



Dianne M. Triplett
DEPUTY GENERAL COUNSEL

April 13, 2023

VIA ELECTRONIC FILING

Adam J. Teitzman, Commission Clerk
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, Florida 32399-0850

Re: Crystal River Unit 3 – DEF Annual Report to NRC; *Undocketed*

Dear Mr. Teitzman:

Pursuant to and in compliance with Rule 25-6.04365(6), F.A.C., please find attached for filing on behalf of Duke Energy Florida, LLC, (“DEF”), recent correspondence to the Nuclear Regulatory Commission (“NRC”) providing DEF’s Annual Decommissioning Financial Status Report, Estimate of Costs to Complete Decommissioning and Financial Assurance Demonstration, and Projected Cash Flow Analysis for Irradiated Fuel Management for 2022.

Thank you for your assistance in this matter. If you have any questions, please feel free to contact me at (727) 820-4692.

Sincerely,

/s/ Dianne M. Triplett

Dianne M. Triplett

DMT/mw
Attachments



ADP CR3, LLC

17103 Preston Road, Suite 200 | Dallas, TX 75248

Scott E. State, P.E., Chief Nuclear Officer
sstate@NorthStar.com | o.682.503.2240 | c.303.898.8035

10 CFR 72.4
10 CFR 72.30(b)

March 31, 2023
3F0323-03

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555-0001

Subject: Crystal River 3 Decommissioning Funding Plan for Independent Spent Fuel Storage Installation

References:

1. Letter, Duke Energy Florida, LLC to USNRC, "Application for Order Consenting to Direct Transfer of Control of Licenses and Approving Conforming License Amendment," dated June 14, 2019 (ML19170A194)
2. Letter, USNRC to Duke Energy Florida, LLC, "Crystal River Unit 3 Nuclear Generating Plant Order Approving Transfer of Licensed Authority from Duke Energy Florida, LLC to ADP CR3, LLC and draft conforming administrative license amendment (EPID L-2019-LLA-0135)," dated April 1, 2020 (ADAMS Accession Nos. ML20069A023, ML20069A024, ML20069A025, ML20069A026, ML20069A027, ML20101G582 and ML20101G583)
3. Letter, ADP CR3, LLC to USNRC, "Crystal River 3 ISFSI Decommissioning Trust," dated October 28, 2020 (ADAMS Accession No. ML20302A543)
4. Letters, ADP CR3, LLC to USNRC, "Crystal River 3 – Annual Decommissioning and Irradiated Fuel Management Financial Status Report for 2021 and 2022," dated March 30, 2022 and March 29, 2023 (ADAMS Accession Nos. ML22089A163 and ML23088A387)

Dear Sir or Madam:

In accordance with 10 CFR 72.30, Financial Assurance and Recordkeeping for Decommissioning, ADP CR3, LLC (ADP CR3) is submitting the Crystal River Nuclear Plant (CR3) decommissioning funding plan for the Independent Spent Fuel Installation (ISFSI). 10 CFR 72.30(c) requires that the decommissioning funding plan be resubmitted with adjustments as necessary to account for changes in costs and the extent of contamination at intervals not to exceed 3 years.

A change to the spent fuel management strategy was described by Duke Energy Florida, LLC (DEF), ADP CR3, LLC (ADP CR3), and ADP SF1, LLC (ADP SF1) in the application for license transfer (Reference 1) and was approved by the NRC in Reference 2. Under the terms of the license transfer, ADP CR3 became the NRC operator licensee responsible for all activities under the Crystal River Unit 3 Nuclear Plant (CR3)

license. Under a Purchase and Sale Agreement (PSA) with DEF as part of the license transfer, ADP SF1 acquired the ISFSI, its associated equipment, the high-level radioactive and greater than Class C (GTCC) waste, and title to the spent nuclear fuel. DEF also assigned to ADP SF1 its Standard Contract for Disposal of Spent Nuclear Fuel and/or High-Level Radioactive Waste with the U.S. Department of Energy (DOE). ADP SF1 entered into an operating agreement with ADP CR3, to possess and maintain the ISFSI, its associated equipment, and spent nuclear fuel.

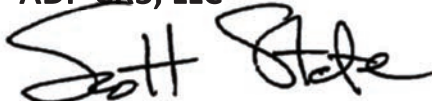
As a result of the PSA, after October 1, 2020, funding for spent fuel management costs for CR3 is no longer provided by the 10 CFR 50.75 nuclear decommissioning trust (NDT). In accordance with the Decommissioning Services agreement and 10 CFR 72.30(e)(1), a dedicated ISFSI Decommissioning Trust Fund in the form of prepayment method has been established by ADP SF1 as described in Reference 3. This letter constitutes a certification that financial assurance is provided to cover the estimated cost of ISFSI decommissioning as described in Attachment 1.

This letter contains no new regulatory commitments.

If you have any questions regarding this submittal, please contact me at the numbers above.

Sincerely,

ADP CR3, LLC

A handwritten signature in black ink, appearing to read "Scott State", written over the typed name.

Scott E. State, P.E.

