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March 24, 2017
TMI-17-006

10 CFR 50.75
10 CFR 50.82

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

SUBJECT:
Three Mile Island Nuclear Station, Unit 2
Docket No. 50-320, License No. DPR-73
Decommissioning Funding Status Report for the Three Mile Island Nuclear
Station, Unit 2

Pursuant to 10 CFR 50.75 and 10 CFR 50.82, GPU Nuclear, Inc. is hereby submitting the following three reports to the Nuclear Regulatory Commission (NRC) for Three Mile Island Nuclear Station, Unit 2 for the year ending December 31, 2016. Attachment 1 provides a decommissioning funding status report based on the NRC formula described in 10 CFR 50.75(c). Attachment 2 provides a decommissioning funding status report based upon a site-specific decommissioning cost estimate (DCE). Attachment 3 contains a financial assurance status report as required by 10 CFR 50.82(a)(8)(v).

There are no regulatory commitments contained in this letter. If there are any questions or if additional information is required, please contact Mr. Thomas A. Lentz, Manager - FirstEnergy Nuclear Operating Company Fleet Licensing, at (330) 315-6810.

Sincerely,

A handwritten signature in black ink, appearing to read "Gregory H. Halnon", written in a cursive style.

Gregory H. Halnon
President

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Attachments:

1. Three Mile Island Nuclear Station, Unit 2 Decommissioning Funding Status Report – NRC Formula
2. Three Mile Island Nuclear Station, Unit 2 Decommissioning Funding Status Report – Site-Specific Decommissioning Cost Estimate
3. Three Mile Island Nuclear Station, Unit 2 Financial Assurance Status Report

cc: NRC Region I Administrator
NRC Project Manager
NRC Resident Inspector

Attachment 1
TMI-17-006

Three Mile Island Nuclear Station, Unit 2 Decommissioning Funding
Status Report – NRC Formula
Page 1 of 3

This report reflects the FirstEnergy Corp. subsidiary ownership interests in the Three Mile Island Nuclear Station, Unit 2 as of December 31, 2016.

1. The minimum decommissioning fund estimate, pursuant to 10 CFR 50.75(b) and (c) (see Schedule 1):

Metropolitan Edison Company	\$238,246,458
Pennsylvania Electric Company	119,123,230
Jersey Central Power & Light Company	<u>119,123,230</u>
FirstEnergy Corp. Consolidated	<u>\$476,492,918</u>

2. The amount accumulated in external trust funds:

	After Tax
Metropolitan Edison Company	\$360,647,760
Pennsylvania Electric Company	191,330,841
Jersey Central Power & Light Company	<u>226,076,560</u>
FirstEnergy Corp. Consolidated	<u>\$778,055,161</u>

3. There are no longer any funds to be collected from the ratepayers.
4. The assumptions used regarding escalation in decommissioning cost, rates of earnings on decommissioning funds, and rates of other factors used in funding projections:

Consolidated Ownership Interest in Unit	100%
Estimated Net Investment Rate	2.00%
Year of Site Restoration Completion	2053
Year of Three Mile Island Nuclear Station, Unit 1 end of license	2034

The decommissioning activities for Three Mile Island Nuclear Station, Unit 2 are planned to commence after the shutdown of Three Mile Island Nuclear Station, Unit 1. Three Mile Island Nuclear Station, Unit 2 transitions from a Post-Defueling Monitored Storage status to decommissioning in 2040.

5. There are no contracts upon which the owners/licensees are relying pursuant to 10 CFR 50.75(e)(1)(v).
6. There are no modifications to the licensee's current method of providing financial assurance since the last submitted report.

7. There were no amendments to the trust agreements for the above-mentioned owners of Three Mile Island Nuclear Station, Unit 2.
8. Mathematical rounding was performed during the development of the supporting calculations.

Schedule 1
FIRSTENERGY CORP.
Calculation of Minimum Financial Assurance Amount
December 31, 2016
THREE MILE ISLAND NUCLEAR STATION, UNIT 2

Pennsylvania Regions

Labor (L) = Northeast
Energy (E) = National
Waste Burial (B) = Generic

For PWR Unit

	Adjustment Factor	Ratio	Escalation Factor ¹
L =	2.78	0.65	1.807
E =	1.870	0.13	0.243
B =	12.471	0.22	2.744
 PWR Escalation Factor =			 4.794
 Base Amount for PWR between 1200 MWt and 3400 MWt = (\$75 + 0.0088P) million (P = power level in megawatts thermal = 2772)			
(\$75 + 0.0088(2772)) million =			\$99,393,600
Escalated Amount for unit ¹ =			
99,393,600	x	4.794	=
			\$476,492,918

<u>Owner/Licensee¹</u>	<u>Ownership</u>	
Pennsylvania Electric Company	25%	\$119,123,230
Jersey Central Power & Light Company	25%	\$119,123,230
Metropolitan Edison Company	<u>50%</u>	<u>\$238,246,458</u>
FirstEnergy Corp. Consolidated	100%	<u>\$476,492,918</u>

Note 1: Mathematical rounding was performed during the development of the supporting calculations.

