



1101 Market Street, Chattanooga, Tennessee 37402

CNL-21-030

March 25, 2021

10 CFR 50.75(f)(2)

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

Browns Ferry Nuclear Plant, Units 1, 2, and 3
Renewed Facility Operating License Nos. DPR-33, DPR-52, and DPR-68
NRC Docket Nos. 50-259, 50-260, and 50-296

Sequoyah Nuclear Plant, Units 1 and 2
Renewed Facility Operating License Nos. DPR-77 and DPR-79
NRC Docket Nos. 50-327 and 50-328

Watts Bar Nuclear Plant, Units 1 and 2
Facility Operating License Nos. NPF-90 and NPF-96
NRC Docket Nos. 50-390 and 50-391

Subject: **Decommissioning Funding Status Report**

- References:
1. TVA letter to NRC, CNL-19-008, "Decommissioning Funding Status Report," dated March 26, 2019 (ML19085A372)
 2. TVA letter to NRC, CNL-15-189, "Decommissioning Funding Update," dated September 10, 2015 (ML15253A867)

In accordance with the requirements of Title 10, *Code of Federal Regulations*, Section 50.75(f)(2) (10 CFR 50.75(f)(2)), Tennessee Valley Authority (TVA) is reporting on the status of decommissioning funding for Browns Ferry Nuclear Plant (BFN), Units 1, 2, and 3; Sequoyah Nuclear Plant (SQN), Units 1 and 2; and Watts Bar Nuclear Plant (WBN), Units 1 and 2. The reporting requirements and corresponding TVA information are provided below.

1. *The amount of decommissioning funds estimated to be required pursuant to 10 CFR 50.75(b) and (c):*

Decommissioning cost estimates were calculated using the formulas provided in NUREG-1307, Revision 18, "Report on Waste Burial Charges: Changes in Decommissioning Waste Disposal Costs at Low-Level Waste Burial Facilities," utilizing the waste burial adjustment factors for Generators Located in the Unaffiliated States and those Located in Compact-Affiliated States having no Disposal Facility. Bureau of Labor Statistics indices for the end of the 2020 calendar year (CY) were taken from the sources referenced by NUREG-1307. The calculated estimates for the end of CY 2020 are

provided in Table 1. The dollar amounts shown in Table 1 have been rounded to the nearest hundred thousand dollars.

Table 1. Decommissioning Cost Estimates for end of CY 2020

Plant	Number of Units	Cost per Unit (\$, in millions)	Total Plant Cost (\$, in millions)
BFN	3	663.3	1,989.9
SQN	2	514.6	1,029.2
WBN	2	514.6	1,029.2

2. *The amount accumulated in the TVA decommissioning fund at the end of the calendar year 2020 for the items included in 10 CFR 50.75(b) and (c):*

TVA's decommissioning fund balances for each of the seven units at the end of CY 2020 are provided in Table 2. The dollar amounts shown in Table 2 have been rounded to the nearest dollar.

Table 2. Decommissioning Trust Fund Balances

Plant, Unit	Decommissioning Fund Balance (\$)
BFN, Unit 1	508,548,717
BFN, Unit 2	495,656,073
BFN, Unit 3	449,347,292
SQN, Unit 1	281,219,236
SQN, Unit 2	267,902,656
WBN, Unit 1	356,405,544
WBN, Unit 2	134,662,044

3. *A schedule of the annual amounts remaining to be collected for items in 10 CFR 50.75(b) and (c):*

TVA has established a method to provide funding assurance on an ongoing basis. This method establishes a projection of necessary funds at the end of each CY based upon current decommissioning cost estimates and assumptions regarding escalation and rate of earnings. Each year, TVA reviews the performance of its decommissioning trust fund. If funds fall below an established threshold of 95 percent of projected trust fund balances, TVA will make contributions to the trust fund or provide other methods of funding assurance to ensure adequate funding.

The table provided in the enclosure to Reference 1 has been updated herein for the current calculated obligations, expressed in current dollars. This updated table is provided in the enclosure to this letter. At the end of 2020, the trust fund unit balances shown in Table 2 were greater than the respective present values of the costs to decommission each unit. Therefore, no amounts are scheduled to be collected at this time.

4. *The assumptions used regarding rates of escalation in decommissioning costs, rates of earnings on decommissioning funds, and rates of other factors used in funding projections:*

- The assumed escalation in decommissioning costs is four percent.
- TVA assumed a projected annual real rate of return on decommissioning funds of five percent, as authorized by the TVA Board of Directors, TVA's rate-making authority.

5. *Any contracts upon which the licensee is relying pursuant to 10 CFR 50.75(e)(1)(v):*

None.