Chief Nuclear Officer

Attachments:

Attachment 1 – 10 CFR 72.30 ISFSI Decommissioning Funding Plan

cc: NMSS Project Manager
Regional Administrator, Region I

ADP CR3, LLC

**DOCKET NUMBERS 50 - 302 / 72-1035
LICENSE NUMBER DPR - 72**

ATTACHMENT 1

Crystal River Unit 3 ISFSI Decommissioning Funding Plan

Crystal River Unit 3 ISFSI Decommissioning Funding Plan

In accordance with 72.30(c), this decommissioning funding plan is being resubmitted with adjustments as necessary to account for changes in costs and the extent of contamination. This decommissioning funding plan updates the previous plan submitted on March 19, 2020 and specifically considers the effect of the following events on decommissioning costs:

- Spills of radioactive material producing additional residual radioactivity in onsite subsurface material.
- Facility modifications.
- Changes in authorized possession limits.
- Actual remediation costs that exceed the previous cost estimate.

The following statements specifically address the above events defined in 10 CFR 72.30(c). Since the submittal of the Decommissioning Funding Plan for the ISFSIs dated March 19, 2020:

1. No spills of radioactive materials producing additional residual activity in on-site subsurface material have occurred for Crystal River Nuclear Plant.
2. Modifications to the ISFSI were made in 2021 and 2022. Two additional Horizontal Storage Modules (HSMs) including roof and vent sections along with two additional shield walls were installed on the ISFSI to store two Radioactive Waste Containers (RWCs). The two RWCs filled with reactor-related Greater Than Class C (GTCC) waste were installed in 2022. These additions were incorporated into the ISFSI decommissioning costs.
3. There were no changes in authorized possession limits for any of the sites.
4. No active decommissioning has occurred for the ISFSI, thus there have not been any actual remediation costs that exceed the previous cost estimate.

The requirements of a decommissioning funding plan in 10 CFR 72.30(b) are provided below.

1. Information on how reasonable assurance will be provided that funds will be available to decommission the ISFSI or MRS.

10 CFR 72.30(c) requires a decommissioning funding plan be provided at least every three years and at the time of license renewal. Compliance with this part, together with the method of assuring funds described in Part 4 below, will provide reasonable assurance that funds will be available to decommission the CR3 ISFSI.

2. A detailed cost estimate for decommissioning, in an amount reflecting:

- The cost of an independent contractor to perform all decommissioning activities;
- An adequate contingency factor; and
- The cost of meeting the criteria for unrestricted use in 10 CFR § 20.1402.

The design and capacity of the CR-3 ISFSI is based upon the NUHOMS-32PTH1 Type 2-W spent fuel storage systems. The systems consist of a stainless-steel Dry Shielded Canister (DSC), and a concrete Horizontal Storage Module (HSM), which houses the DSC during storage. The ISFSI consists of 40 HSM's with 39 NUHOMS-32PTH1 Type 2-W DSCs that can house up to 32 spent

fuel assemblies each. Two additional HSMs housing two RWCs are also located at the ISFSI. All CR-3 spent fuel is projected to be fully removed from the site in 2036.

Details of the NUHOMS spent fuel storage system, including physical dimensions, can be found in the proprietary version of the Final Safety Analysis Report for the Transnuclear NUHOMS, Docket Number 72-1004.

The methodology used to develop this detailed cost estimate follows the basic approach originally presented in the AIF/NESP-036 study report, "Guidelines for Producing Commercial Nuclear Power Plant Decommissioning Cost Estimates."¹ The methodology includes elements for estimating distributed and undistributed costs. Distributed costs are activity specific and include planning and preparation costs as well as the decontamination, packaging, disposal and removal of components. Undistributed costs are typically time-dependent costs such as utility and decommissioning general contractor staff, property taxes, insurance, regulatory fees and permits, energy costs, and security staff. The methodology also uses a unit factor method for estimating decommissioning activity costs, which simplifies the estimating calculations. Unit factors for concrete removal (\$/cubic yard), steel removal (\$/ton), and cutting costs (\$/inch) are developed using local labor rates.

Inherent in any cost estimate that does not rely on historical data is the inability to specify the precise source of costs imposed by factors such as tool breakage, accidents, illnesses, weather delays, and labor stoppages. In this detailed cost estimate, contingency fulfills this role. Specifically, contingency is added to all costs at a constant 25% rate, consistent with the contingency evaluation criteria referenced by the NRC in NUREG-1757².

In addition, the detailed cost estimate is based on or includes the following:

- the expected ISFSI configuration after all spent fuel and Greater than-Class- C (GTCC) material has been removed from the site.
- the ISFSI pads not being contaminated, with only verification surveys to be performed;
- the costs necessary to terminate the ISFSI's NRC license and meet the §20.1402 criteria for unrestricted use;
- no remediation of contaminated (radiological) soil being required in order to terminate the site operating license;
- no expected interior or exterior radioactive surface contamination of the HSMs; and

¹ Atomic Industrial Forum, Inc., "Guidelines for Producing Commercial Nuclear Power Plant Decommissioning Cost Estimates," AIF/NESP-036, May 1986. This document is referenced in NRC's NUREG-1713, "Standard Review Plan for Decommissioning Cost Estimates for Nuclear Power Reactors."

