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10 CFR 50.82(a)(7)

June 26, 2019

U.S. Nuclear Regulatory Commission
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Subject: Notification of Revised Post-Shutdown Decommissioning Activities Report (Revised PSDAR)
Crystal River Unit 3 Nuclear Generating Plant (CR-3)
Docket Nos. 50-302 & 72-1035
License No. DPR-72

References:
(1) Letter, Duke Energy Florida, LLC (DEF) to USNRC, "Application for Order Consenting to Direct Transfer of Control of Licenses and Approving Conforming License Amendment" June 14, 2019 (ADAMS Accession No. ML19170A195).

(2) Letter, Duke Energy Florida, LLC (DEF), to USNRC transmitting "Post Shutdown Decommissioning Activities Report." December 2, 2013 (ADAMS Accession No. ML13340A009).

In Reference 1, Duke Energy Florida, LLC ("DEF"), on behalf of itself and ADP CR3, LLC ("ADP CR3"), and Accelerated Decommissioning Partners, LLC ("ADP"), requested that the U.S. Nuclear Regulatory Commission ("NRC") consent to direct and indirect transfers of control of DEF's Facility Operating License No. DPR-72 for the Crystal River Unit 3 Nuclear Generating Plant ("CR-3), as well as the general license for the CR-3 Independent Spent Fuel Storage Installation (the "Licenses"). ADP is submitting this Revised Post Shutdown Decommissioning Activities Report providing the plan for activities to be conducted by ADP CR3 and ADP, if the Application for license transfers is approved.

In Reference 2, DEF submitted a Post Shutdown Decommissioning Activities Report in accordance with 10 CFR 50.82, "Termination of license," paragraph (a)(4)(i) ("2013 PSDAR"). This letter is provided to notify the NRC of a significant schedule change to the 2013 PSDAR in accordance with 10 CFR 50.82, "Termination of license," paragraph (a)(7), by which we intend to accelerate the decommissioning schedule if the Application for license transfers is approved. The Revised PSDAR is provided as an attachment to this letter. The attached Revised PSDAR demonstrates that our elected actions are consistent with NRC requirements for decommissioning activities.

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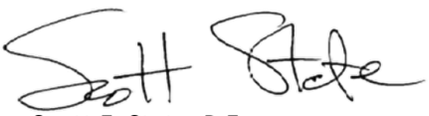
If you have any questions about this letter, please contact me at 212.951.3660 or sstate@northstar.com.

Again, thank you for the opportunity to provide the attached information and we look forward to further discussions.

Sincerely,



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

CRYSTAL RIVER UNIT 3

Revised Crystal River Unit 3 Post Shutdown Decommissioning Activities Report

Prepared by Accelerated Decommissioning Partners, LLC

June 26, 2019

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Acronyms

ADP	Accelerated Decommissioning Partners LLC.
AIF	Atomic Industrial Forum
ALARA	As Low As Reasonably Achievable
BMP	Best Management Practices
CFR	Code of Federal Regulations
CR3	Crystal River Unit 3
CREC	Crystal River Energy Complex
DCE	Decommissioning Cost Estimate
D&D	Decontamination and Dismantlement
DEF	Duke Energy Florida, LLC.
DOE	Department of Energy
DSEIS	Draft Supplemental Environmental Impact Statement (NUREG-1437, Supp. 44)
FDEP	Florida Department of Environmental Protection
FPSC	Florida Public Service Commission
GEIS	Generic Environmental Impact Statement (NUREG-0586)
GTCC	Greater than Class C
GW	Groundwater
ISFSI	Independent Spent Fuel Storage Installation
LLRW	Low-Level Radioactive Waste
LTP	License Termination Plan
MARSSIM	Multi-Agency Radiation Survey and Site Investigation Manual
MWt	Megawatt-thermal
NEI	Nuclear Energy Institute
NESP	National Environmental Studies Project
NPDES	National Pollutant Discharge Elimination System
PSDAR	Post-Shutdown Decommissioning Activities Report
PWR	Pressurized Water Reactor
SAR	Safety Analysis Report
SFP	Spent Fuel Pool
SNF	Spent Nuclear Fuel
SSCs	Structures, Systems and Components

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1.0 INTRODUCTION AND SUMMARY

1.1 Introduction

This revised Post-Shutdown Decommissioning Activities Report (Revised PSDAR) for the Crystal River Unit 3 (CR3) is submitted to notify the U.S. Nuclear Regulatory Commission (NRC) of changes in the actions and schedules previously described in the PSDAR for CR3 submitted in December 2013 (Reference 1) (2013 PSDAR), supplemented by letter dated June 17, 2014 (Reference 2), and accepted by the NRC by letter dated March 11, 2015 (Reference 3). The 2013 PSDAR was submitted in accordance with the requirements of Title 10 of the Code of Federal Regulation (CFR) 50.82, "Termination of license" paragraph (a) (4) (i), and this PSDAR updates the information previously provided as required by 10 CFR 50.82(a)(7).

This Revised PSDAR is intended to apply based upon and contingent upon Duke Energy Florida, LLC. (DEF) completing a transfer of the NRC License for CR3 pursuant to the terms of the Decommissioning Services Agreement between DEF and ADP CR3, LLC. (ADP) dated as of May 29, 2019. Contemporaneously with the submittal of this Revised PSDAR, DEF and ADP will submit a joint petition to the Florida Public Service Commission seeking approval of the proposed decommissioning services arrangement. DEF and ADP submitted an application to the NRC requesting approval of the transfer of control of CR3 to ADP and of the transfer of the authority to possess, maintain and decommission CR3 from DEF to ADP (Reference 4). Upon completion of the proposed transfer, ADP will assume control of the CR3 facilities. In the event that ADP does not complete the proposed transaction, this revised PSDAR will be ineffective, and the 2013 PSDAR will remain in effect.

This revised PSDAR, which will apply upon ADP becoming the licensee for CR3, contains the following:

1. A description of the planned decommissioning activities along with a schedule for their accomplishment.
2. A discussion that provides the reasons for concluding that the environmental impacts associated with site-specific decommissioning activities will be bounded by appropriate previously issued environmental impact statements.
3. A site-specific decommissioning cost estimate (DCE), including the projected cost of managing irradiated fuel.

This Revised PSDAR is also consistent with expectations of the Florida Department of Environmental Protection (FDEP) regarding the decommissioning of CR3, as set forth FDEP letter to DEF dated February 15, 2019 ("Decommissioning End State Conditions").

The PSDAR has been developed consistent with Regulatory Guide 1.185, "Standard Format and Content for Post-Shutdown Decommissioning Activities Report," (Reference 5). This report is based on currently available information and the plans discussed herein may be modified as additional information becomes available or conditions change. As required by 10 CFR 50.82(a)(7), ADP will notify the NRC in writing before performing any decommissioning activity inconsistent with, or making any significant schedule change from, those actions and schedules described in the PSDAR, including changes that significantly increase the decommissioning cost.

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1.2 Background

CR3 is part of the larger Crystal River Energy Complex (CREC), which is located on the Gulf of Mexico in Citrus County, Florida. DEF is the owner of the complex with ADP assuming control of CR3. This site location is approximately 7.5 miles northwest of the City of Crystal River, and 80 miles north of Tampa. In addition to CR3, other structures on the CREC include four fossil-fueled units (two operational and two permanently shut down), two large cooling towers, coal delivery and storage areas, ash storage area, office buildings, warehouses, barge handling docks, and a railroad. CR3 uses approximately 27 acres of previously disturbed land within the 1,062-acre developed portion of the 4,738-acre CREC site. A request for partial site release of 3,854 acres of non-impacted land from the 4,738-acre CREC site was submitted to the NRC on January 22, 2019 and is currently under review. CR3 is located at latitude 28° 57' 25.87" north and longitude 82° 41'" west.

CR3 is a single unit pressurized light-water reactor (PWR) supplied by Babcock & Wilcox. CR3 was initially licensed to operate at a maximum of 2,452 megawatt-thermal (MWt). In 1981, 2002, and 2007, the NRC approved three DEF requests to increase the licensed core power level to a maximum power level of 2,609 MWt. The reactor containment structure is a steel-lined, reinforced-concrete structure in the shape of a cylinder and capped with a shallow dome. The walls of the containment structure are approximately 3.5 feet thick. During operation, cooling water for CR3 was drawn from and returned to the Gulf of Mexico.

A brief history of the major milestones related to CR3 construction and operational history is as follows:

- Construction Permit Issued: September 25, 1968
- Operating License Issued: January 28, 1977
- Commercial Operation: March 13, 1977
- Initial Operating License Expiration: December 3, 2016
- Final Reactor Shutdown: September 26, 2009
- Final Removal of Fuel from Reactor Vessel: May 28, 2011
- Final Transfer of Fuel from Pool to ISFSI Pad January 12, 2018

By letter dated February 20, 2013, (Reference 6), DEF provided the NRC with the certification required by 10 CFR 50.82(a)(1)(i) and (ii), that operation had permanently ceased and that all fuel had been permanently removed from the reactor vessel at CR3. Upon docketing of these certifications pursuant to 10 CFR 50.82(a)(2), the 10 CFR Part 50 license for CR3 no longer authorized operation of the reactor or emplacement or retention of fuel in the reactor vessel.

On March 13, 2013, the NRC acknowledged the DEF certification of permanent cessation of power operation and permanent removal of fuel from the vessel, and that pursuant to 10 CFR 50.82(a)(2), the 10 CFR Part 50 license for CR3 no longer authorized operation of the reactor or emplacement or retention of fuel in the reactor vessel (Reference 7).

Pursuant to 10 CFR 50.51(b), “Continuation of license,” the license for a facility that has permanently ceased operations, continues in effect beyond the expiration date to authorize

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ownership and possession of the utilization facility until the Commission notifies the licensee in writing that the license has been terminated.

During the period that the modified license remains in effect, 10 CFR 50.51(b) requires that ADP:

1. Take actions necessary to decommission and decontaminate the facility and continue to maintain the facility including storage, control, and maintenance of the spent fuel in a safe condition.
2. Conduct activities in accordance with all other restrictions applicable to the facility in accordance with NRC regulations and the 10 CFR 50 facility license.

10 CFR 50.82(a)(9) states that power reactor licensees must submit an application for termination of the license at least two years prior to the license termination date and that the application must be accompanied or preceded by a license termination plan to be submitted for NRC approval.

1.3 Summary of Decommissioning Alternatives

The NRC has evaluated the environmental impacts of three general methods for decommissioning power reactor facilities in NUREG-0586, "Final Generic Environmental Impact Statement on Decommissioning of Nuclear Facilities: Supplement 1, Regarding the Decommissioning of Nuclear Power Reactors," (GEIS) (Reference 8). The three general methods evaluated are summarized as follows:

- DECON: The equipment, structures and portions of the facility and site that contain radioactive contaminants are promptly removed or decontaminated to a level that permits termination of the license shortly after cessation of operations.

- SAFSTOR: After the plant is shut down and defueled, the facility is placed in a safe, stable condition and maintained in that state (safe storage). The facility is decontaminated and dismantled at the end of the storage period to levels that permit license termination. During SAFSTOR, a facility is left intact or may be partially dismantled, but the fuel is removed from the reactor vessel and radioactive liquids are drained from systems and components and then processed. Radioactive decay occurs during the SAFSTOR period, thereby reducing the quantity of contamination and radioactivity that must be disposed of during decontamination and dismantlement.

- ENTOMB: Radioactive structures, systems and components (SSCs) are encased in a structurally long-lived substance, such as concrete. The entombed structure is appropriately maintained, and continued surveillance is carried out until the radioactivity decays to a level that permits termination of the license.

The decommissioning approach selected by DEF for CR3 as stated in the 2013 PSDAR was the SAFSTOR method. In this Revised PSDAR, ADP has selected the DECON method, with decontamination and dismantlement activities commencing promptly. The primary objectives of the CR3 decommissioning project remain to remove the facility from service, reduce residual radioactivity to levels permitting unrestricted release, restore the site, perform this work safely, and complete the work in a cost-effective manner.
ADP intends to complete radiological decommissioning, site restoration, and release for

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unrestricted use of all portions of the site other than the Independent Spent Fuel Storage Installation ("partial license termination") potentially as soon as 2026, but no later than the end of 2030. In accordance with 10CFR50.82(a)(9), a license termination plan will be developed and submitted for NRC approval at least 2 years prior to the expected date for partial site termination. Full NRC license termination will not occur until spent fuel and greater than class C (GTCC) has been removed from the site and the ISFSI is decommissioned.

With approval of the pending partial site release request and planned partial license termination, ADP plans to release the large majority of the CR3 site property for redevelopment decades sooner than planned under the 2013 PSDAR, thereby reducing the overall risk to the workers, public, and environment associated with the long-term storage of aged, excess nuclear facilities.

The decommissioning approach for CR3 is described in the following sections.

- Section 2.0 describes the planned decommissioning activities and the general timing of their implementation.
- Section 3.0 describes the overall decommissioning schedule, including the spent fuel management activities.
- Section 4.0 provides an analysis of expected decommissioning costs, including the costs associated with spent fuel management and site restoration.
- Section 5.0 describes the basis for concluding that the environmental impacts associated with decommissioning CR3 are bounded by the NRC generic environmental impact statement related to decommissioning.
- Section 6.0 is a list of references.

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2.0 DESCRIPTION OF PLANNED DECOMMISSIONING ACTIVITIES

ADP plans to use the DECON method following contract execution. DECON is broadly defined in Section 1.3 of this report. Use of the DECON method will require the management of Spent Nuclear Fuel (SNF) because of the failure of the Department of Energy to perform its spent fuel removal obligations under the Standard Contract for Disposal of Spent Nuclear Fuel and/or High-Level Radioactive Waste (Standard Contract) for the CR3 SNF. An affiliate of ADP, ADP SF1, LLC (ADP SF1), has assumed title to the SNF and all rights under the Standard Contract. ADP SF1 will be responsible for funding the SNF costs incurred by ADP, and it will secure funds for this activity from its parent companies and through damages recoveries from DOE. To explain the basis for projecting the cost of managing SNF, a discussion of SNF management activities for the site is included herein. ADP has accelerated the timeline for the decontamination and dismantlement phase of the project and intends to begin DECON promptly after ADP becomes the NRC-licensed operator of the single-reactor facility and after transition of CR3 from Duke to ADP.

During the initial phase of decommissioning, the plant was configured to ensure continued safe storage of spent fuel while it remained in the spent fuel pool (SFP). Other activities being performed under the 2013 PSDAR have involved preparing the plant for a period of dormancy. This entailed draining fluids and de-energizing systems, and reconfiguring the electrical distribution, ventilation, heating, and fire protection systems. The spent fuel has been transferred to the ISFSI for dry storage until possession is transferred to the DOE. Spent fuel racks have been removed and shipped for disposal, and the spent fuel pool has been cleaned out and dewatered. The spent fuel will be stored in on-site dry storage at the ISFSI until transfer to the DOE, or an approved interim storage facility, which is assumed to be completed by 2037.

Under this revised PSDAR, ADP will commence decontamination and dismantlement (D&D) activities soon after the closing of the proposed transaction.

For the purposes of ADP's DECON decommissioning cost estimate ("DECON DCE"), it is assumed that remaining structures within the power block are to be demolished to depths of three feet below grade and backfilled with clean fill material. The Florida Department of Environmental Protection has concurred with the removal depth.

Decommissioning activities will be performed in accordance with written, reviewed and approved site procedures, as amended for ADP to begin decommissioning. There are no identified or anticipated decommissioning activities that are unique to the CR3 site and outside the bounds considered in the GEIS.

Radiological and environmental programs will be maintained throughout the decommissioning process to ensure occupational, public health and safety, and environmental compliance with all applicable laws and regulations. Radiological programs will be conducted in accordance with the facility's revised Technical Specifications, Operating License, Defueled Safety Analysis Report (DSAR), Radiological Environmental Monitoring Program, and the Offsite Dose Calculation Manual, as amended for ADP to begin decommissioning. Non-radiological Environmental Programs will be conducted in accordance with applicable requirements and permits.

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Appendix 1 includes the following information:

- Table 1 – Decommissioning Cost Summary
- Table 2 – Decommissioning Annual Spend

2.1 Discussion of Decommissioning Periods

The following narrative describes the basic activities associated with decommissioning CR3. The DECON DCE is divided into phases or periods based upon major milestones within the project or significant changes in the projected expenditures. The following sub-sections correspond to the major decommissioning periods within the estimate. Further details regarding the DECON DCE are provided in Tables 1 and 2 in Attachment 1.

2.1.1 Period 2: ISFSI Operations

ISFSI construction was completed and the spent fuel was transferred from the spent fuel pool to horizontal storage modules located on the ISFSI pad adjacent to the former power block ahead of schedule and was completed in January 2018. DEF will continue final preparations for Dormancy until ADP assumes control of CR3, upon which time ADP will initiate decommissioning as described in 2.1.3 and 2.1.4. For the ADP DECON DCE, the ISFSI Operations Period commences after CR3 transfer to ADP.

