



Entergy Nuclear Operations, Inc
440 Hamilton Avenue
White Plains, NY 10601
Tel 914 272 3370

John F. McCann
Vice President – Regulatory Assurance

ENOC-14-00009
March 28, 2014

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
11555 Rockville Pike
Rockville, MD 20852-2738

SUBJECT: **Decommissioning Funding Status Report per 10 CFR §50.75(f)(1)
and 10 CFR 50.82(a)(8)(v) -- Entergy Nuclear Operations, Inc**

Indian Point Nuclear
Generating Stations 1, 2, & 3
Dockets 50-3, 50-247 and 50-286

Vermont Yankee Nuclear Power Station
Docket 50-271

Big Rock Point
Docket 50-155

- REFERENCES: 1. NUREG-1307, "Report on Waste Burial Charges," Revision 15, dated January 2013.
2. NRC Regulatory Issue Summary 2001-07, "10 CFR 50.75(f)(1) Reports on the Status of Decommissioning Funds (Due March 31, 2001)."

Dear Sir or Madam:

10 CFR 50.75(f)(1) requires each power reactor licensee to report to the NRC by March 31 of each year the status of its decommissioning funding for each reactor or share of a reactor that it owns that is within 5 years of the end of its current operating license or where conditions have changed so that it will close within 5 years. 10 CFR 50.82(a)(8)(v) requires licensees of shutdown sites to report to the NRC annually, by March 31, on the status of decommissioning financial assurance for those sites. On behalf of Entergy Nuclear Indian Point 2, LLC (Indian Point 1 & 2), Entergy Nuclear Indian Point 3, LLC, Entergy Nuclear Vermont Yankee, LLC, and Entergy Nuclear Palisades, LLC, Entergy Nuclear Operations, Inc. hereby submits the information requested for power reactors and sites operated by Entergy Nuclear Operations, Inc. The reports provided in Attachments 1 through 8 for the five licensed facilities addressed by this filing were prepared in accordance with NUREG-1307 (Reference 1) and NRC Regulatory Issue Summary 2001-07 (Reference 2). Attachment 8 is an updated site specific decommissioning cost estimate for Indian Point Unit 1. The Minimum Funding Assurance

calculation worksheets, derived from LIC-205 Revision 4, are provided in Attachment 9 for the convenience of the reviewer.

The aforementioned worksheets, using the December 31, 2013 trust fund balances and parent guarantee amounts, indicate that all of the plants covered by this submittal met or exceeded the NRC's funding requirements. Accordingly, the licensees conclude that no further action is required at this time to demonstrate adequate funding assurance for decommissioning the plants covered by this submittal.

There are no new commitments made in this letter. If you have any questions, please contact Mr. David Mannai, Senior Manager, Fleet Regulatory Assurance at 802-380-1175.

Sincerely,

A handwritten signature in black ink, appearing to be 'JFM', with a stylized, cursive flourish extending to the right.

JFM / djm / trj

Attachments: As described above

cc: See next page

CC:

Mr. J. A. Aluise (ENT)
Ms. W. C. Curry (ECH)
Mr. J.S. Forbes (ECH)
Mr. B. E. Green (TMBR)
Mr. D. J. Mannai (WPO)
Mr. J. F. McCann (WPO)
Mr. T. G. Mitchell (ECH)
Mr. T. Ngau (ECH)
Mr. M. Perito (ECH)
Ms. D. Jacobs (ECH)
Mr. L. Jager Smith (ECH)

Mr. J. A. Ventosa (IPEC)
Mr. C. J. Wamser (VTY)
Mr. A. J. Vitale (PAL)

USNRC Regional Administrator, Region I
USNRC Regional Administrator, Region III

USNRC Project Manager, Indian Point 1
USNRC Project Manager, Indian Point 2 / 3
USNRC Project Manager, Vermont Yankee

USNRC Resident Inspector, Indian Point 2 / 3
USNRC Resident Inspector, Vermont Yankee

NYS Department of Public Service
Vermont Department of Public Service
Downs Rachlin Martin PLLC / St. Johnsbury, VT

Attachment 1
ENOC-14-00009
(Page 1 of 2)

