



Tennessee Valley Authority  
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**R. M. Krich**  
Vice President  
Nuclear Licensing

March 31, 2011

10 CFR 50.75(f)(1)

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

Browns Ferry Nuclear Plant, Units 1, 2, and 3  
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  
Facility Operating License Nos. DPR-77 and DPR-79  
NRC Docket Nos. 50-327 and 50-328

Watts Bar Nuclear Plant, Unit 1  
Facility Operating License No. NPF-90  
NRC Docket No. 50-390

**Subject: Decommissioning Funding Status Report**

- References:**
1. Letter from TVA to NRC, "TVA - Decommissioning Funding Status Report - Browns Ferry (BFN) TAC Nos. ME0491, ME0492 and ME0493); Sequoyah (SQN) (TAC Nos ME0571 and ME0572); and Watts Bar (WBN) (TAC No. ME0587) Nuclear Plants," dated March 31, 2009
  2. Letter from TVA to NRC, "Decommissioning Funding Assurance," dated September 4, 2009
  3. Letter from NRC to TVA, "Browns Ferry Nuclear Plant, Units 1, 2, and 3; Sequoyah Nuclear Plant, Units 1 and 2; Watts Bar Nuclear Plant, Unit 1 - Status of Decommissioning Funding Assurance (TAC Nos. ME0491, ME0492, ME0493, ME0571, ME0572, and ME0587)," dated December 10, 2009

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In accordance with the requirements of 10 CFR 50.75(f)(1), the 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), Unit 1. 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 14, "Report on Waste Burial Charges," utilizing the waste burial adjustment factors for Generic Low-Level Waste (LLW) Disposal Site and Direct Disposal with Vendors. Bureau of Labor Statistics indices for the end of the 2010 calendar year were taken from the sources referenced by NUREG-1307. The calculated estimates for the end of calendar year (CY) 2010 are provided in Table 1 below.

**Table 1. Decommissioning Cost Estimates for end of CY 2010**

Plant	Number of Units	Cost per Unit (\$ in millions)	Total Plant Cost (\$ in millions)
BFN	3	609.1	1827.3
SQN	2	467	934
WBN	1	467	467

2. *The amount accumulated in the TVA decommissioning fund at the end of the calendar year 2010 for the items included in 10 CFR 50.75(b) and (c):*

TVA's decommissioning fund balances at the end of CY 2010 are provided below in Table 2.

**Table 2. Decommissioning Trust Fund Balances**

Plant, Unit	Decommissioning Fund Balance (\$ in millions)
BFN, Unit 1	164.95
BFN, Unit 2	157.71
BFN, Unit 3	142.01
SQN, Unit 1	227.45
SQN, Unit 2	216.43
WBN, Unit 1	105.79

Note that these fund balances are all in excess of the 2010 fund balances required for each plant based on the updated TVA plan provided in Enclosure 1 and discussed under item 3, below.

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

By letter dated March 31, 2009 (Reference 1), TVA reported that due to a downturn which resulted in lower market valuations for many investments held in TVA's decommissioning trust fund, the decommissioning trust fund balances for TVA's BFN, SQN, and WBN were below Nuclear Regulatory Commission (NRC) minimum required amounts. Subsequently, by letter dated September 4, 2009 (Reference 2), TVA provided NRC with the details of a plan which utilized an external sinking fund approach to provide decommissioning funding assurance for each nuclear unit at the end of its respective term of licensed operation. The NRC staff reviewed TVA's plan and determined that it provides reasonable assurance of adequate decommissioning funding at the time permanent termination of operations is expected (Reference 3).

Enclosure 1 to this letter provides TVA's updated plan for providing decommissioning funding for each of its operating nuclear reactors based on the cost estimates at the end of CY 2010. This plan constitutes the schedule of the annual amounts remaining for items in 10 CFR 50.75(b) and (c). TVA will continue to follow the plan reflected in Enclosure 1, as updated.

TVA discussed the updated plan provided in Enclosure 1 with the NRC during a conference call on March 23, 2011. During that call, the NRC requested that TVA recalculate the plan provided in Enclosure 1 using actual fund balances for each of the units at the end of CY 2010. For information only, Enclosure 2 provides the results of this recalculation.