6. *Any modifications occurring to a licensee's current method of providing financial assurance since the last submitted report:*

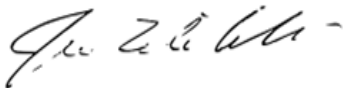
None.

7. *Any material changes to trust agreements:*

None. The Sixth Amendment to the TVA Master Decommissioning Trust Agreement was provided as Enclosure 1 to Reference 2.

There are no new regulatory commitments associated with this submittal. Please address any questions regarding this request to Kimberly D. Hulvey, Senior Manager, Fleet Licensing, at (423) 751-3275.

Respectfully,



James T. Polickoski
Director, Nuclear Regulatory Affairs

Enclosure: Updated Projected Decommissioning Funding Levels for TVA Operating Units
(Through Calendar Year 2020)

cc: See Page 4

U.S. Nuclear Regulatory Commission
CNL-21-030
Page 4
March 25, 2021

cc (Enclosure):

NRC Regional Administrator – Region II
NRC Senior Resident Inspector – Browns Ferry Nuclear Plant
NRC Senior Resident Inspector – Sequoyah Nuclear Plant
NRC Senior Resident Inspector – Watts Bar Nuclear Plant
NRC Project Manager – Browns Ferry Nuclear Plant
NRC Project Manager – Sequoyah Nuclear Plant
NRC Project Manager – Watts Bar Nuclear Plant

ENCLOSURE

**Updated Projected Decommissioning Funding Levels for TVA Operating Units
(Through Calendar Year 2020)**

Updated Projected Decommissioning Funding Levels for TVA Operating Units (Through Calendar Year 2020)*

