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John F. McCann
Vice President
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ENOC-15-00007
March 27, 2015

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

SUBJECT: Status of Funding for Managing Irradiated Fuel
For Year Ending December 31, 2014 – 10 CFR 50.82(a)(8)(vii)

Entergy Nuclear Operations, Inc.

Indian Point Nuclear Generating Station 1
Docket Nos. 50-3
License No. DPR-5

Big Rock Point
Docket 50-155
License No. DPR-6

Vermont Yankee
Docket 50-271
License No. DPR-28

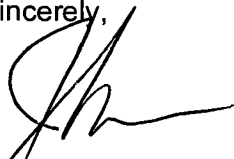
Dear Sir or Madam:

10 CFR 50.82(a)(8)(vii) requires that after submitting its site-specific decommissioning cost estimate pursuant to 10 CFR 50.82(a)(4)(i), a licensee must annually submit to the NRC, by March 31, a report on the status of its funding for managing irradiated fuel. On behalf of Entergy Nuclear Indian Point 2, LLC, and Entergy Nuclear Palisades, LLC, and Entergy Nuclear Vermont Yankee, LLC, Entergy Nuclear Operations, Inc. hereby submits the information requested for Indian Point 1, Big Rock Point, and Vermont Yankee. All or most of the spent fuel management costs are a liability of the U.S. Government as a result of its breach of the spent fuel disposal contract. However, this report takes no credit for recoveries on that liability.

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There are no new commitments made in this letter. If you have any questions, please contact Mr. Guy Davant, Manager, Fleet Licensing Programs at 601-368-5756.

Sincerely,



JFM/ghd/LJS

- Attachments:
1. Entergy Nuclear Operations, Inc. Status of Funding for Managing Irradiated Fuel - Indian Point 1, for Year Ending December 31, 2014 – 10 CFR 50.82(a)(8)(vii)
 2. Entergy Nuclear Operations, Inc. Status of Funding for Managing Irradiated Fuel - Big Rock Point, for Year Ending December 31, 2014 – 10 CFR 50.82(a)(8)(vii)
 3. Entergy Nuclear Operations, Inc. Status of Funding for Managing Irradiated Fuel - Vermont Yankee, for Year Ending December 31, 2014 – 10 CFR 50.82(a)(8)(vii)

cc:

Mr. J.A. Aluise (ENT)
Mr. J.S. Forbes (ECH)
Mr. B.E. Green (TMBR)
Mr. D.J. Mannai (WPO)
Mr. T.G. Mitchell (ECH)
Mr. L. Coyle (IPEC)
Mr. A. Vitale (PAL)
Mr. J. Ventosa (ECH)
Mr. L. Jager Smith (ECH)
Mr. C.J. Wamser (VTY)

USNRC Regional Administrator, Region I
USNRC Regional Administrator, Region III
USNRC Project Manager, Indian Point 1
USNRC Project Manager, Indian Point 2
USNRC Project Manager, Indian Point 3
USNRC Project Manager, Big Rock Point
USMRC Project Manager, Palisades
USNRC Resident Inspector, Indian Point 2
USNRC Resident Inspector, Indian Point 3
USNRC Resident Inspector, Palisades

Michigan Department of Environmental Quality
Michigan Public Service Commission

Ms. Bridget Frymire
NYS Department of Public Service
3 Empire State Plaza
Albany, NY 12223

Attachment 1
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Entergy Nuclear Operations, Inc.
Status of Funding for Managing Irradiated Fuel – Indian Point 1
For Year Ending December 31, 2014 - 10 CFR 50.82(a)(8)(vii)

Plant Name: **Indian Point Nuclear Generating Unit No. 1**

- | | |
|---|------------------------------|
| 1. Funds accumulated to cover the cost of managing irradiated fuel as of 12/31/2014 | \$ 169.7 million
[Note 1] |
| 2. Projected costs to manage fuel until DOE removal (2014\$) | \$ 87.00 million |
| 3. Plan as required | See Note 2 |