Attachment 2
TMI-17-006

Three Mile Island Nuclear Station, Unit 2 Decommissioning Funding
Status Report – Site-Specific Decommissioning Cost Estimate
Page 1 of 4

1. Decommissioning funds estimated to be required pursuant to 10 CFR 50.75(b) and (c) are based upon a site-specific decommissioning cost study, *Decommissioning Cost Analysis for Three Mile Island Unit 2*, dated December 2014, and escalated to 2016 dollars:

NRC License Termination	\$1,234,967,000
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2. The amount accumulated in external trust funds as of December 31, 2016:

	After Tax
Metropolitan Edison Company	\$360,647,760
Pennsylvania Electric Company	191,330,841
Jersey Central Power & Light Company	<u>226,076,560</u>
FirstEnergy Corp. Consolidated	<u>\$778,055,161</u>

3. There are no longer any funds to be collected from the ratepayers.
4. The assumptions used regarding escalation in decommissioning cost, rates of earnings on decommissioning funds, and rates of other factors used in funding projections:

Consolidated Ownership Interest in Unit	100%
Estimated Rate of Escalation in Decommissioning Costs	0.00%
Estimated After-Tax Rate of Return	2.00%
Year of Site Restoration Completion	2053
Year of Three Mile Island Nuclear Station, Unit 1 end of license	2034

The decommissioning activities for Three Mile Island Nuclear Station, Unit 2 are planned to commence after the shutdown of Three Mile Island Nuclear Station, Unit 1. Three Mile Island Nuclear Station, Unit 2 transitions from a Post-Defueling Monitored Storage status to decommissioning in 2040.

All cost are based on a site-specific decommissioning cost study, *Decommissioning Cost Analysis for Three Mile Island Unit 2*, dated December 2014 (2013 dollars), then escalated to 2016 dollars using an escalation factor of 2.795% as documented in *Escalation Analysis for Three Mile Island Unit 2*, dated February 2015.

5. There are no contracts upon which the owners/licensees are relying pursuant to 10 CFR 50.75(e)(1)(v).
6. There are no modifications to the licensee's current method of providing financial assurance since the last submitted report.

7. There were no amendments to the trust agreements for the above-mentioned owners of Three Mile Island Nuclear Station, Unit 2.

8. Site-Specific Cost Analysis Assumptions

10 CFR 50.75(e)(1)(i), states, in part, that:

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.

In accordance with Regulatory Guide 1.159, Revision 2, a facility specific analysis may be used to demonstrate the adequacy of decommissioning funds, provided that:

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).

The site-specific radiological decommissioning cost estimate is \$1,234,967,000 which is greater than the 10 CFR 50.75(c) cost estimate of \$476,492,918. The analysis assumes a 2 percent yearly rate of return. The analysis also assumes a period of safe storage. The cash flows were contained in a decommissioning cost estimate that was prepared for Three Mile Island Nuclear Station, Unit 2. The cash flow analysis assumes the yearly expenses are incurred at the beginning of year.

Schedule 1 provides the site-specific analysis. The analysis values are in 2016 dollars. The analysis is based on the DECON method of decommissioning and includes expenditures for license termination costs only.

9. Mathematical rounding was performed during the development of the supporting calculations.

10. References:

- A. *Decommissioning Cost Analysis for Three Mile Island Unit 2*, December 2014 (Accession No. ML15086A337)
- B. *Escalation Analysis for Three Mile Island Unit 2 2013 Site-Specific Decommissioning Cost Estimate*, February 2015 (Accession No. ML15086A337)

Schedule 1

FIRSTENERGY CORP.
Funding Analysis
December 31, 2016
THREE MILE ISLAND NUCLEAR STATION, UNIT 2

	After-Tax
Estimated Net Investment Rate	2.00%
Estimated Escalation Rate	0.00%
Estimated After-Tax Rate of Return	<u>2.00%</u>
Qualified Trust Balance on December 31, 2016	778,055,161 After-Tax
Non-Qualified Trust Balance on December 31, 2016	-
Total	778,055,161

