



10 CFR 50.75  
10 CFR 50.82

Omaha Public Power District

March 30, 2022  
LIC-22-0009

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

Fort Calhoun Station, Unit No. 1  
Renewed Facility Operating License No. DPR-40  
NRC Docket No. 50-285

Fort Calhoun Station  
Independent Spent Fuel Storage Installation  
NRC Docket No. 72-054

Subject: Fort Calhoun Station, Unit No. 1, 2021 Annual Decommissioning Funding / Irradiated Fuel Management Status Report

References:

1. Letter from OPPD (T. Burke) to USNRC (Document Control Desk), "Certification of Permanent Cessation of Power Operations," dated August 25, 2016 (LIC-16-0067) (ML16242A127)
2. Letter from OPPD (T. Burke) to USNRC (Document Control Desk), "Certification of Permanent Removal of Fuel from the Removal of Fuel from the Reactor Vessel," dated November 13, 2016 (LIC-16-0074) (ML16319A254)
3. Letter from OPPD (M. J. Fisher) to USNRC (Document Control Desk), "Fort Calhoun Station, Unit No. 1, Post-Shutdown Decommissioning Activities Report," dated December 16, 2019 (LIC-19-0007)(ML19351E355)

In accordance with 10 CFR 50.75(f)(1), 10 CFR 50.82(a)(8)(v), 10 CFR 50.82(a)(8)(vi), and 10 CFR 50.82(a)(8)(vii), Omaha Public Power District (OPPDP) is submitting the annual status of decommissioning funding, status of funding for managing irradiated fuel, and the financial assurance status report.

In References 1 and 2, OPPD certified permanent cessation of power operation and permanent removal of fuel from the reactor vessel for the Fort Calhoun Station, Unit 1, (FCS). In Reference 3, OPPD submitted its Post-Shutdown Decommissioning Activities Report (PSDAR) containing a site-specific Decommissioning Cost Estimate (DCE) pursuant to 10 CFR 50.82(a)(4)(i) and 10 CFR 50.82(a)(8)(iii)..

Enclosure 1 provides the 2021 Annual Decommissioning Funding / Irradiated Fuel Management Status Report.

No commitments to the NRC are made in this letter.

If you should have any questions about the enclosed reports, please contact Andrea K. Barker, Regulatory Assurance & Emergency Planning Manager, at 531-226-6051.

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Respectfully,

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Timothy Uehling  
Senior Director Decommissioning

TSU/akb/cac

Enclosures:

1. 2021 Annual Decommissioning Funding / Irradiated Fuel Management Status Report

c: S. A. Morris, NRC Regional Administrator, Region IV  
J. D. Parrott, NRC Senior Project Manager  
S. Anderson, NRC Health Physicist, Region IV

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Enclosure 1

**ENCLOSURE 1**

**OMAHA PUBLIC POWER DISTRICT**

**FORT CALHOUN STATION UNIT NO.1**

**2022 ANNUAL DECOMMISSIONING FUNDING STATUS REPORT**

**As of December 31, 2021**

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**OMAHA PUBLIC POWER DISTRICT  
FORT CALHOUN STATION UNIT NO. 1  
2021 ANNUAL DECOMMISSIONING FUNDING STATUS REPORT  
as of December 31, 2021**

10 CFR 50.75 (f) and 50.82(8)

As required by 10 CFR 50.75 (f) and 50.82(8), OPPD reports the following information:

**A. Current Decommissioning Cost Estimate**

As required by 10 CFR 50.82, OPPD completed a site-specific Decommissioning Cost Estimate (DCE), contracting with Energy Solutions LLC for the preparation of the report. The study was performed under the DECON decommissioning alternative method. Based on the DCE (completed in 2022), the total estimated cost to decommission Fort Calhoun Station Unit No. 1 is **\$809,749,864** in 2021 dollars. Of that total cost estimate, the current site-specific cost estimate for license termination expenses (LTE) of Fort Calhoun Station Unit No. 1 is **\$494,390,034**, the current separate estimate of site restoration is **\$34,295,183** and the current separate estimate of spent fuel management costs is **\$281,058,647**.

The total cost estimate reported in 2018 dollars was **\$1,213,203,000** in the DCE, using the SAFSTOR decommissioning alternative method as required by 10 CFR 50.82(a)(8)(iii) (reference 1). The cost estimate included monies anticipated to be spent for operating license termination (radiological remediation), interim spent fuel storage and site restoration activities.