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 4 percent.
  - TVA assumed a projected annual real rate of return on decommissioning funds of 5 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:*

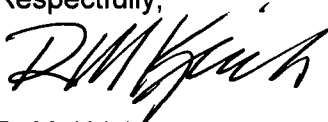
None.

7. *Any material changes to trust agreements.*

None.

If you have any questions concerning this matter, please contact Josh Perrel at 423-751-7737.

Respectfully,



R. M. Krich

Enclosures:

1. Updated Projected Decommissioning Funding Levels for TVA Operating Units
2. Projected Decommissioning Funding Levels for TVA Operating Units Using End of Calendar Year 2010 Fund Balances

cc:

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

## ENCLOSURE 1

### Updated Projected Decommissioning Funding Levels for TVA Operating Units

Real Return 5.0% Year	BFN1 12-20-2033			BFN2 6-28-2034			BFN3 7-2-2036			SQN1 9-17-2020			SQN2 9-15-2021			WBN1 11-9-2035		
	Annual Disbursement	Annual Funding Assurance	Projected Fund Balance	Annual Disbursement	Annual Funding Assurance	Projected Fund Balance	Annual Disbursement	Annual Funding Assurance	Projected Fund Balance	Annual Disbursement	Annual Funding Assurance	Projected Fund Balance	Annual Disbursement	Annual Funding Assurance	Projected Fund Balance	Annual Disbursement	Annual Funding Assurance	Projected Fund Balance
2008			\$107.4			\$102.7			\$92.5			\$148.1			\$140.9			\$68.9
2009		\$2.0	\$114.8		\$2.1	\$109.9		\$1.9	\$99.0		\$4.5	\$160.0		\$4.0	\$152.0		\$1.4	\$73.8
2010		\$2.1	\$122.7		\$2.2	\$117.6		\$2.0	\$105.9		\$4.7	\$172.7		\$4.3	\$163.9		\$1.5	\$78.9
2011		\$3.1	\$132.0		\$3.1	\$126.6		\$2.8	\$114.0		\$8.9	\$190.3		\$8.0	\$180.0		\$2.6	\$85.5
2012		\$3.1	\$141.7		\$3.1	\$136.1		\$2.8	\$122.4		\$8.9	\$208.7		\$8.0	\$197.0		\$2.6	\$92.3
2013		\$3.1	\$152.0		\$3.1	\$146.0		\$2.8	\$131.3		\$8.9	\$228.0		\$8.0	\$214.8		\$2.6	\$99.5
2014		\$3.1	\$162.7		\$3.1	\$156.5		\$2.8	\$140.7		\$8.9	\$248.3		\$8.0	\$233.5		\$2.6	\$107.1
2015		\$3.1	\$174.0		\$3.1	\$167.4		\$2.8	\$150.5		\$8.9	\$269.6		\$8.0	\$253.2		\$2.6	\$115.0
2016		\$3.1	\$185.8		\$3.1	\$178.9		\$2.8	\$160.8		\$8.9	\$292.0		\$8.0	\$273.8		\$2.6	\$123.4