² "Consolidated Decommissioning Guidance, Financial Assurance, Recordkeeping, and Timeliness," U.S. Nuclear Regulatory Commission's Office of Nuclear Material Safety and Safeguards, NUREG-1757, Volume 3, Revision 1, February 2012

- an allowance for module remediation of 6 modules that are assumed to have some level of neutron-induced activation after approximately 20 years of storage (i.e., to levels exceeding free-release limits). Controlled disposal costs are included for this allowance of concrete and steel.

The cost to dispose of residual radioactivity and verify that the remaining facility and surrounding environs meet the NRC's radiological limits established for unrestricted use, forms the basis of this cost estimate.

A detailed breakdown of the cost to decommission the CR-3 ISFSI is provided below in "TABLE 1 – ADP CR3 ISFSI DECOMMISSIONING COST ESTIMATE." This table also provides the estimates for various support costs that are performed and funded by ADP CR3 from the CR3 nuclear decommissioning trust. This ISFSI decommissioning cost estimate has been previously presented in ADP CR3's Annual Decommissioning and Irradiated Fuel Management Financial Status Reports for 2021 and 2022. TABLE 3.1 from those reports is reproduced below to provide the annual cash flows for ISFSI decommissioning in this report.

ADP CR3 has initiated a Firm Fixed Price subcontract to minimize the overall cost and schedule risk of the ISFSI decommissioning project.

Activity costs for ISFSI decommissioning are divided into 3 phases. The first phase covers initial planning during which the empty casks, ISFSI pads, and surrounding environs are characterized and the activity specifications and work procedures for the decontamination are developed. The next phase includes the cost of removal, packaging, transportation, and disposal of the activated components, including supporting equipment, materials and supplies. The final phase includes the cost for the license termination survey, the verification survey, and the associated equipment and laboratory support. The cost estimate also includes costs for the NRC and NRC contractor reviews, CR3's oversight staff, site security (industrial), and other site operating costs. The contents of the ISFSI are expected to be removed and transferred to the Department of Energy beginning in 2036, with a 2037 completion date for removal of all CR3 spent fuel. The ISFSI will then be promptly decommissioned.

3. Identification of and justification for using the key assumptions contained in the DCE.

The assumptions and justification for those assumptions included in the CR3 ISFSI decommissioning cost estimate are presented in the Section 2 above.

4. A description of the method of assuring funds for decommissioning from paragraph (e) of this section, including means for adjusting cost estimates and associated funding levels periodically over the life of the facility.

In accordance with the Order approving the direct transfers to ADP CR3, LLC (ADP CR3) of the Duke Energy Florida, LLC (DEF) licensed authority under Facility Operating License No. DPR 72 for the Crystal River Unit 3 Nuclear Generating Plant (CR3) (the Facility License) and the general license for the CR3 Independent Spent Fuel Storage Installation (ISFSI) (the Licenses) to possess, maintain, and decommission CR3 and the ISFSI (collectively, the CR3 Facility), dated April 1, 2020 (Reference 1), ADP CR3, submitted the Crystal River 3 ISFSI Decommissioning Trust Agreement on October 28, 2020 in Reference 3.

In accordance with the Decommissioning Services Agreement, ADP SF1 would establish the CR3 ISFSI Decommissioning Trust for the purpose of holding funds to decommission the ISFSI. The Crystal River ISFSI Decommissioning Trust was executed on 10/1/20. As described in the License Transfer Application, the initial deposit of \$3.95M was made to establish the trust. The current balance of \$3.886M, at the 50.82(a)(8)(vi) allowed rate of return of 2%, is expected to grow to \$5.127M by 2037 when ISFSI decommissioning costs are projected to be incurred. As provided in the ADP CR3's Annual Decommissioning and Irradiated Fuel Management Financial Status Reports for 2021 and 2022 (Reference 4), \$4.587M is the decommissioning cost estimate for the CR3 ISFSI, therefore the ISFSI Decommissioning Trust is considered fully funded, in accordance with 72.30(e)(1), Prepayment method, with no future contributions planned.

5. The volume of onsite subsurface material containing residual radioactivity that will require remediation to meet the criteria for license termination.

There is currently no known subsurface material containing residual radioactivity that will require remediation at decommissioning.

6. A certification that financial assurance for decommissioning has been provided in the amount of the cost estimate for decommissioning.

ADP CR3 hereby certifies that financial assurance for decommissioning the CR3 ISFSI has been provided in the amount of the cost estimate for decommissioning using the methodology described in Part 4 above.

