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Michael R. Kansler President

March 31, 2003 BVY-03-025 NL-03-056 JPN-03-007 ENO Ltr. 2.03.036

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

SUBJECT:

Entergy Nuclear Operations, Inc.

Indian Point Nuclear Generating Stations 1, 2 and 3

Docket Nos. 50-3, 50-247 and 50-286 Vermont Yankee Nuclear Power Station

Docket No. 50-271

Pilgrim Nuclear Power Station

Docket No. 50-293

James A. FitzPatrick Nuclear Power Plant

Docket No. 50-333

Status of Decommissioning Funding for

Plants Operated by Entergy Nuclear Operations, Inc. For Year Ending December 31, 2002 – 10 CFR 50.75(f)(1)

References:

- 1. NUREG-1307, "Report on Waste Burial Charges," Revision 10, dated October 2002.
- 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:

10 CFR 50.75(f)(1) requires each power reactor licensee to report to the NRC by March 31, 1999, and every two years thereafter, on the status of its decommissioning funding for each reactor, or share of a reactor, that it owns. On behalf of Entergy Nuclear Indian Point 2 LLC, Entergy Nuclear Indian Point 3 LLC, Entergy Nuclear Vermont Yankee LLC, Entergy Nuclear Generation Company, and Entergy Nuclear FitzPatrick LLC, Entergy Nuclear Operations, Inc. hereby submits the information requested for power reactors operated by Entergy Nuclear Operations, Inc.

Add: Michael ws Kys

The estimated minimum decommissioning fund values were determined using the NRC's methodology in NUREG-1307 (Reference 1) and does not include activities outside of the scope of decommissioning as defined by 10 CFR 50.2.

Entergy will continue to monitor the status of the funds and will assure that we meet all NRC regulations and implement NRC guidance, as appropriate, to assure adequate funding for the decommissioning when required.

The information provided in Attachment 1 is based on NRC Regulatory Issue Summary 2001-07 (Reference 2).

There are no new commitments made in this letter. If you have any questions, please contact Ms. Charlene Faison at 914-272-3378.

Very truly yøurs

Michael R. Kansler

President /

### Attachment:

- 1. Status of Decommissioning Funding for Plants Operated by Entergy Nuclear Operations, Inc. (Indian Point 1, Indian Point 2, Indian Point 3, Vermont Yankee, Pilgrim, and FitzPatrick) For Year Ending December 31, 2002 10 CFR 50.75(f)(1)
- 2. NRC Minimum Funding Calculation (10 CFR 50.75(c)) for Indian Point 1, Indian Point 2, Indian Point 3, Vermont Yankee, Pilgrim, and FitzPatrick

cc: Next page.

CC:

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Mr. David O'Brien Commissioner Department of Public Service 120 State Street Montpelier, VT 05602

Mr. Paul Eddy NYS Department of Public Service 3 Empire State Plaza, 10<sup>th</sup> Floor Albany, NY 12223

# Entergy Nuclear Operations, Inc. Status of Decommissioning Funding For Year Ending December 31, 2002 – 10 CFR 50.75(f)(1)

Plant Name: Indian Point Nuclear Generating Unit No. 1

1.	Amount of decommissioning funds estimated
	to be required pursuant to 10 CFR 50.75 (b)
	and (c).

\$297.80 million<sup>[1][2]</sup>

Decommissioning cost estimate escalated at 3.0% per year to the midpoint of decommissioning (December 2016).

\$450.45 million

2. Amount accumulated to the end of the calendar year preceding the date of the report (December 31, 2002).

\$193.46 million<sup>[3]</sup>

Fund balance with 5.0% annual growth to the midpoint of decommissioning (December 2016).