Year	Beginning Balance	Deposits	Earnings	Withdrawal ^{1,2}	Ending Balance
2017	778,055,161	-	15,495,144	(3,297,938)	790,252,367
2018	790,252,367	-	15,739,089	(3,297,938)	802,693,517
2019	802,693,517	-	15,987,912	(3,297,938)	815,383,491
2020	815,383,491	-	16,241,530	(3,306,974)	828,318,047
2021	828,318,047	-	16,500,402	(3,297,938)	841,520,511
2022	841,520,511	-	16,764,451	(3,297,938)	854,987,024
2023	854,987,024	-	17,033,782	(3,297,938)	868,722,868
2024	868,722,868	-	17,308,318	(3,306,974)	882,724,212
2025	882,724,212	-	17,588,525	(3,297,938)	897,014,799
2026	897,014,799	-	17,874,337	(3,297,938)	911,591,198
2027	911,591,198	-	18,165,865	(3,297,938)	926,459,125
2028	926,459,125	-	18,463,043	(3,306,974)	941,615,194
2029	941,615,194	-	18,766,345	(3,297,938)	957,083,601
2030	957,083,601	-	19,075,713	(3,297,938)	972,861,375
2031	972,861,375	-	19,391,269	(3,297,938)	988,954,706
2032	988,954,706	-	19,712,955	(3,306,974)	1,005,360,687
2033	1,005,360,687	-	20,041,255	(3,297,938)	1,022,104,003
2034	1,022,104,003	-	20,376,121	(3,297,938)	1,039,182,186
2035	1,039,182,186	-	20,717,685	(3,297,938)	1,056,601,933
2036	1,056,601,933	-	21,065,899	(3,306,974)	1,074,360,858
2037	1,074,360,858	-	21,421,258	(3,297,938)	1,092,484,179

Schedule 1 (Continued)

Year	Beginning Balance	Deposits	Earnings	Withdrawal ^{1,2}	Ending Balance
2038	1,092,484,179	-	21,783,725	(3,297,938)	1,110,969,965
2039	1,110,969,965	-	22,153,441	(3,297,938)	1,129,825,467
2040	1,129,825,467	-	21,450,513	(57,299,811)	1,093,976,169
2041	1,093,976,169	-	19,991,261	(94,413,100)	1,019,554,330
2042	1,019,554,330	-	17,984,315	(120,338,584)	917,200,061
2043	917,200,061	-	15,937,230	(120,338,584)	812,798,707
2044	812,798,707	-	13,842,609	(120,668,279)	705,973,037
2045	705,973,037	-	11,712,689	(120,338,584)	597,347,142
2046	597,347,142	-	9,823,090	(106,192,638)	500,977,594
2047	500,977,594	-	8,432,347	(79,360,250)	430,049,691
2048	430,049,691	-	7,009,440	(79,577,675)	357,481,457
2049	357,481,457	-	5,562,424	(79,360,250)	283,683,631
2050	283,683,631	-	4,086,468	(79,360,250)	208,409,850
2051	208,409,850	-	2,632,965	(76,761,619)	134,281,195
2052	134,281,195	-	2,246,960	(21,933,194)	114,594,961
2053	114,594,961	-	2,229,379	(3,126,001)	113,698,339
				(1,234,966,576)	

Notes:

1. Withdrawal are assumed to be made at the beginning of the period.
2. There were no funds withdrawn from the decommissioning trust fund for years 2013, 2014, 2015, and 2016.

Attachment 3
TMI-17-006

Three Mile Island Nuclear Station, Unit 2 Financial Assurance Status Report
Page 1 of 1

1. Formal decommissioning has not started at Three Mile Island Nuclear Station, Unit 2. A special disbursement of decommissioning trust funds occurred in 2005 for \$416,400.00. Notification of this use of decommissioning funds was made to the NRC by letter dated February 1, 2005 (Accession No. ML050380143). No funds were spent on decommissioning activities in 2016.
2. Decommissioning funds estimated to be required are based upon a site-specific decommissioning cost study, *Decommissioning Cost Analysis for Three Mile Island Unit 2*, dated December 2014, and escalated to 2016 dollars:

NRC License Termination	\$1,234,967,000
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As noted on Attachment 2, Schedule 1, *FirstEnergy Corp. Funding Analysis dated December 31, 2016*.

3. The amount accumulated in external trust funds as of December 31, 2016:

	After Tax
Metropolitan Edison Company	\$360,647,760
Pennsylvania Electric Company	191,330,841
Jersey Central Power & Light Company	<u>226,076,560</u>
FirstEnergy Corp. Consolidated	<u>\$778,055,161</u>

4. There are no longer any funds to be collected from the ratepayers.
5. There are no modifications to the licensee's current method of providing financial assurance since the last submitted report.
6. There were no amendments to the trust agreements for the above-mentioned owners of Three Mile Island Nuclear Station, Unit 2.
7. Mathematical rounding was performed during the development of the supporting calculations.
8. References:
 - A. *Decommissioning Cost Analysis for Three Mile Island Unit 2*, December 2014
 - B. *Escalation Analysis for Three Mile Island Unit 2 2013 Site-Specific Decommissioning Cost Estimate*, February 2015