TABLE 1 – ADP CR3 ISFSI DECOMMISSIONING COST ESTIMATE

Crystal River Unit 3 - ISFSI Decommissioning Costs and Waste Volumes									
	Costs <i>(Thousands of 2023 dollars)</i>						Waste Volume	Person-Hours	
	Removal	Packaging	Transport	Disposal	Other	Total	Class A (Cubic feet)	Craft	Oversight and Contractor
Decommissioning Contractor <i>(Paid from ISFSI Demo Trust Acct.)</i>									
Planning (characterization, specs & procedures)	-	-	-	-	\$231	\$231	0	0	1,458
Decontamination/Demolition (Active Cask Disposition)	\$377	\$166	\$1,146	\$1,685	\$35	\$3,409	16,619	5,444	
License Termination (radiological surveys)	-	-	-	-	\$947	\$947	0	5,729	-
Subtotal	\$377	\$166	\$1,146	\$1,685	\$1,213	\$4,587	16,619	11,173	1,458
Supporting Costs <i>(Funded by ADP CR3, LLC)</i>									
Contracted Services	-	-	-	-	\$239	\$239	0	0	1,992
NRC/State Fees	-	-	-	-	\$126	\$126	0	0	-
Insurance	-	-	-	-	\$119	\$119	0	0	-
All Labor - Loaded	-	-	-	-	\$770	\$770	0	0	6,417
Materials & Supplies	-	-	-	-	\$25	\$25	0	0	-
Misc./Personal Expenses	-	-	-	-	\$22	\$22	0	0	-
Property & Other Taxes (Entergy Estimate)	-	-	-	-	\$184	\$184	0	0	-
Utilities	-	-	-	-	\$24	\$24	0	0	-
ISFSI Fuel Management & Operations	-	-	-	-	\$116	\$116	0	0	967
Subtotal	\$0	\$0	\$0	\$0	\$1,625	\$1,625	0	0	9,375
GRAND TOTAL	\$377	\$166	\$1,146	\$1,685	\$2,838	\$6,212	16,619	11,173	10,833

TABLE 3.1

Crystal River Unit 3 Nuclear Power Station - PROMPT DECON Methodology						
Annual Cash Flow Analysis - ISFSI Decommissioning - TABLE 3.1						
(Thousands of 2023 Dollars) - See column definitions below						
Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	
Year	Spent Fuel Management - ISFSI Demo	Beginning of Period Fund Balance	ADP Withdrawals	ADP Distributions	Annual Earnings on Fund	End-Of-Year Fund Balance
2023	\$0	\$3,886	\$0	\$0	\$78	\$3,964
2024	\$0	\$3,964	\$0	\$0	\$79	\$4,043
2025	\$0	\$4,043	\$0	\$0	\$81	\$4,124
2026	\$0	\$4,124	\$0	\$0	\$82	\$4,206
2027	\$0	\$4,206	\$0	\$0	\$84	\$4,290
2028	\$0	\$4,290	\$0	\$0	\$86	\$4,376
2029	\$0	\$4,376	\$0	\$0	\$88	\$4,464
2030	\$0	\$4,464	\$0	\$0	\$89	\$4,553
2031	\$0	\$4,553	\$0	\$0	\$91	\$4,644
2032	\$0	\$4,644	\$0	\$0	\$93	\$4,737
2033	\$0	\$4,737	\$0	\$0	\$95	\$4,832
2034	\$0	\$4,832	\$0	\$0	\$97	\$4,928
2035	\$0	\$4,928	\$0	\$0	\$99	\$5,027
2036	\$0	\$5,027	\$0	\$0	\$101	\$5,127
2037	\$4,587	\$5,127	\$4,587	-\$540	\$0	\$0
TOTAL	\$4,587	\$3,886	\$4,587	-\$540	\$1,241	\$0



ADP CR3, LLC

17103 Preston Road, Suite 200 | Dallas, TX 75248

Scott E. State, P.E., Chief Nuclear Officer

sstate@NorthStar.com | o.682.503.2240 | c.303.898.8035

10 CFR 50.82

10 CFR 50.75

March 29, 2023

3F0323-02

U.S. Nuclear Regulatory Commission

Attn: Document Control Desk

Washington, DC 20555-0001

Subject: Crystal River 3 – Annual Decommissioning and Irradiated Fuel Management
Financial Status Report for 2022

References:

1. Letters, ADP CR3, LLC to USNRC, “Crystal River Unit 3 Nuclear Generating Plant Notification of Revised Post-Shutdown Decommissioning Activities Report, dated June 26, 2019, and Supplemental Information in Support of Revised Post Shutdown Decommissioning Activities Report and Decommissioning Cost Estimate, dated December 26, 2019 (ML19177A232 and ML20006F022)
2. Letter, USNRC to Duke Energy Florida, LLC, “Crystal River Unit 3 Nuclear Generating Plant Order Approving Transfer of Licensed Authority from Duke Energy Florida, LLC to ADP CR3, LLC and draft conforming administrative license amendment (EPID L-2019-LLA-0135),” dated April 1, 2020 (ADAMS Accession Nos. ML20069A023, ML20069A024, ML20069A025, ML20069A026, ML20069A027, ML20101G582 and ML20101G583)
3. Letter, USNRC to Duke Energy Florida, LLC, “Crystal River Unit 3 Nuclear Generating Plant – Issuance of Amendment No. 258 RE: Order Approving Transfer of Licensed Authority from Duke Energy Florida, LLC to ADP CR3, LLC and Conforming License Amendment (EPID L-2019-LLA-0135),” dated October 1, 2020 (ML20253A343)
4. Letter, ADP CR3 to USNRC, “Crystal River 3 ISFSI Decommissioning Trust,” dated October 28, 2020 (ML20302A453)
5. Letter, ADP CR3 to USNRC, “Crystal River 3 – Notification of Revised Decommissioning Cost Estimate”, dated May 26, 2022 (ADAMS Accession No. ML22148A001)

Dear Sir or Madam:

10 CFR 50.75(f)(1) requires each shutdown power reactor licensee to annually report to the NRC the status of their decommissioning financial assurance by March 31.