ISFSI Operations activities include a 24-hour security force, preventive and corrective maintenance on security systems, area lighting, general building maintenance, routine radiological inspections and a site environmental and radiation monitoring program. Maintenance or vendor personnel, as appropriate, perform equipment maintenance, inspection activities, routine services to maintain safe conditions, adequate lighting, heating, and ventilation, and periodic preventive maintenance on essential site services. Following removal of SNF and GTCC from the ISFSI, the ISFSI pad will be decommissioned.

An environmental surveillance program will be carried out during the ISFSI Operations period to monitor any radiological impacts to the environment. The environmental surveillance program constitutes an abbreviated version of the program in effect during normal plant operations. Emergency planning exemptions are in effect based on analyses that indicate any releases beyond the exclusion area boundary are below the EPA Protective Action Guides exposure levels.

Security during the ISFSI Operations period will be conducted primarily to safeguard the spent fuel while on site and prevent unauthorized entry. The security fence, sensors, alarms, and other surveillance equipment provide security.

For planning purposes, ADP's current CR3 spent fuel management plan is based, in general, upon the following projections: 1) Assuming priority pickup for the spent fuel from shutdown reactors, a 2034 start date for the DOE initiating transfer of commercial spent fuel to a federal facility, 2) a corresponding 2036 date for beginning to remove spent fuel from CR3, and 3) a 2037 completion date for removal of all CR3 spent fuel, although transfer could occur earlier if the DOE is successful in implementing its current strategy for the management and disposal of spent fuel. The ISFSI will then be decommissioned.

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2.1.2 Period 3: Preparations for Decommissioning

ADP will commence preparations for decommissioning after CR3 is transferred. Preparations are undertaken to reactivate site services and prepare for decommissioning. Preparations include engineering and planning, a detailed site characterization, and the assembly of a decommissioning management organization. Final planning for activities and the writing of activity specifications and detailed procedures are also initiated at this time.
At least two years prior to the anticipated date of license termination, a License Termination Plan (LTP) is required. Submitted as a supplement to the SAR or its equivalent, the plan must include: a site characterization, description of the remaining dismantling activities, plans for site remediation, procedures for the final radiation survey, designation of the end use of the site, an updated cost estimate to complete the decommissioning, and any associated environmental concerns. The NRC will notice the receipt of the plan, make the plan available for public comment, and schedule a local hearing. LTP approval will be subject to any conditions and limitations as deemed appropriate by the Commission.

2.1.3 Period 4: Decommissioning

This period includes the physical decommissioning activities associated with the removal and disposal of contaminated and activated components and structures, including the successful termination of the 10 CFR 50 operating license. Although the initial radiation levels due to ^{60}Co- decreased during the dormancy period, the internal components of the reactor vessel will still exhibit sufficiently high radiation dose rates to require remote sectioning under water since the ^{60}Co levels are still significant. Portions of the biological shield will also be radioactive due to the presence of activated trace elements with long half- lives (^{152}Eu and ^{154}Eu). Decontamination will require controlled removal and disposal. It is assumed that radioactive corrosion products on inner surfaces of piping and components will not have decayed to levels that will permit unrestricted use or allow conventional removal.

These systems and components will be surveyed as they are removed and disposed of in accordance with the existing radioactive release criteria.

Significant decommissioning activities in this phase include:

- Reconfiguration, revitalization, and modification of site structures and facilities, as needed, to support decommissioning operations. This may include establishing a centralized processing area to facilitate equipment removal and component preparation for offsite disposal. Modifications may also be required to the reactor building to facilitate equipment access, support the segmentation of the reactor vessel internals, and for large component extraction.
- Design and fabrication of temporary and permanent shielding to support removal and transportation activities, construction of contamination control envelopes, and the procurement of specialty tooling, as needed.
- Procurement (lease or purchase) of shipping canisters, cask liners, and industrial packages for the disposition of low-level radioactive waste (LLRW).
- Decontamination of components and piping systems, as required, to control (minimize) worker exposure.

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- Removal of piping and components no longer essential to support decommissioning operations.
- Removal of control rod drive housings and the head service structure from the reactor vessel head, if required. Off-site shipping of the reactor vessel head with the control rod drive housings and head service structure in one-piece package might be envisioned.
- Removal, disassembly, and segmentation of the reactor internals, if necessary. The reactor internals include the plenum assembly and the core support assembly. Depending on packaging, some material may exceed Class C disposal requirements. Any such material will be packaged in modified fuel storage canisters and safely stored on the ISFSI. Segmentation will maximize the loading of the shielded transport casks (i.e., by weight and activity). The operations will primarily be conducted under water using remotely operated tooling and contamination controls.
- Removal of the reactor vessel. Appropriate ALARA considerations will be factored in during design phase and engineering controls will be implemented during segmentation and packaging activities to minimize the working area dose rates. For example, a shielded platform will be installed for reactor vessel segmentation as cutting operations will be performed in-air using remotely operated equipment within a contamination control envelope.
- Removal of the activated and contaminated portions of the concrete biological shield and accessible contaminated concrete surfaces. If dictated by the steam generator and pressurizer removal scenarios, those portions of the associated D-rings necessary for access and component extraction will be removed.
- Removal of remaining plant systems and associated components as they become non- essential to the decommissioning program or worker health and safety (e.g., waste collection and treatment systems, electrical power and ventilation systems).
- Removal of the steel liners from the refueling canal, disposing of the activated and contaminated sections as radioactive waste. Removal of any activated/contaminated concrete.
- Surveys of the decontaminated areas of the reactor building.
- Remediation and removal of the contaminated equipment and material from the auxiliary building and any other contaminated area. Radiation and contamination controls will be utilized until residual levels indicate that the structures and equipment can be released for unrestricted access and conventional demolition. This activity may necessitate the dismantling and disposition of most of the systems and components (both clean and contaminated) located within these buildings. This activity facilitates surface decontamination and subsequent verification surveys required prior to obtaining release for demolition.
- Routing of material removed in the decontamination and dismantling to a central processing area. Material certified to be free of contamination will be released for unrestricted disposition, e.g., as scrap, recycle, or general disposal. Contaminated material will be characterized and segregated for volume reduction, and waste treatment, and/or packaged for controlled disposal at a low-level radioactive waste disposal facility.

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- Remediation of the West Settling Pond to meet the unrestricted release criteria in 10 CFR 20.1402. The DCE assumes that 500 cubic yards of contaminated soil will be shipped offsite as LLRW for disposal.
- Removal of contaminated underground piping. The DCE assumes that the Station Drain Tank line and the approximately 1,000-foot-long nitrogen line will be removed in order to meet license termination criteria.

Incorporated into the LTP is the Final Survey Plan. This plan identifies the radiological surveys to be performed once the decontamination activities are completed and is developed using the guidance provided in the "Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM)." This document incorporates the statistical approaches to survey design and data interpretation used by the Environmental Protection Agency (EPA). It also identifies state-of- the-art, commercially available instrumentation and procedures for conducting radiological surveys. Use of this guidance ensures that the surveys are conducted in a manner that provides a high degree of confidence that applicable NRC criteria are satisfied. Once the surveys are complete, the results are provided to the NRC in a format that can be verified. The NRC then reviews and evaluates the information, performs an independent confirmation of radiological site conditions, and makes a determination on the requested change to the operating license.

The NRC will terminate the operating license if it determines that site remediation has been performed in accordance with the LTP, and that the terminal radiation survey and associated documentation demonstrate that the facility is suitable for release.

2.1.4 Period 5: Site Restoration

Site restoration activities will begin with demolition of non-radiological buildings and structures outside the radiological controlled area. Structures within the power block will be removed to a nominal depth of three feet below the top grade of the embankment, wherever possible. This assumption was applied to the disposition of all CR3 facilities on the berm and, as a result, the general topography of the berm will be retained at the conclusion of site restoration.

The three-foot depth allows for the placement of gravel for drainage, as well as topsoil, so that vegetation can be established for erosion control. Site areas affected by the dismantling activities are restored and the plant area graded as required to prevent ponding and inhibit the refloating of subsurface materials.

Non-contaminated concrete rubble produced by demolition activities is processed to remove reinforcing steel and miscellaneous embedments. The processed material will then be used on site to backfill foundation voids. Excess non-contaminated materials will be trucked to an offsite area for disposal as construction debris.

Remediation of hazardous constituents will also be conducted during the site restoration phase. Soil containing lead residue will be excavated from the Firing Range and disposed of offsite.

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2.2 General Decommissioning Considerations

2.2.1 Major Decommissioning Activities

As defined in 10 CFR 50.2, "Definitions," a "major decommissioning activity" is "any activity that results in permanent removal of major radioactive components, permanently modifies the structure of the containment, or results in dismantling components for shipment containing greater than class C waste in accordance with § 61.55." The following discussion provides a summary of the major decommissioning activities currently planned for CR3. These activities are envisioned to occur in Period 4 however, the schedule may be modified as conditions dictate.

Prior to starting a major decommissioning activity, the affected components will be surveyed and decontaminated, as required, in order to minimize worker exposure, and a plan will be developed for the activity. Shipping casks and other equipment necessary to conduct major decommissioning activities will be designed and procured.

The initial major decommissioning activities will focus on the removal, packaging and disposal of piping and components that are no longer essential to support decommissioning operations. Additional systems and associated components will be removed as they become non-essential to the reactor vessel removal operations, related decommissioning activities, or worker health and safety.

Following reactor vessel and cavity re-flood, the reactor vessel internals will be removed from the reactor vessel and segmented, if necessary, for packaging or to separate Greater Than Class C (GTCC) waste. The internals comprising the Core Barrel, Baffle Plates, Thermal Shield, Lower Grid and Upper Grid may need to be treated as GTCC waste, in which case the components will be segmented and packaged into dry shielded containers. ADP intends to pursue storage of GTCC containers on the ISFSI pad in Horizontal Storage Modules. Using this approach, the internals will be packaged and disposed of independent of the reactor vessel. When the internals segmentation effort is completed, the reactor vessel and cavity will be drained, and emptied.

Removal of the reactor vessel follows the removal of the reactor internals. Without the internals present, several options are available for the removal and disposal of the reactor vessel: segmentation, sectioning into larger pieces, or disposal as an intact package. It is likely that the components would be removed by sectioning or segmenting performed remotely in-air using cutting technology

Additional major decommissioning activities that would be conducted include the removal and disposal of the steam generators, pressurizer, and reactor coolant system. The dismantling of the containment structure would be undertaken as part of the reactor building demolition.

2.2.2 Other Decommissioning Activities

Secondary side piping and components in the intermediate building and turbine building may require disposal as LLRW due to steam generator tube leaks during operation. Numerous support systems in the Auxiliary Building will require disposal as LLRW.

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2.2.3 Decontamination and Dismantlement Activities

The objectives of the decontamination effort are two-fold. The first objective is to reduce radiation levels throughout the facility in order to minimize personnel exposure during dismantlement.

The second objective is to clean as much material as possible thereby permitting demolition and disposal and minimizing the quantities of material that must be disposed of by burial as radioactive waste. The second objective will be achieved by decontaminating structural components including steel framing and concrete surfaces. The methods to accomplish this are typically mechanical, requiring the removal of the surface or surface coating, and are used regularly in industrial and contaminated sites. The need to decontaminate SSCs will be determined by the schedule to dismantle them and by plant conditions.
The decontamination and/or dismantlement of contaminated SSCs may be accomplished by decontamination in place, decontamination and dismantlement, or dismantlement and disposal. A combination of these methods may be utilized to reduce contamination levels, worker radiation exposures, and project costs. The methods chosen will be those deemed most appropriate for the particular circumstances. Material below the applicable radiological limits will be released for unrestricted disposition (e.g., scrap, recycle, or general disposal). Radioactively contaminated or activated materials will be removed from the site as necessary to allow the site to be released for unrestricted use.

LLRW will be processed in accordance with plant procedures and existing commercial options. Contaminated material will be characterized and segregated for controlled disposal at a LLRW disposal facility.

Contaminated concrete and structural steel components will be decontaminated and removed, as required, in order to gain access to contaminated and uncontaminated systems and components. After the systems and components are removed and processed as described above, the remaining contaminated concrete and structural steel components will be decontaminated and/or removed. Contaminated concrete will be packaged and shipped to a LLRW disposal facility. Contaminated structural steel components may be removed to a processing area for decontamination, volume reduction, and packaging for shipment to a processing facility or to a LLRW disposal facility, as necessary.

Buried and imbedded contaminated components (e.g., piping, drains, etc.) will be decontaminated in place or excavated and decontaminated. Appropriate contamination controls will be employed to minimize the spread of contamination and to protect personnel.

2.2.4 Radioactive Waste Management

A major component of the total cost of decommissioning CR3 is the cost of packaging and disposing of SSCs, contaminated soil, resins, water, and other plant process liquids. A waste management plan will be developed to incorporate the most cost-effective disposal strategy, consistent with regulatory requirements for each waste type. Currently, Class A, B, and C LLRW may be disposed of at the Waste Control Specialists site in Andrews County, Texas. If other licensed LLRW facilities become available, ADP may choose to use them as well. The waste management plan will be based on the evaluation of available methods and strategies for processing, packaging, and transporting radioactive waste in conjunction with the available disposal facility options and associated waste acceptance criteria.

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2.2.5 Removal of Mixed Wastes

Mixed wastes and mixed wastes generated during decommissioning, if any, will be managed in accordance with applicable Federal and State regulations.

Mixed wastes from CR3 will be transported by authorized and licensed transporters and shipped to authorized and licensed facilities. If technology, resources, and approved processes are available, the processes will be evaluated to render the mixed waste non-hazardous.

2.2.6 Site Characterization

There are no changes to the information previously provided in this section.

2.2.7 Groundwater Protection and Radiological Decommissioning Records Program

There are no changes to the information previously provided in this section.

2.2.8 Changes to Management and Staffing

The ADP management team will be comprised of NorthStar, Orano, and incumbent site personnel, including DEF personnel who transfer to ADP team members after CR3 closure.

Throughout the decommissioning process, plant management and staffing levels will be adjusted to reflect the ongoing transition of the site organization.

DEF RESP STAFF 1ST POD - 000017

3.0 SCHEDULE OF PLANNED DECOMMISSIONING ACTIVITIES

ADP intends to pursue the decommissioning of CR3 utilizing a DECON methodology. Work activities associated with the planning and preparation period began after the plant was permanently shut down. The schedule of spent fuel management and decommissioning activities is provided in Attachment 1, Table 1. ADP has made a reasonable determination that the funds in the nuclear decommissioning trust (NDT) for CR3 are adequate to complete decommissioning. ADP SF1 will provide all required funding for SNF management activities. ADP is submitting this Revised PSDAR to provide notification required by 10 CFR 50.82(a)(7) of the changes in activities and schedule to allow decontamination and dismantlement activities to proceed. Work activities associated with the planning and preparation period began before the plant was permanently shut down. The schedule duration (start and end dates) of spent fuel management and major decommissioning activities is provided in Attachment 1, Table 2.

The schedule recognizes that spent fuel will be retained in the ISFSI until it can be ultimately transferred to the DOE or safely moved to a Consolidated Interim Storage (CIS) Facility.

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4.0 ESTIMATE OF DECOMMISSIONING AND SPENT FUEL MANAGEMENT COSTS

10 CFR 50.82(a)(8)(iii) requires that a site-specific DCE be prepared and submitted within two years following permanent cessation of operations. 10 CFR 50.82(a)(4)(i) requires that the PSDAR contain a site-specific DCE, including the projected cost of managing irradiated fuel. The 2013 PSDAR and site-specific DCE fulfilled the requirements of 10 CFR 50.82(a)(4)(i) and 10 CFR 50.82(a)(8)(iii). Duke submitted an updated CR3 DCE, in June 2018, to the NRC.

4.1 Cost Estimate

ADP has prepared a site-specific decommissioning cost estimate for CR3, which also provides projected costs of managing spent fuel, as well as non-radiological demolition and site restoration costs, accounted for separately. The ADP site-specific DCE summary is provided in Attachment 1, Table 1. An annual spending summary of the site-specific DCE and projected cost of managing spent fuel is provided in Attachment 1, Table 2.

The methodology used by ADP to develop its CR3 site-specific DECON DCE follows the basic approach originally advanced by the Atomic Industrial Forum (AIF) in its program to develop a standardized model for decommissioning cost estimates. The results of this program were published as AIF/NESP-036, "Guidelines for Producing Commercial Nuclear Power Plant Decommissioning Cost Estimates," (Reference 9). The AIF report presents a unit cost factor method for estimating direct activity costs, simplifying the estimating process. ADP utilizes the inventory based, bottoms-up, unit cost factor methodology with company specific labor and equipment productivity based on experience decommissioning commercial power reactors, university test reactors, and DOE Facilities and Sites. ADP also used quotes for unit-rates, subcontractors, and defined scopes of work. Analogous estimates were used for unique scopes of work where historical data exists. ADP applied contingency to all decommissioning costs to account for the inherent uncertainty in quantities, productivity, pricing, and schedules, and to ensure that funding is available for unforeseeable costs.

The ADP method for spent fuel management cost is primarily based on staffing levels and cost data from three (3) Northeast region ISFSI's, adjusted for site specific cost factors.