**B. Current Decommissioning Fund Balance**

The total OPPD Decommissioning Fund(s) balance as of December 31, 2021 was **\$519,701,336**. OPPD maintains two separate trust accounts, one for the NRC minimum decommissioning amount as outlined in 10 CFR 50.75 (c) and one for other costs including additional radiological, site restoration and spent fuel management as determined by the consultant cost study. As of December 31, 2021, the balance in the fund for the NRC minimum decommissioning amount was **\$265,007,627**. As of December 31, 2021, the balance in the funds accumulated for other decommissioning costs was **\$254,693,709**.

The two trust funds are not commingled and the funds accumulated for the additional decommissioning cost are not included as funds for the NRC minimum decommissioning amount. The funds accumulated for the additional decommissioning costs including additional radiological, site restoration and spent fuel management are available for radiological decommissioning without prior approval by a State regulatory authority and are not subject to disapproval for radiological decommissioning by a State regulatory authority.

**C. Annual Decommissioning Collections**

There were no annual collections for 2016. The annual collections for 2017, 2018, 2019, 2020, and 2021 were \$147,469,000, \$156,000,000, \$143,004,000, \$112,552,080, and \$121,148,000 respectively. The total expected future collections for decommissioning are **\$323,702,475** beginning in 2022 as shown in Attachment B, Column 1. The revenue source for collections is OPPD "cost-of-service" electric rates.

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#### **D. Rates Used to Escalate Decommissioning Costs and Fund Balances**

The rates used for the escalation of the site-specific DCE and earnings rates on the Decommissioning Fund through the completion of decommissioning are shown in Attachment C. Congressional Budget Office data provided the basis for the DCE inflation rate forecasts. Decommissioning costs are inflated using a blending of the Congressional Budget Office's forecasts for Consumer Price Index, All-Urban and Employment Cost Index, Total Private Compensation. Decommissioning trust earnings are projected using Barclay's forecasted yield on 2-year Treasury notes.

#### **E. Contracts to Help Fund Decommissioning**

OPPD does not have any contracts pursuant to 10 CFR 50.75 (e)(1)(ii)(C) and is not relying on contracts with a "non-bypassable charge" to fund decommissioning.

#### **F. Modifications to Method of Providing Financial Assurance**

There have been no modifications to OPPD's method of providing financial assurance since the decommissioning funding plan began in 1982 and continued pursuant to NRC Regulations in 1990.

#### **References:**

1. Letter from OPPD (M. J. Fisher) to USNRC (Document Control Desk), "Fort Calhoun Station, Unit No. 1, Post-Shutdown Decommissioning Activities Report," dated March 31, 2017 (LIC 17 0033) (ML17089A759)
2. Letter from OPPD (M. J. Fisher) to USNRC (Document Control Desk), "Fort Calhoun Station Irradiated Fuel Management Plan," dated March 31, 2017 (LIC-17-0031) (ML17093A594)

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Decommissioning Funding Status Report  
 OMAHA PUBLIC POWER DISTRICT

**ATTACHMENT A**

Summary Information as of December 31, 2021  
 10 CFR 50.82 (a) (8) (v)-(vii)

**Decommissioning Trust Fund Balances 50.75(f)(1) 50.82(a)(8)(v)(A)**

Year	Type of Trust	Fund Balance	Comments
2021	Decommissioning Trust '90 Plan	\$ 265,007,627	As of 12/31/21
2021	Decommissioning Suppl '92 Plan	\$ 254,693,709	As of 12/31/21
		\$ 519,701,336	

**Other Financial Assurance Methods Being Relied Upon 50.75(f)(1)**

NONE
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**Prior Years Decommissioning Expenditures 50.82(a)(8)(v)(A)**

Year	Decom Expenditures	Spent Fuel	Total	Comments
2016	\$ 574,826	\$ -	\$ 574,826	2016 Cost in as Spent Dollars
2017	\$ 115,251,711	\$ 4,475,227	\$ 119,726,938	2017 Cost in 2017 Dollars
2018	\$ 83,845,046	\$ 30,408,102	\$ 114,253,148	2018 Cost in 2018 Dollars
2019	\$ 72,491,721	\$ 17,382,073	\$ 89,873,794	2019 Cost in 2019 Dollars
2020	\$ 109,969,342	\$ 39,221,912	\$ 149,191,254	2020 Cost in 2020 Dollars
2021	\$ 131,052,781	\$ 7,855,094	\$ 138,907,875	2021 Cost in 2021 Dollars
TOTAL	\$ 513,185,427	\$ 99,342,408	\$ 612,527,835	

**Prior Year Expenditures Variance to Estimated Cost 50.82(a)(8)(v)(B)**

Year	Decom Expenditures	Spent Fuel	Total	Comments
2021 Estimated	\$ 96,461,000	\$ 9,933,000	\$ 106,394,000	
2021 Actual	\$ 131,052,781	\$ 7,855,094	\$ 138,907,875	
Variance	\$ (34,591,781)	\$ 2,077,906	\$ (32,513,875)	

Variance:

- We saw higher waste disposal costs than projected for material, based on radiation activity levels or waste class, which was discovered during the work (approximately \$10M)
- The remainder was primarily due to performing work that was planned for the following year (2022) in 2021. This included preparation for open air demolition of radiological structures.