Entergy Nuclear Operations, Inc.
Status of Decommissioning Funding - Indian Point 1
For Year Ending December 31, 2013 - 10 CFR 50.75(f)(1) and 10 CFR 50.82(a)(8)(v)

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

10 CFR 50.75(f)(1)

- | | |
|---|---|
| 1. Minimum Financial Assurance (MFA)
estimated per 10 CFR 50.75(b) and (c) (2013\$) | \$ 552.67 million
[Note] |
| 2. Decommissioning Trust Fund Total
as of 12/31/13 | \$ 383.87 million |
| 3. A schedule of the annual amounts remaining to be collected | None |
| 4. Assumptions used in determining rates of escalation in
decommissioning costs, rates of earnings on decommissioning
funds, and rates of other factors used in funding projections | 2% annual real rate
of return per 10
CFR 50.75(e)(1)(i) |
| 5. Any contracts upon which the licensee is relying pursuant to 10
CFR 50.75(e)(1)(v) | None |
| 6. Modifications occurring to a licensee's current method of providing
financial assurance since the last submitted report | None |
| 7. Any material changes to trust agreements | None |

Note: This amount is based upon total SAFSTOR expenditures for radiological remediation and license termination set forth in the updated Decommissioning Funding Assurance Plan and SAFSTOR analysis that are provided in Attachment 8. (Calculation of the NRC Minimum Amount is provided in Attachment 4.)

Attachment 1
ENOC-14-00009
(Page 2 of 2)

Entergy Nuclear Operations, Inc.
Status of Decommissioning Funding - Indian Point 1
For Year Ending December 31, 2013 - 10 CFR 50.75(f)(1) and 10 CFR 50.82(a)(8)(v)

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

10 CFR 50.82(a)(8)(v)

- | | |
|---|---|
| 1. Cumulative decommissioning spending | \$ 130.53 million
[Note1] |
| 2. 2013 decommissioning spending | \$ 6.70 million
[Note1] |
| 3. Fund Balance | See above in 10
CFR 50.75
information |
| 4. No other financial assurance mechanism is being relied upon, but costs to date have been funded by operations. | |
| 5. Estimated costs to complete from latest estimate | \$ 552.67 million
[Note2] |
| 6. Estimate is based on SAFSTOR and unrestricted release of the site per 10 CFR 20.1402 | |
| 7. Modifications to financial assurance since last report | See above in 10
CFR 50.75
information |
| 8. Any material changes to trust agreements | See above in 10
CFR 50.75
information |

Note 1: Entergy does not possess records that would permit determination of charges to Indian Point 1 prior to its acquisition in September 2001 by Entergy Nuclear Indian Point 2, LLC. The costs presented here represent those costs charged in 2013 and the total costs that have been assigned to Indian Point 1 since 2001. Entergy has not fully determined what portion of those costs would be considered "decommissioning" costs as that term is defined in 10 CFR 50.2.

Note 2: This amount is based upon total SAFSTOR expenditures for radiological remediation and license termination set forth in the updated Decommissioning Funding Assurance Plan and SAFSTOR analysis that are provided in Attachment 8. (Calculation of the NRC Minimum Amount is provided in Attachment 4.) This estimate does not include 2013 spending because current costs are being paid out of operating funds.

Attachment 2
ENOC-14-00009
(Page 1 of 1)

Entergy Nuclear Operations, Inc.
Status of Decommissioning Funding - Indian Point 2
For Year Ending December 31, 2013 - 10 CFR 50.75(f)(1)

Plant Name: **Indian Point Nuclear Generating Unit No. 2**

- | | |
|---|---|
| 1. Minimum Financial Assurance (MFA)
estimated per 10 CFR 50.75(b) and (c) (2013\$) | \$ 524.22 million
[Note 1] |
| 2. Decommissioning Trust Fund Total
as of 12/31/13 | \$ 492.05 million
[Note 2] |
| 3. A schedule of the annual amounts remaining to be collected | None |
| 4. Assumptions used in determining rates of escalation in
decommissioning costs, rates of earnings on decommissioning
funds, and rates of other factors used in funding projections | 2% annual real rate
of return per 10
CFR 50.75(e)(1)(i) |
| 5. Any contracts upon which the licensee is relying pursuant to 10
CFR 50.75(e)(1)(v) | None |
| 6. Modifications occurring to a licensee's current method of providing
financial assurance since the last submitted report | None |
| 7. Any material changes to trust agreements | None |

Note 1: Calculation of the NRC Minimum Amount is provided in Attachment 4.