10 CFR 50.82(a)(8)(v) & (vii) require that after submitting its site-specific decommissioning cost estimate pursuant to 10 CFR 50.82(a)(4)(i), a licensee must annually submit to the NRC, by March 31, a report on the status of its decommissioning expenditures, remaining costs and funding assurance levels, as well as a report on the status of its funding for managing irradiated fuel.

A change to the spent fuel management strategy was described by Duke Energy Florida, LLC (DEF), ADP CR3, LLC (ADP CR3), and ADP SF1, LLC (ADP SF1) in the application for license transfer and was approved by the NRC in Reference 2. Under the terms of the license transfer, ADP CR3 became the NRC operator licensee responsible for all activities under the Crystal River Unit 3 Nuclear Plant (CR3) license. Under a Purchase and Sale Agreement (PSA) with DEF as part of the license transfer, ADP SF1 acquired the ISFSI, its associated equipment, the high-level radioactive and greater than Class C (GTCC) waste, and title to the spent nuclear fuel. DEF also assigned to ADP SF1 its Standard Contract for Disposal of Spent Nuclear Fuel and/or High-Level Radioactive Waste with the U.S. Department of Energy (DOE). ADP SF1 entered into an operating agreement with ADP CR3, to possess and maintain the ISFSI, its associated equipment, and spent nuclear fuel.

As the NRC owner licensee, DEF continues to own the CR3 facility, with the exception of the assets described above, and its nuclear decommissioning trust (NDT). In addition to maintaining the NDT, DEF is responsible for disbursement of funds to pay for the costs of decommissioning as work is completed.

As a result of the PSA, after October 1, 2020, funding for spent fuel management costs for CR3 is no longer provided by the NDT. Funding for spent fuel management is provided by the ADP SF1 parent companies, NorthStar and Orano. The projected irradiated fuel management costs were submitted with the revised PSDAR in Reference 1, and an updated cash flow analysis was included in last year's Annual Decommissioning and Irradiated Fuel Management Financial Status Report. In addition, ADP updated the Decommissioning Cost Estimate (DCE) in May 2022 – Reference 5. A dedicated ISFSI Decommissioning Trust Fund has been established by ADP SF1 in accordance with the Order approving the license transfer as described in Reference 4.

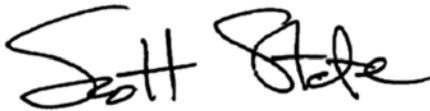
Accordingly, ADP CR3, LLC, hereby submits the status of its decommissioning financial assurance (Attachment 1), the estimated costs to complete decommissioning and financial assurance demonstration (Attachment 2), and the projected cash flow analysis for irradiated fuel management (Attachment 3) for Crystal River Nuclear Plant. All or most of the spent fuel management costs are a liability of the U.S. Government as a result of its breach of the spent fuel disposal contract.

This letter contains no new regulatory commitments.

If you have any questions regarding this submittal, please contact Ms. Holly Van Sicklen, ADP CR3, LLC Licensing Manager, at (352) 634-1028.

Sincerely,

ADP CR3, LLC

A handwritten signature in black ink, appearing to read "Scott State". The signature is fluid and cursive, with the first name "Scott" and the last name "State" clearly distinguishable.

Scott E. State, P.E.
Chief Nuclear Officer

Attachments:

- Attachment 1 – CR3 Annual Decommissioning Financial Status Report for 2022
- Attachment 2 – CR3 Estimate of Costs to Complete Decommissioning and Financial Assurance Demonstration
- Attachment 3 – CR3 Projected Cash Flow Analysis for Irradiated Fuel Management

cc: NMSS Project Manager
Regional Administrator, Region I

ADP CR3, LLC

**DOCKET NUMBERS 50-302 / 72-1035
LICENSE NUMBER DPR – 72**

ATTACHMENT 1

**CR3 ANNUAL DECOMMISSIONING
FINANCIAL STATUS REPORT FOR 2022**

ADP CR3, LLC
Status of Decommissioning Funding Crystal River Nuclear Plant
As of December 31, 2022 – 10 CFR 50.75(f)(1) and 10 CFR 50.82(a)(8)(v)

10 CFR 50.75(f)(1)

(Thousands of Dollars)

1. Minimum Financial Assurance (MFA)	\$254,684 ^[Note 1]
2. ISFSI Obligation as of 12/31/2022	\$4,587 ^[Note 2]
3. Decommissioning Trust Fund Balance as of 12/31/2022	\$458,126 ^[Note 3]
4. A schedule of the annual amounts remaining to be collected	\$14,026 ^[Note 4]
5. Assumptions used in determining rates of escalation in decommissioning costs, rates of earnings on decommissioning funds, and rates of other factors used in funding projections.	2% annual real rate of return per 10 CFR 50.75(e)(1)(i)
6. Any contracts upon which the licensee is relying pursuant to 10 CFR 50.75(e)(1)(v)	None
7. Modifications occurring to a licensee's current method of providing financial assurance since the last submitted report	None
8. Any material changes to trust agreements	None

Note 1: This amount is based upon total DECON expenditures for radiological remediation and license termination set forth in the updated Decommissioning Funding Assurance Plan and PROMPT DECON analysis provided in Attachment 2. This is the amount of decommissioning funds estimated to be required for remaining License Termination Costs.