Note 1: This amount represents the excess funds available in the Unit 1 decommissioning trust fund less an amount necessary to decommission the Independent Spent Fuel Storage Installation (ISFSI). Per Unit 1's updated decommissioning cost analysis, the present value (2014) of excess funds in Unit 1's decommissioning trust at the end of decommissioning in 2073 is \$169.9 million ($\$546.5 \text{ million} / (1.02)^{(2073-2014)}$). See Ending DTF Balance for 2073, Table 14-1, Decommissioning Funding Status Report per 10 CFR §50.75(f)(1) and 10 CFR 50.82(a)(8)(v) – Entergy Nuclear Operations, Inc., filed March 2015. The estimated cost for decommissioning Indian Point 1 and 2's share of the site ISFSI is \$2.075 million. Of the 53 casks from Indian Point 1 and 2 on the ISFSI, 5 are attributable to Unit 1, or 9.4%. Unit 1's share of ISFSI decommissioning cost is calculated as 9.4% x \$2.075 million, or \$0.195 million. Thus, the present value of Unit 1 trust funds available for spent fuel management is \$169.9 million minus \$0.195 million, or \$169.7 million. For purposes of this report only, Indian Point 1 trust funds are being considered separately from Indian Point 2 trust funds; however, both funds are covered by a single trust agreement, and will likely be handled together upon decommissioning.

Note 2: The excess currently existing in Unit 1's decommissioning trust is sufficient to cover the estimated costs of spent fuel management. The licensee acknowledges the need for an exemption pursuant to 10 CFR §50.12(a) to use radiological decommissioning trust funds for costs other than decommissioning activities as defined in 10 CFR 50.2.

Attachment 2
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Entergy Nuclear Operations, Inc.
Status of Funding for Managing Irradiated Fuel – Big Rock Point
For Year Ending December 31, 2014 - 10 CFR 50.82(a)(8)(vii)

Plant Name: **Big Rock Point**

- | | |
|---|------------------|
| 1. Funds accumulated to cover the cost of managing irradiated fuel as of 12/31/2014 | See Note 1 |
| 2. Projected costs to manage fuel until DOE removal (2014\$) | \$ 57.49 million |
| 3. Plan as required | See Note 1 |

Note 1: Spent fuel management costs have been paid for out of Entergy Nuclear Palisades, LLC operating funds since Big Rock Point was acquired from Consumers Energy on April 11, 2007. Entergy Nuclear Palisades, LLC plans to continue paying for spent fuel management costs from said operating funds. Therefore, no funds are specifically accumulated for the cost of managing irradiated fuel at Big Rock Point as of 12/31/2014.

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Entergy Nuclear Operations, Inc.
Status of Funding for Managing Irradiated Fuel – Vermont Yankee
For Year Ending December 31, 2014 - 10 CFR 50.82(a)(8)(vii)

Plant Name: **Vermont Yankee**

- | | | |
|----|--|------------------------------|
| 1. | Funds accumulated to cover the cost of managing irradiated fuel as of 12/31/2014 | \$ 225.7 million
[Note 1] |
| 2. | Projected costs to manage fuel until DOE removal (2014\$) | \$ 368.35 million |
| 3. | Plan as required | See Note 2 |

Note 1: This amount represents the excess funds available in the Vermont Yankee decommissioning trust fund less an amount necessary to decommission the Independent Spent Fuel Storage Installation (ISFSI). Per Vermont Yankee's updated decommissioning cost analysis (Reference 1), the present value of excess funds in the decommissioning trust at the end of decommissioning in 2075, after considering license termination expenses, is \$230.8 million ($\$772.23 \text{ million} / (1.02)^{(2075-2014)}$). See Table 3-1 below. Table 3-1 has been constructed by removing spent fuel management expenses from Table 15-1, Decommissioning Funding Status Report per 10 CFR §50.75(f)(1) and 10 CFR 50.82(a)(8)(v) -- Entergy Nuclear Operations, Inc. filed March 2015, to yield the surplus at the end of decommissioning that would otherwise be available for spent fuel management and ISFSI decommissioning. This calculated surplus takes into account available funds in the decommissioning trust, as well as the credit facilities from external banks that were discussed in Vermont Yankee's Irradiated Fuel Management Program Update (Reference 2). The estimated cost for decommissioning Vermont Yankee's ISFSI is \$5.06 million. Thus, the present value of Vermont Yankee trust funds available for spent fuel management is \$230.8 million minus \$5.06 million, or \$225.7 million.