Real	BFN1 12-20-2033			BFN2 6-28-2034			BFN3 7-2-2036			SQN1 9-17-2040			SQN2 9-15-2041			WBN1 11-9-2035			WBN2 10-21-2055			Annual	Annual	Targeted	
Return	Annual	Annual	Projected	Annual	Annual	Projected	Annual	Annual	Projected	Annual	Annual	Projected	Annual	Annual	Projected	Annual	Annual	Projected	Annual	Annual	Projected	Disbursement	Funding	Fund	
5.0%	Disbursement	Funding	Fund	Disbursement	Funding	Fund	Disbursement	Funding	Fund	Disbursement	Funding	Fund	Disbursement	Funding	Fund	Disbursement	Funding	Fund	Disbursement	Funding	Fund	Disbursement	Assurance	Assets	Assets
Year		Assurance	Assets		Assurance	Assets		Assurance	Assets		Assurance	Assets		Assurance	Assets		Assurance	Assets		Assurance	Assets		Assurance	Assets	Assets
2020			\$292.7			\$285.3			\$258.6			\$163.4			\$155.6			\$207.1			\$78.2				\$1,441
2021		\$0.0	\$307.3		\$0.0	\$299.5		\$0.0	\$271.5		\$0.0	\$171.6		\$0.0	\$163.4		\$0.0	\$217.4		\$0.0	\$82.2		\$0.0	\$0	\$1,513
2022		\$0.0	\$322.7		\$0.0	\$314.5		\$0.0	\$285.1		\$0.0	\$180.1		\$0.0	\$171.6		\$0.0	\$228.3		\$0.0	\$86.3		\$0.0	\$0	\$1,589
2023		\$0.0	\$338.8		\$0.0	\$330.2		\$0.0	\$299.4		\$0.0	\$189.1		\$0.0	\$180.2		\$0.0	\$239.7		\$0.0	\$90.6		\$0.0	\$0	\$1,668
2024		\$0.0	\$355.8		\$0.0	\$346.8		\$0.0	\$314.3		\$0.0	\$198.6		\$0.0	\$189.2		\$0.0	\$251.7		\$0.0	\$95.1		\$0.0	\$0	\$1,751
2025		\$0.0	\$373.6		\$0.0	\$364.1		\$0.0	\$330.1		\$0.0	\$208.5		\$0.0	\$198.6		\$0.0	\$264.3		\$0.0	\$99.9		\$0.0	\$0	\$1,839
2026		\$0.0	\$392.2		\$0.0	\$382.3		\$0.0	\$346.6		\$0.0	\$219.0		\$0.0	\$208.6		\$0.0	\$277.5		\$0.0	\$104.8		\$0.0	\$0	\$1,931
2027		\$0.0	\$411.8		\$0.0	\$401.4		\$0.0	\$363.9		\$0.0	\$229.9		\$0.0	\$219.0		\$0.0	\$291.4		\$0.0	\$110.1		\$0.0	\$0	\$2,028
2028		\$0.0	\$432.4		\$0.0	\$421.5		\$0.0	\$382.1		\$0.0	\$241.4		\$0.0	\$230.0		\$0.0	\$305.9		\$0.0	\$115.6		\$0.0	\$0	\$2,129
2029		\$0.0	\$454.1		\$0.0	\$442.6		\$0.0	\$401.2		\$0.0	\$253.5		\$0.0	\$241.5		\$0.0	\$321.2		\$0.0	\$121.4		\$0.0	\$0	\$2,235
2030		\$0.0	\$476.8		\$0.0	\$464.7		\$0.0	\$421.3		\$0.0	\$266.1		\$0.0	\$253.5		\$0.0	\$337.3		\$0.0	\$127.4		\$0.0	\$0	\$2,347
2031		\$0.0	\$500.6		\$0.0	\$487.9		\$0.0	\$442.3		\$0.0	\$279.4		\$0.0	\$266.2		\$0.0	\$354.2		\$0.0	\$133.8		\$0.0	\$0	\$2,464
2032		\$0.0	\$525.6		\$0.0	\$512.3		\$0.0	\$464.4		\$0.0	\$293.4		\$0.0	\$279.5		\$0.0	\$371.9		\$0.0	\$140.5		\$0.0	\$0	\$2,588
2033		\$0.0	\$551.1		\$0.0	\$537.9		\$0.0	\$487.7		\$0.0	\$308.1		\$0.0	\$293.5		\$0.0	\$390.5		\$0.0	\$147.5		\$0.0	\$0	\$2,716
2034					\$0.0	\$551.1		\$0.0	\$512.0		\$0.0	\$323.5		\$0.0	\$308.2		\$0.0	\$410.0		\$0.0	\$154.9		\$0.0	\$0	\$2,260
2035					\$0.0	\$537.6		\$0.0	\$537.6		\$0.0	\$339.7		\$0.0	\$323.6		\$0.0	\$427.6		\$0.0	\$162.7		\$0.0	\$0	\$1,791
2036			\$112.2			\$551.1		\$0.0	\$551.1		\$0.0	\$356.6		\$0.0	\$339.8		\$0.0	\$356.6		\$0.0	\$170.8		\$0.0	\$0	\$1,530
2037	\$663.3		\$663.3			\$112.2			\$112.2		\$0.0	\$374.5		\$0.0	\$356.7			\$356.7			\$179.3	\$663.3	\$0	\$0	\$1,686
2038				\$663.3		\$663.3			\$663.3		\$0.0	\$393.2		\$0.0	\$374.6		\$87.0	\$87.0		\$0.0	\$188.3	\$663.3	\$0	\$0	\$1,706
2039								\$112.2	\$112.2		\$0.0	\$412.9		\$0.0	\$393.3		\$514.6	\$514.6		\$0.0	\$197.7	\$514.6	\$0	\$0	\$1,631
2040							\$663.3	\$663.3	\$663.3		\$0.0	\$427.6		\$0.0	\$413.0			\$413.0		\$0.0	\$207.6	\$663.3	\$0	\$0	\$1,711
2041															\$0.0	\$427.6			\$427.6		\$0.0	\$218.0	\$0	\$0	\$646
2042																			\$0.0	\$228.9	\$0	\$0	\$0	\$229	
2043											\$87.0	\$87.0						\$0.0	\$240.3	\$0	\$0	\$0	\$0	\$327	
2044												\$514.6	\$514.6					\$87.0	\$87.0		\$0.0	\$252.3	\$514.6	\$0	\$854
2045													\$514.6	\$514.6				\$514.6		\$0.0	\$264.9	\$514.6	\$0	\$0	\$780
2046																		\$514.6		\$0.0	\$278.2	\$0	\$0	\$0	\$278
2047																		\$514.6		\$0.0	\$292.1	\$0	\$0	\$0	\$292
2048																		\$514.6		\$0.0	\$306.7	\$0	\$0	\$0	\$307
2049																		\$514.6		\$0.0	\$322.0	\$0	\$0	\$0	\$322
2050																		\$514.6		\$0.0	\$338.1	\$0	\$0	\$0	\$338
2051																		\$514.6		\$0.0	\$355.1	\$0	\$0	\$0	\$355
2052																		\$514.6		\$0.0	\$372.8	\$0	\$0	\$0	\$373
2053																		\$514.6		\$0.0	\$391.4	\$0	\$0	\$0	\$391
2054																		\$514.6		\$0.0	\$411.0	\$0	\$0	\$0	\$411
2055																		\$514.6		\$0.0	\$427.6	\$0	\$0	\$0	\$428
																					\$87.0	\$0	\$0	\$0	\$0
																					\$514.6	\$514.6	\$514.6	\$0	\$0
																							\$514.6	\$0	\$0
	\$663.3			\$663.3			\$663.3			\$663.3		\$514.6		\$514.6		\$514.6		\$514.6		\$514.6		\$514.6		\$4,048.3	

*All Dollars in Millions