ADP has developed a team of industry leaders and initiated a series of Firm Fixed Price (FFP) and Fixed Unit Price (FUP) subcontracts to minimize the overall cost and schedule risk to the project. By accelerating the CR3 decommissioning and obtaining these FFP and FUP subcontracts, ADP has minimized the overall project risks.

4.2 Decommissioning Funds

Decommissioning costs will be paid for with funds from the site's Nuclear Decommissioning Trust (NDT) fund.

Under NRC regulations (10 CFR 50.82(a)(8)), a licensee must provide reasonable assurance that funds will be available (or "financial assurance") for decommissioning (i.e., license termination) costs. The regulations also describe the acceptable methods a licensee can use to demonstrate financial assurance. Funding for decommissioning CR3 currently is provided by an external trust held by DEF. ADP will continue this practice. The trust had a market value of approximately $731

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million as of April 30, 2019. Further details regarding the financial assurance to be provided by ADP and financial qualifications of ADP are provided in the License Transfer Application submitted by DEF on June 14, 2019 (reference 4).

Adequate funding exists for decommissioning CR3. ADP intends to fund the expenditures for license termination and site restoration from the decommissioning trust fund currently held by DEF, pursuant to ADP's fixed price contract with DEF. Based on a timed cash flow analysis of the radiological decommissioning and site restoration costs, and assuming NDT returns at an annual 2% real, after tax rate of return, the minimum NDT fund balance is assured to fund the $540M period of performance decommissioning cost. Funding for SNF management is being provided by ADP SF1. ADP SF1 will fund ADP's SNF management activities and recover most of its costs from DOE. Its parent companies plan to provide the funding needed by ADP SF1, and over time ADP SF1 will accumulate funds from its parent companies that will be set aside for completing all the required SNF management activities. This commitment to ADP SF1 is backed by formal parental financial Support Agreements totaling $140 million.

10 CFR 50.82(a)(6)(iii) states that, "Licensees shall not perform any decommissioning activities," as defined in 10 CFR 50.2 that, "Result in there no longer being reasonable assurance that adequate funds will be available for decommissioning." ADP does not intend to perform any decommissioning activities that would jeopardize the availability of funds to complete decommissioning.

This PSDAR will not be updated for minor changes in anticipated decommissioning costs. However, the status of the decommissioning funding will continue to be reported to the NRC in accordance with 10 CFR 50.75(f)(1), "Reporting and recordkeeping for decommissioning planning." Additionally, ADP will inform the NRC in writing of any significant schedule and decommissioning cost changes per 10 CFR 50.82(a)(7) and provide an updated site-specific estimate of remaining decommissioning costs with the license termination plan per 10 CFR 50.82(a)(9)(ii)(F). If the funding assurance demonstration shows the NDT is not sufficient, then an alternate funding mechanism allowed by 10 CFR 50.75(e) and the guidance provided in Regulatory Guide 1.159 (Reference 10) will be put in place.

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5.0 ENVIRONMENTAL IMPACTS

There are no changes to the information previously provided in this section.

5.1 Conclusions

Based on the information previously provided in this section, ADP concludes that the environmental impacts associated with planned CR3 site-specific decommissioning activities will be bounded by appropriate, previously issued environmental impact statements. Specifically, the environmental impacts are bounded by the GEIS (Reference 8).

1. The postulated impacts associated with the decommissioning method chosen, DECON, have already been considered in the most recent DSEIS and GEIS.
2. There are no unique aspects of CR3 or of the decommissioning techniques to be utilized that would invalidate the conclusions reached in the most recent DSEIS and GEIS.
3. The methods assumed to be employed to dismantle and decontaminate CR3 are standard construction-based techniques fully considered in the most recent DSEIS and GEIS.

Therefore, it can be concluded that the environmental impacts associated with the site-specific decommissioning activities for CR3 will be bounded by appropriate previously issued environmental impact statements.

10 CFR 50.82(a)(6)(ii) states that licensees shall not perform any decommissioning activities, as defined in 10 CFR 50.2, that result in significant environmental impacts not previously reviewed. No such impacts have been identified.

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6.0 REFERENCES

1. Letter from J. Elnitsky, Vice President Crystal River Nuclear Plant, "Crystal River Unit 3 – Post-Shutdown Decommissioning Activities Report," dated December 2, 2013.

2. Letter from J. Elnitsky, Vice President Crystal River Nuclear Plant, "Crystal River Unit 3 – Post-Shutdown Decommissioning Activities Report – Response to Request for Additional Information," dated June 17, 2014.

3. Letter from M.D. Orenak, Project Manager, Office of Nuclear Reactor Regulation, U.S. Nuclear Regulatory Commission, to T.D. Hobbs, General Manager, Crystal River Nuclear Plant, "Crystal River Unit 3 Nuclear Generating Plant Post-Shutdown Decommissioning Activities Report," dated March 11, 2015.

4. Letter from R. Reising, Senior Vice President, Duke Energy Corporation, "Application for Order Consenting to Direct Transfer of Control of Licenses and Approving Conforming License Amendment, dated June 14, 2019.

5. Regulatory Guide 1.185, "Standard Format and Content for Post-Shutdown Decommissioning Activities Report," Revision 1, dated June 2013.

6. Letter from J.A. Franke, Vice President, Crystal River Nuclear Plant, "Crystal River Unit 3 - Certification of Permanent Cessation of Power Operations and that Fuel Has Been Permanently Removed from the Reactor," dated February 20, 2013. (ADAMS Accession No. ML13056A005)

7. Letter from C. Gratton, Senior Project Manager, Office of Nuclear Reactor Regulation, U.S. Nuclear Regulatory Commission, to J.A. Franke, Vice President, Crystal River Nuclear Plant, "Crystal River Unit 3 Nuclear Generating Plant Certification of Permanent Cessation of Operation and Permanent Removal of Fuel from the Reactor," dated March 13, 2013. (ADAMS Accession No. ML13058A380)

8. NUREG-0586, "Final Generic Environmental Impact Statement on Decommissioning of Nuclear Facilities: Supplement 1, Regarding the Decommissioning of Nuclear Power Reactors," Final Report dated November 2002.

9. AIF/NESP-036, "Guidelines for Producing Commercial Nuclear Power Plant Decommissioning Cost Estimates," dated May 1986.

10. Regulatory Guide 1.159, "Assuring the Availability of Funds for Decommissioning Nuclear Reactors," Revision 2, dated October 2011.

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7.0 ATTACHMENT 1

Table 1 – Decommissioning Cost Summary

Thousands of Period of Performance Dollars

	TOTAL ADP COSTS - POST-CLOSING (2020-2037) (Includes ADP CR3 and SF1)				
	2020-2026	2020-2026	2020-2026	2020-2037	
	License Termination (10 CFR 50.75)	**Site Restoration** (Non 10 CFR 50.75 Costs)	**SubTotal**	**Spent Fuel Management** (10 CFR 50.54(bb))	**Total**
Facility Management	$76,056	$8,149	$84,204		$84,204
Decontamination and Decommissioning	$230,588	$25,090	$255,678	$0	$255,678
Large Component Removal	$97,423		$97,423	$12,953	$110,376
GTCC T&D			$0	$37,396	$37,396
Project Management	$95,844	$6,852	$102,696		$102,696
ISFSI Decommissioning			$0	$5,407	$5,407
Non-ISFSI O&M SubTotal	**$499,910**	**$40,090**	**$540,000**	**$55,755**	**$595,755**
ISFSI Operations & Fuel Mgt. (2020 - 2037)				**2020-2037**	
Facility Management				$207,846	$207,846
ISFSI to DOE Fuel Loading				$21,415	$21,415
ISFSI O&M SubTotal	**$0**	**$0**	**$0**	**$229,261**	**$229,261**
Total Decommissioning Costs	**$499,910**	**$40,090**	**$540,000**	**$285,016**	**$825,016**

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Table 2 – Decommissioning Annual Spend Plan

Thousands of Period of Performance Dollars

	ANNUAL COST PROFILE (2020-2037) (Includes ADP CR3 and SF1)								
	Total ADP Costs								
	2020	2021	2022	2023	2024	2025	2026	(11 years) 2027-2037	TOTAL
Facility Management	$7,900	$14,855	$14,404	$13,812	$13,909	$9,069	$10,255		$84,204
Decontamination and Decommissioning	$23,606	$69,299	$27,852	$24,579	$69,448	$22,529	$18,365		$255,678
Large Component Removal	$0	$6,789	$66,136	$11,946	$12,551	$0	$0		$97,423
Project Management	$7,748	$17,413	$20,228	$20,573	$20,972	$9,876	$5,886		$102,696
Non-ISFSI O&M SubTotal	**$39,254**	**$108,356**	**$128,620**	**$70,909**	**$116,880**	**$41,474**	**$34,506**	**$0**	**$540,000**
ISFSI Operations & Spent Fuel Mgt. (2020 - 2037)									
Facility Management	$7,820	$7,976	$8,136	$8,298	$8,464	$8,634	$8,806	$149,712	$207,846
GTCC Packaging, Transportation, Disposal			$11,635	$1,319				$37,396	$50,349
ISFSI to DOE Fuel Loading								$21,415	$21,415
ISFSI Decommissioning								$5,407	$5,407
ISFSI O&M SubTotal	**$7,820**	**$7,976**	**$19,770**	**$9,617**	**$8,464**	**$8,634**	**$8,806**	**$213,929**	**$285,016**
Total Decommissioning Costs	**$47,074**	**$116,332**	**$148,390**	**$80,526**	**$125,345**	**$50,108**	**$43,313**	**$213,929**	**$825,016**

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~~CONTAINS PROPRIETARY INFORMATION WITHHOLD UNDER 10 CFR § 2.390~~
(NOT PROPRIETARY WITHOUT ENCLOSURES 1P AND 2P ATTACHED)

DUKE ENERGY®

Crystal River Nuclear Plant
15760 W. Power Line Street
Crystal River, FL 34428
Docket 50-302
Docket 72-1035
Operating License No. DPR-72

10 CFR 50.80
10 CFR 50.90
10 CFR 72.50

June 14, 2019
3F0619-01

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

Subject: Application for Order Consenting to Direct Transfer of Control of Licenses and Approving Conforming License Amendment

Dear Sir:

In accordance with Section 184 of the Atomic Energy Act, 10 CFR 50.80, and 10 CFR 72.50, Duke Energy Florida, LLC (DEF), on behalf of itself and ADP CR3, LLC (ADP CR3) (together, Applicants), respectfully requests that the U.S. Nuclear Regulatory Commission (NRC) consent to the direct transfers to ADP CR3 of DEF's licensed authority under Facility Operating License No. DPR-72 for the Crystal River Unit 3 Nuclear Generating Plant (CR-3) (the Facility License) and the general license for the CR-3 Independent Spent Fuel Storage Installation (ISFSI) (the Licenses) to possess, maintain, and decommission CR-3 and the ISFSI (collectively, the CR-3 Facility). The Applicants request that the NRC consent to these transfers so as to implement expedited decommissioning at CR-3. DEF will remain named as the NRC owner licensee. In addition, Applicants request that the NRC approve a conforming administrative amendment to the Facility License to reflect the proposed direct transfer of authority under the Facility License from DEF to ADP CR3.

ADP CR3 is a wholly owned subsidiary of Accelerated Decommissioning Partners, LLC (ADP), which is a joint venture of NorthStar Group Services, Inc. (NorthStar) (75%) and Orano Decommissioning Holdings LLC (Orano) (25%). Orano is owned by Orano USA LLC, which was formerly AREVA Nuclear Materials, LLC. NorthStar and Orano formed ADP to leverage their substantial collective experience relevant to decommissioning

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commercial nuclear reactors, to acquire control of reactor sites, and to execute prompt decommissioning.

DEF has entered into a Decommissioning Services Agreement (DSA) with ADP CR3, which provides that ADP CR3 will assume the role of licensee responsible for all activities conducted under the Licenses, upon NRC approval of the transfers to ADP CR3. ADP CR3 has agreed that it will decommission the CR-3 Facility under the terms of the DSA, and ultimately obtain termination of the Licenses, pursuant to a fixed price services arrangement. The fixed price is equal to a specified amount, and earnings thereon, in a segregated account being created in DEF's nuclear decommissioning trust fund (NDT). The NDT account will be used to decommission the CR-3 Facility, other than the ISFSI, and to achieve partial license termination on an accelerated schedule. DEF has agreed that it will direct the trustee of the NDT to disburse payments from this account each month based upon certifications from ADP CR3 that it has completed various scopes of decommissioning work up to the total amount available in the account. DEF will maintain a separate decommissioning reserve account within its NDT that will likely exceed $100 million.

The parties have also agreed that ADP SF1, LLC (ADP SF1), an affiliate of ADP CR3 also wholly owned by ADP, will enter into a Purchase and Sale Agreement with DEF, pursuant to which ADP SF1 will acquire the ISFSI and its associated equipment, and title to the CR-3 spent nuclear fuel, the high-level waste, and the greater than Class C waste at the CR-3 Facility. DEF will also assign 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 will own, but not possess, the ISFSI and its associated equipment, the spent fuel and waste pursuant to the general license provided in 10 CFR 72.6(b). ADP CR3 will possess the ISFSI and its associated equipment, the spent fuel and waste under the Licenses. ADP SF1 will enter into an agreement with ADP CR3, under which ADP SF1 will pay ADP CR3 for all costs of operating, maintaining, and decommissioning the ISFSI, and for ultimately removing all material owned by ADP SF1 from the CR3 site. ADP SF1 intends to recover a substantial portion of these costs from DOE. ADP SF1 also will have access to funds provided by its parent companies to pay ADP CR3 for such costs pending ADP SF1's recovery of those costs from DOE.

ADP SF1 estimates that the current cost of decommissioning the ISFSI is $3.7 million, and ADP SF1 will establish a nuclear decommissioning trust fund for purposes of holding funds to decommission the ISFSI. At the time of the license transfer, ADP SF1 will provide financial assurance for ISFSI decommissioning using one of the methods set forth in 10 CFR 72.30(e). ADP SF1 may propose to deposit $3.95 million in the trust, which at the allowed 2% real rate of return would be projected to grow to the $5.4 million by 2037, when the ISFSI is expected to be decommissioned.

A simplified organization chart reflecting the current CR-3 licensee, DEF, and its owner is provided in Figure 1 following this letter. A simplified organization chart reflecting ADP CR3 and ADP SF1 is depicted in Figure 2. These organization charts are "simplified" in that they only show the companies in the chain of ownership of the licensee entities. After

the proposed transfers, DEF will continue to own the CR-3 Facility, as well as its associated assets and real estate (including its NDT), except for the ISFSI, the spent nuclear fuel, the high level waste, the greater than Class C waste and the associated storage canisters, which will be owned but not possessed by ADP SF1.

Information supporting this request for consent and approval is included in the attached "Application for Consent to Direct Transfer of Control of Licenses and Approval of Conforming License Amendment" (Application), which is provided as Attachment 1. In addition, a proposed conforming amendment is provided as a mark-up version in Attachment 2 and a clean version in Attachment 3. A no significant hazards consideration analysis is provided in Attachment 4.

These transfers are desirable and of considerable benefit to the citizens of Florida, because they will result in the decommissioning of the CR-3 Facility, and the release of all portions of the site other than the ISFSI on an accelerated schedule. Currently, DEF has selected the SAFSTOR method of decommissioning CR-3, and its current decommissioning plans, as described in its 2013 Post Shutdown Decommissioning Activities Report (PSDAR), assume the completion of radiological decommissioning by 2073 and site restoration by 2074. Under the terms of the proposed transaction, ADP CR3 would become responsible under the Licenses for all licensed activities at the CR-3 Facility. ADP CR3 would begin decommissioning activities promptly and would plan to complete radiological decommissioning and restoration of the non-ISFSI portions of the CR-3 site in 2027.

ADP CR3 has analyzed the remaining expected costs of decommissioning, including the expected annual cash flows, and it believes that with conservative NDT investments that are designed to assure the preservation of the fund to be available for prompt decommissioning, the funds available to ADP CR3 in the NDT account will be sufficient to pay all of the annual expected costs of decommissioning the CR-3 Facility. This is based on the estimate of the remaining expected costs of decommissioning. Further, the major decommissioning work will be performed under fixed price or fixed unit contracts, subject to performance bonds (or insurance, where appropriate) issued by qualified surety companies to guarantee the performance of the tasks, and with withdrawals from the NDT limited under a decommissioning pay-item approach, which reasonably assures completion of the work within the cost estimates. In addition, under this approach, any cost overruns on one task do not affect the funds remaining in the NDT to pay for the completion of other tasks.

The financial assurance required by 10 CFR 50.75 and 10 CFR 50.82(a)(8)(vi) for decommissioning the CR-3 Facility will be provided by DEF using the prepayment method in accordance with 10 CFR 50.75(e)(1)(i). In addition, NorthStar and Orano will provide parental financial Support Agreements to ADP CR3 in the total amount of $140 million to assure that ADP CR3 is able to meet its financial and regulatory obligations to possess, maintain, and decommission the CR-3 Facility within the fixed price agreement and to comply with all NRC requirements until the Licenses are terminated. The $140 million Support Agreements will also assure ADP SF1's ability to fund its obligations to ADP

CR-3. Based upon its ability to fund decommissioning from the NDT under the terms of the DSA, the pay-item approach, performance bonds, the parental Support Agreements, and funds provided by ADP SF1, ADP CR3 will be financially qualified to perform its obligations under the Facility Licenses.