\$383.03 million

3. A schedule of the annual amounts remaining to be collected.

None. [see item 7]

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: 3.0%

Rate of earnings: 5.0%

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. [see item 7]

7. Any material changes to trust agreements.

In November 2000, Con Edison entered into an agreement with Entergy for the sale of Indian Point 1 and 2. The agreement provided for a transfer of \$430 million for which Entergy would assume full responsibility for decommissioning of both units. Entergy established a \$25 million provisional trust at closing to ensure that sufficient funds were available.

# Entergy Nuclear Operations, Inc. Status of Decommissioning Funding For Year Ending December 31, 2002 – 10 CFR 50.75(f)(1)

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

1.	Amount of decommissioning funds estimated
	to be required pursuant to 10 CFR 50.75 (b)
	and (c).

\$355.11 million [1]

Decommissioning cost estimate escalated at 3.0% per year to the midpoint of decommissioning (December 2016).

\$537.13 million

2. Amount accumulated to the end of the calendar year preceding the date of the report (December 31, 2002).

\$232.03 million[3]

Fund balance with 5.0% annual growth to the midpoint of decommissioning (December 2016).

\$459.40 million

3. A schedule of the annual amounts remaining to be collected.

None. [see item 7]

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: 3.0%

Rate of earnings: 5.0%

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. [see item 7]

7. Any material changes to trust agreements.

In November 2000, Con Edison entered into an agreement with Entergy for the sale of Indian Point 1 and 2. The agreement provided for a transfer of \$430 million for which Entergy would assume full responsibility for decommissioning of both units. Entergy established a \$25 million provisional trust at closing to ensure that sufficient funds were available.

# Entergy Nuclear Operations, Inc. Status of Decommissioning Funding For Year Ending December 31, 2002 – 10 CFR 50.75(f)(1)

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

1.	Amount of decommissioning funds estimated to be required pursuant to 10 CFR 50.75 (b) and (c).	\$353.70 million <sup>[1]</sup>
	Decommissioning cost estimate escalated at 3.0% per year to the midpoint of decommissioning (December 2018).	\$567.58 million
2.	Amount accumulated to the end of the calendar year preceding the date of the report (December 31, 2002).	\$336 million
	Fund balance with 5.0% annual growth to the midpoint of decommissioning (December 2018).	\$733.45 million
3.	A schedule of the annual amounts remaining to be collected.	None.
4.	Assumptions used in determining rates of	Escalation rate: 3.0%
	escalation in decommissioning costs, rates of earnings on decommissioning funds, and rates of other factors used in funding projections.	Rate of earnings: 5.0%
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.

# Entergy Nuclear Operations, Inc. Status of Decommissioning Funding For Year Ending December 31, 2002 – 10 CFR 50.75(f)(1)

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

1.	Amount of decommissioning funds estimated
	to be required pursuant to 10 CFR 50.75 (b)
	and (c).

\$395.97 million [1]

Decommissioning cost estimate escalated at 3.0% per year to the midpoint of decommissioning (December 2015).

\$581.49 million

2. Amount accumulated to the end of the calendar year preceding the date of the report (December 31, 2002).

\$315.85 million

Fund balance with 5.0% annual growth to the midpoint of decommissioning (December 2015).

\$595.57 million

- 3. A schedule of the annual amounts remaining to be collected.
- None. [see item 7]
- 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: 3.0%

Rate of earnings: 5.0%

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. [see item 7]

7. Any material changes to trust agreements.

In August 2001, Vermont Yankee Nuclear Power Corporation entered into an agreement with Entergy for the sale of Vermont Yankee nuclear unit. Upon the closing, \$310.7 million was transferred to Entergy (Mellon Bank is the new trustee), which agreed to assume full responsibility for the decommissioning of the nuclear unit.

# Entergy Nuclear Operations, Inc. Status of Decommissioning Funding For Year Ending December 31, 2002 – 10 CFR 50.75(f)(1)

### Plant Name: Pilgrim Nuclear Power Station

1.	Amount of decommissioning funds estimated
	to be required pursuant to 10 CFR 50.75 (b)
	and (c).

\$408.16 million [1]

Decommissioning cost estimate escalated at 3.0% per year to the midpoint of decommissioning (December 2015).