Note 2: ISFSI Obligation is funded by the ISFSI Decommissioning Trust Account (See Table 3.1) and based on the ISFSI demolition site-specific cost estimate dated March 30, 2022.

Note 3: NDT Balance - \$424,308 plus Provisional Trust Balance \$33,818.

Note 4: Reflects ADP contributions pursuant to the terms of the Decommissioning Services Agreement (DSA) dated May 8, 2019, and as amended October 1, 2020.

ADP CR3, LLC
Status of Decommissioning Funding Crystal River Nuclear Plant
As of December 31, 2022 – 10 CFR 50.75(f(1) and 10 CFR 50.82(a)(8)(v)

10 CFR 50.82(a)(8)(v) & (vi)

(Thousands of Dollars)

1. Cumulative decommissioning spending through 12/31/2022	\$390,498 ^[Note 1]
2. 2022 decommissioning spending	\$94,902 ^[Note 2]
3. Decommissioning Trust Fund & Provisional Trust Fund Total as of 12/31/2022	\$458,126 ^[Note 3]
4. Additional planned contributions to the Provisional Trust Account	\$14,026 ^[Note 4]
5. Estimated costs to complete from the latest estimate.	\$254,684 <i>(See #1 above in 10 CFR 50.75 information)</i> ADP CR3 has projected the cost of managing irradiated fuel until title to the fuel and possession of the fuel is transferred to the Department of Energy based on the assumption that DOE pickup of fuel no later than 2037. The cost analysis is provided in Attachment 3.
6. Estimate based on unrestricted release of the site per 10 CFR 20.1402	See Attachment 2
7. Modifications to Financial Assurance Since Last Report	None
8. Any material changes to trust agreements	None

Note 1: Cumulative Spending (\$295,596) per report, dated March 30, 2022 (3F0322-01) plus 2022 decommissioning spending \$94,902).

Note 2: Represents the amount actually disbursed from the fund for calendar year 2022.

Note 3: NDT Balance - \$424,308 plus Provisional Trust Balance \$33,818.

Note 4: Reflects ADP contributions and distributions pursuant to the terms of the Decommissioning Services Agreement (DSA) dated May 8, 2019, and as amended October 1, 2020.

ADP CR3, LLC

**DOCKET NUMBERS 50-302 / 72-1035
LICENSE NUMBER DPR – 72**

ATTACHMENT 2

**CR3 ESTIMATE OF COSTS TO COMPLETE
DECOMMISSIONING AND FINANCIAL
ASSURANCE DEMONSTRATION**

CR3 ESTIMATE OF COSTS TO COMPLETE DECOMMISSIONING AND FINANCIAL ASSURANCE DEMONSTRATION

Table 2.1

Crystal River Unit 3 Nuclear Power Station - PROMPT DECON Methodology									
Annual Cash Flow Analysis - Total License Termination and Site Restoration - TABLE 2.1									
(Thousands of 2023 Dollars) - See column definitions below									
	Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8	Column 9
Year	License Termination Cost (ADP-Contractor)	License Termination Cost (DEF-Owner)	Site Restoration Cost	Total Expenses	Beginning of Period Funded Balance (NDF + PT)	NDT Withdrawals	Net Incremental Contributions & (Distributions) Provisional Trust	Annual Earnings on Fund	End-Of-Year Fund Balance
2023	\$92,803	\$1,541	\$1,055	\$95,399	\$458,126	\$95,399	\$5,631	\$7,255	\$375,613
2024	\$91,627	\$1,572	\$1,693	\$94,892	\$375,613	\$94,892	\$5,599	\$5,614	\$291,935
2025	\$44,574	\$1,603	\$5,988	\$52,165	\$291,935	\$52,165	\$2,796	\$4,795	\$247,362
2026	\$10,205	\$1,635	\$25,836	\$37,676	\$247,362	\$37,676	\$0	\$4,194	\$213,879
2027	\$0	\$680	\$0	\$680	\$213,879	\$4,623	-\$50,000	\$4,185	\$163,441
2028	\$0	\$694	\$0	\$694	\$163,441	\$694	\$0	\$3,255	\$166,002
2029	\$0	\$708	\$0	\$708	\$166,002	\$708	\$0	\$3,306	\$168,601
2030	\$0	\$722	\$0	\$722	\$168,601	\$722	\$0	\$3,358	\$171,236
2031	\$0	\$736	\$0	\$736	\$171,236	\$736	\$0	\$3,410	\$173,910
2032	\$0	\$751	\$0	\$751	\$173,910	\$751	\$0	\$3,463	\$176,622
2033	\$0	\$766	\$0	\$766	\$176,622	\$766	\$0	\$3,517	\$179,373
2034	\$0	\$781	\$0	\$781	\$179,373	\$781	\$0	\$3,572	\$182,164
2035	\$0	\$797	\$0	\$797	\$182,164	\$797	\$0	\$3,627	\$184,994
2036	\$0	\$813	\$0	\$813	\$184,994	\$813	\$0	\$3,684	\$187,865
2037	\$0	\$829	\$0	\$829	\$187,865	\$829	\$0	\$3,741	\$190,776
2038	\$0	\$846	\$0	\$846	\$190,776	\$846	\$0	\$3,799	\$193,729
TOTAL	\$239,210	\$15,474	\$34,572	\$280,812	\$458,126	\$293,198	-\$35,973	\$64,774	\$193,729