The information in the attached Application demonstrates: (1) the proposed transfer of DEF's possession, maintenance, and decommissioning authority under the Licenses to ADP CR3 will accelerate the timely decommissioning of the CR-3 site; (2) ADP CR3 has the requisite managerial, technical, and financial qualifications to perform its obligations under the Licenses; (3) the DEF NDT provides reasonable assurance of funding for decommissioning the CR-3 Facility; (4) the material terms of the Licenses will not be affected; and (5) the transfers requested in the Application will not result in any impermissible foreign ownership, control or domination.

In parallel with the NRC's review of this Application, ADP CR3 plans to prepare and submit an updated PSDAR, reflecting ADP CR3's plans for accelerated decommissioning following the proposed transfers of authority under the Licenses that will become effective after license transfer.

The Applicants respectfully request that the NRC review and complete action expeditiously on the enclosed Application and consent to the proposed transfers. We are prepared to work closely with the NRC Staff to facilitate the review of the Application. Applicants request that the NRC issue an Order by December 31, 2019 approving the amendments to the Facility License and authorizing the transfers to take place at any time through December 31, 2020. Applicants also request that the license amendment be made effective as of the date the transfers are completed. DEF will notify the NRC staff at least 2 business days prior to the expected closing date for the transaction.

There are certain regulatory filings and approvals beyond that of the NRC which must be made and obtained prior to the closing of the proposed transaction, including Florida Public Service Commission approval. Applicants will keep the NRC informed of any significant changes in the status of other required approvals or developments that could have an impact on the closing date.

In summary, the proposed transfers will not be inimical to the common defense and security or result in any undue risk to public health and safety, and the transfers will be consistent with the requirements of the Atomic Energy Act and the NRC regulations.

Separately bound Enclosures 1P and 2P of the Application contain confidential commercial and financial information. The Applicants request that this information be withheld from public disclosure pursuant to 10 CFR § 2.390, as described in the Affidavit provided in Attachment 5. A redacted version of these documents, suitable for public disclosure, is provided as Enclosures 1 and 6 to Attachment 1.

In accordance with 10 CFR 50.91(b)(1), a copy of this submittal has been sent to the State of Florida.

In the event that the NRC has any questions about the proposed transaction described in this letter and in the Application or wishes to obtain any additional information about the proposed transfers, please contact Phyllis Dixon of DEF at 352-501-3355 or phyllis.dixon@duke-energy.com, or contact Gregory G. DiCarlo of NorthStar Group Services, Inc. at 203-222-0584 x3051 or GDiCarlo@NorthStar.com.

Service upon the Applicants of any notices, comments, hearing requests, intervention petitions, or other pleadings should be made to:

For DEF:

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550 South Tryon Street
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E-mail: Tracey.Leroy@duke-energy.com

John E. Matthews
Grant W. Eskelsen
Morgan, Lewis & Bockius LLP
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Washington, D.C. 20005
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E-mail: john.matthews@morganlewis.com
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For ADP CR3:

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NorthStar Group Services, Inc.
Vice President & General Counsel
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Trumbull, CT 06611
Phone: 203-222-0584 x3051
E-mail: GDiCarlo@NorthStar.com

Michael G. Lepre
Timothy J.V. Walsh
Pillsbury Winthrop Shaw Pittman LLP
1200 Seventeenth Street, NW
Washington, DC 20036
Phone: 202.663.8193
E-mail: michael.lepre@pillsburylaw.com
E-mail: timothy.walsh@pillsburylaw.com

In addition, please place the above individuals on the NRC correspondence distribution for all correspondence related to the Application.

This correspondence contains no new regulatory commitments of DEF.

I declare under penalty of perjury that the foregoing regarding DEF is true and correct. Executed on June 14, 2019.

Sincerely,

Ronald Reising, Senior Vice President
Operations Support

Enclosures: Figure 1 – Simplified Organization Chart (Current)

Figure 2 – Simplified Organization Chart (Post-Transfer)

Attachment 1 – Application for Order Approving License Transfer and Conforming License Amendments (NRC Facility Operating License No. DPR-72)

Attachment 2 – Facility Operating License (Changes)

Attachment 3 – Facility Operating License (Clean Pages)

Attachment 4 – No Significant Hazards Determination

Attachment 5 – Affidavit Supporting Request for Withholding

xc:

NMSS Project Manager (w/ all enclosures)
Regional Administrator, Region I (w/enclosures, except Enclosures 1P and 2P)
State of Florida (w/enclosures, except Enclosures 1P and 2P)

STATE OF Colorado)
) SS.
CITY Arapahoe)

Scott E. State, being duly sworn according to law deposes and says:

I am Chief Executive Officer, NorthStar Group Services, Inc. and Accelerated Decommissioning Partners, LLC (ADP), and as such, I am familiar with the contents of this correspondence and the attachments thereto concerning the Crystal River Unit 3, Nuclear Generating Plant and the matters set forth therein regarding ADP and its affiliated companies are true and correct to the best of my knowledge, information and belief.

Scott E. State

Subscribed and Sworn to before me

this 12 day of June, 2019

Angela R DeSautell

Notary Public of Colorado

ANGELA R DESAUTELL
NOTARY PUBLIC - STATE OF COLORADO
NOTARY ID 20044043429
MY COMMISSION EXPIRES DEC 6, 2020

Figure 1: SIMPLIFIED ORGANIZATION CHART

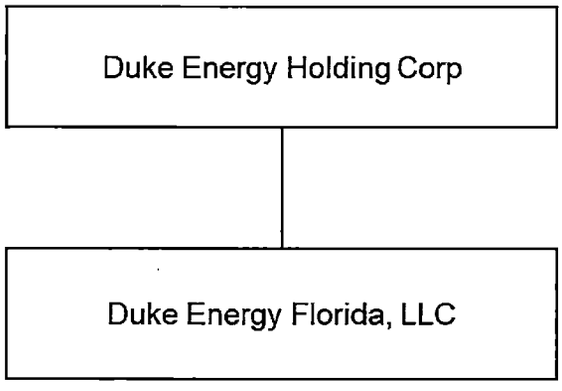
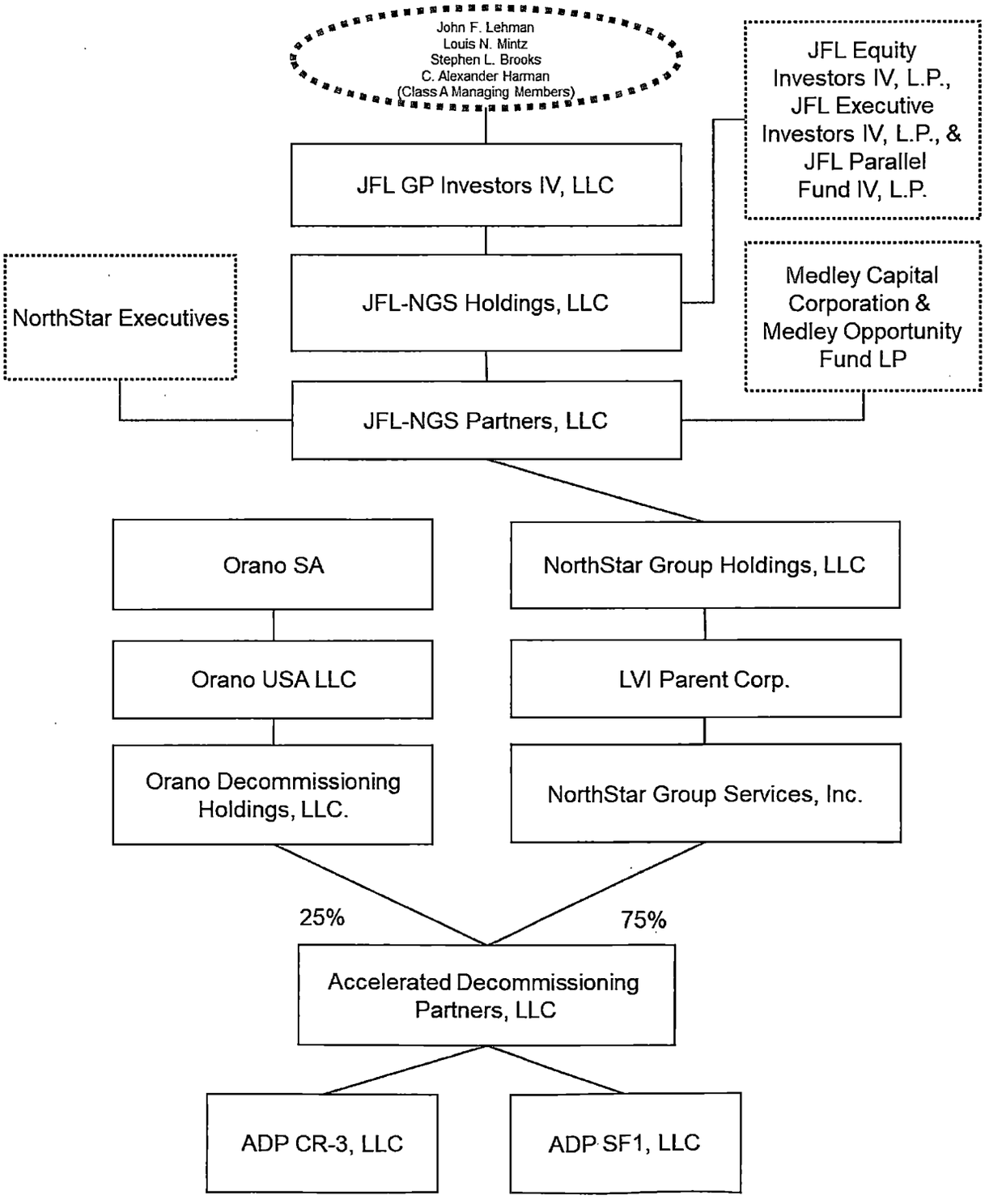


Figure 2: SIMPLIFIED ORGANIZATION CHART



DUKE ENERGY FLORIDA, LLC

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

ATTACHMENT 5

2.390 AFFIDAVITS

Affidavit of Ronald Reising

I, Ronald Reising, Senior Vice President, Operations Support Duke Energy Florida, LLC, do hereby affirm and state:

1. I am authorized to execute this affidavit on behalf of Duke Energy Florida, LLC (DEF);

2. DEF requests that Enclosures 1P and 2P, which are being submitted under separate cover and labeled "CONFIDENTIAL INFORMATION SUBMITTED UNDER 10 CFR 2.390", be withheld from public disclosure under the provisions of 10 CFR 2.390(a)(4).

3. Enclosures 1P and 2P contain confidential commercial information, the disclosure of which would adversely affect DEF.

4. This information has been held in confidence by DEF. To the extent that DEF has shared this information with others, it has done so on a confidential basis.

5. DEF customarily keeps such information in confidence, and there is a rational basis for holding such information in confidence. The information is not available from public sources and could not be gathered readily from other publicly available information.

6. Public disclosure of this information would cause substantial harm to DEF's business interests because such information has significant commercial value to DEF and its disclosure could adversely affect other DEF transactions.

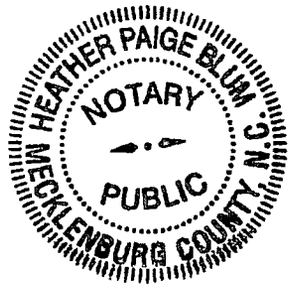
Ronald D

Ronald Reising
Senior Vice President
Operations Support

Subscribed and sworn before me, Heather Paige Blum
a Notary Public
this 14 day of June, 2019.

Heather Paige Blum

My commission expires: 1/9/2023



Affidavit of Scott E. State

I, Scott E. State, CEO of NorthStar Group Services, Inc. and Accelerated Decommissioning Partners, LLC (collectively, ADP) do hereby affirm and state:

1. I am authorized to execute this affidavit on behalf of ADP (ADP);

2. ADP requests that Enclosure 1P and 2P, which are being submitted under separate cover and labeled "CONFIDENTIAL INFORMATION SUBMITTED UNDER 10 CFR 2.390", be withheld from public disclosure under the provisions of 10 CFR 2.390(a)(4).

3. Enclosures 1P and 2P contain confidential commercial information, the disclosure of which would adversely affect ADP.

4. This information has been held in confidence by ADP. To the extent that ADP has shared this information with others, it has done so on a confidential basis.

5. ADP customarily keeps such information in confidence, and there is a rational basis for holding such information in confidence. The information is not available from public sources and could not be gathered readily from other publicly available information.

6. Public disclosure of this information would cause substantial harm to ADP's business interests because such information has significant commercial value to ADP and its disclosure could adversely affect other ADP transactions.

Scott E. State

Subscribed and sworn before me,
a Notary Public
this 12 day of June, 2019.

ANGELA R DESAUTELL
NOTARY PUBLIC - STATE OF COLORADO
NOTARY ID 20044043429
MY COMMISSION EXPIRES DEC 6, 2020

DUKE ENERGY FLORIDA, LLC

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

ATTACHMENT 1

APPLICATION FOR ORDER CONSENTING TO DIRECT TRANSFER OF CONTROL OF LICENSES AND APPROVING CONFORMING LICENSE AMENDMENT

CRYSTAL RIVER UNIT 3 NUCLEAR GENERATING PLANT

ATTACHMENT 1

**Application for Order Consenting to
Direct Transfer of Control of Licenses
and Approving Conforming License Amendment
(NRC Facility Operating License No. DPR-72 and
General License for Independent Spent Fuel Storage Installation)**

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Enclosure 1	Decommissioning Services Agreement (Non-Proprietary Version)
Enclosure 2	General Corporate Information Regarding ADP CR3, LLC and its Corporate Parents
Enclosure 3	Project Organization and Resumes of Key Management Personnel
Enclosure 4	Schedule & Financial Information for Decommissioning
Enclosure 5	Form of Fourth Amendment to Amended and Restated Nuclear Decommissioning Trust Agreement
Enclosure 6	Form of Support Agreements
Enclosure 1P	Decommissioning Services Agreement (Proprietary Version)
Enclosure 2P	Form of Support Agreements (Proprietary Version)

DEF RESP STAFF 1ST POD - 000039

1. Introduction

In accordance with Section 184 of the Atomic Energy Act, 10 CFR 50.80, and 10 CFR 72.50, Duke Energy Florida, LLC (DEF), on behalf of itself and ADP CR3, LLC (ADP CR3) (together, Applicants), respectfully requests that the U.S. Nuclear Regulatory Commission (NRC) consent to the direct transfers to ADP CR3 of DEF's licensed authority under Facility Operating License No. DPR 72 for the Crystal River Unit 3 Nuclear Generating Plant (CR-3) (the Facility License) and the general license for the CR-3 Independent Spent Fuel Storage Installation (ISFSI) (the Licenses) to possess, maintain, and decommission CR3 and the ISFSI (collectively the CR-3 Facility). The Applicants request that the NRC consent to these transfers so as to implement expedited decommissioning at CR-3. DEF will remain named as the NRC owner licensee. In addition, Applicants request that NRC approve a conforming administrative amendment to the Facility License to reflect the proposed direct transfer of authority under the Facility License from DEF to ADP CR3.

ADP CR3 is a wholly owned subsidiary of Accelerated Decommissioning Partners, LLC (ADP), which is a joint venture of NorthStar Group Services, Inc. (NorthStar) (75%) and Orano Decommissioning Holdings LLC (Orano) (25%). Orano is owned by Orano USA LLC, which was formerly AREVA Nuclear Materials, LLC. NorthStar and Orano formed ADP to leverage their substantial collective experience relevant to decommissioning commercial nuclear reactors, to acquire control of reactor sites, and to execute prompt decommissioning.

DEF has entered into a Decommissioning Services Agreement (DSA) with ADP CR3, which provides that ADP CR3 will assume the role of licensee responsible for all activities conducted under the Licenses, upon NRC approval of the transfers to ADP CR3. ADP CR3 has agreed that it will decommission the CR-3 Facility under the terms of the DSA, and ultimately obtain termination of the Licenses, pursuant to a fixed price services arrangement. The fixed price is equal to a specified amount, and earnings thereon, in a segregated account being created in DEF's nuclear decommissioning trust fund (NDT). The NDT account will be used to decommission the CR-3 Facility, other than the ISFSI, and to achieve partial license termination on an accelerated schedule. DEF has agreed that it will direct the trustee of the NDT to disburse payments from this account each month based upon certifications from ADP CR3 that it has completed various scopes of decommissioning work up to the total amount available in the account. DEF will maintain a separate decommissioning reserve account within its NDT that will likely exceed $100 million.

