



Dianne M. Triplett
DEPUTY GENERAL COUNSEL

May 4, 2022

VIA ELECTRONIC FILING

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

Re: *Petition by Duke Energy Florida, LLC, to Approve Transaction with Accelerated Decommissioning Partners, LLC, for Accelerated Decommissioning Services at the CR3 Facility, etc.; Dkt. No. 20190140-EI*

Dear Mr. Teitzman:

Enclosed for filing on behalf of Duke Energy Florida, LLC (“DEF”) in the above-referenced Docket, please find the attached Nuclear Regulatory Commission (NRC) inspection report dated May 3, 2022. ADP informed DEF on May 3, 2022, that inspection report number 05000302/2022001 was issued and included a non-cited violation (NCV) notice of violation associated with D&D activities. Order No. PSC-2020-0289-FOF- EI, dated August 27, 2020, issued in the above-referenced Docket, provides that “DEF shall be required to provide the following information through the final period of partial license termination: 1. the information responsive to items identified in the DSA [Decommissioning Services Agreement], Attachment 9, Section A should be provided to the Commission within two business days of DEF’s receipt of this information from ADP.”

A NRC, level IV, NCV is the least significant of NRC violations and does not require enforcement actions.

Thank you for your assistance in this matter. Please feel free to call me at (727) 820-4692 should you have any questions concerning this filing.

Respectfully,

/s/ Dianne M. Triplett

Dianne M. Triplett

DMT/mw
Enclosure

CERTIFICATE OF SERVICE

Docket No. 20190140-EI

I HEREBY CERTIFY that a true and correct copy of the foregoing has been furnished via electronic mail to the following this 4th day of May, 2022.

s/ Dianne M. Triplett

Attorney

Suzanne Brownless
Florida Public Service Commission
2540 Shumard Oak Blvd.
Tallahassee, FL 32399-0850
sbrownle@psc.state.fl.us

Jon C. Moyle, Jr./ Karen A. Putnal
Moyle Law Firm, P.A.
118 North Gadsden Street
Tallahassee, FL 32301
jmoyle@moylelaw.com
kputnal@moylelaw.com
mqualls@moylelaw.com

Charles J. Rehwinkel
Office of Public Counsel
c/o The Florida Legislature
111 West Madison Street, Room 812
Tallahassee, FL 32399
rehwinkel.charles@leg.state.fl.us

James W. Brew / Laura Wynn Baker
Stone Mattheis Xenopoulos & Brew, PC
1025 Thomas Jefferson Street, NW
Suite 800 West
Washington, DC 20007-5201
jbrew@smxblaw.com
lwb@smxblaw.com



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
2100 RENAISSANCE BLVD.
KING OF PRUSSIA, PA 19406-2713

May 3, 2022

Mr. Billy Reid
Site Vice President
ADP CR3, LLC
2760 South Falkenburg Rd.
Riverview, FL 33578

SUBJECT: ACCELERATED DECOMMISSIONING PARTNERS (ADP) CR3, LLC, CRYSTAL RIVER UNIT 3 - NRC INSPECTION REPORT NO. 05000302/2022001

Dear Mr. Reid:

On March 31, 2022, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection under Inspection Manual Chapter 2561, "Decommissioning Power Reactor Inspection Program," at the permanently shut down Crystal River Nuclear Plant Unit 3 (CR-3). The inspection examined activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and the conditions of your license. The inspection consisted of observations by the inspectors, interviews with site personnel, a review of procedures and records, and plant walkdowns. The results of the inspection were discussed with you and other members of the CR-3 staff on April 7, 2022, and are described in the enclosed report.

Based on the results of this inspection, one Severity Level IV violation of NRC requirements is documented in this report. The violation is being treated as a non-cited violation (NCV), consistent with Section 2.3.2.a of the Enforcement Policy. If you contest the violation or the significance of the violation, you should provide a response within 30 days of the date of this letter, with the basis for your denial, to the Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington DC 20555-0001.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response, if any, will be made available electronically for public inspection in the NRC Public Document Room or from the NRC document system (ADAMS), accessible from the NRC Website at <http://www.nrc.gov/reading-rm/adams.html>. To the extent possible, your response should not include any personal privacy, proprietary, or safeguards information so that it can be made available to the Public without redaction.

Current NRC regulations and guidance are included on the NRC's website at www.nrc.gov; select **Radioactive Waste; Decommissioning of Nuclear Facilities**; then **Regulations, Guidance and Communications**. The current Enforcement Policy is included on the NRC's Website at www.nrc.gov; select **About NRC, Organizations & Functions; Office of Enforcement; Enforcement documents**; then **Enforcement Policy** (Under 'Related Information'). You may also obtain these documents by contacting the Government Printing Office (GPO) toll-free at 1-866-512-1800. The GPO is open from 8:00 a.m. to 5:30 p.m. EST, Monday through Friday (except Federal holidays).

No reply to this letter is required. Please contact Katherine Warner, at 610-337-5389, if you have any questions regarding this matter.