2017		\$3.1	\$198.2		\$3.1	\$191.0		\$2.8	\$171.6		\$8.9	\$315.5		\$8.0	\$295.4		\$2.6	\$132.1
2018		\$3.1	\$211.3		\$3.1	\$203.7		\$2.8	\$182.9		\$8.9	\$340.2		\$8.0	\$318.2		\$2.6	\$141.3
2019		\$3.1	\$224.9		\$3.1	\$217.0		\$2.8	\$194.9		\$8.9	\$366.1		\$8.0	\$342.0		\$2.6	\$151.0
2020		\$3.1	\$239.3		\$3.1	\$231.0		\$2.8	\$207.4	Fractional Yr.	\$8.9	\$388.0		\$8.0	\$367.1		\$2.6	\$161.1
2021		\$3.1	\$254.4		\$3.1	\$245.6		\$2.8	\$220.5				Fractional Yr.	\$8.0	\$388.0		\$2.6	\$171.7
2022		\$3.1	\$270.3		\$3.1	\$261.0		\$2.8	\$234.3	Additional 3.5 yrs. Earnings Credit							\$2.6	\$182.9
2023		\$3.1	\$286.9		\$3.1	\$277.2		\$2.8	\$248.8			\$79.0	Additional 3.5 yrs. Earnings Credit				\$2.6	\$194.6
2024		\$3.1	\$304.4		\$3.1	\$294.2		\$2.8	\$264.0	\$467.0		\$467.0			\$79.0		\$2.6	\$206.9
2025		\$3.1	\$322.8		\$3.1	\$312.0		\$2.8	\$280.0				\$467.0		\$467.0		\$2.6	\$219.9
2026		\$3.1	\$342.0		\$3.1	\$330.8		\$2.8	\$296.8								\$2.6	\$233.4
2027		\$3.1	\$362.3		\$3.1	\$350.4		\$2.8	\$314.4								\$2.6	\$247.7
2028		\$3.1	\$383.5		\$3.1	\$371.1		\$2.8	\$332.9								\$2.6	\$262.7
2029		\$3.1	\$405.8		\$3.1	\$392.8		\$2.8	\$352.3								\$2.6	\$278.4
2030		\$3.1	\$429.3		\$3.1	\$415.6		\$2.8	\$372.7								\$2.6	\$294.9
2031		\$3.1	\$453.9		\$3.1	\$439.5		\$2.8	\$394.1								\$2.6	\$312.2
2032		\$3.1	\$479.7		\$3.1	\$464.6		\$2.8	\$416.6								\$2.6	\$330.4
2033	Fractional Yr.	\$3.1	\$506.1		\$3.1	\$490.9		\$2.8	\$440.2								\$2.6	\$349.5
2034				Fractional Yr.	\$3.1	\$506.1		\$2.8	\$465.0								\$2.6	\$369.6
2035	Additional 3.5 yrs. Earnings Credit							\$2.8	\$491.0								\$2.6	\$388.0
2036			\$103.0	Additional 3.5 yrs. Earnings Credit			Fractional Yr.	\$2.8	\$506.1									
2037	\$609.1		\$609.1	Additional 3.5 yrs. Earnings Credit		\$103.0												
2038				\$609.1		\$609.1	Additional 3.5 yrs. Earnings Credit		\$103.0									\$79.0
2039							\$609.1		\$609.1									\$467.0
2040																		
2041																		
2042																		
2043																		
2044																		
<b>Total</b>	<b>\$609.1</b>			<b>\$609.1</b>			<b>\$609.1</b>			<b>\$467.0</b>			<b>\$467.0</b>			<b>\$467.0</b>		