\$599.40 million

2. Amount accumulated to the end of the calendar year preceding the date of the report (December 31, 2002).

\$455.91 million

Fund balance with 5.0% annual growth to the midpoint of decommissioning (December 2015).

\$859.68 million

3. A schedule of the annual amounts remaining to be collected.

None. [see item 7]

 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: 3.0%

Rate of earnings: 5.0%

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. [see item 7]

7. Any material changes to trust agreements.

None (as of December 2002). As of March 2003, Entergy has instructed Mellon Bank, the trustee, to transfer the balance in the Provisional Fund (\$28.5 million) to the non-qualified portion of the Master Trust. The Provisional Trust will then be terminated.

# Entergy Nuclear Operations, Inc. Status of Decommissioning Funding For Year Ending December 31, 2002 – 10 CFR 50.75(f)(1)

## Plant Name: James A. Fitzpatrick Nuclear Power Plant

1.	Amount of decommissioning funds estimated to be required pursuant to 10 CFR 50.75 (b) and (c).	\$424.36 million <sup>[1]</sup>
	Decommissioning cost estimate escalated at 3.0% per year to the midpoint of decommissioning (December 2017).	\$661.15 million
2.	Amount accumulated to the end of the calendar year preceding the date of the report (December 31, 2002).	\$367 million
	Fund balance with 5.0% annual growth to the midpoint of decommissioning (December 2017).	\$762.97 million
3.	A schedule of the annual amounts remaining to be collected.	None.
4.	Assumptions used in determining rates of	Escalation rate: 3.0%
	escalation in decommissioning costs, rates of earnings on decommissioning funds, and rates of other factors used in funding projections.	Rate of earnings: 5.0%
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.

# Entergy Nuclear Operations, Inc. Status of Decommissioning Funding For Year Ending December 31, 2002 – 10 CFR 50.75(f)(1)

### Notes:

- [1] The calculation of the NRC minimum value is provided in Attachment 2.
- [2] In accordance with 10 CFR 50.75(c)(i)(1) PWR reactors below 1200 MWt are to use this minimum value. Indian Point 1 had a thermal power level of 615 MWt. (Refer to Attachment 3, pg. 15, of June 8, 2001 letter, M. R. Kansler to USNRC regarding "Response to June 5, 2001 Letter, Indian Point Nuclear Generating Unit Nos. 1 and 2, Transfer of Facility Operating License (TAC Nos. MB0743 and MB0744).")
- [3] The current fund balances for Indian Point 1 and 2 do not include an additional \$25.42 million available in the provisional fund.

## Entergy Nuclear Operations, Inc. NRC Minimum Funding Calculation (10 CFR 50.75(c))

Plant Name: Indian Point Nuclear Generating Unit No. 1

Inputs:

### **Plant Characteristics**

Plant Type	(PWR or BWR)	PWR	)
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Region NE (Northeast)

Rated (in MWt) [1] 615 (NUREG-1350, Vol. 14)

Year 2002 Waste Vendor Used (Yes/No) Yes

Burial Site South Carolina

Atlantic Compact Member (Yes/No) No

### **Producer Price Index**

wpu0543 (industrial electric power)	139.6 (December 2002)

wpu0573 (light fuel oils) 84.7

### **Labor Adjustment Factors**

ecu13102i (Northeast) 161.3 (4th Quarter, 2002)

### Burial Site Adjustments (South Carolina/non-Atlantic Compact Member)

PWR - direct disposal	18.732 (NUREG-1307, Rev. 10)
PWR - w/waste vendors	9.467
BWR - direct disposal	16.705
BWR - w/waste vendors	8.860

