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March 16, 2018
TMI-18-004

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, 2017. 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 over a horizontal line.

Gregory H. Halnon
President and Chief Nuclear Officer

Three Mile Island Nuclear Station, Unit 2

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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-18-004

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, 2017.

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

Metropolitan Edison Company	\$243,265,836
Pennsylvania Electric Company	121,632,918
Jersey Central Power & Light Company	121,632,918
FirstEnergy Corp. Consolidated	<u>\$486,531,672</u>

2. The amount accumulated in external trust funds:

	After Tax
Metropolitan Edison Company	\$387,229,001
Pennsylvania Electric Company	206,095,945
Jersey Central Power & Light Company	241,059,208
FirstEnergy Corp. Consolidated	<u>\$834,384,154</u>

3. There are no longer any funds being 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

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, 2017
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 =	2.85	0.65	1.853
E =	2.295	0.13	0.298
B =	12.471	0.22	2.744
PWR Escalation Factor =			4.895

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 unit¹ =
99,393,600 x 4.895 = **\$486,531,672**

<u>Owner/Licensee¹</u>	<u>Ownership</u>	
Pennsylvania Electric Company	25%	\$121,632,918
Jersey Central Power & Light Company	25%	\$121,632,918
Metropolitan Edison Company	<u>50%</u>	<u>\$243,265,836</u>
FirstEnergy Corp. Consolidated	100%	<u>\$486,531,672</u>

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

Attachment 2
TMI-18-004

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 2017 dollars:

NRC License Termination	\$1,266,093,777
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2. The amount accumulated in external trust funds as of December 31, 2017:

	After Tax
Metropolitan Edison Company	\$387,229,001
Pennsylvania Electric Company	206,095,945
Jersey Central Power & Light Company	241,059,208
FirstEnergy Corp. Consolidated	<u>\$834,384,154</u>

3. There are no longer any funds being 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

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 2017 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, *Assuring the Availability of Funds for Decommissioning Nuclear Reactors*, 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 \$1,266,093,777 which is greater than the 10 CFR 50.75(c) cost estimate of \$486,531,672. 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 2017 dollars. The analysis is based on TMI-2 transitioning from Post-Defueling Monitored Storage status to decommissioning in 2040 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, 2017
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	2.00%
Qualified Trust Balance on December 31, 2017	834,384,154 After-Tax
Non-Qualified Trust Balance on December 31, 2017	-
Total	834,384,154

Year	Beginning Balance	Deposits	Earnings	Withdrawal ^{1,2}	Ending Balance
2018	834,857,154		16,629,341	(3,390,116)	848,096,379
2019	848,096,379		16,894,125	(3,390,116)	861,600,389
2020	861,600,389		17,164,020	(3,399,404)	875,365,005
2021	875,365,005		17,439,498	(3,390,116)	889,414,387
2022	889,414,387		17,720,485	(3,390,116)	903,744,756
2023	903,744,756		18,007,093	(3,390,116)	918,361,734
2024	918,361,734		18,299,247	(3,399,404)	933,261,576
2025	933,261,576		18,597,429	(3,390,116)	948,468,890
2026	948,468,890		18,901,575	(3,390,116)	963,980,350
2027	963,980,350		19,211,805	(3,390,116)	979,802,039
2028	979,802,039		19,528,053	(3,399,404)	995,930,688
2029	995,930,688		19,850,811	(3,390,116)	1,012,391,383
2030	1,012,391,383		20,180,025	(3,390,116)	1,029,181,293
2031	1,029,181,293		20,515,824	(3,390,116)	1,046,307,001
2032	1,046,307,001		20,858,152	(3,399,404)	1,063,765,749
2033	1,063,765,749		21,207,513	(3,390,116)	1,081,583,146
2034	1,081,583,146		21,563,861	(3,390,116)	1,099,756,891
2035	1,099,756,891		21,927,336	(3,390,116)	1,118,294,111
2036	1,118,294,111		22,297,894	(3,399,404)	1,137,192,601
2037	1,137,192,601		22,676,050	(3,390,116)	1,156,478,535

Schedule 1 (Continued)

Year	Beginning Balance	Deposits	Earnings	Withdrawal ^{1,2}	Ending Balance
2038	1,156,478,535		23,061,768	(3,390,116)	1,176,150,188
2039	1,176,150,188		23,455,201	(3,390,116)	1,196,215,274
2040	1,196,215,274		22,746,279	(58,901,341)	1,160,060,212
2041	1,160,060,212		21,260,165	(97,051,946)	1,084,268,431
2042	1,084,268,431		19,211,328	(123,702,047)	979,777,711
2043	979,777,711		17,121,513	(123,702,047)	873,197,177
2044	873,197,177		14,983,124	(124,040,957)	764,139,344
2045	764,139,344		12,808,746	(123,702,047)	653,246,043
2046	653,246,043		10,881,706	(109,160,723)	554,967,027
2047	554,967,027		9,467,773	(81,578,368)	482,856,431
2048	482,856,431		8,021,091	(81,801,871)	409,075,652
2049	409,075,652		6,549,946	(81,578,368)	334,047,229
2050	334,047,229		5,049,377	(81,578,368)	257,518,238
2051	257,518,238		3,572,223	(78,907,106)	182,183,354
2052	182,183,354		3,192,743	(22,546,227)	162,829,870
2053	162,829,870		3,192,330	(3,213,373)	162,808,827
				(1,266,093,777)	

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, 2016, and 2017.

Attachment 3
TMI-18-004

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 2017.
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 2017 dollars:

NRC License Termination	\$1,266,093,777
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As noted on Attachment 2, Schedule 1, *FirstEnergy Corp. Funding Analysis dated December 31, 2017*.

3. The amount accumulated in external trust funds as of December 31, 2017:

	After Tax
Metropolitan Edison Company	\$387,229,001
Pennsylvania Electric Company	206,095,945
Jersey Central Power & Light Company	<u>241,059,208</u>
FirstEnergy Corp. Consolidated	<u>\$834,384,154</u>

4. There are no longer any funds being 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