Table 2.1 Definitions:

(Thousands of Dollars)

<u>Column 1:</u>	License Termination Cost - (ADP-Contractor) Reflects the Total Annual License Termination Plan cost for ADP (Contractor) in 2023 dollars at a 2% escalation rate.
<u>Column 2:</u>	License Termination Cost – (DEF-Owner) Reflects the Total Annual License Termination Plan cost for DEF (Owner) in 2023 dollars at a 2% escalation rate.
<u>Column 3:</u>	Site Restoration Cost: Reflects the Annual Site Restoration Plan cost in 2023 dollars at a 2% escalation rate.
<u>Column 4:</u>	Total Expenses Reflects Total Expenses (Column 1 plus Column 2 plus Column 3)
<u>Column 5:</u>	Beginning of Period Funded Balance Reflects the Funded Balance as of January 1 of each year thereafter. The Funded Balance includes the Nuclear Decommissioning Trust (NDT), plus the Provisional Trust (PT) <ul style="list-style-type: none"> January 1, 2023, Beginning of Period Funded Balance equals \$458,126, which includes \$424,308 NDT Balance plus \$33,818 PT Balance
<u>Column 6:</u>	NDT Withdrawals Reflects the annual expenditures from the NDT in 2023 dollars at a 2% escalation rate. <ul style="list-style-type: none"> \$4,623 estimated withdrawal on January 1, 2027, reflects Total Expenses (\$680) plus final payment for achievement of the ISFSI-Only Interim End-State Conditions (\$3,943) pursuant to Section 9.3.4 of the Decommissioning Services Agreement (DSA) dated May 29, 2019, and Amended October 1, 2020.
<u>Column 7:</u>	ADP Net Incremental Contributions (Distributions) – Provisional Trust Reflects ADP incremental contributions and (distributions) pursuant to the terms of the DSA.
<u>Column 8:</u>	Annual Earnings on Funds Reflects earnings on funds remaining in the trust. A 2% Earnings rate is used over a 0% cost escalation rate. The annual 2% earnings are calculated on the Beginning Balance (Column 5) minus 100% of withdrawals (Column 6) plus 100% of contributions (Column 7) multiplied by the 2% annual earnings rate.
<u>Column 9:</u>	End of Year Fund Balance Reflects the End-of-Year Trust Fund Balance. - (Column 5 minus Column 6 plus Column 7 plus Column 8)

ADP CR3, LLC

**DOCKET NUMBERS 50-302 / 72-1035
LICENSE NUMBER DPR – 72**

ATTACHMENT 3

**CR3 PROJECTED CASH FLOW ANALYSIS
FOR IRRADIATED FUEL MANAGEMENT**

CR3 PROJECTED CASH FLOW ANALYSIS FOR IRRADIATED FUEL MANAGEMENT

Table 3.1

Crystal River Unit 3 Nuclear Power Station - PROMPT DECON Methodology						
Annual Cash Flow Analysis - ISFSI Decommissioning - TABLE 3.1						
(Thousands of 2023 Dollars) - See column definitions below						
	Column 1	Column 2	Column 3	Column 4	Column 5	Column 6
Year	Spent Fuel Management - ISFSI Demo	Beginning of Period Fund Balance	ADP Withdrawals	ADP Distributions	Annual Earnings on Fund	End-Of-Year Fund Balance
2023	\$0	\$3,886	\$0	\$0	\$78	\$3,964
2024	\$0	\$3,964	\$0	\$0	\$79	\$4,043
2025	\$0	\$4,043	\$0	\$0	\$81	\$4,124
2026	\$0	\$4,124	\$0	\$0	\$82	\$4,206
2027	\$0	\$4,206	\$0	\$0	\$84	\$4,290
2028	\$0	\$4,290	\$0	\$0	\$86	\$4,376
2029	\$0	\$4,376	\$0	\$0	\$88	\$4,464
2030	\$0	\$4,464	\$0	\$0	\$89	\$4,553
2031	\$0	\$4,553	\$0	\$0	\$91	\$4,644
2032	\$0	\$4,644	\$0	\$0	\$93	\$4,737
2033	\$0	\$4,737	\$0	\$0	\$95	\$4,832
2034	\$0	\$4,832	\$0	\$0	\$97	\$4,928
2035	\$0	\$4,928	\$0	\$0	\$99	\$5,027
2036	\$0	\$5,027	\$0	\$0	\$101	\$5,127
2037	\$4,587	\$5,127	\$4,587	-\$540	\$0	\$0
TOTAL	\$4,587	\$3,886	\$4,587	-\$540	\$1,241	\$0

Table 3.1 Definitions:

