWER LIMIT OF DETECTION (LLD)	INDICATOR LOCATIONS MEAN (F) RANGE	CONTROL LOCATION MEAN (F) RANGE	LOCATION WITH HIGHEST ANNUAL MEAN MEAN (F) RANGE	LOCATION WITH HIGHEST ANNUAL MEAN STATION # NAME DISTANCE AND DIRECTION	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
SEDIMENT (PCI/KG DRY)	CM-242	6	N/A	68.9 (0/4) (<0.821/<149)	62.1 (0/2) (<4.11/<120)	74.9 (0/2) (<0.821/<149)	11 INDICATOR NORTH STORM DRAIN OUTFALL 0.1 KILOMETERS E OF SITE	0
	CM-243/244	6	N/A	156 (0/4) (<2.16/<369)	176 (0/2) (<3.56/<349)	186 (0/2) (<2.16/<369)	11 INDICATOR NORTH STORM DRAIN OUTFALL 0.1 KILOMETERS E OF SITE	0
	FE-55	6	N/A	11398 (0/4) (<5890/<13500)	11445 (0/2) (<5790/<17100)	13150 (0/2) (<12800/<13500)	11 INDICATOR NORTH STORM DRAIN OUTFALL 0.1 KILOMETERS E OF SITE	0
	H-3	6	N/A	1628 (0/4) (<899/<2350)	1649 (0/2) (<857/<2440)	1649 (0/2) (<857/<2440)	21 CONTROL NORTH STORM DRAIN OUTFALL 0.1 KILOMETERS E OF SITE	0
	NI-63	6	N/A	444 (0/4) (<384/<503)	447 (0/2) (<396/<498)	447 (0/2) (<396/<498)	21 CONTROL NORTH STORM DRAIN OUTFALL 0.1 KILOMETERS E OF SITE	0
	PU-238	6	N/A	71.4 (0/4) (<7.44/<159)	92.1 (0/2) (<8.18/<176)	92.1 (0/2) (<8.18/<176)	21 CONTROL NORTH STORM DRAIN OUTFALL 0.1 KILOMETERS E OF SITE	0
	PU-239/240	6	N/A	45.4 (0/4) (<2.72/<108)	23.0 (0/2) (<3.81/<42.2)	55.6 (0/2) (<3.14/<108)	10 INDICATOR NORTH STORM DRAIN OUTFALL 0.1 KILOMETERS E OF SITE	0
	PU-241	6	N/A	6455 (0/4) (<4930/<9340)	6545 (0/2) (<5670/<7420)	7585 (0/2) (<5830/<9340)	10 INDICATOR NORTH STORM DRAIN OUTFALL 0.1 KILOMETERS E OF SITE	0

FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES (F)

TABLE 5.1 *SUPPLEMENTAL* RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM ANNUAL SUMMARY FOR THE VERMONT YANKEE NUCLEAR POWER PLANT, 2010