The parties have also agreed that ADP SF1, LLC (ADP SF1), an affiliate of ADP CR3 also wholly owned by ADP, will enter into a Purchase and Sale Agreement with DEF, pursuant to which ADP SF1 will acquire the ISFSI and its associated equipment, and title to the CR-3 spent nuclear fuel, the high-level waste, and the greater than Class C waste at the CR-3 Facility. DEF will also assign to ADP SF1 its Standard Contract for Disposal of Spent Nuclear Fuel and/or High-Level Radioactive Waste ("Standard Contract") with the U.S. Department of Energy (DOE). ADP SF1 will own, but not possess, the spent fuel and waste pursuant to the general license provided in 10 CFR 72.6(b). ADP CR3 will possess the spent fuel and waste under the Licenses. ADP SF1 will enter into an

agreement with ADP CR3, under which ADP SF1 will pay ADP CR3 for all costs of operating, maintaining, and decommissioning the ISFSI, and for ultimately removing all material owned by ADP SF1 from the CR3 site. ADP SF1 intends to recover a substantial portion of these costs from DOE. ADP SF1 also will have access to funds provided by its parent companies to pay ADP CR3 for such costs pending ADP SF1's recovery of those costs from DOE.

A simplified organization chart reflecting the current CR-3 licensee, DEF, and its owner is provided in Figure 1. A simplified organization chart reflecting ADP CR3 and ADP SF1 is provided in Figure 2. These organization charts are "simplified" in that they only show the companies in the chain of ownership of the licensee entities. After the proposed transfers, DEF will continue to own the CR-3 Facility, as well as its associated assets and real estate (including its NDT), except for the ISFSI, the spent nuclear fuel, the high level waste, the greater than Class C waste and the associated storage canisters, which will be owned but not possessed by ADP SF1.

CR-3 was a commercial electric power plant that was part of the larger Crystal River Energy Complex, located on the Gulf of Mexico in Citrus County, Florida. CR-3 received its Construction Permit on September 25, 1968 and its Operating License on January 28, 1977. CR-3 began commercial operations on March 13, 1977. CR-3 shut down on September 26, 2009, as part of a planned refueling and steam generator replacement outage. Twice during the course of the extended refueling outage, CR-3's fuel assemblies were offloaded to the spent fuel pool. The second offload was due to the identification of additional damage to the concrete containment building beyond that initially included in the planned repair of damage that occurred while creating an access

port as part of the steam generator replacement project. The final removal of all fuel from the reactor vessel was completed on May 28, 2011. On February 5, 2013, after a comprehensive analysis, DEF's predecessor, Progress Energy Florida, a subsidiary of Duke Energy, announced that it would retire CR-3. On February 20, 2013, (ADAMS Accession No. ML13056A005), Progress Energy Florida certified to the NRC that it had permanently removed all fuel from the reactor vessel and permanently shut down the plant.

DEF submitted its Post Shutdown Decommissioning Activities Report (PSDAR) (ADAMS Accession No. ML13340A009), including its Site-Specific Decommissioning Cost Estimate (DCE) (ML13343A178), to the NRC on December 2, 2013. The NRC held a public meeting in Crystal River, Florida, on January 16, 2014 to discuss the PSDAR. Following the receipt and review of comments from stakeholders, the NRC staff accepted the PSDAR on March 11, 2015 (ADAMS Accession No. ML14321A751). On January 26, 2015, the NRC issued exemptions from the requirements of 10 CFR 50.82(a)(8(i)(A) and 10 CFR 50.75(h)(2) that allowed the use of funds from CR3's decommissioning trust for irradiated fuel management and site restoration costs (ADAMS Accession No. ML14247A545). Transfer of the CR-3 spent fuel into the ISFSI was completed on January 12, 2018. On January 15, 2018, DEF certified to the NRC that all of the spent fuel had been removed from the CR-3 spent fuel pool (ADAMS Accession No. ML18015A006).

The financial assurance required by 10 CFR 50.75 and 10 CFR 50.82(a)(8)(vi) for decommissioning CR3 will be provided by DEF using the prepayment method in accordance with 10 CFR 50.75(e)(1)(i). In addition, NorthStar and Orano will provide parental financial Support Agreements to ADP CR3 in the total amount of $140 million to

assure that ADP CR3 is able to meet its financial and regulatory obligations to maintain and decommission the CR3 Facility within the fixed price agreement and to comply with all NRC requirements until the Licenses are terminated. The $140 million Support Agreements will also assure ADP SF1's ability to fund its obligations to ADP CR-3. Where subcontractors are used to support decommissioning work, ADP CR3 will establish fixed price contracts, when possible. Each subcontractor under such fixed price subcontracts will post payment and performance bonds issued by surety issuer(s) in the amount of the fixed subcontract price. Based upon its ability to fund decommissioning from the NDT under the terms of the DSA, the pay item approach, performance bonds, the parental Support Agreements, and funding from ADP SF1, ADP CR3 will be financially qualified to perform its obligations under the Licenses.

This Application demonstrates that: (1) the proposed transfers of DEF's possession, maintenance, and decommissioning authority under the Licenses to ADP CR3 will accelerate the timely decommissioning of the CR-3 site; (2) ADP CR3 has the requisite managerial, technical, and financial qualifications to perform its obligations under the Licenses; (3) the DEF NDT provides reasonable assurance of funding the decommissioning of the CR-3 Facility; (4) the material terms of the Licenses will not be affected; and (5) the transfers requested in this Application will not result in any impermissible foreign ownership, control or domination.

In parallel with the NRC's review of this Application, ADP CR3 plans to prepare and submit an updated PSDAR, reflecting ADP CR3's plans for accelerated decommissioning following the proposed transfers of authority under the Licenses.

Applicants also request NRC approval of administrative amendments to conform

the Facility License to reflect the proposed transfer. These amendments are set forth in Attachment 2 to the transmittal letter that accompanies this Application. Administrative changes to documents other than the Facility License, such as the Physical Security Plan and Emergency Plan, will be necessary upon ADP CR3's assumption of control over the CR-3 Facility. Changes to such documents will be reported in a timely fashion in accordance with NRC regulations, such as 10 CFR 50.71(e), 10 CFR 50.54(p) and 10 CFR 50.54(q).

In summary, the proposed transfers will not be inimical to the common defense and security or result in any undue risk to public health and safety, and the transfers will be consistent with the requirements of the Atomic Energy Act and the NRC regulations.

2. Statement of Purpose of Transfers and Nature of the Transaction Making the Transfers Necessary or Desirable

The purpose of the proposed transfers is to permit the accelerated radiological decommissioning of CR-3. ADP CR3 will assume control of, and managerial responsibility for, all licensed activities, including decommissioning of CR-3 and its associated buildings and structures. ADP CR3 will be licensed to possess, maintain, and decommission CR-3 and the CR-3 ISFSI. These transfers are desirable and of considerable benefit to the citizens of Florida, because they will result in the decommissioning of the CR-3 Facility and release of all portions of the site, other than the ISFSI, on an accelerated schedule. Currently, DEF has selected the SAFSTOR method of decommissioning CR-3, and its current decommissioning plans, as described in its 2013 Post Shutdown Decommissioning Activities Report (PSDAR), assume the completion of radiological decommissioning by 2073 and site restoration by 2074.

Under the terms of the proposed transaction, ADP CR3 would become responsible under the Licenses for all licensed activities at the CR-3 site, including the ISFSI. ADP CR3 would begin decommissioning activities promptly, and would plan to complete radiological decommissioning and restoration of the non-ISFSI portions of the CR-3 site by 2027. Further, the transaction will place licensed responsibility in an organization focused on radiological decommissioning. ADP CR3 will draw on the experience of individuals from its parent companies, NorthStar and Orano, as well an affiliate of NorthStar – Waste Control Specialists, LLC (WCS).

NorthStar has extensive experience conducting environmental remediation activities. It is an industry leader in the decommissioning of large scale industrial and commercial complexes, with experience in decommissioning nuclear facilities in the U.S. and abroad. NorthStar is currently decommissioning the Vermont Yankee Nuclear Power Station (VY). In addition, ADP CR3 will contract with WCS, in order to take advantage of WCS's waste transportation and disposal experience and knowledge of best practices. WCS is a leader in low-level radioactive waste management, packaging, transportation and disposal. It operates radioactive and hazardous waste disposal facilities in Texas, and it has experience with on-site waste processing, management, packaging and loading. WCS is owned by the J.F. Lehman private equity funds that own NorthStar. NorthStar's Chief Executive Officer (CEO) is also the CEO of both ADP and WCS.

Orano participates in the global nuclear industry, and it has substantial experience and expertise overseeing spent nuclear fuel, the segmentation of reactor pressure vessels and internals, radioactive waste management, nuclear materials transportation, and other decommissioning work in the United States, France, Canada, the United

Kingdom, Germany and Japan. Orano has more than twenty years' experience in radiological decommissioning work and possesses the depth and breadth of resources necessary to perform such work.

3. General Corporate Information Regarding ADP CR3 and its Parent Companies

a. General Corporate Information and Description of Business

General corporate information regarding ADP CR3 and its corporate parents is provided in Enclosure 2. ADP CR3 is a wholly owned subsidiary of ADP, which is 75% owned and controlled by NorthStar. The other non-controlling 25% interest in ADP is owned by Orano Decommissioning Holdings, which is owned by Orano USA LLC, which is owned by Orano SA, a French Société Anonyme,[1] which is majority owned by the French State.

NorthStar Group Holdings, LLC (Holdings) is the ultimate parent company for the NorthStar business, and Holdings in turn is owned and controlled by the J.F. Lehman private equity funds. Holdings is owned and controlled by JFL-NGS Partners, LLC, which is controlled by JFL-NGS Holdings, LLC, which is controlled by JFL GP Investors IV, LLC. Ultimately, control is exercised by four U.S. citizens, John F. Lehman, Louis N. Mintz, Stephen L. Brooks, and C. Alexander Harman, who are the managing members of JFL GP Investors IV, LLC.

The majority of the equity interests in JFL-NGS Partners, LLC are held indirectly by three J.F. Lehman & Company private equity funds: (i) JFL Equity Investors IV, L.P.; (ii) JFL Executive Investors IV, L.P.; and (iii) JFL Parallel Fund IV, L.P. (the Funds). The

[1] A Société Anonyme is a public limited company similar to a corporation under U.S. law.

Funds are managed and controlled by their general partner, JFL GP Investors IV, LLC, which also controls JFL-NGS Partners, LLC. In addition, Medley Capital Corporation and Medley Opportunity Fund LP (collectively Medley) also now hold non-controlling equity interests in JFL-NGS Partners, LLC, and non-controlling equity interests in JFL-NGS Partners, LLC may in the future be issued to certain NorthStar executives.

b. No Foreign Ownership, Control or Domination

As noted above, NorthStar is privately held, and ultimately, control is exercised by four U.S. citizens, John F. Lehman, Louis N. Mintz, Stephen L. Brooks, and C. Alexander Harman, who are the managing members of JFL GP Investors IV, LLC. Each of the funds has multiple limited partnership investors, who are passive investors. The passive investors may include foreign investors, but NorthStar is not aware of any foreign passive investor that holds more than 5% of the indirect ownership interests of NorthStar. Moreover, the passive investors are not able to exercise control over either the private equity funds or NorthStar. Although Orano is ultimately majority owned by a foreign state, Orano only owns 25% of ADP, and it is not able to exercise control over ADP. As such, there is no reason to believe that ADP CR3 will be owned, controlled or dominated by any foreign person.

ADP CR3 believes negation action measures are not necessary, because it will not be engaging in any production or utilization activities. CR-3 is no longer legally or physically able to engage in production or utilization activities. Prior NRC staff action suggests that enforcement of the statutory foreign ownership, control or domination (FOCD) prohibition is unnecessary for such licensees. For example, the NRC staff has proposed to amend the provisions of 10 CFR 50.38 to make clear that the FOCD

restrictions no longer apply when a production or utilization facility is no longer legally or physically able to operate. *See* "Proposed Rule: Regulatory Improvements for Production and Utilization Facilities Transitioning to Decommissioning (RIN 3150-AJ59)," SECY-18-0055, Enclosure 1, pages 172-181 (May 7, 2018). The NRC staff has also granted exemptions from 10 CFR 50.38 to the Maine Yankee Atomic Power Company, Connecticut Yankee Atomic Power Company, and Yankee Atomic Electric Company, which held 10 CFR Part 50 licenses for Maine Yankee Atomic Power Station, Haddam Neck Plant, and Yankee Nuclear Power Station, respectively. 78 FR 58571 (Sept. 24, 2013). The NRC staff reasoned that since these facilities were no longer production or utilization facilities, the FOCD restriction need not apply. Accordingly, ADP CR3 believes that negation measures for a 25% foreign owner of the entity that will decommission CR-3 are unnecessary.

c. No Agency

As the licensed entity with possession and responsibility for managing and decommissioning CR-3, ADP CR3 will act for itself and on behalf of DEF, as its agent. Neither ADP CR3 nor DEF is acting as the agent or representative of any other person in the proposed transfers of the Licenses.

4. Technical Qualifications

ADP CR3 will be technically qualified to carry out its responsibilities as the licensee responsible for the CR-3 Facility. ADP CR3 will perform the decommissioning, decontamination and site restoration work by leveraging the experience of its parent companies and existing plant staff. NorthStar has more than 30 years of experience as a general decommissioning contractor on commercial and industrial projects while

performing decontamination and decommissioning (D&D) work, including on asbestos projects. Through its subsidiaries, NorthStar holds the NRC License for VY, and it is responsible for the accelerated decommissioning of VY.

Orano has more than twenty years' experience in radiological work, including overseeing spent nuclear fuel, the segmentation of reactor pressure vessels and internals, radioactive waste management, nuclear materials transportation, and other decommissioning work in the United States, France, Canada, the United Kingdom, Germany and Japan.

As shown on the organization chart(s) provided in Enclosure 3, ADP CR3 intends to staff technical support positions that are important to the safe storage of fuel and conduct of radiological protection with key members of the existing CR3 plant staff who are already trained and qualified and would fill positions with responsibilities analogous to their pre-license transfer responsibilities. The organizational staffing levels after the transfer will be comparable to the expected evolution of the existing SAFSTOR organization, and will be aligned with that appropriate for a decommissioning plant with all fuel in dry storage and dormant former power block buildings, while assuring that sufficient qualified resources are available to fully meet the requirements of the facility Licenses and applicable NRC regulations.

a. Nuclear Organization

When the proposed transfers become effective, ADP CR3 will assume responsibility for and control over the CR-3 site. The ADP CR3 project organization ultimately will report to NorthStar's CEO, Scott E. State, who is a licensed nuclear engineer and has extensive experience working in the nuclear industry and on

environmental remediation projects. An Executive Committee will be established that will include senior management level executives from NorthStar and Orano to provide experienced strategic and technical oversight of the D&D work: Scott E. State, P.E. from NorthStar, Sam Shakir from Orano, Frederic Bailly from Orano, and Greg DiCarlo from NorthStar. Resumes for these key executives are provided in Enclosure 3.

ADP CR3 employees and contractors will not be employed without being qualified for their positions in accordance with the applicable Quality Assurance Program and regulatory requirements, including Regulatory Guide 1.8, "Qualification and Training of Personnel for Nuclear Power Plants."

ADP CR3 will also adopt the existing Quality Assurance (QA), emergency preparedness, radiological protection, security, and training procedures and establish these functions using parent company personnel, existing incumbent personnel, as well as qualified contractors.

An organization chart showing the planned project organization is provided in Enclosure 3. Resumes for key management personnel are also provided in Enclosure 3. The organization will provide:

1) A single Vice President and Decommissioning Program Manager (VP/PM) accountable for overall management, leadership, performance, nuclear safety, QA and employee safety (John Hager).

2) Several managers with responsibilities for radiological safety, industrial health and safety, fuel storage, regulatory affairs, quality assurance, licensing, environmental, reactor pressure vessel segmentation, large component removal, decontamination and decommissioning, engineering and operations, waste operations,

project administration and financial services, and project controls will report to the VP/PM. This organization will provide a nuclear management team with control over the decontamination and decommissioning operations.

An ISFSI Manager with similar roles and responsibilities as that planned for the senior management position in the next evolution of the existing licensee organization will be the senior manager in the ADP CR3 technical support organization responsible for day to day operations, and will report to the VP/PM. The ISFSI Manager will be responsible for maintaining a trained and qualified staff to support the safe and secure storage of fuel, as well as the performance of required ISFSI maintenance and surveillance activities. The ISFSI Manager will also be responsible for assuring compliance with the 10 CFR Part 50 License and applicable regulations and for implementation of the site's Security, Emergency, and QA Programs. The individual filling this position will be required to have extensive knowledge of ISFSI related 10 CFR Parts 50 and 72 license requirements, Site Emergency Plan, Security Plan, and QA program requirements and related administrative controls. The ISFSI Manager will be required to have, at a minimum, a Bachelor's Degree in Engineering or Science or Equivalent, and 10 years power plant experience of which a minimum of 3 years shall be related nuclear power plant experience.

The Operations Manager, the Facility Maintenance Coordinator, the Technical Specialist, the Licensing Manager, the Radiation Protection Manager, and the Security Manager will report to the ISFSI Manager and will fulfill the functional responsibilities performed by existing licensee staff in comparable positions in the SAFSTOR organization. These positions will be responsible for supporting day to day operation of the ISFSI to ensure compliance with 10 CFR Part 50 Licenses and applicable laws and

regulations. The individual filling the Radiation Protection Manager position will be required to have the education, training, and experience to fulfill the requirements of ANSI/ANS-3.1-2014 (Section 4.3.3, Radiation Protection) middle level manager and radiation protection manager.

b. Experience and Expertise

The experience and expertise of NorthStar, Orano, and WCS are briefly described below:

NorthStar Group Services, Inc.