Note 2: Includes provisional fund balance of \$31.09 million.

Attachment 3
ENOC-14-00009
(Page 1 of 1)

Entergy Nuclear Operations, Inc.
Status of Decommissioning Funding – Indian Point 3
For Year Ending December 31, 2013 - 10 CFR 50.75(f)(1)

Plant Name: **Indian Point Nuclear Generating Unit No. 3**

- | | |
|---|---|
| 1. Minimum Financial Assurance (MFA)
estimated per 10 CFR 50.75(b) and (c) (2013\$) | \$ 524.22 million
[Note] |
| 2. Decommissioning Trust Fund Total
as of 12/31/13 | \$ 621.54 million |
| 3. A schedule of the annual amounts remaining to be collected | None |
| 4. Assumptions used in determining rates of escalation in
decommissioning costs, rates of earnings on decommissioning
funds, and rates of other factors used in funding projections | 2% annual real rate
of return per 10
CFR 50.75(e)(1)(i) |
| 5. Any contracts upon which the licensee is relying pursuant to 10
CFR 50.75(e)(1)(v) | None |
| 6. Modifications occurring to a licensee's current method of providing
financial assurance since the last submitted report | None |
| 7. Any material changes to trust agreements | None |

Note: Calculation of the NRC Minimum Amount is provided in Attachment 4.

Attachment 4
ENOC-14-00009
(Page 1 of 1)

Entergy Nuclear Operations, Inc.
Calculation of Minimum Amount – Indian Point
For Year Ending December 31, 2013 - 10 CFR 50.75(f)(1)

Entergy Nuclear Indian Point 2, LLC: 100% ownership interest of Indian Point 1 & 2
Entergy Nuclear Indian Point 3, LLC: 100% ownership interest of Indian Point 3

Plant Location: Buchanan, New York

Reactor Type: Pressurized Water Reactor ("PWR")

Indian Point Unit 1 Power Level: <3,400 MWt (615 MWt)

Indian Point Unit 1 PWR Base Year 1986\$: \$85,560,000

Indian Point Unit 2 Power Level: <3,400 MWt (3,216 MWt)

Indian Point Unit 2 PWR Base Year 1986\$: \$103,300,800

Indian Point Unit 3 Power Level: <3,400 MWt (3,216 MWt)

Indian Point Unit 3 PWR Base Year 1986\$: \$103,300,800

Labor Region: North

Waste Burial Facility: Generic Disposal Site

10CFR50.75(c)(2) Escalation Factor Formula:

$$0.65(L) + 0.13(E) + 0.22(B)$$

	<u>Factor</u>
L=Labor (North)	2.59 ¹
E=Energy (PWR)	2.57 ²
B=Waste Burial-Vendor (PWR)	13.885 ³

PWR Escalation Factor:

$$0.65(L) + 0.13(E) + 0.22(B) = 5.07471$$

1986 PWR Base Year \$ Escalated:

Indian Point 1: \$85,560,000 * Factor= \$434,191,761

Indian Point 2 & 3: \$103,300,800 * Factor= \$524,221,088

¹ Bureau of Labor Statistics, Series Report ID: CIU2010000000210i (4th Quarter 2013)
² Bureau of Labor Statistics, Series Report ID: wpu0543 and wpu0573 (December 2013, Prelim.)
³ Nuclear Regulatory Commission: NUREG-1307 Revision 15, Table 2.1 (2012)

Attachment 5
ENOC-14-00009
(Page 1 of 1)

Entergy Nuclear Operations, Inc.
Calculation of Minimum Amount – Vermont Yankee
For Year Ending December 31, 2013 - 10 CFR 50.75(f)(1)

Plant Name: **Vermont Yankee Nuclear Power Station**

- | | |
|---|---|
| 1. Minimum Financial Assurance (MFA)
estimated per 10 CFR 50.75(b) and (c) (2013\$) | \$ 623.65 million ^[Note] |
| 2. Decommissioning Trust Fund Total
as of 12/31/13 | \$ 612.14 million |
| 3. A schedule of the annual amounts remaining to be collected | None. |
| 4. Assumptions used in determining rates of escalation in
decommissioning costs, rates of earnings on decommissioning
funds, and rates of other factors used in funding projections | 2% annual real rate
of return per 10 CFR
50.75(e)(1)(i) |
| 5. Any contracts upon which the licensee is relying pursuant to 10
CFR 50.75(e)(1)(v) | None |
| 6. Modifications occurring to a licensee's current method of
providing financial assurance since the last submitted report | None |
| 7. Any material changes to trust agreements | None |

Note: Calculation of the NRC Minimum Amount is provided in Attachment 6.