Note 2: Reference 3, Attachment 15 demonstrates that the Vermont Yankee decommissioning trust fund is sufficiently funded for all license termination activities and certain spent fuel management activities (i.e., operational costs). As discussed in the Irradiated Fuel Management Program Update (Reference 2) costs related to spent fuel management operations (e.g., operations and maintenance costs for the spent fuel and Independent Spent Fuel Storage Installation, totaling approximately \$225 million) will be funded from the decommissioning trust fund, assuming that Entergy Nuclear Operations, Inc. obtains an exemption that allows the use of trust funds for spent fuel management activities. The licensee acknowledges the need for an exemption pursuant to 10 CFR §50.12(a) to use radiological decommissioning trust funds for costs other than decommissioning activities as defined in 10 CFR 50.2. The remaining \$143 million is associated with transfer of spent fuel to dry storage (e.g., procurement of dry storage systems, transfer of fuel from the spent fuel pool to the Independent Spent Fuel Storage Installation (ISFSI), and construction of the second ISFSI pad). To fund the "transfer to dry storage" portion of spent fuel management costs, Entergy Nuclear Vermont Yankee, LLC has established two separate revolving credit facilities from third party banks totaling \$145 million.

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**Entergy Nuclear Operations, Inc.
Status of Funding for Managing Irradiated Fuel – Vermont Yankee
For Year Ending December 31, 2014 - 10 CFR 50.82(a)(8)(vii)**

Table 3-1

Vermont Yankee Nuclear Power Station - SAFSTOR Methodology									
Annual Cash Flow Analysis - Total License Termination, Spent Fuel Management less Dry Fuel Costs									
(In Millions in 2014 Dollars)									
Year	Column 1 50.75 License Termination Cost (millions)	Column 2 50.54 (bb) Spent Fuel Management Cost (millions)	Column 3 Exclude Dry Fuel Spent Fuel Management Cost (millions)	Column 4 License Termination Cost plus Spent Fuel Management Cost less Dry Fuel Cost (millions)	Column 5 Beginning of Year Trust Fund Balance (millions)	Column 6 Withdraw (millions)	Column 7 Contribute (millions)	Column 8 Trust Fund Earnings (millions)	Column 9 Year Ending Trust Fund Balance (millions)
2015	96,363	0	0	96,363	664,558	96,363	0	11,364	579,559
2016	36,126	0	0	36,126	579,559	36,126	0	10,869	554,302
2017	10,823	0	0	10,823	554,302	10,823	0	10,870	554,348
2018	9,548	0	0	9,548	554,348	9,548	0	10,896	555,696
2019	8,173	0	0	8,173	555,696	8,173	0	10,950	558,473
2020	17,763	0	0	17,763	558,473	17,763	0	10,814	551,524
2021	5,241	0	0	5,241	551,524	5,241	0	10,926	557,209
2022	5,191	0	0	5,191	557,209	5,191	0	11,040	563,059
2023	5,191	0	0	5,191	563,059	5,191	0	11,157	569,025
2024	3,650	0	0	3,650	569,025	3,650	0	11,308	576,683
2025	3,591	0	0	3,591	576,683	3,591	0	11,462	584,554
2026	3,733	0	0	3,733	584,554	3,733	0	11,616	592,438
2027	3,783	0	0	3,783	592,438	3,783	0	11,773	600,428
2028	3,742	0	0	3,742	600,428	3,742	0	11,934	608,620
2029	3,733	0	0	3,733	608,620	3,733	0	12,098	616,985
2030	3,783	0	0	3,783	616,985	3,783	0	12,264	625,466
2031	3,733	0	0	3,733	625,466	3,733	0	12,435	634,168
2032	3,742	0	0	3,742	634,168	3,742	0	12,609	643,035
2033	3,783	0	0	3,783	643,035	3,783	0	12,785	652,038
2034	3,733	0	0	3,733	652,038	3,733	0	12,966	661,271
2035	3,733	0	0	3,733	661,271	3,733	0	13,151	670,689
2036	3,792	0	0	3,792	670,689	3,792	0	13,338	680,235
2037	3,733	0	0	3,733	680,235	3,733	0	13,530	690,033
2038	3,733	0	0	3,733	690,033	3,733	0	13,726	700,026
2039	3,783	0	0	3,783	700,026	3,783	0	13,925	710,168
2040	3,742	0	0	3,742	710,168	3,742	0	14,129	720,555
2041	3,733	0	0	3,733	720,555	3,733	0	14,336	731,159
2042	3,783	0	0	3,783	731,159	3,783	0	14,548	741,923