<u>Column 1:</u>	Spent Fuel Management – ISFSI Demo Reflects the Total ISFSI Decommissioning cost in 2023 dollars at a 2% escalation rate.
<u>Column 2:</u>	Beginning of Period Funded Balance Reflects the Funded Balance as of January 1 of each year.
<u>Column 3:</u>	ADP NDT Withdrawals Reflects the annual expenditures from the NDT in 2023 dollars at a 2% escalation rate.
<u>Column 4:</u>	ADP Distributions Reflects distribution of residual ISFI Decommissioning funds upon completion of the ISFSI decommissioning.
<u>Column 5:</u>	Annual Earnings on Funds Reflects earnings on funds remaining in the trust. A 2% Earnings rate is used over a 0% cost escalation rate. The annual 2% earnings are calculated on the Beginning Balance (Column 2) minus 100% of withdrawals (Columns 3) minus 100% of distributions (Columns 5) multiplied by the 2% annual earnings rate.
<u>Column 6:</u>	End of Year Fund Balance Reflects the End-of-Year Trust Fund Balance. - (Column 2 minus Column 3 plus Column 4 plus Column 5)

CR3 PROJECTED CASH FLOW ANALYSIS FOR IRRADIATED FUEL MANAGEMENT

Table 3.2

Crystal River Unit 3 Nuclear Power Station - PROMPT DECON Methodology							
Annual Cash Flow Analysis - Irradiated Fuel Management - Table 3.2							
(Thousands of 2023 Dollars) - See column definitions below							
Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	
Year	Spent Fuel Management Costs	Beginning of Period Fund Balance	ADP Withdrawals	ADP Incremental Contributions (Distributions)	DOE Cost Recovery	Annual Earnings on Fund	End-Of-Year Fund Balance
2023	\$10,531	\$417	\$10,531	\$10,675	\$0	\$3	\$564
2024	\$7,518	\$564	\$7,518	\$0	\$16,861	\$50	\$9,956
2025	\$7,669	\$9,956	\$7,669	-\$10,850	\$19,361	\$54	\$10,853
2026	\$7,822	\$10,853	\$7,822	\$0	\$15,187	\$91	\$18,309
2027	\$11,298	\$18,309	\$11,298	\$0	\$7,822	\$74	\$14,907
2028	\$11,524	\$14,907	\$11,524	\$0	\$11,298	\$73	\$14,754
2029	\$11,755	\$14,754	\$11,755	\$0	\$11,524	\$73	\$14,596
2030	\$11,990	\$14,596	\$11,990	\$0	\$11,755	\$72	\$14,433
2031	\$12,230	\$14,433	\$12,230	\$0	\$11,990	\$71	\$14,264
2032	\$12,474	\$14,264	\$12,474	\$0	\$12,230	\$70	\$14,090
2033	\$12,724	\$14,090	\$12,724	\$0	\$12,474	\$69	\$13,909
2034	\$12,978	\$13,909	\$12,978	\$0	\$12,724	\$68	\$13,723
2035	\$13,238	\$13,723	\$13,238	\$0	\$12,978	\$67	\$13,531
2036	\$13,503	\$13,531	\$13,503	\$0	\$13,238	\$66	\$13,333
2037	\$77,171	\$13,333	\$77,171	\$0	\$64,671	\$4	\$837
TOTAL	\$234,425	\$417	\$234,425	-\$175	\$234,114	\$906	\$837

Table 3.2 Definitions:

(Thousands of Dollars)

Column 1:	Spent Fuel Management Costs Reflects the Total Annual Spent Fuel Management cost in 2023 dollars at a 2% escalation rate.
Column 2:	Beginning of Period Funded Balance Reflects the Funded Balance as of January 1 of each year.
Column 3:	ADP Withdrawals Reflects the annual expenditures from the Irradiated Fuel Management Account in 2023 dollars at a 2% escalation rate paid by ADP SF1 pursuant to the SNF Services Agreement dated October 1, 2020.
Column 4:	ADP Incremental Contributions (Distributions) Reflects ADP incremental contributions and (distributions).
Column 5:	DOE Cost Recovery Reflects Cost Recovery from DOE for breach of the Standard Contract in 2023 dollars at a 2% escalation rate. <ul style="list-style-type: none"> • Conservatively assumes recovery of approximately 91% of costs, net of legal costs and disallowed costs • Year 2024: \$16,861 recovery reflects initial NorthStar DOE settlement for costs incurred from 2020 thru 2021 • Year 2025: \$19,361 recovery reflects initial NorthStar DOE settlement for costs incurred from 2022 thru 2023 • Year 2026: \$15,187 recovery reflects initial NorthStar DOE settlement for costs incurred from 2024 thru 2025 • Year 2037: \$64,671 reflects NorthStar DOE settlement for costs incurred in 2036 and 2037. (excludes recovery DOE Fuel Loading Costs - \$21,415 incurred in 2037)
Column 6:	Annual Earnings on Funds Reflects earnings on funds remaining in the account. A 2% Earnings rate is used over a 0% cost escalation rate. The annual 2% earnings are calculated on the Beginning Balance (Column 4) minus 100% of withdrawals (Column 5) plus 100% of contributions (Column 6) multiplied by the 2% annual earnings rate.
Column 7:	End of Year Fund Balance Reflects the End-of-Year Trust Fund Balance. - (Column 2 minus Column 3 plus Column 4 plus Column 5 plus Column 6)