



# TMI-2 SOLUTIONS

March 30, 2023  
TMI2-RA-COR-2023-0005

10 CFR 50.75  
10 CFR 50.82

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

Three Mile Island Nuclear Station, Unit 2  
NRC Possession Only License No. DPR-73  
Docket No. 50-320

SUBJECT: Decommissioning Fund Status Report – Three Mile Island, Unit 2

Pursuant to 10 CFR 50.75 and 10 CFR 50.82, TMI-2 Solutions is hereby submitting the following two reports to the Nuclear Regulatory Commission (NRC) for Three Mile Island Nuclear Station, Unit 2 (TMI-2) for the year ending December 31, 2022.

Enclosure 1 provides the following information for TMI-2:

Table I	Decommissioning Funding Status Report for TMI-2: Summary Information as of December 31, 2022
Table II	Decommissioning Funding Status Report for TMI-2: Annual Cash Flow Analysis Starting January 1, 2023, through End of Decommissioning

The following information is provided in support of this filing:

1. The above-mentioned owner of TMI-2, TMI-2 Solutions (“TMI-2S”) became the TMI-2 licensee on December 18, 2020, following the closing specified in the October 15, 2019, Asset Purchase and Sale Agreement. The trust agreement has not been amended since the closing.
2. Remaining costs in Table I and II are presented in 2023 real dollars and are based on our current estimate.
3. The growth rate on Trust Funds assumes a 2.0% Real Rate of Return (“RRoR”).
4. No rate regulatory authority citation is referenced because the 2% RRoR allowed by 10 CFR 50.75(e)(1)(i) is used in the calculations.
5. There are no longer any funds being collected from the ratepayers.
6. The estimated spend for 2022 shown in the 2021 Funding Analysis was \$51.0M (TMI2-RA-COR-2022-0004, dated 31 March 2022, ML22091A273). This forecasted withdrawal amount was calculated in part based on the assumption that the project would start decommissioning in mid-2022. While the project remained in Post-Defueling Monitored Storage (PDMS) through 2022, TMI-2 Solutions was able to proceed with major procurements necessary to support DECON, which advanced the spend to \$78.3M.
7. Due to market conditions as of December 31, 2022, the TMI-2 Funding Analysis (Table II) shows a forecasted delay between Source Term Reduction and Demolition from 2029 to 2045 as a financial mitigation measure for the Nuclear Decommissioning Trust Fund (NDTF).

NMSS01  
NMSS

There are no Regulatory Commitments contained in this letter.

If there are any questions or if additional information is required, please contact me at 269-370-7445.

Sincerely,

Amy C  
Hazelhoff

Digitally signed by Amy C  
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Date: 2023.03.30 14:05:13  
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Amy Hazelhoff  
Vice President, Regulatory Affairs  
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Enclosure

cc: Amy Snyder  
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ENCLOSURE

Decommissioning Funding Status Report for TMI-2 Solutions, LLC.

Summary Information as of December 31, 2022

4 Pages Follow

Table I. Decommissioning Funding Status Report for TMI-2 Solutions, LLC.: Summary information as of December 31, 2022 [10 CFR 50.82 (a)(8)(v)-(vii)]		
DECOMMISSIONING TRUST FUND BALANCES 10 CFR Reference(s): 50.82(a)(B)(v)(A); 50.82(a)(8)(vii)(A)		
Fund Balance	Type of Trusts	Comments
\$723,679,264	Qualified fund balance	As of: 12/31/2022
\$10,118,727	Non-qualified fund balance	As of: 12/31/2022
\$0	Less costs incurred but not yet billed to Trust	Actual Cost in: As-Spent Dollars
\$733,797,991	Adjusted decommissioning fund balance	As of: 12/31/2022
OTHER FINANCIAL ASSURANCE METHODS BEING RELIED UPON 10 CFR Reference(s): 50.82(a)(8)(v)(A)		
NONE		
PRIOR YEARS DECOMMISSIONING EXPENDITURES 10 CFR Reference(s): 50.82(a)(8)(v)(A)		
Total Decommissioning Spend	Comments	
\$56,513,766	2020 - 2021 Spend	
\$78,265,028	2022 Spend	
\$134,778,794	Total Prior Year in: As-Spent Dollars	
PRIOR YEAR EXPENDITURES - VARIANCE TO ESTIMATED ESCALATED COST 10 CFR Reference(s): 50.82(a)(8)(v)(B)		
Total Decommissioning Spend	Comments	
\$78,265,028	2022 Expenditures	
\$51,024,604	Amount Forecast in 2022 NRC Funding Status Report	
(\$27,240,424)	Variance	
Variance: The estimated spend for 2022 shown in the 2021 Funding Analysis was \$51.0M (TMI2-RA-COR-2022-0004, dated 31 March 2022, ML22091A273). This forecasted withdrawal amount was calculated in part based on the assumption that the project would start decommissioning in mid-2022. While the project remained in PDMS through 2022, TMI-2 Solutions was able to proceed with major procurements necessary to support DECON, which advanced the spend to \$78.3M.		
REMAINING DECOMMISSIONING ESTIMATED COST 10 CFR Reference(s): 50.82(a)(8)(v)(B); 50.82(a)(8)(vi1)(B)		
Remaining Decommissioning Spend	Comments	
\$999,382,715	Estimate in: 2023 Dollars	
* Total remaining decommissioning estimated amounts are costs net of assumed DOE reimbursements.		
DECOMMISSIONING CRITERIA UPON WHICH THE ESTIMATE IS BASED 10 CFR Reference(s): 50.82(a)(8)(v)(B)		
Estimate based on the assumption that the TMI-2 project enters DECON in 2023		
ANY MODIFICATION TO METHOD OF PROVIDING FINANCIAL ASSURANCE 10 CFR Reference(s): 50.82(a)(8)(v)(C)		
NONE		
ANY MATERIAL CHANGES TO TRUST AGREEMENT SINCE PREVIOUS REPORT 10 CFR Reference(s): 50.82(a)(8)(v)(D)		
NONE		
NEED FOR ADDITIONAL FINANCIAL ASSURANCE 10 CFR Reference(s): 50.82(a)(8)(vi); 50.82(a)(8)(vii)(C)		
NONE		