NorthStar is the largest demolition and asbestos abatement company in the world. As owner, program manager and the demolition and abatement contractor, NorthStar brings over 30 years of experience to the D&D effort, including successful completion of four research reactors at the Universities of Buffalo, Arizona, Illinois and Washington. NorthStar has been involved with decommissioning at Hanford and Savannah River, the deconstruction of nuclear reactor laboratory facilities at several universities, and has been awarded a contract to support the decommissioning of 10 reactor sites in the UK. In October 2018, the NRC issued an Order approving the transfer of the Vermont Yankee nuclear power plant operating license to NorthStar. The transfer included the plant's dry cask spent nuclear fuel storage facility. As part of the review in support of the transfer, NorthStar was confirmed to meet the regulatory, legal, technical, and financial requirements necessary to qualify them as an NRC licensee.

Orano USA LLC

Orano USA is the U.S. subsidiary of Orano SA, a global nuclear fuel cycle services provider. For more than 40 years, Orano SA has been involved in more than 160

decommissioning and dismantling projects, including 64 nuclear energy facilities at sites in Germany, the United States, United Kingdom, Japan and other countries.

Headquartered in Washington, D.C., Orano USA is a leading technology and services provider for decommissioning shutdown nuclear energy facilities, used fuel management, federal site cleanup and closure, and the sale of uranium, conversion, and enrichment services to the U.S. commercial and federal markets. With its parent company Orano SA, Orano USA has more than 30 years' experience in decontaminating and dismantling nuclear facilities, and more than 50 years' experience securely transporting and storing used nuclear fuel. Orano and its affiliates provide leading expertise in vessel and internals segmentation, with specific PWR experience including RPV/internals segmentation and packaging at the Yankee Rowe, Maine Yankee, and Connecticut Yankee nuclear power plants.

Waste Control Specialists, LLC

WCS is a leader in low-level radioactive waste management, packaging, transportation and disposal. WCS brings extensive Class A, B and C and Exempt Waste Disposal experience to the CR-3 decommissioning project. WCS will provide on-site waste processing, management, packaging and loading, as well as disposal in accordance with the Texas Compact. In addition to its CEO (Scott State), the WCS Senior Management team includes experienced personnel, such as President and Chief Operating Officer David Carlson, who has more than 25 years of experience leading the growth and operations of nuclear energy and environmental management companies, and Vice President and General Manager Jay Britten, who has over 20 years of experience in the radioactive waste management industry and has worked at numerous

DOE sites including the Pantex Plant, Rocky Flats Environmental Technology Site, Idaho Cleanup Project, and the Nevada Security Site.

The CR-3 decommissioning project organization will provide an experienced nuclear management team to assure compliance with the requirements of the Licenses and the Commission's regulations. ADP CR3 will implement a management approach to assure efficient and effective D&D planning, preparation, and execution; a safety conscious work environment; day-to-day industrial safety, radiological protection, radioactive waste handling and management rigor; effective corrective action program; performance reporting, monitoring, and metrics; personnel performance; and financial controls.

Corporate support functions, to include training, external affairs, legal services, accounting, finance, payroll, information technology, human resources and employee concerns will be obtained from ADP CR3's parent companies by means of services contracts.

DEF will transfer to ADP CR3 control over the assets related to CR-3 that will be needed in order to maintain the CR-3 Facility and the site in accordance with NRC requirements. These assets will include, in addition to the structures and equipment, the necessary books, records, safety and maintenance manuals and engineering construction documents.

c. Qualifications of Key Management Personnel

As described above, the VP/PM for the CR-3 project will be John Hager. The VP/PM will report to Scott E. State, P.E., Chief Executive Officer of NorthStar Group Services, Inc. and Chief Nuclear Officer of ADP CR3. The VP/PM will be the officer with

all the necessary authority and full responsibility for overall nuclear safety and the safe and reliable accomplishment of the decontamination and decommissioning activities of the CR-3 decommissioning project. Several technical support functions, including QA and Licensing, ES&H-RSO, D&D Operations, Remediation Management, Waste Management, Compliance Engineering and ISFSI/Plant Manager will report to the VP/PM. In addition, the ADP CR3 Executive Committee (EC) will provide oversight and advice on issues of project performance and safety. The Chairperson of the EC will be Scott E. State, P.E.

d. Conclusion

ADP CR3 will provide a management team that is experienced and qualified, and the organization is well-designed to accomplish the maintenance and decommissioning of the site. The necessary management processes and controls will be applied, with clear lines of authority and communication. In addition, ADP CR3 will rely upon the experience and expertise of NorthStar, Orano and WCS to perform key, specific, portions of work scope to ensure efficient and expeditious decommissioning of the CR-3 site. The ADP CR3 management team and the specific knowledge of its strategic partners will allow ADP CR3 to achieve synergies and management efficiencies at CR-3, as well as expedite the expected date of site release for unrestricted use. For these reasons, ADP CR3 and its management team will have the necessary technical qualifications to safely perform the activities described in this Application.

5. Financial Qualifications

a. DEF

Under 10 CFR 50.80(b)(1)(i), an application for a license transfer must contain all the requested information related to financial qualifications as required by 10 CFR 50.33. An "electric utility" as defined in 10 CFR 50.2 is exempted from the requirement to submit financial qualifications information under 10 CFR 50.33(f). An "electric utility" is "any entity that generates or distributes electricity and which recovers the cost of this electricity, either directly or indirectly, through rates established by the entity itself or by a separate regulatory authority." DEF recovers its cost of electricity through rates established by the Florida Public Service Commission, and it will continue to do so following the proposed license transfers, including the ability to seek further ratepayer funding for decommissioning. DEF is an "electric utility" as defined in 10 CFR 50.2. As such, it is presumed to be financially qualified, and it is exempt from the financial qualifications information requirements pursuant to 10 CFR 50.33(f) and in accordance with Section III.1.b of NUREG-1577, Rev. 1.

b. ADP CR3

Following the proposed transfer, DEF will maintain the existing NDT, and it will be responsible to direct the trustee to disburse funds to pay for the costs of decommissioning as work is progressed. Under the terms of the DSA, ADP CR3 is entitled to request funding by certifying the completion of various "pay-items" that reflect decommissioning work. If a dispute were to arise for regarding any given certification, the terms of the DSA include dispute resolution mechanisms designed to minimize disruption of funding, and ADP CR3 is protected against the potential for increased costs due to disagreements with

DEF. Based upon its access to trust funds pursuant to the terms of the DSA, ADP CR3 will be financially qualified to fund ADP CR3's possession, maintenance and decommissioning of the CR-3 site.

Because ADP CR3 will not be authorized under the Facility License to operate or load fuel in the reactor pursuant to the terms of 10 CFR 50.82(a)(2), ADP CR3 will not conduct any of the operations contemplated by the financial qualifications provisions of 10 CFR 50.33(f)(2), but rather all of its licensed activities will involve possession of radioactive material in connection with maintaining the safe condition of the plant, decommissioning the CR-3 site (including the ISFSI), and maintaining the ISFSI until it can be decommissioned. Thus, the existing decommissioning trust funds provide the appropriate basis for the financial qualifications of ADP CR3.

ADP CR3 has analyzed the remaining expected costs of decommissioning, including the expected annual cash flows, and it believes that with conservative NDT investments that are designed to assure the preservation of the fund to be available for prompt decommissioning, the required funding level in the accounts available to ADP CR-3 will be sufficient to pay all of the annual expected costs of decommissioning the CR-3 Facility. This is based on the estimate of the remaining expected costs of decommissioning. Further, the major decommissioning work will be performed under fixed price or fixed unit contracts, subject to performance bonds (or insurance, where appropriate) issued by qualified surety companies to guarantee the performance of the tasks, and with withdrawals from the NDT limited under a decommissioning pay-item approach, which reasonably assures completion of the work within the cost estimates. In

addition, under this approach, any cost overruns on one task do not affect the funds remaining in the NDT to pay for the completion of other tasks.

ADP has prepared Enclosure 4, *Schedule and Financial Information for Decommissioning,* which provides financial projections for the duration of the CR-3 decommissioning project and shows that the amount of the decommissioning trust funds in the CR-3 NDT being made available to ADP CR3 under the DSA will be adequate to fund the costs of decommissioning CR-3 and eventual costs of decommissioning the ISFSI. The right to draw on the source of funds described herein and the *pro forma* projected costs for the planned decommissioning period set forth in Enclosure 4 provide the requisite financial information for this license transfer request consistent with 10 CFR 50.33(f)(2).

As of April 30, 2019, the assets in the CR-3 NDT had a market value of approximately $731 million. Under the terms of the DSA, DEF will execute the Fourth Amendment to Amended and Restated Nuclear Decommissioning Trust Agreement, in which it will segregate $540 million into an "IOI Decommissioning Account" dedicated to funding ADP CR3's decommissioning activities necessary to achieve the ISFSI-Only Interim End State Conditions, as defined in the DSA (partial license termination). All remaining assets in the CR-3 NDT will be held in a "Crystal River Reserve Account" within the trust and will remain dedicated to assuring the decommissioning of CR-3. This account will likely exceed $100 million. The cash flow analysis in Enclosure 4 shows that the $540 million dedicated for ADP CR3 is sufficient to fund the entire estimated cost of decommissioning CR-3.

Thus, the availability of funds in the CR-3 NDT satisfies the "prepayment" method of providing decommissioning funding assurance pursuant to 10 CFR 50.75(e)(1)(i), and satisfies the "prepayment" method of providing ISFSI decommissioning funding assurance pursuant to 10 CFR 72.30.

ADP CR3's projected costs are based upon a detailed, site specific cost estimate that provides costs for each projected work activity. These estimates provide a conservative and very realistic estimate of expected costs that ADP CR3 believes is very reliable and should be viewed as bounding the potential costs. For example, the estimate assumes that the waste from all contaminated structures will be disposed in a low-level radioactive waste disposal facility (Class A, B or C). This is a conservative assumption, because ADP CR3 believes significant volumes of waste can be cleared for "free release" and/or disposed as low activity waste that does not require disposal in a licensed Class A low-level radioactive waste disposal facility. In preparing these estimates, ADP CR3 has considered the records required by 10 CFR 50.75(g), groundwater monitoring data including the information described in the PSDAR, the results of a 2014 Historic Site Assessment (HSA) study, and other information characterizing the site, all of which supports the ability to complete decommissioning of the site for unrestricted release within the cost estimates and schedule.

Moreover, ADP CR3's breakdown of work and cost estimates rely upon costs generated by either affiliates of ADP CR3 or ADP CR3's partners that will be specified ultimately in fixed price or fixed rate contracts that will be entered into and bonded. These contractors, including any affiliate, will be required to post performance bonds (or insurance, where appropriate) issued by qualified surety companies to guarantee the

performance of the tasks that assure the work is performed at the specified costs. Moreover, ADP CR3's contract terms, whether with an affiliate, partner or other, will specify a "pay-item approach" with milestones that require work progress and actual performance before funds will be withdrawn from the trust fund to pay for the work. Under this pay-item approach, the trust funds will be adequate to cover costs, because ADP CR3 and its contractors performing work have agreed upon the pay-items. This includes work performed by NorthStar or Orano, whether by ADP CR3 or an affiliate, as well as work performed by the various others, such as WCS.

In addition to the trust funds, ADP CR3 will have access to other financial assurance provided by its parent companies, NorthStar and Orano. NorthStar will enter into a financial Support Agreement in the amount of $105 million, and Orano will enter into a financial Support Agreement in the amount of $35 million. These agreements provide that $140 million will be available if needed for ADP CR3 to meet any of its obligations so that CR-3 is maintained and decommissioned in compliance with the requirements of the NRC. The forms of these agreements are provided as Enclosure 6 to this Application. NorthStar has annual revenues of more than $600 million and bonding capacity of $350 million. It has completed more than $5 billion in projects since 1986.

As detailed above, Orano is owned by Orano USA, the U.S. subsidiary of Orano SA, a global nuclear fuel cycle company. Orano SA had revenues of €3.623 billion for the year-ended December 31, 2018, with €611 million reported for North and South America. Orano SA has a total issued bonding capacity of €426 million, secured by credit facilities with financial institutions. Orano benefits from this bonding capacity.

Finally, ADP CR3 has agreed to establish a Provisional Trust, which will be initially funded with $20 million. ADP CR3 has also agreed that it will retain 6% of each invoice for decommissioning services performed and paid from the DEF NDT and deposit such amounts into the Provisional Trust. This retainage will continue until the Provisional Trust contains $50 million. This provides additional financial assurance of the performance of ADP CR3, and these amounts will not be fully released to ADP CR3 until the NRC approves partial license termination for an ISFSI-Only site.

c. ADP SF1

ADP SF1 will own the ISFSI and its associated equipment, and it will hold title to the CR-3 spent nuclear fuel, the high-level waste, and the greater than Class C waste at the CR-3 Facility, as well as the associated canisters. ADP SF1 will own, but not possess, the spent fuel and waste pursuant to the general license provided in 10 CFR 72.6(b). Applicants recognize that a co-owner of an operating reactor would be named as a specific licensee. However, the CR-3 Facility is no longer a production or utilization facility, and ADP SF1's ownership interests are limited to the generally licensed ISFSI, and the generally licensed spent fuel and waste, which will be possessed and maintained by ADP CR3. Therefore, ADP SF1 will not be named as a specific licensee in the Part 50 license for the CR-3 Facility.

ADP SF1 will enter into a Services Agreement with ADP CR3, to pay the costs incurred by ADP CR3 in maintaining and removing the spent nuclear fuel, the high-level waste, the greater than Class C waste, and the associated canisters from the site. Thus, ADP CR3 will satisfy the requirement in 10 CFR 50.54(bb) for a plan for funding spent fuel management based upon its entitlement to funding under the Services Agreement

with ADP SF1. This Services Agreement also provides the foundation for financial assurance for decommissioning of the ISFSI being provided under the terms of a contract, as contemplated by 10 CFR 50.75(e)(1)(v).

ADP SF1 estimates that the current cost of decommissioning the ISFSI is $3.7 million, and ADP SF1 will establish a nuclear decommissioning trust fund for purposes of holding funds to decommission the ISFSI. At the time of the license transfer, ADP SF1 will provide financial assurance for ISFSI decommissioning using one of the methods set forth in 10 CFR 72.30(e). ADP SF1 may propose to deposit $3.95 million in the trust, which at the allowed 2% real rate of return would be projected to grow to $5.4 million by 2037, when the ISFSI is expected to be decommissioned.

ADP SF1 will be assigned the DOE Standard Contract, including all rights and obligations under that contract. ADP SF1's payments to ADP CR3 under the Services Agreement to operate, maintain and decommission the ISFSI, and to ultimately remove spent fuel from the ISFSI, will be substantially recoverable from DOE either through litigation of ADP SF1's claims under the Standard Contract or through the settlement of ADP SF1's future claims under that contract. ADP SF1 expects that its parent companies will provide funding in order to fund activities until it obtains a settlement and, thereafter, to fund ongoing costs in advance of recovering damages and for any disallowed damages claims.

ADP SF1 is a beneficiary of the $140 million in Support Agreements provided by NorthStar and Orano, and therefore, its parent companies will provide the funds necessary to pay ADP CR3 in advance of ADP SF1 recovering those costs from DOE through litigation or under a settlement, and/or to pay for ADP CR3's costs that are not

recoverable from DOE through either litigation or settlement. If ADP SF1 is unable to obtain a settlement agreement from the DOE by January 1, 2025, it will post a performance bond in an amount equal to one year's worth of spent fuel management expense. It will thereafter maintain a performance bond for subsequent years, in the amount of the applicable estimated annual expense, until a settlement is obtained from DOE.

6. Restricted Data

This Application does not contain any Restricted Data or other classified National Security Information, and it is not expected that any such information will become involved in the licensed activities of ADP CR3. However, in the event that such information does become involved, and in accordance with Section 145(a) of the AEA and 10 CFR 50.37, "Agreement Limiting Access to Classified Information," ADP CR3 agrees that it will appropriately safeguard such information and will not permit any individual to have access to such information until the individual has been appropriately approved for such access under the provisions of 10 CFR Part 25, "Access Authorization," and/or Part 95, "Facility Security Clearance and Safeguarding of National Security Information and Restricted Data."

7. Other Nuclear Regulatory Issues

a. Price-Anderson Indemnity and Nuclear Insurance

ADP CR3 requests that the NRC amend the Price-Anderson indemnity agreement for CR-3 to add "ADP CR3, LLC" upon the consummation of the proposed transfers of the Licenses. DEF will continue to maintain offsite nuclear liability coverage and onsite property damage insurance coverage, in accordance with the exemptions that have been

granted for the CR-3 site with respect to the requirements of 10 CFR 50.54(w) and 10 CFR 140.11. The annual filings required by 10 CFR 50.54(w)(3) and 10 CFR 140.21 will continue to be made by DEF or on its behalf by ADP CR3.