Note: Supplemental Changes are in **Bold** font in the table below

Name of Facility: VERMONT YANKEE NUCLEAR POWER PLANT **DOCKET NUMBER: 50-271**

Location of Facility: VERNON, VT **REPORTING PERIOD: 2010**

MEDIUM OR PATHWAY SAMPLED (UNIT OF MEASUREMENT)	TYPES OF ANALYSES PERFORMED	NUMBER OF ANALYSES PERFORMED	REQUIRED LOWER LIMIT OF DETECTION (LLD)	INDICATOR LOCATIONS MEAN (F) RANGE	CONTROL LOCATION MEAN (F) RANGE	LOCATION WITH HIGHEST ANNUAL MEAN MEAN (F) RANGE	LOCATION WITH HIGHEST ANNUAL MEAN STATION # NAME DISTANCE AND DIRECTION	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
SEDIMENT (PCI/KG DRY)	PU-242	6	N/A	28.4 (0/4) (<5.83/<63.0)	30.0 (0/2) (<2.34/<57.7)	34.4 (0/2) (<5.83/<63.0)	10 INDICATOR NORTH STORM DRAIN OUTFALL 0.1 KILOMETERS E OF SITE	0
	SR-89	6	N/A	1156 (0/4) (<286/<3130)	408 (0/2) (<304/<512)	1853 (0/2) (<577/<3130)	10 INDICATOR NORTH STORM DRAIN OUTFALL 0.1 KILOMETERS E OF SITE	0
	SR-90	6	N/A	184 (0/4) (<98.0/<395)	98.3 (0/2) (<91.6/<105)	254 (0/2) (<113/<395)	10 INDICATOR NORTH STORM DRAIN OUTFALL 0.1 KILOMETERS E OF SITE	0
	U-234	3	N/A	153 (1/2) (<86.8/219)	330 (1/1) N/A	330 (1/1) N/A	21 CONTROL NORTH STORM DRAIN OUTFALL 0.1 KILOMETERS E OF SITE	0
	U-235	3	N/A	19.2 (0/2) (<14.9/<23.5)	45.6 (0/1) N/A	45.6 (0/1) N/A	21 CONTROL NORTH STORM DRAIN OUTFALL 0.1 KILOMETERS E OF SITE	0
	U-238	3	N/A	164 (1/2) (<100/228)	334 (1/1) N/A	334 (1/1) N/A	21 CONTROL NORTH STORM DRAIN OUTFALL 0.1 KILOMETERS E OF SITE	0
TEST WELLS (PCI/LITER) (Nuclear Energy Institute Groundwater Protection Initiative Samples)	GROSS BETA	20	4	9.94 (20/20) (4.02/18.3)	N/A	15.9 (5/5) (13.9/18.3)	14 INDICATOR TEST WELL 201 ON-SITE	0
	TRITIUM	20	3000	398 (0/20) (<244/<527)	N/A	414 (0/5) (<247/<515)	18 INDICATOR TEST WELL 204 ON-SITE	0

FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES (F)

TABLE 5.1 *SUPPLEMENTAL* RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM ANNUAL SUMMARY FOR THE VERMONT YANKEE NUCLEAR POWER PLANT, 2010

Note: Supplemental Changes are in **Bold** font in the table below

Name of Facility: VERMONT YANKEE NUCLEAR POWER PLANT **DOCKET NUMBER:** 50-271
Location of Facility: VERNON, VT **REPORTING PERIOD:** 2010

MEDIUM OR PATHWAY SAMPLED (UNIT OF MEASUREMENT)	TYPES OF ANALYSES PERFORMED	NUMBER OF ANALYSES PERFORMED	REQUIRED LOWER LIMIT OF DETECTION (LLD)	INDICATOR LOCATIONS MEAN (F) RANGE	CONTROL LOCATION MEAN (F) RANGE	LOCATION WITH HIGHEST ANNUAL MEAN MEAN (F) RANGE	STATION # NAME DISTANCE AND DIRECTION	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
TEST WELLS (PCI/LITER) (Nuclear Energy Institute Groundwater Protection Initiative Samples)	GAMMA	20						
	K-40		N/A	27.3 (3/20) (<7.01/111)	N/A	31.6 (1/5) (<7.01/111)	14 INDICATOR TEST WELL 201 ON-SITE	0
	MN-54		15	1.58 (0/20) (<0.692/<3.20)	N/A	1.63 (0/5) (<1.00/<2.87)	17 INDICATOR TEST WELL 203 ON-SITE	0
	CO-58		15	1.96 (0/20) (<0.867/<3.87)	N/A	2.06 (0/5) (<1.12/<3.83)	17 INDICATOR TEST WELL 203 ON-SITE	0
	FE-59		30	4.34 (0/20) (<2.01/<7.57)	N/A	4.50 (0/5) (<2.29/<6.96)	17 INDICATOR TEST WELL 203 ON-SITE	0
	CO-60		15	1.54 (0/20) (<0.702/<3.39)	N/A	1.67 (0/5) (<0.949/<3.39)	17 INDICATOR TEST WELL 203 ON-SITE	0
	NB-95		15	2.03 (0/20) (<0.886/<3.65)	N/A	2.16 (0/5) (<0.886/<3.57)	16 INDICATOR TEST WELL 202 ON-SITE	0
	I-131		15	35.2 (0/20) (<4.97/<218)	N/A	49.9 (0/5) (<6.73/<218)	16 INDICATOR TEST WELL 202 ON-SITE	0
	CS-134		15	1.49 (0/20) (<0.690/<3.16)	N/A	1.59 (0/5) (<0.690/<2.64)	16 INDICATOR TEST WELL 202 ON-SITE	0

FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES (F)

TABLE 5.1 *SUPPLEMENTAL* RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM ANNUAL SUMMARY FOR THE VERMONT YANKEE NUCLEAR POWER PLANT, 2010