ALL DOLLARS IN MILLIONS

## ENCLOSURE 2

### Projected Decommissioning Funding Levels for TVA Operating Units Using End of Calendar Year 2010 Fund Balances

Real Return 5.0% Year	BFN1 12-20-2033			BFN2 6-28-2034			BFN3 7-2-2036			SQN1 9-17-2020			SQN2 9-15-2021			WBN1 11-9-2035		
	Annual Disbursement	Annual Funding Assurance	Projected Fund Balance	Annual Disbursement	Annual Funding Assurance	Projected Fund Balance	Annual Disbursement	Annual Funding Assurance	Projected Fund Balance	Annual Disbursement	Annual Funding Assurance	Projected Fund Balance	Annual Disbursement	Annual Funding Assurance	Projected Fund Balance	Annual Disbursement	Annual Funding Assurance	Projected Fund Balance
2010			\$165.0			\$157.7			\$142.0			\$227.5			\$216.4			\$105.8
2011		\$0.0	\$173.3		\$0.2	\$165.8		\$0.3	\$149.4		\$1.8	\$240.6		\$1.6	\$228.9		\$0.7	\$111.8
2012		\$0.0	\$181.9		\$0.2	\$174.3		\$0.3	\$157.1		\$1.8	\$254.5		\$1.6	\$242.0		\$0.7	\$118.0
2013		\$0.0	\$191.0		\$0.2	\$183.3		\$0.3	\$165.2		\$1.8	\$269.0		\$1.6	\$255.7		\$0.7	\$124.6
2014		\$0.0	\$200.6		\$0.2	\$192.7		\$0.3	\$173.7		\$1.8	\$284.3		\$1.6	\$270.1		\$0.7	\$131.5
2015		\$0.0	\$210.6		\$0.2	\$202.5		\$0.3	\$182.7		\$1.8	\$300.3		\$1.6	\$285.3		\$0.7	\$138.8
2016		\$0.0	\$221.1		\$0.2	\$212.9		\$0.3	\$192.1		\$1.8	\$317.2		\$1.6	\$301.2		\$0.7	\$146.4
2017		\$0.0	\$232.2		\$0.2	\$223.7		\$0.3	\$202.0		\$1.8	\$334.9		\$1.6	\$317.9		\$0.7	\$154.4
2018		\$0.0	\$243.8		\$0.2	\$235.2		\$0.3	\$212.3		\$1.8	\$353.4		\$1.6	\$335.4		\$0.7	\$162.8
2019		\$0.0	\$256.0		\$0.2	\$247.1		\$0.3	\$223.2		\$1.8	\$372.9		\$1.6	\$353.9		\$0.7	\$171.6
2020		\$0.0	\$268.8		\$0.2	\$259.7		\$0.3	\$234.6	Fractional Yr.	\$1.8	\$388.0		\$1.6	\$373.2		\$0.7	\$180.9
2021		\$0.0	\$282.2		\$0.2	\$272.9		\$0.3	\$246.6				Fractional Yr.	\$1.6	\$388.0		\$0.7	\$190.6
2022		\$0.0	\$296.3		\$0.2	\$286.8		\$0.3	\$259.2	Additional 3.5 yrs. Earnings Credit							\$0.7	\$200.8
2023		\$0.0	\$311.1		\$0.2	\$301.4		\$0.3	\$272.4			\$79.0	Additional 3.5 yrs. Earnings Credit				\$0.7	\$211.5
2024		\$0.0	\$326.7		\$0.2	\$316.7		\$0.3	\$286.3	\$467.0		\$467.0		\$467.0	\$467.0		\$0.7	\$222.8
2025		\$0.0	\$343.0		\$0.2	\$332.7		\$0.3	\$300.9								\$0.7	\$234.6
2026		\$0.0	\$360.2		\$0.2	\$349.6		\$0.3	\$316.2								\$0.7	\$247.0
2027		\$0.0	\$378.2		\$0.2	\$367.3		\$0.3	\$332.3								\$0.7	\$260.0
2028		\$0.0	\$397.1		\$0.2	\$385.9		\$0.3	\$349.2								\$0.7	\$273.7
2029		\$0.0	\$416.9		\$0.2	\$405.4		\$0.3	\$366.9								\$0.7	\$288.1
2030		\$0.0	\$437.8		\$0.2	\$425.9		\$0.3	\$385.5								\$0.7	\$303.1
2031		\$0.0	\$459.7		\$0.2	\$447.4		\$0.3	\$405.0								\$0.7	\$319.0
2032		\$0.0	\$482.7		\$0.2	\$470.0		\$0.3	\$425.6								\$0.7	\$335.6
2033	Fractional Yr.	\$0.0	\$506.1		\$0.2	\$493.7		\$0.3	\$447.1								\$0.7	\$353.1
2034				Fractional Yr.	\$0.2	\$506.1		\$0.3	\$469.7								\$0.7	\$371.4
2035	Additional 3.5 yrs. Earnings Credit							\$0.3	\$493.5							Fractional Yr.	\$0.7	\$388.0
2036	Earnings Credit \$103.0			Additional 3.5 yrs. Earnings Credit			Fractional Yr.	\$0.3	\$506.1									
2037	\$609.1		\$609.1	\$609.1		\$609.1	Additional 3.5 yrs. Earnings Credit									Additional 3.5 yrs. Earnings Credit		
2038																\$467.0		\$467.0
2039																		
2040																		
2041																		
2042																		
2043																		
2044																		
<b>Total</b>	\$609.1			\$609.1			\$609.1				\$467.0			\$467.0			\$467.0	

ALL DOLLARS IN MILLIONS