Attachment 6
ENOC-14-00009
(Page 1 of 1)

Entergy Nuclear Operations, Inc.
Calculation of Minimum Amount – Vermont Yankee
For Year Ending December 31, 2013 - 10 CFR 50.75(f)(1)

Entergy Nuclear Vermont Yankee LLC.: 100% ownership interest

Plant Location: Vernon, Vermont

Reactor Type: Boiling Water Reactor ("BWR")

Power Level: <3,400 MWt (1912 MWt)

BWR Base Year 1986\$: \$121,208,000

Labor Region: North

Waste Burial Facility: Generic Disposal Site

10CFR50.75(c)(2) Escalation Factor Formula:

$$0.65(L) + 0.13(E) + 0.22(B)$$

	<u>Factor</u>
L=Labor (North)	2.59 ¹
E=Energy (BWR)	2.65 ²
B=Waste Burial-Vendor (BWR)	14.160 ³

BWR Escalation Factor:

$$0.65(L) + 0.13(E) + 0.22(B) = 5.14528$$

1986 BWR Base Year \$ Escalated:

$$\$121,208,000 * \text{Factor} = \$623,649,114$$

¹ Bureau of Labor Statistics, Series Report ID: CIU2010000000210i (4th Quarter 2013)
² Bureau of Labor Statistics, Series Report ID: wpu0543 and wpu0573 (December 2013, Prelim.)
³ Nuclear Regulatory Commission: NUREG-1307 Revision 15, Table 2.1 (2012)

Entergy Nuclear Operations, Inc.
Calculation of Minimum Amount – Big Rock Point
For Year Ending December 31, 2013 - 10 CFR 50.75(f)(1)

Plant Name: **Big Rock Point ISFSI**

- | | |
|---|--|
| 1. Amount of decommissioning funds required from most recent estimate (2013\$). | \$ 1.57 million ^[Note] |
| 2. Decommissioning Funding Assurance Method. | Parent Guarantee (\$5 million) |
| 3. A schedule of the annual amounts remaining to be collected | None |
| 4. Assumptions used in determining rates of escalation in decommissioning costs, rates of earnings on decommissioning funds, and rates of other factors used in funding projections | Escalation rate: CPI%
Rate of earnings: n/a |
| 5. Any contracts upon which the licensee is relying pursuant to 10 CFR 50.75(e)(1)(v) | None |
| 6. Modifications occurring to a licensee's current method of providing financial assurance since the last submitted report | None |
| 7. Any material changes to trust agreements | None |

Note: This amount is based on the 10 CFR §72.30 filing for Big Rock Point, dated December 13, 2012, (Accession No. ML12352A126) escalated by CPI.

Entergy Nuclear Operations, Inc.
Indian Point 1 DTF Balance Based on Decommissioning Funding Assurance Plan
For Year Ending December 31, 2013 - 10 CFR 50.75(f)(1)

On October 23, 2008, Entergy Nuclear Indian Point 2, LLC (ENIP2) submitted a preliminary decommissioning cost analysis to the NRC in conjunction with its spent fuel management plan under 10 CFR 50.75(f)(3) and 10 CFR 50.54(bb) (Accession No. ML083040378, as supplemented by ENIP2's reply to RAIs on July 15, 2009 (Accession No. ML092050204). The preliminary decommissioning cost analysis contained separate site-specific decommissioning cost estimates for Indian Point 1 and Indian Point 2. The estimates were subsequently found to be reasonable by the NRC on March 17, 2010 (Accession No. ML100280544).