A Federal Register Notice dated March 31, 2016 regarding the 10 CFR 50.54(w) exemption is available at ADAMS Accession No. ML16084A891. Under that exemption, the required amount of onsite property damage insurance for CR-3 has been reduced to $50 million. The 10 CFR 140.11 exemption was granted by letter dated April 27, 2015 (ADAMS Accession Nos. ML14183B338 & ML14183B477). DEF is also exempt from participation in the secondary insurance pool, and the required amount of third party liability insurance has been reduced to $100 million.

b. Standard Contract for Disposal of Spent Nuclear Fuel

Upon closing, ADP SF1 will hold title to the spent nuclear fuel at CR-3, as well as high-level waste, and greater than Class C waste. DEF will also assign the DOE Standard Contract, including all rights and obligations under that contract, to ADP SF1, and will provide notice to DOE of such assignment. This Standard Contract, No. DE-CR01-83NE44382, dated June 30, 1983, was entered into by the predecessor to DEF, Florida Power Corporation, and the United States of America, represented by the DOE, to govern the disposal of spent nuclear fuel generated at CR-3.

c. Exclusion Area Control

Upon approval of the transfer, ADP CR3 will have the authority to control the CR-3 exclusion area and to determine all activities within the exclusion area to the extent required by 10 CFR Part 100. ADP CR3 will provide operations, maintenance, access control, and security services for the ISFSI, subject to the requirements of the Licenses

and the access control programs implemented thereunder. ADP CR3 will have the rights to control the site as necessary to comply with the requirements of the Licenses, including the ability of ADP CR3 to exclude personnel and property from the Exclusion Area to the extent required by 10 CFR Part 100.

d. Post Shutdown Decommissioning Activities Report

ADP CR3 will submit an updated PSDAR that will reflect its plans for an accelerated decommissioning schedule. This updated PSDAR will be submitted and can be reviewed by the NRC staff in parallel with this Application. In accordance with 10 CFR 50.82(a)(4)(i), the updated PSDAR will present a description of the planned decommissioning activities to be undertaken by ADP CR3, along with a schedule for their accomplishment and an estimate of expected costs, consistent with the projections provided in Enclosure 4.

e. QA Program

Upon consummation of the transfer, ADP CR3 will assume authority and responsibility for the functions necessary to fulfill the quality assurance (QA) requirements of the Defueled Technical Specifications and as specified for CR-3 in the CR-3 Quality Assurance Program contained in the Defueled Safety Analysis Report (DSAR). ADP CR3 will assume all of the current functions of the existing QA organization, although ADP CR3 may contract with qualified vendors for certain QA oversight and inspection functions. ADP CR3 does not anticipate any changes to the existing QA program for CR-3 beyond conforming changes consistent with the license transfer, but any changes that do occur will be made in accordance with 10 CFR 50.54(a).

f. Continuation of the Current Licensing Basis

ADP CR3 will possess or have access to all books and records necessary for compliance with its obligations under the Licenses and NRC requirements. ADP CR3 will assume responsibility for compliance with the current licensing basis, including regulatory commitments that exist at closing, and will implement any changes under applicable regulatory requirements and practices.

8. Requested Review Schedule and Other Required Approvals

The Applicants respectfully request that the NRC review and complete action expeditiously on the enclosed Application. The Applicants are prepared to work closely with the NRC Staff to facilitate the review of the Application. The Applicants request that the NRC issue an Order by December 31, 2019 authorizing the transfers to take place at any time through December 31, 2020. Applicants also request that the license changes be made effective as of the transaction closing date.

The proposed license transfers are subject to other required regulatory approvals, including the approval of the Florida Public Service Commission. The Applicants will advise the NRC if there are any significant changes in the status of other required approvals or developments that could have an impact on the closing date.

9. Regulatory Safety Analysis

The changes proposed for the Facility License are shown in Attachment 2 to the transmittal letter, and clean pages are provided as Attachment 3 to the transmittal letter. The changes conform the license to reflect the proposed transfer of authority and responsibility for licensed activities under the Facility License to ADP CR3. Consistent with the generic determination in 10 CFR 2.1315, "Generic determination regarding

license amendments to reflect transfers," paragraph (a), the proposed conforming license amendment involves no significant hazards consideration, because it does no more than conform the license to reflect the transfer actions.

The proposed license amendment does not involve any change in the design or licensing basis, plant configuration, the status of CR-3, or the requirements of the facility license. Therefore, approval of the license amendment does not: (1) involve an increase in the probability or consequences of an accident previously analyzed; (2) create the possibility of a new or different kind of accident from the accidents previously evaluated; or (3) involve a significant reduction in a margin of safety.

10. Environmental Considerations

This Application and accompanying administrative amendments are exempt from environmental review, because they fall within the categorical exclusion appearing at 10 CFR 51.22(c)(21), "Approvals of direct or indirect transfers of any license issued by NRC and any associated amendments required to reflect the approval of a direct or indirect transfer of an NRC license," for which neither an Environmental Assessment nor an Environmental Impact Statement is required.

11. Summary

In summary, the proposed license transfers will be consistent with the requirements of the Atomic Energy Act, NRC regulations, and regulatory guidance. Upon consummation of the proposed transaction, ADP CR3 will proceed expeditiously to complete the decommissioning of CR-3, so there will be no adverse impact on public health and safety. The transfers of the Licenses will not be inimical to the common defense and security and does not involve foreign ownership, control or domination. Applicants therefore request that the NRC consent to the transfers in accordance with 10 CFR 50.80 and 72.50, and approve the conforming administrative amendment pursuant to 10 CFR 50.92.

ENCLOSURE 1
(Non-Proprietary Version)

DECOMMISSIONING SERVICES AGREEMENT

Execution Copy

DECOMMISSIONING SERVICES AGREEMENT

BY AND BETWEEN

DUKE ENERGY FLORIDA, LLC, as COMPANY

AND

ADP CR3, LLC, as CONTRACTOR

AND

ADP SF1, LLC, as BUYER

Dated as of May 29, 2019

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EXHIBITS

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Exhibit B-2	Form of Parent Guaranty (Orano)
Exhibit C	Form of SNF Services Agreement
Exhibit D	Form of Amended and Restated LLC Agreement
Exhibit E	Form of Pledge Agreement
Exhibit F	Fourth Amendment to Amended and Restated NDF Agreement
Exhibit G	Form of Contractor's Provisional Trust Agreement
Exhibit H-1	Form of Parent Support Agreement (NorthStar)
Exhibit H-2	Form of Parent Support Agreement (Orano)
Exhibit I	[redacted]
Exhibit J	Form of Assignment and Assumption Agreement
Exhibit K	Form of Bill of Sale
Exhibit L	Form of Legal Opinion
Exhibit M	Form of ISFSI Decommissioning Trust Agreement

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Schedule 2.2.9	Environmental Matters

DECOMMISSIONING SERVICES AGREEMENT

THIS DECOMMISSIONING SERVICE AGREEMENT dated as of May 29, 2019 (the "Contract Date"), is entered into by and among DUKE ENERGY FLORIDA, LLC, a Florida limited liability company ("Company"), ADP CR3, LLC, a Delaware limited liability company ("Contractor"), and ADP SF1, LLC, a Delaware limited liability company ("Buyer"). Company, Contractor and Buyer are referred to individually herein from time to time as a "Party," and collectively as the "Parties".

RECITALS

WHEREAS, Company owns a one hundred percent (100%) undivided interest in the Crystal River 3 nuclear power station located in Citrus County, Florida, including the spent nuclear fuel stored in the independent spent fuel storage installation on the Crystal River Energy Complex site.

WHEREAS, the Crystal River 3 nuclear power station has been permanently shut down and is currently in SAFSTOR.

WHEREAS, Company desires to (a) engage Contractor to perform the activities necessary to decommission the CR-3 Facility and the NRC-Licensed Site, including permitting activities, demolishing, decontaminating and dismantling existing structures and facilities, and waste disposal, as further described herein, and to achieve ISFSI-Only Interim End-State Conditions and End-State Conditions (each as defined below), upon the terms and conditions set forth in this Agreement; and (b) sell and assign to Buyer the Spent Nuclear Fuel, storage canisters, HLW, including Greater Than Class C waste from the CR-3 Facility as currently stored on the ISFSI, or otherwise located at the CR-Facility and to be stored on the ISFSI, and the ISFSI and certain related assets, together with certain associated liabilities and obligations, and Buyer desires to assume such liabilities and obligations and purchase such spent nuclear fuel, HLW and the ISFSI and related assets, upon the terms and conditions as set forth in the Spent Nuclear Fuel Purchase and Sale Agreement attached hereto as Exhibit A (the "SNF PSA"). Capitalized terms used and not defined in these recitals are defined below.

WHEREAS, Company is requiring that Contractor provide guarantees in the form attached hereto as Exhibit B from the Parent Guarantors (as defined herein) as a condition to Company's willingness to enter into and perform its obligations under this Agreement and the Ancillary Agreements (as defined below).

WHEREAS, Contractor and its Affiliates, including the Parent Guarantors, are experienced and qualified in providing technical assistance, design, licensing, engineering, procurement, supply, construction management, construction, decommissioning services, and nuclear waste packaging, storage transportation and disposal services, and possesses the requisite expertise and resources to achieve the ISFSI-Only Interim End-State Conditions and the End-State Conditions.

WHEREAS, pursuant to and in accordance with the SNF PSA, Company will transfer title for the Spent Nuclear Fuel, HLW and all rights and obligations under the Spent Fuel Disposal Contract, together with the other Assets as defined therein, to Buyer.

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WHEREAS, Contractor desires to perform the Decommissioning for a fixed price, and Company has agreed to pay Contractor the fixed price for the Decommissioning from the qualified trust fund maintained within the NDF, on the terms and conditions as set forth herein.

NOW, THEREFORE, in consideration of the foregoing premises, the mutual promises and covenants herein contained, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, and intending to be legally bound hereby, Company and Contractor agree as follows:

ARTICLE 1
DEFINITIONS; INTERPRETATION; EFFECTIVENESS

1.1 Definitions.

1.1.1 As used in this Agreement, the following terms have the meanings specified in this Section 1.1.1.

"Affiliate" means, with respect to a specified Person, a Person that, directly or indirectly, through one or more intermediaries, now or hereafter, owns or controls, is owned or controlled by, or is under common ownership or control with a Party, where "control" (including the terms "controlled by" and "under common control with") means (i) at least a fifty percent (50%) ownership interest, or (ii) the possession, directly or indirectly, of the power to direct or cause the direction of the management or policies of a Person, whether through the ownership of stock or other securities, as trustee or executor, by contract or credit arrangement or otherwise.

"Agreed Amount" means, as of the Closing Date, an amount of cash in the IOI Decommissioning Subaccount that is equal to Five Hundred Forty Million Dollars ($540,000,000) [redacted]

"Agreed Outage Period" has the meaning set forth in Section 8.6.4.

"Agreement" means this Decommissioning Services Agreement, and all of the Attachments and Exhibits attached hereto, each of which is incorporated herein in its entirety by the reference, as the same may be amended, supplemented or modified from time to time in accordance with the terms hereof.

"Amended and Restated LLC Agreement" means the amended and restated limited liability company agreement governing Contractor in accordance with the Laws of the State of Delaware, in the form attached hereto as Exhibit D.

"Amended and Restated NDF Agreement" means the Amended and Restated Nuclear Decommissioning Trust Agreement dated May 1, 2008 by and between the Trustee and Company, as amended as of November 13, 2013, January 29, 2014 and December 31, 2015, and following the Closing, as amended by the Fourth Amendment to Amended and Restated NDF Agreement.

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"Ancillary Agreements" means the SNF PSA, the Parent Guaranties, the Pledge Agreement, the Parent Support Agreements, the Fourth Amendment to Amended and Restated NDF Agreement, the Contractor's Provisional Trust Agreement, [redacted] the ISFSI Decommissioning Trust Agreement, the Amended and Restated LLC Agreement, the Assignment and Assumption Agreement, the SNF Services Agreement, and the Bill of Sale.

"ANI" means American Nuclear Insurers, or any successors thereto.

"Assignment and Assumption Agreement" means the Assignment and Assumption Agreement between Company and Buyer in the form attached hereto as Exhibit J, whereby at the Closing, Company (as Seller under the SNF PSA) shall assign and Buyer shall assume the Assets and the Assumed Liabilities, as applicable.

"Atomic Energy Act" means the Atomic Energy Act of 1954, as amended (42 U.S.C. Section 2011 et seq.).

"Bankruptcy Code" means Title 11 of the United States Code, as amended from time to time, or any similar federal or state Law for the relief of debtors.

"Bankruptcy Event" means, with respect to any Person, that any one or more of the following has occurred:

(a) that Person has commenced a voluntary case concerning itself under the Bankruptcy Code;

(b) an involuntary case is commenced against that Person under the Bankruptcy Code and the petition is not controverted within thirty (30) days, or is not dismissed within ninety (90) days after commencement of the case;

(c) a custodian (as defined in the Bankruptcy Code) is appointed for, or takes charge of, all or any substantial part of the property of that Person;

(d) that Person commences any other proceedings under any reorganization, arrangement, adjustment of debt, relief of debtors, dissolution, insolvency or liquidation or similar Law of any jurisdiction whether now or hereafter in effect relating to that Person;

(e) there is commenced against such Person any proceeding of the type described in clause (d) above and such proceeding is not controverted within thirty (30) days or is not dismissed for a period of ninety (90) days;

(f) any order of relief or other order is entered approving any case or proceeding of the types described in clauses (b) or (d) above;

(g) that Person makes a general assignment for the benefit of creditors; or

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(h) that Person admits in writing its general inability to pay its debts when due or shall, by any act consents to, approves or acquiesces in any of the foregoing.

"Bill of Sale" means the Bill of Sale, in the form attached hereto as Exhibit K, whereby at the Closing, Company (as Seller under the SNF PSA) shall transfer and Buyer shall acquire certain of the Assets, as applicable.

"Business Books and Records" means all books, operating records, licensing records, quality assurance records, purchasing records, and equipment repair, maintenance or service records of Company relating to the design, construction, licensing, operation or Decommissioning of the CR-3 Facility, including operating, safety and maintenance manuals, inspection reports, Environmental assessments, engineering design plans, Company's costs estimates with respect to Decommissioning under its Decommissioning Plan, blueprints and as built plans, specifications, operating procedures and other similar items of Company, wherever located, including those records related to CR-3-related structures, or operations or activities anywhere on the NRC-Licensed Site, whether existing in hard copy or magnetic or electronic form; provided, however, that Business Books and Records do not include the records of Company primarily relating to the design, construction, licensing, or operation of Excluded Facilities. After the Closing, Business Books and Records shall include all books, operating records, licensing records, quality assurance records and other records relating to the Decommissioning of the CR-3 Facility and the NRC-Licensed Site that Contractor is required to maintain under applicable Laws, including Nuclear Laws.

"Business Day" any day other than Saturdays; Sundays; New Year's Day; Birthday of Dr. Martin Luther King, Jr.; Memorial Day; Independence Day; Labor Day; Veterans' Day; Thanksgiving Day; Friday after Thanksgiving and Christmas Day.

"Buyer" has the meaning set forth in the preamble.

"Byproduct Material" means any radioactive material (except Special Nuclear Material) yielded in, or made radioactive by, exposure to the radiation incident to the process of producing or utilizing Special Nuclear Material.

"Change in End-State Conditions" means a material deviation by the Florida Department of Environmental Protection from the positions regarding the end state conditions reflected in the FDEP Letter.

"Change in Law" means a change in any applicable Law, including a change in (a) release criteria for the NRC-Licensed Site under Environmental Laws or Nuclear Laws; and (b) regulations that implement such Environmental Laws or Nuclear Laws, that adversely impacts Contractor's costs to obtain termination or partial termination of the NRC License and unrestricted release of all or part of the NRC-Licensed Site, as applicable, but not including a Change in End-State Conditions.

"Closing" has the meaning set forth in Section 4.1.

"Closing Date" has the meaning set forth in Section 4.1.

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"Code" means the Internal Revenue Code of 1986, as amended, and the rules and regulations promulgated thereunder.

"Company" has the meaning set forth in the preamble.

"Company Indemnified Parties" means Company, its Affiliates and the respective officers, directors, employees and agents of Company and its Affiliates; provided that none of Contractor or any of its Affiliates or their respective officers, directors, employees or agents shall be a Company Indemnified Party.

"Company Permit" means each Environmental Permit to be obtained or maintained by Company as described in Attachment 14-A, and each other Permit that Company agrees to obtain and maintain under this Agreement in accordance with Section 8.2.5.