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Location of Facility: VERNON, VT **REPORTING PERIOD:** 2010

MEDIUM OR PATHWAY SAMPLED (UNIT OF MEASUREMENT)	TYPES OF ANALYSES PERFORMED	NUMBER OF ANALYSES PERFORMED	REQUIRED LOWER LIMIT OF DETECTION (LLD)	INDICATOR LOCATIONS MEAN (F) RANGE	CONTROL LOCATION MEAN (F) RANGE	LOCATION WITH HIGHEST ANNUAL MEAN MEAN (F) RANGE	STATION # NAME DISTANCE AND DIRECTION	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
TEST WELLS (PCI/LITER) (Nuclear Energy Institute Groundwater Protection Initiative Samples)	CS-137		18	1.63 (0/20) (<0.928/<3.18)	N/A	1.72 (0/5) (<0.938/<2.59)	16 INDICATOR TEST WELL 202 ON-SITE	0
	BA-LA-140		15	10.2 (0/20) (<2.01/<31.9)	N/A	11.3 (0/5) (<2.54/<31.9)	16 INDICATOR TEST WELL 202 ON-SITE	0
	AM-241	4	N/A	0.164 (0/4) (<0.114/<0.190)	N/A	0.190 (0/1) N/A	17 INDICATOR TEST WELL 203 ON-SITE	0
	CM-242	4	N/A	0.075 (0/4) (<0.036/<0.126)	N/A	0.126 (0/1) N/A	18 INDICATOR TEST WELL 204 ON-SITE	0
	CM-243/244	4	N/A	0.109 (0/4) (<0.045/<0.178)	N/A	0.178 (0/1) N/A	16 INDICATOR TEST WELL 202 ON-SITE	0
	FE-55	4	N/A	66.0 (0/4) (<4.25/<119)	N/A	119 (0/1) N/A	17 INDICATOR TEST WELL 203 ON-SITE	0
	PU-238	4	N/A	0.112 (0/4) (<0.072/<0.145)	N/A	0.145 (0/1) N/A	14 INDICATOR TEST WELL 201 ON-SITE	0
	PU-239/240	4	N/A	0.113 (0/4) (<0.093/<0.130)	N/A	0.130 (0/1) N/A	14 INDICATOR TEST WELL 201 ON-SITE	0

FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES (F)

TABLE 5.1 *SUPPLEMENTAL* RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM ANNUAL SUMMARY FOR THE VERMONT YANKEE NUCLEAR POWER PLANT, 2010

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MEDIUM OR PATHWAY SAMPLED (UNIT OF MEASUREMENT)	TYPES OF ANALYSES PERFORMED	NUMBER OF ANALYSES PERFORMED	REQUIRED LOWER LIMIT OF DETECTION (LLD)	INDICATOR LOCATIONS MEAN (F) RANGE	CONTROL LOCATION MEAN (F) RANGE	LOCATION WITH HIGHEST ANNUAL MEAN MEAN (F) RANGE	LOCATION WITH HIGHEST ANNUAL MEAN STATION # NAME DISTANCE AND DIRECTION	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
TEST WELLS (PCI/LITER) (Nuclear Energy Institute Groundwater Protection Initiative Samples)	PU-241	4	N/A	13.9 (0/4) (<11.8/<16.8)	N/A	16.8 (0/1) N/A	14 INDICATOR TEST WELL 201 ON-SITE	0
	PU-242	4	N/A	0.045 (0/4) (<0.021/<0.056)	N/A	0.056 (0/1) N/A	16 INDICATOR TEST WELL 202 ON-SITE	0
	SR-89	4	N/A	7.40 (0/4) (<5.74/<8.56)	N/A	8.56 (0/1) N/A	16 INDICATOR TEST WELL 202 ON-SITE	0
	SR-90	4	N/A	1.03 (0/4) (<0.806/<1.27)	N/A	1.27 (0/1) N/A	16 INDICATOR TEST WELL 202 ON-SITE	0
MILK (PCI/LITER)	I-131	105	1	0.518 (0/54) (<0.440/<0.735)	0.686 (0/51) (<0.422/<0.926)	0.739 (0/15) (<0.422/<0.926)	20 CONTROL DUNKLEE FARM 5.5 KILOMETERS S OF SITE	0
	SR-89	23	N/A	4.50 (0/12) (<1.71/<7.21)	4.22 (0/11) (<1.93/<7.48)	5.15 (0/4) (<2.02/<7.21)	11 INDICATOR MILLER FARM 0.8 KILOMETERS W OF SITE	0
	SR-90	23	N/A	1.29 (4/12) (<0.540/2.07)	1.14 (4/11) **(<0.481/2.45)**	1.47 (3/4) (<0.730/2.45)	22 CONTROL FRANKLIN FARM 9.7 KILOMETERS WSW OF SITE	0
	GAMMA BE-7	105	N/A	53.7 (0/54) (<37.3/<76.5)	57.8 (0/51) (<35.9/<84.5)	61.5 (0/18) (<44.8/<78.5)	24 CONTROL COUNTY FARM 21.6 KILOMETERS N OF SITE	0

FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES (F)

TABLE 5.1 *SUPPLEMENTAL* RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM ANNUAL SUMMARY FOR THE VERMONT YANKEE NUCLEAR POWER PLANT, 2010

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MEDIUM OR PATHWAY SAMPLED (UNIT OF MEASUREMENT)	TYPES OF ANALYSES PERFORMED	NUMBER OF ANALYSES PERFORMED	REQUIRED LOWER LIMIT OF DETECTION (LLD)	INDICATOR LOCATIONS MEAN (F) RANGE	CONTROL LOCATION MEAN (F) RANGE	LOCATION WITH HIGHEST ANNUAL MEAN MEAN (F) RANGE	STATION # NAME DISTANCE AND DIRECTION	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
MILK (PCI/LITER)	K-40		N/A	1525 (54/54) (1257/1970)	1646 (51/51) (1375/2092)	1723 (18/18) (1420/2092)	24 CONTROL COUNTY FARM 21.6 KILOMETERS N OF SITE	0
	CS-134		15	5.83 (0/54) (<2.94/<11.2)	6.34 (0/51) (<3.45/<11.1)	7.03 (0/18) (<4.51/<11.1)	24 CONTROL COUNTY FARM 21.6 KILOMETERS N OF SITE	0
	CS-137		18	7.06 (0/54) (<4.57/<10.4)	7.27 (0/51) (<4.47/<11.0)	7.68 (0/18) (<5.46/<10.4)	18 INDICATOR BLODGETT FARM 3.6 KILOMETERS SE OF SITE	0
	BA-LA140		15	8.25 (0/54) (<4.42/<13.2)	8.64 (0/51) (<4.41/<14.5)	9.34 (0/18) (<6.35/<13.2)	18 INDICATOR BLODGETT FARM 3.6 KILOMETERS SE OF SITE	0
	RA-226		N/A	147 (12/54) (77.1/216)	151 (12/51) (70.5/<206)	160 (3/18) (79.0/<200)	22 CONTROL FRANKLIN FARM 9.7 KILOMETERS WSW OF SITE	0
	AC-TH228		N/A	25.7 (0/54) (<16.2/<38.0)	26.0 (1/51) (12.1/<44.0)	28.0 (0/18) (12.1/<40.2)	24 CONTROL COUNTY FARM 21.6 KILOMETERS N OF SITE	0
SILAGE (PCI/KG)	I-131	6	60	26.9 (0/3) (<21.9/<31.0)	33.8 (0/3) (<19.0/<51.4)	51.4 (0/1) N/A	22 CONTROL FRANKLIN FARM 9.7 KILOMETERS WSW OF SITE	0
	GAMMA BE-7	6	N/A	607 (3/3) (453/782)	547 (3/3) (395/800)	800 (1/1) N/A	22 CONTROL FRANKLIN FARM 9.7 KILOMETERS WSW OF SITE	0

FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES (F)

TABLE 5.1 *SUPPLEMENTAL* RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM ANNUAL SUMMARY FOR THE VERMONT YANKEE NUCLEAR POWER PLANT, 2010

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Name of Facility: VERMONT YANKEE NUCLEAR POWER PLANT **DOCKET NUMBER: 50-271**