TMI-2 Solutions, LLC  
Table II. Funding Analysis  
December 31, 2022  
**Three Mile Island Nuclear Station, Unit 2**

Year	Beginning Balance	Deposits	Earnings	Withdrawals	Ending Balance
2023	\$ 733,797,991	\$ -	\$ 13,861,319	\$ 81,464,061	\$ 666,195,249
2024	\$ 666,195,249	\$ -	\$ 12,575,025	\$ 74,888,019	\$ 603,882,255
2025	\$ 603,882,255	\$ 25,000,000	\$ 11,613,979	\$ 71,366,643	\$ 569,129,590
2026	\$ 569,129,590	\$ -	\$ 10,816,724	\$ 56,586,792	\$ 523,359,522
2027	\$ 523,359,522	\$ -	\$ 9,681,000	\$ 78,619,017	\$ 454,421,506
2028	\$ 454,421,506	\$ -	\$ 8,061,413	\$ 102,701,736	\$ 359,781,183
2029	\$ 359,781,183	\$ -	\$ 7,237,564	\$ (4,194,069)	\$ 371,212,816
2030	\$ 371,212,816	\$ -	\$ 7,417,336	\$ 692,007	\$ 377,938,145
2031	\$ 377,938,145	\$ -	\$ 7,547,316	\$ 1,144,644	\$ 384,340,817
2032	\$ 384,340,817	\$ -	\$ 7,675,370	\$ 1,144,644	\$ 390,871,543
2033	\$ 390,871,543	\$ -	\$ 7,805,984	\$ 1,144,644	\$ 397,532,883
2034	\$ 397,532,883	\$ -	\$ 7,939,211	\$ 1,144,644	\$ 404,327,450
2035	\$ 404,327,450	\$ -	\$ 8,075,103	\$ 1,144,644	\$ 411,257,909
2036	\$ 411,257,909	\$ -	\$ 8,213,712	\$ 1,144,644	\$ 418,326,976
2037	\$ 418,326,976	\$ -	\$ 8,355,093	\$ 1,144,644	\$ 425,537,425
2020 - 2037	\$ 733,797,991	\$ 25,000,000	\$ 136,876,150	\$ 470,136,716	\$ 425,537,425
2038 - 2055	\$ 425,537,425	\$ -	\$ 116,873,004	\$ 529,246,000	\$ 13,164,429
2038	\$ 425,537,425	\$ -	\$ 8,499,302	\$ 1,144,644	\$ 432,892,083
2039	\$ 432,892,083	\$ -	\$ 8,646,395	\$ 1,144,644	\$ 440,393,834
2040	\$ 440,393,834	\$ -	\$ 8,796,430	\$ 1,144,644	\$ 448,045,620
2041	\$ 448,045,620	\$ -	\$ 8,949,466	\$ 1,144,644	\$ 455,850,441
2042	\$ 455,850,441	\$ -	\$ 9,105,562	\$ 1,144,644	\$ 463,811,360
2043	\$ 463,811,360	\$ -	\$ 9,264,781	\$ 1,144,644	\$ 471,931,496
2044	\$ 471,931,496	\$ -	\$ 9,427,183	\$ 1,144,644	\$ 480,214,035
2045	\$ 480,214,035	\$ -	\$ 9,592,834	\$ 1,144,644	\$ 488,662,225
2046	\$ 488,662,225	\$ -	\$ 9,249,760	\$ 52,348,403	\$ 445,563,583
2047	\$ 445,563,583	\$ -	\$ 8,274,037	\$ 63,723,440	\$ 390,114,180
2048	\$ 390,114,180	\$ -	\$ 7,165,049	\$ 63,723,441	\$ 333,555,787
2049	\$ 333,555,787	\$ -	\$ 6,033,881	\$ 63,723,440	\$ 275,866,229
2050	\$ 275,866,229	\$ -	\$ 4,876,580	\$ 64,074,459	\$ 216,668,349
2051	\$ 216,668,349	\$ -	\$ 3,795,842	\$ 53,752,479	\$ 166,711,712
2052	\$ 166,711,712	\$ -	\$ 3,134,049	\$ 20,018,547	\$ 149,827,214
2053	\$ 149,827,214	\$ -	\$ 1,554,310	\$ 144,223,451	\$ 7,158,073
2054	\$ 7,158,073	\$ -	\$ 131,307	\$ 1,185,477	\$ 6,103,903
2055	\$ 6,103,903	\$ -	\$ 153,164	\$ (3,108,605)	\$ 9,365,672
2056	\$ 9,365,672	\$ -	\$ 223,070	\$ (3,575,687)	\$ 13,164,429
<b>Total</b>		\$ 25,000,000	\$ 253,749,154	\$ 999,382,715	