"Company Proprietary Information" means, (a) the following furnished by or on behalf of Company, its Affiliates or their respective Representatives to Contractor, its Affiliates or their respective Representatives, in each case whether furnished under this Agreement, the SNF PSA, the Pre-Closing Decommissioning Services Contract or any Ancillary Agreement, or before or after the Contract Date or the Closing Date: (i) all drawings, reports, data, software, materials or other information relating to the operation and maintenance or Decommissioning, actual or proposed, of the CR-3 Facility, the NRC-Licensed Site or the Crystal River Site; (ii) any financial, operational or other information concerning Company or any of its Affiliates or their respective assets and properties, including geologic, geophysical, scientific or other technical information, and know-how, inventions and trade secrets; (iii) any Third Party Proprietary Information; or (iv) any other information, whether oral or written or in electronic or digital media, and regardless of the manner in which it is furnished, that is provided by or on behalf of Company, its Affiliates or their respective Representatives to Contractor, its Affiliates or their respective Representatives, including any such information that may be included or reflected in reports, analysis or other documents prepared by or on behalf of Contractor, its Affiliates or their respective Representatives; and (b) any deliverables, submittals or information (other than with respect to the financial condition of Contractor or the Parent Guarantors or with respect to the Spent Nuclear Fuel and other Assets acquired by Buyer pursuant to the SNF PSA) prepared and furnished by Contractor hereunder or in connection with the SNF PSA, and the Business Books and Records to be maintained by Contractor hereunder with respect to the CR-3 Facility, the NRC-Licensed Site and the Decommissioning; provided that Company Proprietary Information does not include any such information which (i) is or becomes generally available to the public other than as a result of a disclosure by Contractor, its Affiliates or their respective Representatives; (ii) was available to Contractor, its Affiliates or their respective Representatives on a non-confidential basis prior to its disclosure by or on behalf of Company or its Affiliates; (iii) becomes available to Contractor, its Affiliates or their respective Representatives on a non-confidential basis from a Person other than Company, its Affiliates or their respective Representatives who is not otherwise bound by a confidentiality agreement with Company or any of its Affiliates, or is otherwise not under any obligation to Company or any of its Affiliates not to transmit the information to Contractor, its Affiliates or their respective Representatives; or (iv) was independently developed by Contractor, its Affiliates or their respective Representatives without reference to or reliance upon Company Proprietary Information.

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"Company's EH&S Requirements" means the environmental, health and safety procedures and requirements set forth in Attachment 8.

"Company's Non-Exclusive Access Right" has the meaning set forth in Section 8.6.3.

"Company's Required Regulatory Approvals" means the regulatory approvals required by Company as a condition to the Closing, as identified in Attachment 17.

"Condemned" has the meaning set forth in Section 8.5.1.

"Contract Date" has the meaning set forth in the preamble.

"Contractor" has the meaning set forth in the preamble.

"Contractor Event of Default" has the meaning set forth in Section 15.1.

"Contractor Indemnified Parties" means Contractor, its Affiliates and the respective officers, directors, employees and agents of Contractor and its Affiliates.

"Contractor Lien" has the meaning set forth in Section 6.9.

"Contractor Permit" means each Environmental Permit that is identified on Attachment 14-A as a Permit that will be transferred to or be obtained by Contractor, and each other Permit that Contractor is required to obtain and maintain under this Agreement.

"Contractor Proprietary Information" means information provided by or on behalf of Contractor, its Affiliates or their respective Representatives to Company, its Affiliates or their respective Representatives relating to Contractor's plans for the possession and maintenance of the Assets and the Decommissioning of the CR-3 Facility and the NRC-Licensed Site, and any financial, operational or other information concerning Contractor or any of its Affiliates or their respective assets and properties, and any deliverables, submittals or information with respect to the Spent Nuclear Fuel, and other Assets acquired by Buyer pursuant to the SNF PSA prepared and furnished by Contractor hereunder or in connection with the SNF PSA, whether oral or written, and regardless of the manner in which it is furnished; provided that Contractor Proprietary Information does not include any such information which (a) is or becomes generally available to the public other than as a result of a disclosure by Company, its Affiliates or their respective Representatives; (b) was available to Company, its Affiliates or their respective Representatives on a non-confidential basis prior to its disclosure by Contractor, its Affiliates or their respective Representatives; (c) becomes available to Company, its Affiliates or their respective Representatives on a non-confidential basis from a Person other than Contractor, its Affiliates or their respective Representatives that is not, to Company's Knowledge, otherwise bound by a confidentiality agreement with Contractor or any of its Affiliates, or is otherwise not under any obligation to Contractor or any of its Affiliates not to transmit the information to Company, its Affiliates or their respective Representatives; or (d) was independently developed by Company, its Affiliates or their respective Representatives without reference to or reliance upon Contractor Proprietary Information; provided, further, that any deliverables, submittals or information prepared and furnished by Contractor hereunder (other than with respect to the financial condition of Contractor or the Parent Guarantors or with respect to the Spent Nuclear

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Fuel and the other Assets acquired by Buyer pursuant to the SNF PSA, which, for the avoidance of doubt, shall be considered only Contractor Proprietary Information), and the Business Books and Records to be maintained by Contractor hereunder with respect to the CR-3 Facility, the NRC-Licensed Site and the Decommissioning, shall be treated as both Contractor Proprietary Information and Company Proprietary Information for the purposes of this Agreement.

"Contractor's Non-Exclusive Access Right" has the meaning set forth in Section 8.6.2.

"Contractor's Provisional Trust Agreement" means the trust agreement, substantially in the form set forth in Exhibit G, by and between Contractor and a qualified trustee governing Contractor's Provisional Trust Fund.

"Contractor's Provisional Trust Fund" has the meaning set forth in Section 3.14.

"Contractor's Required Regulatory Approvals" means the regulatory approvals required by Contractor as a condition to the Closing, as identified in Attachment 17.

"CR-3 Facility" means the pressurized reactor power plant and all of the ancillary facilities, equipment, supplies, structures and buildings, including the ISFSI and underground structures, that form the Crystal River nuclear power plant, commonly known as Crystal River Unit 3, located on the Gulf of Mexico in Citrus County, Florida, and including the real property underlying the ISFSI Site and the other portions of the Crystal River Site on which the CR-3 Facility is located, but in any event not including the Excluded Facilities. The CR-3 Facility is depicted by the green areas set forth on page 27 of Attachment 1.

"CREC Committee" means Company's Crystal River Energy Complex management committee.

"Crystal River Decommissioning Reserve Subaccount" means a segregated subaccount within the NDF created and maintained solely for the purposes of holding the assets, funds and investments that are not otherwise held in the IOI Decommissioning Subaccount.

"Crystal River Site" means the area commonly known as the "Crystal River Energy Complex" that contains the CR-3 Facility, the NRC-Licensed Site, the ISFSI, and the Excluded Facilities, as further described and occupying the area as depicted in Attachment 1.

"Decommission" and "Decommissioning" means (a) the dismantlement and removal of the structures, and any reduction or removal of radioactivity, at the CR-3 Facility and the NRC-Licensed Site to a level that permits the release of all or any specified portion of the NRC-Licensed Site consistent with the radiological criteria for license termination specified by the NRC in 10 C.F.R. § 20.1402 for unrestricted use; (b) all other activities necessary for the retirement, dismantlement, decontamination or storage of the CR-3 Facility and NRC-Licensed Site in compliance with all applicable Nuclear Laws and Environmental Laws, including the applicable requirements of the Atomic Energy Act and the NRC's rules, regulations, orders and pronouncements thereunder; (c) operation and maintenance of the ISFSI, management of Spent Nuclear Fuel, the packaging of the Greater Than Class C Waste generated during the Decommissioning of the CR-3 Facility, and the removal of all of the Spent Nuclear Fuel and HLW from the ISFSI and the Crystal River Site; (d) restoration of the NRC-Licensed Site in

accordance with applicable Laws; and (e) any planning and administration activities incidental thereto.

"Decommissioning Costs" means the costs and expenditures incurred for goods and services (including any planning and administrative activities incidental thereto) provided in connection with the Decommissioning of the CR-3 Facility and the NRC-Licensed Site, but excluding costs incurred for the operation and maintenance of the ISFSI, management of Spent Nuclear Fuel, and the removal of all of the Spent Nuclear Fuel and HLW from the ISFSI and the Crystal River Site, and Decommissioning of the ISFSI.

"Decommissioning Plan" means the activities contemplated by the Post Shutdown Decommissioning Activities Report submitted by Company to the NRC on December 2, 2013.

"Department of Energy" or "DOE" means the United States Department of Energy and any successor agency thereto.

"Department of Energy Decommissioning and Decontamination Fees" means all fees related to the Department of Energy's Special Assessment of utilities for the Uranium Enrichment Decontamination and Decommissioning Funds pursuant to Sections 1801, 1802 and 1803 of the Atomic Energy Act and the Department of Energy's implementing regulations at 10 C.F.R. Part 766, as those statutes and regulations exist at the time of execution of this Agreement, applicable to separative work units purchased from the Department of Energy in order to decontaminate and decommission the Department of Energy's gaseous diffusion enrichment facilities.

[redacted]

"Dispute" has the meaning set forth in Section 16.7.1.

"Dispute Engagement Notice" has the meaning set forth in Section 16.7.1(a).

"Diverse Suppliers" has the meaning set forth in Section 6.11.

"End-State Conditions" means all of the following conditions, collectively, and "achieving" or "satisfying" the End-State Conditions, or terms of similar import, means the satisfaction of all of the following conditions:

(a) Contractor has satisfied all of the ISFSI-Only Interim End-State Conditions;

(b) Contractor has fully performed all of its obligations under the License Termination Plan as approved by the NRC, including removal of Spent Nuclear Fuel from the NRC-Licensed Site and the Decommissioning of the ISFSI;

(c) Contractor has completed the Remediation of all Hazardous Substances present in, on or under the CR-3 Facility sufficient to comply with Environmental Laws and all applicable Permits;

(d) without limiting Contractor's obligation to satisfy the criteria to complete the Decommissioning of the ISFSI, all buildings and structures constituting the ISFSI, including foundations, have been removed to a minimum of three feet (3') below grade and backfilled, graded and seeded to prevent erosion, and any underground storage tanks and large diameter pipes that are part of or located on or under the ISFSI and not otherwise required by Law or this Agreement to be removed, have been filled in compliance with all applicable Permits;

(e) Contractor has completed all of the work necessary to comply with the conditions set forth in the FDEP Letter and any Change in End-State Conditions, as applicable; and

(f) the NRC has approved the termination of the NRC License and released the ISFSI Site from NRC jurisdiction for unrestricted use pursuant to 10 C.F.R. § 20.1402.

"Environment" means all soil, real property, air, water (including surface waters, streams, ponds, drainage basins and wetlands), groundwater, water body sediments, drinking water supply, stream sediments or land, including land surface or subsurface strata, including all fish, plant, wildlife, and other biota and any other environmental medium or natural resource.

"Environmental Claim" means any and all written communications, administrative or judicial actions, suits, orders, liens, complaints, notices, including notices of violations of Environmental Laws, requests for information relating to the Release or threatened Release into the Environment of Hazardous Substances, proceedings, or other written communication, pursuant to or relating to any applicable Environmental Law by any Governmental Authority based upon, alleging, asserting, or claiming any actual or potential, and whether civil, criminal or administrative: (i) violation of, or Liability under any Environmental Laws; (ii) violation of any Environmental Permit; or (iii) Liability for investigatory costs, cleanup costs, removal costs, remedial costs, response costs, monitoring costs, natural resource damages, property damage, personal injury, fines, or penalties arising out of, based on, resulting from, or related to the presence, Release, or threatened Release into the Environment of any Hazardous Substances.

"Environmental Clean-up Site" means any location which is listed or formally proposed for listing on the National Priorities List, the Comprehensive Environmental Response, Compensation and Liability Information System, or on any similar state list of sites requiring investigation or cleanup.

"Environmental Laws" means all Laws, other than Nuclear Laws, relating to pollution, the protection, restoration or remediation of or prevention of harm to the Environment or natural resources, or the protection of human health and safety from the presence of Hazardous Substances, including Laws relating to Releases of Hazardous Substances (including Releases to the Environment) or otherwise relating to the manufacture, processing, distribution, use,

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treatment, storage, Release, transport, disposal or handling of Hazardous Substances, and Laws regarding the treatment, storage, handling, transportation, and disposal of solid waste. "Environmental Laws" include the Comprehensive Environmental Response, Compensation, and Liability Act (42 U.S.C. §§ 9601 et seq.), the Hazardous Materials Transportation Act (49 U.S.C. §§ 1801 et seq.), the Resource Conservation and Recovery Act (42 U.S.C. §§ 6901 et seq.), the Federal Water Pollution Control Act (33 U.S.C. §§ 1251 et seq.), the Clean Air Act (42 U.S.C. §§ 7401 et seq.), the Toxic Substances Control Act (15 U.S.C. §§ 2601 et seq.), the Oil Pollution Act (33 U.S.C. §§ 2701 et seq.), the Emergency Planning and Community Right-to-Know Act (42 U.S.C. §§ 11001 et seq.), the Occupational Safety and Health Act (29 U.S.C. §§ 651 et seq.) only as it relates to Hazardous Substances, and the Florida Laws governing hazardous materials and solid waste.

"Environmental Liabilities" means any Liability relating to (a) the disposal, storage, transportation, Release, recycling, or the arrangement for such activities of Hazardous Substances from the CR-3 Facility; (b) the presence of Hazardous Substances in, on or under the CR-3 Facility, regardless of how the Hazardous Substances came to rest at, on or under the CR-3 Facility; and (c) the failure of the CR-3 Facility to be in compliance with any Environmental Laws.

"EPA" means the United States Environmental Protection Agency and any successor agency thereto.

"Environmental Permit" means any federal, state or local permits, licenses, approvals, consents, registrations or authorizations required by any Governmental Authority with respect to the CR-3 Facility or the NRC-Licensed Site under or in connection with any Environmental Law, including any and all orders, consent orders or binding agreements issued or entered into by a Governmental Authority under any applicable Environmental Law, but excluding the NRC License.

"Excluded Facilities" means the facilities on the Crystal River Site (and the real property upon which the same are located) that are not related to the CR-3 Facility, including the switchyard, operating and non-operating fossil fuel-fired (coal, natural gas) power generation facilities cooling towers, coal delivery and storage areas, ash storage area, office buildings, warehouses, barge handling dockets, railroad, and the other buildings or facilities that are not to be Decommissioned hereunder as identified in Attachment 1.

"Exclusion Area" has the meaning as defined under NRC rules and regulations, and with respect to the CR-3 Facility, means the area within the Exclusion Area Boundary that completely surrounds the ISFSI, as depicted in Attachment 1.

"Exclusion Area Boundary" means the boundary that completely surrounds the ISFSI and defines the Exclusion Area, as depicted in Attachment 1.

"FDEP Letter" means the letter from the Florida Department of Environmental Protection dated February 15, 2019, a copy of which is attached hereto as Attachment 13.

"Federal Trade Commission Act" means the Federal Trade Commission Act of 1914 (15 U.S.C. Section 41 et seq.), as amended.

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"First Amendment to DSA" means an amendment to this Agreement to be entered into by Company and Contractor on or before the Closing Date, whereby the Parties agree to amend this Agreement by attaching the mutually agreed exhibits and attachments to be finalized between the Contract Date and the Closing Date, including [redacted], the Environmental Permits, the Non-Environmental Permits and the Project Schedule.

"Force Majeure" means events or circumstances that are outside the non-performing Party's reasonable control, e.g., acts of God; war; acts of civil disobedience; acts of terrorism; fires; explosions; earthquakes; epidemics; landslides; hurricanes or windstorms; riots; floods; sabotage or other malevolent acts; labor strikes or other similar acts of industrial disturbance (other than acts of employees of the nonperforming Party or its Affiliates); acts, delays in acting, or failure to act of a Governmental Authority (including a taking or condemnation); or any similar events or occurrences; provided, however, an event shall only be considered an event of Force Majeure to the extent: (a) the non-performing Party is unable to prevent, avoid, overcome or cure such event through the exercise of commercially reasonable efforts; (b) such event is not the proximate result of the non-performing Party's act, omission, fault or negligence, including failure to maintain equipment in good working order, failure to comply with any contract, or failure to comply with all applicable Laws; and (c) such event results in a material impairment of the non-performing Party's ability to perform; provided, further, that the unavailability of a disposal facility for Low Level Waste, is not an event of Force Majeure.

"Fourth Amendment to Amended and Restated NDF Agreement" means the Fourth Amendment to the Amended and Restated NDF Agreement in the form attached hereto as Exhibit F.

"Good Utility Practices" means any of the practices, methods and activities generally accepted by a significant portion of the nuclear industry in the United States of America as good practices applicable to: (a) nuclear generating facilities that have ceased operating in anticipation of decommissioning, or the decommissioning of a nuclear generating facility, as applicable, of similar design, size and capacity as the CR-3 Facility; or (b) any of the practices, methods or activities which, in the exercise of reasonable judgment by a prudent Person decommissioning a nuclear facility of similar design, size and capacity as the CR-3 Facility, in light of the facts known at the time the decision was made, would reasonably have been expected to accomplish the desired result at a reasonable cost and consistent with good safety practices and applicable Laws including Nuclear Laws and Environmental Laws. Good Utility Practices are not intended to be limited to the optimal practices, methods or acts to the exclusion of all others.

"Governmental Authority" means any federal, state, local provincial, foreign, international or other governmental, regulatory or administrative agency, taxing authority, commission, department, board, or other government subdivision, court or tribunal.

"Greater Than Class C Waste" means radioactive waste that contains radionuclide concentrations exceeding the values in Table 1 or Table 2 of 10 C.F.R. § 61.55, and therefore is currently not generally acceptable for disposal at existing (near surface) low level radioactive waste disposal facilities.

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