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2043	3,733	0	3,733	741,923	3,733	0	14,764	752,955	
2044	3,742	0	3,742	752,955	3,742	0	14,984	764,197	
2045	3,783	0	3,783	764,197	3,783	0	15,208	775,623	
2046	3,733	0	3,733	775,623	3,733	0	15,438	787,328	
2047	3,733	0	3,733	787,328	3,733	0	15,672	799,267	
2048	3,792	0	3,792	799,267	3,792	0	15,910	811,385	
2049	3,733	0	3,733	811,385	3,733	0	16,153	823,805	
2050	3,733	0	3,733	823,805	3,733	0	16,401	836,474	
2051	3,783	0	3,783	836,474	3,783	0	16,654	849,345	
2052	3,742	0	3,742	849,345	3,742	0	16,912	862,515	
2053	3,583	0	3,583	862,515	3,583	0	17,179	876,112	
2054	3,633	0	3,633	876,112	3,633	0	17,450	889,928	
2055	3,583	0	3,583	889,928	3,583	0	17,727	904,073	
2056	3,591	0	3,591	904,073	3,591	0	18,010	918,491	
2057	3,633	0	3,633	918,491	3,633	0	18,297	933,156	
2058	3,583	0	3,583	933,156	3,583	0	18,591	948,164	
2059	3,583	0	3,583	948,164	3,583	0	18,892	963,473	
2060	3,641	0	3,641	963,473	3,641	0	19,197	979,029	
2061	3,583	0	3,583	979,029	3,583	0	19,509	994,955	
2062	3,583	0	3,583	994,955	3,583	0	19,827	1,011,200	
2063	3,633	0	3,633	1,011,200	3,633	0	20,151	1,027,718	
2064	3,591	0	3,591	1,027,718	3,591	0	20,483	1,044,610	
2065	3,583	0	3,583	1,044,610	3,583	0	20,821	1,061,847	
2066	3,633	0	3,633	1,061,847	3,633	0	21,164	1,079,379	
2067	3,583	0	3,583	1,079,379	3,583	0	21,516	1,097,312	
2068	43,277	0	43,277	1,097,312	43,277	0	21,081	1,075,116	
2069	92,030	0	92,030	1,075,116	92,030	0	19,662	1,002,748	
2070	104,519	0	104,519	1,002,748	104,519	0	17,965	916,194	
2071	84,524	0	84,524	916,194	84,524	0	16,633	848,304	
2072	84,953	0	84,953	848,304	84,953	0	15,267	778,618	
2073	50,139	0	50,139	778,618	50,139	0	14,570	743,048	
2074	512	0	512	743,048	512	0	14,851	757,387	
2075	295	0	295	757,387	295	0	15,142	772,234	
2076	0	0	0	772,234	0	0	15,445	787,678	
	817,219	0	0	817,219	664,558	817,219	0	940,340	787,678

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**Entergy Nuclear Operations, Inc.
Status of Funding for Managing Irradiated Fuel – Vermont Yankee
For Year Ending December 31, 2014 - 10 CFR 50.82(a)(8)(vii)**

REFERENCES:

1. Letter, Entergy Nuclear Operations, Inc. to USNRC, "Post Shutdown Decommissioning Activities Report," BVY 14-078, dated December 19, 2014 (Accession No. ML14357A110)
2. Letter, Entergy Nuclear Operations, Inc. to USNRC, "Update to Irradiated Fuel Management Program Pursuant to 10CFR 50.54(bb)," BVY14-085, dated December 19,2014 (Accession No. ML14358A251)
3. Letter, Entergy Nuclear Operations, Inc. to USNRC, "Decommissioning Funding Status Report per 10 CFR §50.75(f)(1) and 10 CFR 50.82(a)(8)(v), filed March 2015