### **Adjustment Factors**

Energy (E)	1.143
Labor (L)	1.922
Burial (B)	9.467

Minimum Amount (millions, \$1986)	\$85.56 (size adjusted for megawatts)
Escalation Factor (L, E, B)	3.481 (65% L, 13% E, 22% B)

NRC Minimum (millions, \$2002)	\$297.80	w/waste vendor

<sup>[1]</sup> In accordance with 10 CFR 50 75(c)(i)(1) PWR reactors below 1200 MWt are to use this minimum value. Indian Point 1 had a thermal power level of 615 MWt. (Refer to Attachment 3, pg. 15, of June 8, 2001 letter, M. R. Kansler to USNRC regarding "Response to June 5, 2001 Letter, Indian Point Nuclear Generating Unit Nos. 1 and 2, Transfer of Facility Operating License (TAC Nos. MB0743 and MB0744)")

### **Entergy Nuclear Operations, Inc.** NRC Minimum Funding Calculation (10 CFR 50.75(c))

Plant Name: Indian Point Nuclear Generating Unit No. 2

Inputs:

Plant Characteristics

Plant Type (PWR or BWR) **PWR** 

NE (Northeast) Region

(NUREG-1350, Vol. 14) Rated (in MWt) 3071

Year 2002

Waste Vendor Used (Yes/No) Yes

**Burial Site** South Carolina

Atlantic Compact Member (Yes/No) No

Producer Price Index

139.6 (December 2002) wpu0543 (industrial electric power)

wpu0573 (light fuel oils) 84.7

**Labor Adjustment Factors** 

161.3 (4th Quarter, 2002) ecu13102i (Northeast)

Burial Site Adjustments (South Carolina/non-Atlantic Compact Member)

PWR - direct disposal 18.732 (NUREG-1307, Rev. 10)

PWR - w/waste vendors 9.467 16.705 BWR - direct disposal BWR - w/waste vendors 8.860

Adjustment Factors

Energy (E) 1.143 Labor (L) 1.922 9.467 Burial (B)

Minimum Amount (millions, \$1986) \$102.02 (size adjusted for megawatts) 3.481 (65% L, 13% E, 22% B)

Escalation Factor (L, E, B)

\$355.11 w/waste vendor NRC Minimum (millions, \$2002)

## Entergy Nuclear Operations, Inc. NRC Minimum Funding Calculation (10 CFR 50.75(c))

Plant Name: Indian Point Nuclear Generating Unit No. 3

Inputs:

### **Plant Characteristics**

Plant Type (PWR or BWR) PWR

Region NE (Northeast)

Rated (in MWt) 3025 (NUREG-1350, Vol. 14)

Year 2002

Waste Vendor Used (Yes/No) Yes

Burial Site South Carolina

Atlantic Compact Member (Yes/No) No

Producer Price Index

wpu0543 (industrial electric power) 139.6 (December 2002)

wpu0573 (light fuel oils) 84.7

**Labor Adjustment Factors** 

ecu13102i (Northeast) 161.3 (4th Quarter, 2002)

Burial Site Adjustments (South Carolina/non-Atlantic Compact Member)

PWR - direct disposal 18.732 (NUREG-1307, Rev. 10)

PWR - w/waste vendors 9.467
BWR - direct disposal 16.705
BWR - w/waste vendors 8.860

**Adjustment Factors** 

Energy (E) 1.143 Labor (L) 1.922 Burial (B) 9.467

Minimum Amount (millions, \$1986) \$101.62 (size adjusted for megawatts) Escalation Factor (L, E, B) 3.481 (65% L, 13% E, 22% B)

NRC Minimum (millions, \$2002) \$353.70 w/waste vendor

## Entergy Nuclear Operations, Inc. NRC Minimum Funding Calculation (10 CFR 50.75(c))

Plant Name: Vermont Yankee Nuclear Power Station

Inputs:

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#### Plant Characteristics

Plant Type (PWR or BWR) BWR

Region NE (Northeast)