Location of Facility: VERNON, VT **REPORTING PERIOD: 2010**

MEDIUM OR PATHWAY SAMPLED (UNIT OF MEASUREMENT)	TYPES OF ANALYSES PERFORMED	NUMBER OF ANALYSES PERFORMED	REQUIRED LOWER LIMIT OF DETECTION (LLD)	INDICATOR LOCATIONS MEAN (F) RANGE	CONTROL LOCATION MEAN (F) RANGE	LOCATION WITH HIGHEST ANNUAL MEAN MEAN (F) RANGE	STATION # NAME DISTANCE AND DIRECTION	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
SILAGE (PCI/KG)	K-40		N/A	4630 (3/3) (3871/5171)	9309 (3/3) (4186/18780)	18780 (1/1) N/A	22 CONTROL FRANKLIN FARM 9.7 KILOMETERS WSW OF SITE	0
	CS-134		60	25.3 (0/3) (<21.0/<31.7)	34.7 (0/3) (<21.3/<58.3)	58.3 (0/1) N/A	22 CONTROL FRANKLIN FARM 9.7 KILOMETERS WSW OF SITE	0
	CS-137		80	23.0 (0/3) (<21.1/<26.2)	37.1 (0/3) (<22.7/<52.7)	52.7 (0/1) N/A	22 CONTROL FRANKLIN FARM 9.7 KILOMETERS WSW OF SITE	0
	RA-226		N/A	431 (0/3) (<344/<538)	592 (2/3) (251/923)	923 (1/1) N/A	22 CONTROL FRANKLIN FARM 9.7 KILOMETERS WSW OF SITE	0
	AC-TH228		N/A	95.2 (0/3) (<59.6/<139)	120 (0/3) (<72.0/<176)	176 (0/1) N/A	22 CONTROL FRANKLIN FARM 9.7 KILOMETERS WSW OF SITE	0
MIXED GRASS (PCI/KG)	I-131	21	60	35.1 (0/18) (<18.9/<56.8)	35.8 (0/3) (<30.7/<40.6)	39.1 (0/3) (<28.6/<56.8)	40 INDICATOR GOV. HUNT HOUSE ON-SITE	0
	GAMMA BE-7	21	N/A	1325 (16/18) (112/5148)	1988 (2/3) (<276/4351)	2064 (3/3) **(765/4304)**	40 INDICATOR GOV. HUNT HOUSE ON-SITE	0
	K-40		N/A	7624 (18/18) (5067/10850)	5976 (3/3) (3780/7335)	8921 (3/3) (7652/10850)	14 INDICATOR NORTHFIELD, MA 11.6 KILOMETERS SSE SITE	0

FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES (F)

TABLE 5.1 *SUPPLEMENTAL* RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM ANNUAL SUMMARY FOR THE VERMONT YANKEE NUCLEAR POWER PLANT, 2010

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MEDIUM OR PATHWAY SAMPLED (UNIT OF MEASUREMENT)	TYPES OF ANALYSES PERFORMED	NUMBER OF ANALYSES PERFORMED	REQUIRED LOWER LIMIT OF DETECTION (LLD)	INDICATOR LOCATIONS MEAN (F) RANGE	CONTROL LOCATION MEAN (F) RANGE	LOCATION WITH HIGHEST ANNUAL MEAN MEAN (F) RANGE	STATION # NAME DISTANCE AND DIRECTION	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
MIXED GRASS (PCI/KG)	CS-134		60	36.9 (0/18) (<19.9/<59.5)	24.6 (0/3) (<19.5/<27.5)	38.5 (0/3) (<26.5/<59.5)	13 INDICATOR HINSDALE SUBSTATION 3.1 KILOMETERS E SITE	0
	CS-137		80	36.6 (0/18) (<21.6/<56.1)	32.8 (0/3) (<23.4/<37.6)	41.0 (0/3) (<29.1/<56.1)	13 INDICATOR HINSDALE SUBSTATION 3.1 KILOMETERS E SITE	0
	RA-226		N/A	604 (9/18) (<367/1372)	652 (1/3) (573/<704)	817 (1/3) (<427/1372)	11 INDICATOR RIVER STATION NO. 3.3 1.9 KILOMETERS SSE SITE	0
	AC-TH228		N/A	138 (1/18) (<69.2/245)	126 (0/3) (<85.9/<156)	151 (1/3) (<69.2/245)	11 INDICATOR RIVER STATION NO. 3.3 1.9 KILOMETERS SSE SITE	0
FISH (PCI/KG)	GAMMA K-40	34	N/A	2916 (16/17) **(1910/<4170)**	2871 (17/17) (1020/4920)	2916 (16/17) **(1910/<4170)**	11 INDICATOR VERNON POND 0.6 KILOMETERS SSE OF SITE	0
	MN-54		130	52.5 (0/17) (<26.1/<244)	39.0 (0/17) (<15.4/<55.0)	52.5 (0/17) (<26.1/<244)	11 INDICATOR VERNON POND 0.6 KILOMETERS SSE OF SITE	0
	CO-58		130	54.7 (0/17) (<32.6/<163)	52.3 (0/17) (<16.7/<116)	54.7 (0/17) (<32.6/<163)	11 INDICATOR VERNON POND 0.6 KILOMETERS SSE OF SITE	0
	FE-59		260	133 (0/17) (<75.0/<294)	147 (0/17) (<47.3/<526)	147 (0/17) (<47.3/<526)	21 CONTROL RT. 9 BRIDGE 11.8 KILOMETERS NNW OF SITE	0

FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES (F)

TABLE 5.1 *SUPPLEMENTAL* RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM ANNUAL SUMMARY FOR THE VERMONT YANKEE NUCLEAR POWER PLANT, 2010

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Location of Facility: VERNON, VT **REPORTING PERIOD: 2010**

MEDIUM OR PATHWAY SAMPLED (UNIT OF MEASUREMENT)	TYPES OF ANALYSES PERFORMED	NUMBER OF ANALYSES PERFORMED	REQUIRED LOWER LIMIT OF DETECTION (LLD)	INDICATOR LOCATIONS MEAN (F) RANGE	CONTROL LOCATION MEAN (F) RANGE	LOCATION WITH HIGHEST ANNUAL MEAN MEAN (F) RANGE	LOCATION WITH HIGHEST ANNUAL MEAN STATION # NAME DISTANCE AND DIRECTION	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
FISH (PCI/KG)	CO-60		130	46.8 (0/17) (<13.8/<201)	38.4 (0/17) (<15.9/<63.3)	46.8 (0/17) (<13.8/<201)	11 INDICATOR VERNON POND 0.6 KILOMETERS SSE OF SITE	0
	ZN-65		260	98.1 (0/17) (<57.8/<317)	88.9 (0/17) (<38.4/<124)	98.1 (0/17) (<57.8/<317)	11 INDICATOR VERNON POND 0.6 KILOMETERS SSE OF SITE	0
	CS-134		130	50.2 (0/17) (<23.4/<229)	37.8 (0/17) (<13.9/<51.0)	50.2 (0/17) (<23.4/<229)	11 INDICATOR VERNON POND 0.6 KILOMETERS SSE OF SITE	0
	CS-137		150	53.8 (0/17) (<23.8/<221)	44.0 (0/17) (<15.3/<73.8)	53.8 (0/17) (<23.8/<221)	11 INDICATOR VERNON POND 0.6 KILOMETERS SSE OF SITE	0
	GROSS BETA	4	N/A	17.3 (2/2) (12.8/21.8)	17.9 (2/2) (12.1/23.6)	17.9 (2/2) (12.1/23.6)	21 CONTROL RT. 9 BRIDGE 11.8 KILOMETERS NNW OF SITE	0
	TRITIUM	16	N/A	181 (0/8) (<16.1/<392)	132 (0/8) (<16.0/<260)	181 (0/8) (<16.1/<392)	11 INDICATOR VERNON POND 0.6 KILOMETERS SSE OF SITE	0
	AM-241	32	N/A	13.5 (0/16) (<2.62/<83.7)	17.3 (0/16) (<1.20/<110)	17.3 (0/16) (<1.20/<110)	21 CONTROL RT. 9 BRIDGE 11.8 KILOMETERS NNW OF SITE	0
	CM-242	32	N/A	7.67 (0/16) (<0.759/<56.8)	8.15 (0/16) (<0.638/<52.5)	8.15 (0/16) (<0.638/<52.5)	21 CONTROL RT. 9 BRIDGE 11.8 KILOMETERS NNW OF SITE	0

FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES (F)

TABLE 5.1 *SUPPLEMENTAL* RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM ANNUAL SUMMARY FOR THE VERMONT YANKEE NUCLEAR POWER PLANT, 2010

Note: Supplemental Changes are in **Bold** font in the table below

Name of Facility: VERMONT YANKEE NUCLEAR POWER PLANT **DOCKET NUMBER:** 50-271
Location of Facility: VERNON, VT **REPORTING PERIOD:** 2010