**Remaining Decommissioning Estimated Cost 50.82(a)(8)(v)(B) /(vii)(B)**

Year	Decom Expenditures	Spent Fuel	Total	Comments
2022	\$ 528,685,120	\$ 281,059,090	\$ 809,744,210	Estimated in 2021 Dollars

**Decommissioning Criteria Upon Which the Estimate is Based 50.75(f)(1) 50.82(a)(8)(v)(B)**

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**Any Modification to Method of Providing Financial Assurance 50.75(f)(1) 50.82(a)(8)(v)(C)**

No

**Any Material Changes to Trust Agreement Since Previous Report 50.75(f)(1) 50.82(a)(8)(v)(D)**

Updated the Decommissioning Trust '90 agreement to allow for a streamlined withdrawal process.

**Need for Additional Financial Assurance 50.75(f)(1) 50.82(a)(8)(vi) (vii)(C)**

See Attachment B, Column 1, Annual Decommissioning Fund Collections

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OMAHA PUBLIC POWER DISTRICT  
 FORT CALHOUN STATION UNIT NO. 1  
 2022 ANNUAL DECOMMISSIONING FUNDING STATUS REPORT

**ATTACHMENT B**

Decommissioning Fund Annual Collections, Earnings, Expenditures and Balances

Year	Column 1 Total Annual Decommissioning Fund Collections <sup>1</sup>	Column 2 Earnings on Trust Funds	Column 3 License Termination Expenditures	Column 4 Spent Fuel Management Expenditures	Column 5 Site Restoration Expenditures	Column 6 Decommissioning Trust Fund Balance <sup>2</sup>	Column 7 Supplemental Decommissioning Trust Fund Balance <sup>3</sup>
2021						\$ 265,007,627	\$ 254,693,709
2022	\$ 130,597,500	\$ 10,106,602	\$ 124,009,250	\$ 7,356,080	\$ 7,717,148	\$ 181,345,635	\$ 339,977,324
2023	\$ 130,597,500	\$ 10,065,320	\$ 112,370,508	\$ 7,448,296	\$ 9,953,711	\$ 120,226,811	\$ 411,986,453
2024	\$ 62,507,475	\$ 9,046,944	\$ 139,604,905	\$ 7,653,193	\$ 8,041,655	\$ 59,516,593	\$ 388,951,336
2025	\$ -	\$ 7,216,155	\$ 137,132,780	\$ 7,862,989	\$ 10,890,571	\$ 5,140,133	\$ 294,657,612
2026	\$ -	\$ 5,886,422	\$ 12,532,200	\$ 8,077,759	\$ 211,444	\$ 5,244,688	\$ 279,618,076
2027	\$ -	\$ 6,156,909	\$ -	\$ 9,099,296	\$ -	\$ 5,359,884	\$ 276,560,493
2028	\$ -	\$ 6,539,722	\$ -	\$ 9,340,353	\$ -	\$ 5,486,312	\$ 273,633,434
2029	\$ -	\$ 6,916,095	\$ -	\$ 9,586,947	\$ -	\$ 5,624,629	\$ 270,824,266
2030	\$ -	\$ 7,286,407	\$ -	\$ 9,837,205	\$ -	\$ 5,775,563	\$ 268,122,533
2031	\$ -	\$ 7,650,963	\$ -	\$ 10,094,119	\$ -	\$ 5,939,924	\$ 265,515,015
2032	\$ -	\$ 7,577,683	\$ -	\$ 10,357,872	\$ -	\$ 6,108,963	\$ 262,565,787
2033	\$ -	\$ 7,494,711	\$ -	\$ 10,628,648	\$ -	\$ 6,282,812	\$ 259,258,001
2034	\$ -	\$ 7,401,570	\$ -	\$ 10,906,638	\$ -	\$ 6,461,608	\$ 255,574,136
2035	\$ -	\$ 7,297,762	\$ -	\$ 11,192,038	\$ -	\$ 6,645,492	\$ 251,495,975
2036	\$ -	\$ 7,182,769	\$ -	\$ 11,485,049	\$ -	\$ 6,834,610	\$ 247,004,578
2037	\$ -	\$ 7,075,767	\$ -	\$ 10,400,497	\$ -	\$ 7,029,109	\$ 243,485,348