**Table II Definitions:**

Column 1	Year
Column 2	Beginning of Year Balance: Reflects the beginning-of-year after-tax Trust Fund balance.
Column 3	Deposits: Reflects deposits made to the trust fund, including deposits into the provisional trust, as discussed in Reference 1, currently expected to take place in 2025.
Column 4	Earnings on Trust Funds: Reflects earnings on funds remaining in the Trust. A 2.0% RRoR Fund growth rate is used for 2023 through 2056, which reflects the allowed 2.0% RRoR over a 0.0% cost escalation rate. Earnings are based on a 2.0% rate of return on the average of Beginning Balance and Beginning Balance plus Deposits less Withdrawals.
Column 5	Withdrawals reflect the following assumptions: <ol style="list-style-type: none"><li>1) The project remaining in the PDMS condition until mid-2023</li><li>2) Source Term Reduction starting mid-2023 to mid-2028</li><li>3) Withdrawals from 2029 to 2045 are projected SAFSTOR expenditures (e.g. security, monitoring, and project oversight)</li><li>4) Active demolition starting 2046 to 2052</li><li>5) Fuel Debris Storage Management starting mid-2029 through 2053</li><li>6) License Termination by the end of 2052</li><li>7) Withdrawal amounts are net cost including allowed DOE reimbursements for Fuel Debris Management</li></ol> <p><i>Note: Credit balances in years 2029, 2055 and 2056 represent DOE reimbursements in excess of cost for that year.</i></p>
Column 6	End of Year Balance: Reflects the end of year Trust Fund balance after projected earnings are added and projected withdrawals are deducted for the year.

**Tables I and II General Notes:** (Any minor differences in totals are due to rounding.)

1. Table I Prior Year Expenditures – Variance to Estimated Escalated Cost compares actual expenditures in 2022 compared to estimates based on the 2021 Funding Analysis (Reference 2).
2. The Trust Fund Balance reflects market value on December 31, 2022, net of estimated taxes on realized gains and losses.
3. The 2.0% RRoR is based on the rate allowed by 10 CFR 50.75(e)(1)(i) and 10 CFR 50.82(a)(8)(vi) and not on any order by a rate setting authority.
4. The funding method for providing financial assurance for decommissioning TMI-2 remains Prepayment. The cash flow analysis in Table II demonstrates that the amounts accumulated in the Trust are sufficient, with credited earnings at a 2.0% RRoR, to cover the estimated cost of license termination. Due to market conditions as of December 31, 2022, Table II presents a forecasted delay between Source Term Reduction and Demolition as a financial mitigation measure for the NDTF.
5. 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	2054

**References**

- 1) Letter TMI-19-112 from Sauger, J.S. (TMI-2 Solutions, LLC) and Halnon, G.H. (GPU Nuclear, Inc) to Document Control Desk (U.S. NRC), “Application for Order Approving License Transfer and Conforming License Amendments,” dated 12 November 2019 (ML19325C600).
- 2) Letter TMI2-RA-COR-2022-0004 from van Noordennen, G.P. (TMI-2 Solutions, LLC) to Document Control Desk (U.S. NRC), “Decommissioning Fund Status Report – Three Mile Island, Unit 2,” dated 31 March 2022 (ML22091A273).