Pursuant to Regulatory Guide 1.159, Revision 2, adjustment to the site-specific cost estimates should be made at least once a year for the effects of inflation. Adjustment to site-specific cost estimates for the effects of technological and status changes should be made according to the amount of change experienced, as appropriate, but in no event, less than once every 5 years. As such, ENIP2 has updated the aforementioned estimates consistent with the requirements of Regulatory Guide 1.159, Revision 2.

ENIP2 has determined that use of a SAFSTOR analysis shows that there is presently reasonable assurance that adequate funds will be available for the decommissioning process in compliance with NRC decommissioning funding assurance rules.

Pursuant to 10 CFR 50.75(e)(1)(i), "A licensee that has prepaid funds based on a site-specific estimate under § 50.75(b)(1) of this section may take, credit for projected earnings on the prepaid decommissioning trust funds, using up to a 2 percent annual real rate of return from the time of future funds' collection through the projected decommissioning period, provided that the site-specific estimate is based on a period of safe storage that is specifically described in the estimate." ENIP2 understands that a facility specific analysis may be used for demonstrating the adequacy of decommissioning funds, provided that "the NRC-required cost estimate for decommissioning costs as defined in 10 CFR 50.2 is equal to or greater than the amount stated in the formulas in 10 CFR 50.75(c)(1) and (2) as the basis for justifying a higher than minimum funding level." (Regulatory Guide 1.159 Rev. 2, Section 1.1.1.) ENIP2 also understands that NRC should be provided the analysis, and that the analysis should include data for each year of the analysis.

The updated Indian Point 1 site-specific decommissioning cost estimate is based on a period of safe storage that is specifically described in the estimate, namely storage until 2065, at which time the plant will be decommissioned and the site released for alternative use without restriction. Table 8-1 below provides the annual license termination costs computed in the updated estimate. These costs to date have been funded by operations, and not by the decommissioning fund. The decommissioning trust fund (DTF) ending balance is escalated each year by the 2% real growth figure allowed pursuant to 10 CFR 50.75(e)(1)(i).

Attachment 8
ENOC-14-00009
(Page 2 of 4)

Entergy Nuclear Operations, Inc.
Indian Point 1 DTF Balance Based on Decommissioning Funding Assurance Plan
For Year Ending December 31, 2013 - 10 CFR 50.75(f)(1)

Table 8-1			
NRC License Termination Cost			
(\$ millions)			
	2012 \$ Unit 1 Radiological	2013 \$ Unit 1 Radiological	Ending DTF Balance
2013	-	-	383.868*
2014	3.634	3.707	387.838
2015	3.634	3.707	391.888
2016	3.644	3.717	396.008
2017	3.634	3.707	400.221
2018	3.634	3.707	404.519
2019	3.634	3.707	408.902
2020	3.644	3.717	413.363
2021	3.634	3.707	417.923
2022	3.634	3.707	422.575
2023	3.634	3.707	427.319
2024	3.644	3.717	432.149
2025	3.634	3.707	437.085
2026	3.634	3.707	442.119
2027	3.634	3.707	447.255
2028	3.644	3.717	452.483
2029	3.634	3.707	457.825
2030	3.634	3.707	463.275
2031	3.634	3.707	468.833
2032	3.644	3.717	474.493
2033	3.634	3.707	480.276
2034	3.634	3.707	486.174
2035	3.634	3.707	492.191
2036	3.644	3.717	498.317
2037	3.634	3.707	504.577
2038	3.634	3.707	510.961
2039	3.634	3.707	517.473
2040	3.644	3.717	524.106
2041	3.634	3.707	530.881
2042	3.634	3.707	537.791
2043	3.634	3.707	544.840
2044	3.644	3.717	552.020
2045	3.634	3.707	559.353
2046	3.634	3.707	566.833
2047	3.634	3.707	574.463

* Note: Trust fund balance at end of year is actual balance.
Expenditures in year 2013 were not withdrawn from the fund.