2038	\$ -	\$ 6,977,274	\$ -	\$ 10,673,051	\$ -	\$ 7,229,143	\$ 239,589,536
2039	\$ -	\$ 6,868,117	\$ -	\$ 10,952,886	\$ -	\$ 7,434,870	\$ 235,299,041
2040	\$ -	\$ 6,747,785	\$ -	\$ 11,240,197	\$ -	\$ 7,646,452	\$ 230,595,047
2041	\$ -	\$ 6,615,742	\$ -	\$ 11,535,190	\$ -	\$ 7,864,055	\$ 225,457,997
2042	\$ -	\$ 6,471,435	\$ -	\$ 11,838,074	\$ -	\$ 8,087,850	\$ 219,867,563
2043	\$ -	\$ 6,314,286	\$ -	\$ 12,149,063	\$ -	\$ 8,318,014	\$ 213,802,622
2044	\$ -	\$ 6,143,696	\$ -	\$ 12,468,379	\$ -	\$ 8,554,728	\$ 207,241,225
2045	\$ -	\$ 5,959,043	\$ -	\$ 12,796,249	\$ -	\$ 8,798,179	\$ 200,160,569
2046	\$ -	\$ 5,759,680	\$ -	\$ 13,132,906	\$ -	\$ 9,048,557	\$ 192,536,964
2047	\$ -	\$ 5,544,934	\$ -	\$ 13,478,592	\$ -	\$ 9,306,061	\$ 184,345,803
2048	\$ -	\$ 5,314,107	\$ -	\$ 13,833,551	\$ -	\$ 9,570,893	\$ 175,561,527
2049	\$ -	\$ 5,066,475	\$ -	\$ 14,198,038	\$ -	\$ 9,843,261	\$ 166,157,595
2050	\$ -	\$ 4,801,283	\$ -	\$ 14,572,314	\$ -	\$ 10,123,381	\$ 156,106,445
2051	\$ -	\$ 4,517,750	\$ -	\$ 14,956,645	\$ -	\$ 10,411,472	\$ 145,379,459
2052	\$ -	\$ 4,215,065	\$ -	\$ 15,351,309	\$ -	\$ 10,707,762	\$ 133,946,924
2053	\$ -	\$ 3,892,410	\$ -	\$ 15,754,625	\$ -	\$ 11,012,483	\$ 121,779,989
2054	\$ -	\$ 3,548,914	\$ -	\$ 16,170,757	\$ -	\$ 11,325,876	\$ 108,844,753
2055	\$ -	\$ 3,183,642	\$ -	\$ 16,598,092	\$ -	\$ 11,648,188	\$ 95,107,991
2056	\$ -	\$ 2,685,617	\$ -	\$ 24,769,880	\$ -	\$ 11,979,672	\$ 72,692,244
2057	\$ -	\$ 1,930,391	\$ -	\$ 33,677,836	\$ -	\$ 12,320,590	\$ 40,603,882
2058	\$ -	\$ 1,014,240	\$ -	\$ 34,569,147	\$ -	\$ 12,671,209	\$ 6,698,355
2059	\$ -	\$ 271,743	\$ 12,848,978	\$ 6,792,329	\$ -	\$ (0)	\$ 0
2060	\$ -	\$ 0	\$ -	\$ -	\$ -	\$ (0)	\$ 0
2061	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (0)	\$ 0
	\$ 323,702,475	\$ 224,745,430	\$ 538,498,622	\$ 492,836,090	\$ 36,814,528		

<sup>1</sup> Annual Decommissioning Fund Collections for 2021 were \$121,148,000.03 with Decommissioning Expenditures of \$138,907,874.49.

<sup>2</sup> In 2021, LTE expenses started being disbursed from the Decommissioning Trust ('90) Fund. The initial amount disbursed for LTE expenses was \$69,444,792.48 for 2021.

<sup>3</sup> All collections and some expenditures flow through the Decommissioning Supplemental Trust through 2021. Continuing in 2022, some LTE expenses will be paid out of the Decommissioning Trust ('90) fund.

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Enclosure 1 Attachment C

### ATTACHMENT C

#### Decommissioning Funds Annual Inflation and Earning Rates

Year	Inflation Rate	Earnings Rate
2022	2.77%	1.96%
2023	2.74%	1.93%
2024	2.80%	1.86%
2025	2.75%	1.95%
2026	2.74%	2.03%
2027	2.72%	2.20%
2028	2.71%	2.36%
2029	2.64%	2.52%
2030	2.63%	2.68%
2031	2.60%	2.85%
2032-2060	2.60%	2.85%