MEDIUM OR PATHWAY SAMPLED (UNIT OF MEASUREMENT)	TYPES OF ANALYSES PERFORMED	NUMBER OF ANALYSES PERFORMED	REQUIRED LOWER LIMIT OF DETECTION (LLD)	INDICATOR LOCATIONS MEAN (F) RANGE	CONTROL LOCATION MEAN (F) RANGE	LOCATION WITH HIGHEST ANNUAL MEAN MEAN (F) RANGE	LOCATION WITH HIGHEST ANNUAL MEAN STATION # NAME DISTANCE AND DIRECTION	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
FISH (PCI/KG)	CM-243/244	32	N/A	16.1 (0/16) (<0.759/<115)	19.1 (0/16) (<0.638/<135)	19.1 (0/16) (<0.638/<135)	21 CONTROL RT. 9 BRIDGE 11.8 KILOMETERS NNW OF SITE	0
	FE-55	32	N/A	1834 (0/16) (<609/<9490)	1861 (0/16) (<624/<4490)	1861 (0/16) (<624/<4490)	21 RT. 9 BRIDGE 11.8 KILOMETERS NNW OF SITE	0
	NI-63	32	N/A	198 (0/16) (<109/<367)	212 (0/16) (<109/<391)	212 (0/16) (<109/<391)	21 RT. 9 BRIDGE 11.8 KILOMETERS NNW OF SITE	0
	PU-238	32	N/A	17.9 (0/16) (<2.31/<103)	10.8 (0/16) (<2.25/<82.3)	17.9 (0/16) (<2.31/<103)	11 INDICATOR VERNON POND 0.6 KILOMETERS SSE OF SITE	0
	PU-239/240	32	N/A	10.5 (0/16) (<1.09/<55.1)	7.70 (0/16) (<1.30/<60.1)	10.5 (0/16) (<1.09/<55.1)	11 INDICATOR VERNON POND 0.6 KILOMETERS SSE OF SITE	0
	PU-241	32	N/A	1798 (0/16) (<164/<11900)	1262 (0/16) (<172/<10700)	1798 (0/16) (<164/<11900)	11 INDICATOR VERNON POND 0.6 KILOMETERS SSE OF SITE	0
	PU-242	32	N/A	6.48 (0/16) (<0.629/<52.3)	4.67 (0/16) (<0.728/<38.0)	6.48 (0/16) (<0.629/<52.3)	11 INDICATOR VERNON POND 0.6 KILOMETERS SSE OF SITE	0
	SR-89	32	N/A	106 (0/16) (<53.4/<292)	118 (0/16) (<46.2/<370)	118 (0/16) (<46.2/<370)	21 RT. 9 BRIDGE 11.8 KILOMETERS NNW OF SITE	0

FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES (F)

TABLE 5.1 *SUPPLEMENTAL* RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM ANNUAL SUMMARY FOR THE VERMONT YANKEE NUCLEAR POWER PLANT, 2010

Note: Supplemental Changes are in **Bold** font in the table below

Name of Facility: VERMONT YANKEE NUCLEAR POWER PLANT **DOCKET NUMBER: 50-271**

Location of Facility: VERNON, VT **REPORTING PERIOD: 2010**

MEDIUM OR PATHWAY SAMPLED (UNIT OF MEASUREMENT)	TYPES OF ANALYSES PERFORMED	NUMBER OF ANALYSES PERFORMED	REQUIRED LOWER LIMIT OF DETECTION (LLD)	INDICATOR LOCATIONS MEAN (F) RANGE	CONTROL LOCATION MEAN (F) RANGE	LOCATION WITH HIGHEST ANNUAL MEAN MEAN (F) RANGE	LOCATION WITH HIGHEST ANNUAL MEAN STATION # NAME DISTANCE AND DIRECTION	NUMBER OF NONROUTINE REPORTED MEASUREMENTS
FISH (PCI/KG)	SR-90	32	N/A	56.2 **(3/16)** (<34.5/<125)	71.6 **(6/16)** **(<27.7/230)**	71.6 **(6/16)** **(<27.7/230)**	21 RT. 9 BRIDGE 11.8 KILOMETERS NNW OF SITE	0
DIRECT RADIATION (MILLI-ROENTGEN/STD.MO.)	TLD-QUARTERLY	159	N/A	7.03 (151/151) (5.58/9.43)	6.76 (8/8) (5.89/7.51)	9.08 (4/4) (8.46/9.43)	DR-08 INDICATOR SITE BOUNDARY 0.25 KILOMETERS SSW OF SITE	0

FRACTION OF DETECTABLE MEASUREMENTS AT SPECIFIED LOCATIONS IS INDICATED IN PARENTHESES (F)