Attachment 8
ENOC-14-00009
(Page 3 of 4)

Entergy Nuclear Operations, Inc.
Indian Point 1 DTF Balance Based on Decommissioning Funding Assurance Plan
For Year Ending December 31, 2013 - 10 CFR 50.75(f)(1)

2048	3.644	3.717	582.235
2049	3.634	3.707	590.173
2050	3.634	3.707	598.269
2051	3.634	3.707	606.528
2052	3.644	3.717	614.941
2053	3.634	3.707	623.533
2054	3.634	3.707	632.296
2055	3.634	3.707	641.235
2056	3.644	3.717	650.343
2057	3.634	3.707	659.643
2058	3.634	3.707	669.129
2059	3.634	3.707	678.804
2060	3.644	3.717	688.663
2061	3.634	3.707	698.729
2062	3.634	3.707	708.997
2063	3.634	3.707	719.470
2064	3.644	3.717	730.142
2065	26.813	27.284	717.461
2066	59.025	59.977	671.833
2067	98.580	100.217	585.053
2068	104.740	106.572	490.182
2069	15.056	15.331	484.655
2070	15.208	15.476	478.872
2071	15.208	15.476	472.973
2072	15.250	15.518	466.915
2073	7.500	7.632	468.621
Total	542.857	552.672	

Attachment 8
ENOC-14-00009
(Page 4 of 4)

Entergy Nuclear Operations, Inc.
Indian Point 1 DTF Balance Based on Decommissioning Funding Assurance Plan
For Year Ending December 31, 2013 - 10 CFR 50.75(f)(1)

As can be seen from the information provided in Table 8-1, the required funding for SAFSTOR decommissioning, \$552.67 million, is greater than the NRC formula amount per 10 CFR 50.75(b) and (c) of \$434.19 million, therefore, the site-specific analysis complies with the requirement from Regulatory Guide 1.159 section 1.1.1 previously discussed. The foregoing SAFSTOR analysis shows that when the December 31, 2013 DTF balance is escalated at the allowable rate and compared against the annual figures for the SAFSTOR period that a surplus exists at the end of the decommissioning project. Accordingly, ENIP2 concludes that no further action is required at this time to demonstrate adequate funding assurance for decommissioning Indian Point 1.

Attachment 9
ENOC-14-00009
 (Page 1 of 4) total no. of pages revised to four
Entergy Nuclear Operations, Inc.
Minimum Financial Assurance Calculation Worksheets

Plant name:

Indian Point, Unit 1

Year of Biennial:

Month	Day	Year
1	1	2014

Termination of Operation:

9	28	2013
---	----	------

	<u>MWth</u>	<u>1986\$</u>	ECI	Base Lx	<u>Lx</u>	Px	Fx	<u>Lx</u>	<u>Bx</u>
PWR	615	\$85,560,000	120.1	2.16	2.59	1.754	3.691	2.57	13.885
				0.65		0.13		0.22	

NRC Minimum:

\$434,191,761

Site Specific:

\$552,671,950

Licensee:	% Owned:	Amount of NRC Minimum/Site Specific:	Amount in Trust Fund:
Entergy	100.00%	\$552,671,950	\$383,867,584

Note: See Attachment 8 for adequacy of the trust fund

**Attachment 9
ENOC-14-00009**

(Page 2 of 4) total no. of pages revised to four

**Entergy Nuclear Operations, Inc.
Minimum Financial Assurance Calculation Worksheets**

Plant name:

Indian Point, Unit 2

Year of Biennial:

Month

Day

Year

1

1

2014

Termination of Operation:

9

28

2013

	<u>MWth</u>	<u>1986\$</u>	ECI	Base Lx		<u>Lx</u>	Px	Fx	<u>Ex</u>	<u>Bx</u>	
PWR	3216	\$103,300,800	120.1	2.16	0.65	2.59	1.754	3.691	2.57	0.22	13.885

NRC Minimum:

\$524,221,088

Site Specific:

<u>Licensee:</u>	<u>% Owned:</u>	<u>Amount of NRC Minimum/Site Specific:</u>	<u>Amount in Trust Fund:</u>
Entergy	100.00%	\$524,221,088	\$492,052,007

Step 1:

Earnings Credit:

<u>Trust Fund Balance</u>	<u>Real Rate of Return per year</u>	<u>Years Left in License</u>	<u>Total Real Rate of Return:</u>	<u>Total Earnings:</u>
\$492,052,007	2%	0.00	1.00000	\$492,052,007

Total Earnings = Trust Fund balance x (1-RRR)^{Years left in license}

Step 2:

Accumulation:

<u>Value of Annuity per year</u>	<u>Real Rate of Return per year</u>	<u>Years of Annuity:</u>	<u>Total Annuity:</u>
\$0	2%	0	\$0