Rated (in MWt) 1593 (NUREG-1350, Vol. 14)

Year 2002

Waste Vendor Used (Yes/No) Yes

Burial Site South Carolina

Atlantic Compact Member (Yes/No) No

**Producer Price Index** 

wpu0543 (industrial electric power) 139.6 (December 2002)

wpu0573 (light fuel oils) 84.7

**Labor Adjustment Factors** 

ecu13102i (Northeast) 161.3 (4th Quarter, 2002)

Burial Site Adjustments (South Carolina/non-Atlantic Compact Member)

PWR - direct disposal 18.732 (NUREG-1307, Rev. 10)

PWR - w/waste vendors 9.467
BWR - direct disposal 16.705
BWR - w/waste vendors 8.860

Adjustment Factors

Energy (E) 1.135 Labor (L) 1.922

Burial (B) 8.860

Minimum Amount (millions, \$1986) \$118.34 (size adjusted for megawatts)

Escalation Factor (L, E, B) 3.346 (65% L, 13% E, 22% B)

NRC Minimum (millions, \$2002) \$395.97 w/waste vendor

### Entergy Nuclear Operations, Inc. NRC Minimum Funding Calculation (10 CFR 50.75(c))

**Pilgrim Nuclear Power Station** Plant Name:

Inputs:

**Plant Characteristics** 

**BWR** Plant Type (PWR or BWR)

(Northeast) NE Region

(NUREG-1350, Vol. 14) Rated (in MWt) 1998

2002 Year

Yes Waste Vendor Used (Yes/No)

South Carolina **Burial Site** 

No Atlantic Compact Member (Yes/No)

Producer Price Index

139.6 (December 2002) wpu0543 (industrial electric power)

84.7 wpu0573 (light fuel oils)

**Labor Adjustment Factors** 

ecu13102i (Northeast) 161.3 (4th Quarter, 2002)

Burial Site Adjustments (South Carolina/non-Atlantic Compact Member)

18.732 (NUREG-1307, Rev. 10) PWR - direct disposal

9.467 PWR - w/waste vendors BWR - direct disposal 16.705 8.860 BWR - w/waste vendors

Adjustment Factors

1.135 Energy (E) 1.922 Labor (L) 8.860

Burial (B)

\$121.98 (size adjusted for megawatts) Minimum Amount (millions, \$1986)

Escalation Factor (L, E, B) 3.346 (65% L, 13% E, 22% B)

w/waste vendor NRC Minimum (millions, \$2002) \$408.16

### **Entergy Nuclear Operations, Inc.** NRC Minimum Funding Calculation (10 CFR 50.75(c))

Plant Name: James A. Fitzpatrick Nuclear Power Plant

Inputs:

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**Plant Characteristics** 

Plant Type (PWR or BWR) **BWR** 

Region NE (Northeast)

Rated (in MWt) 2536 (NUREG-1350, Vol. 14)

Year 2002

Waste Vendor Used (Yes/No) Yes

**Burial Site** South Carolina

Atlantic Compact Member (Yes/No) No

Producer Price Index

wpu0543 (industrial electric power) 139.6 (December 2002)

wpu0573 (light fuel oils) 84.7

**Labor Adjustment Factors** 

ecu13102i (Northeast) 161.3 (4th Quarter, 2002)

Burial Site Adjustments (South Carolina/non-Atlantic Compact Member)

PWR - direct disposal 18.732 (NUREG-1307, Rev. 10)

PWR - w/waste vendors 9.467 BWR - direct disposal 16,705 BWR - w/waste vendors 8.860

Adjustment Factors

Energy (E) 1.135 Labor (L) 1.922

Burial (B) 8.860

Minimum Amount (millions, \$1986) \$126.82 (size adjusted for megawatts)

Escalation Factor (L, E, B) 3.346 (65% L, 13% E, 22% B)

NRC Minimum (millions, \$2002) \$424.36 w/waste vendor