Step 3:

Decom Period:

<u>Total Earnings:</u>	<u>Real Rate of Return per year</u>	<u>Decom Period:</u>	<u>Total Real Rate of Return:</u>	<u>Total Earnings for Decom:</u>
\$492,052,007	2%	7	0.14869	\$36,580,541

Total Earnings for Decom = (1/2) x Total Earnings x [(1-RRR)^{Decom period - 1}]

Total of Steps 1 - 3:
\$528,632,548

Total = Total Earnings + Total Earnings for Decom

Excess (Shortfall)	\$4,411,461	to NRC minimum
---------------------------	--------------------	-----------------------

(Page 3 of 4) total no. of pages revised to four

Entergy Nuclear Operations, Inc.
Minimum Financial Assurance Calculation Worksheets

Plant name:

Indian Point, Unit 3

Year of Biennial:		Month		Day		Year						
		1		1		2014						
		12		12		2015						
Termination of Operation:												
	MWth	1986\$	ECI	Base Lx	Lx	Px	Fx	Ex	Bx			
PWR	3216	\$103,300,800	120.1	2.16	0.65	2.59	1.754	3.691	0.13	2.57	0.22	13.885

NRC Minimum:

\$524,221,088

Site Specific:

Licensee:	% Owned:	Amount of NRC Minimum/Site Specific:	Amount in Trust Fund:
Entergy	100.00%	\$524,221,088	\$621,543,544

Step 1:

Earnings Credit:

Trust Fund Balance:	Real Rate of Return per	Years Left in License	Total Real Rate of	Total Earnings:
\$621,543,544	2%	1.95	1.03930	\$645,973,059
				Total Earnings = Trust Fund balance x (1+RRR)^Years left in license

Step 2:

Accumulation:

Value of Annuity per year	Real Rate of Return per	Years of Annuity	Total Annuity
\$0	2%	0	\$0

Step 3:

Decom Period:

Total Earnings:	Real Rate of Return per	Decom Period:	Total Real Rate of	Total Earnings for Decom:
\$645,973,059	2%	7	0.14869	\$48,023,468
				Total Earnings for Decom = (1/2) x Total Earnings x [(1+RRR)^Decom period - 1]
				Total = Total Earnings + Total Earnings for Decom

Excess (Shortfall)	\$169,775,439 to NRC minimum
--------------------	------------------------------

Attachment 9

ENOC-14-00009

(Page 4 of 4) total no. of pages revised to four

Entergy Nuclear Operations, Inc. Minimum Financial Assurance Calculation Worksheets

Plant name:

Vermont Yankee Power Station

Year of Biennial:

Month
1

Day
1

Year
2014

Termination of Operation:

12

31

2014

	<u>MWth</u>	<u>1986\$</u>	ECI	Base Lx		<u>Lx</u>	Px	Fx		Ex		Bx
BWR	1912	\$121,208,000	120.1	2.16	0.65	2.59	1.754	3.691	0.13	2.65	0.22	14.16

NRC Minimum:

\$623,649,114

Site Specific:

Licensee:	% Owned:	Amount of NRC Minimum/Site Specific:	Amount in Trust Fund:
Entergy	100.00%	\$623,649,114	\$612,141,443

Step 1:

Earnings Credit:

Trust Fund Balance:	Real Rate of Return per	Years Left in License	Total Real Rate of	Total Earnings
\$612,141,443	2%	1.00	1.01998	\$624,370,157

Total Earnings = Trust Fund balance x (1+RRR)^{Years left in license}

Step 2:

Accumulation:

Value of Annuity per year	Real Rate of Return per	Years of Annuity	Total Annuity
\$0	2%	0	\$0

Step 3:

Decom Period:

Total Earnings:	Real Rate of Return per	Decom Period	Total Real Rate of	Total Earnings for Decom:
\$624,370,157	2%	7	0.14869	\$46,417,447

Total Earnings for Decom = (1/2) x Total Earnings x [(1+RRR)^{Decom period - 1}]

Total of Steps 1 - 3	\$670,787,604
Total = Total Earnings + Total Earnings for Decom	

Excess (Shortfall)	\$47,138,490	to NRC minimum
--------------------	--------------	----------------