Sincerely,

Anthony M.
Dimitriadis

Digitally signed by
Anthony M. Dimitriadis
Date: 2022.05.03
08:40:09 -04'00'

Anthony Dimitriadis, Chief
Decommissioning, ISFSI, and Reactor HP
Branch
Division of Radiological Safety and Security

Docket No. 05000302

License No. DPR-72

Enclosure: Inspection Report 05000302/2022001
w/Attachment

cc w/encl: Distribution via ListServ

SUBJECT: ACCELERATED DECOMMISSIONING PARTNERS (ADP) CR3, LLC,
CRYSTAL RIVER UNIT 3, NRC INSPECTION REPORT NO.
05000302/2022001 DATED MAY 3, 2022

Distribution:

- KWarner, DRSS
- ADimitriadis, DRSS
- ATaverna, DRSS
- SVeunephachan, DRSS
- JParrott, DUWP
- BWatson, DUWP

DOCUMENT NAME: <https://usnrc.sharepoint.com/teams/Region-I-Decommissioning-Branch/Inspection Reports/Inspection Reports - Draft/1Q 2022 Crystal River report draft.docx>

SUNSI Review Complete: KWarner

After declaring this document An Official Agency Record it **will** be released to the Public.

ML22116A183

OFFICE	DNMS/RI	DNMS/RI	
NAME	KWarner	ADimitriadis	
DATE	04/20/2022	05/03/2022	

OFFICIAL RECORD COPY

U.S. NUCLEAR REGULATORY COMMISSION
REGION I

INSPECTION REPORT

Report No. 05000302/2022001

Docket No. 05000302

License No. DPR-72

Licensee: Accelerated Decommissioning Partners CR3, LLC (ADP)

Facility: Crystal River Unit 3 (CR-3)

Location: Crystal River, FL 34428-6708

Inspection Dates: January 1 – March 31, 2022

Inspectors: Katherine Warner, Senior Health Physicist
Decommissioning, ISFSI, and Reactor Health Physics Branch
Division of Radiological Safety and Security

Andrew Taverna, Health Physicist (training)
Decommissioning, ISFSI, and Reactor Health Physics Branch
Division of Radiological Safety and Security

Storm Veunephachan, Health Physicist (training)
Decommissioning, ISFSI, and Reactor Health Physics Branch
Division of Radiological Safety and Security

Approved By: Anthony Dimitriadis, Chief
Decommissioning, ISFSI, and Reactor Health Physics Branch
Division of Radiological Safety and Security

EXECUTIVE SUMMARY

Accelerated Decommissioning Partners CR3, LLC (ADP)
Crystal River Unit 3
NRC Inspection Report No. 05000302/2022001

An announced decommissioning inspection was completed on March 31, 2022, at the permanently shutdown Crystal River Unit 3 (CR3). The inspection included a review of design changes and modifications, corrective actions, occupational radiation exposure, safety conscious work environment, decommissioning performance and status reviews, fire protection, and solid radioactive waste management and transportation of radioactive materials. The inspection consisted of observations by the inspectors, interviews with site personnel, a review of procedures and records, and plant walkdowns. The NRC's program for overseeing the safe decommissioning of a shutdown nuclear power reactor is described in Inspection Manual Chapter (IMC) 2561, "Decommissioning Power Reactor Inspection Program."

Based on the results of this inspection, one Severity Level IV non-cited violation (NCV) of NRC requirements was identified.

List of Violations

The inspectors determined that one Severity Level IV NCV of Title 10 of the *Code of Federal Regulations* (10 CFR) 50.48(f)(1), was identified based on the licensee's failure to prevent fires from occurring on-site. Specifically, the site did not properly implement FIR-0003, "Control of Hot Work and Ignition Sources" to (1) ensure combustible material meets the required minimum distance from ignition sources, and (2) assure no outbreak of fire by having an individual assigned to fire watch duties remain in the area after completion of hot work activities for 30 minutes. This failure resulted in fire, which started shortly after the completion of hot work when nearby combustible materials became ignited, going undetected for a period of time until fortuitously identified by an individual passing through the area. However, because the violation was of very low safety significance and was entered into Crystal River's CAP (2022000007), this violation is being treated as an NCV consistent with Section 2.3.2 of the Enforcement Policy.

REPORT DETAILS

1.0 Background

On February 20, 2013, Duke Energy sent a letter [Agency Documentation and Management System Accession Number ML13056A005] to the NRC certifying the permanent cessation of power operations and permanent removal of fuel from the reactor. This met the requirements of 10 Code of Federal Regulations (CFR) 50.82(a)(1)(i) and 50.82(a)(1)(ii). On June 14, 2019, the NRC received a license transfer application [ML19170A209] and conforming amendment request filed by the Duke Energy Florida (DEF), LLC on behalf of itself and Accelerated Decommissioning Partners (ADP) CR3, LLC. The application sought NRC approval of the direct transfer of Facility Operating License No. DPR-72 for CR-3 and the general license for the CR-3 ISFSI from the current holder, DEF to ADP CR3, which is a wholly owned subsidiary of ADP, LLC, which the NRC approved on April 1, 2020 [ML20069A023]. On October 1, 2020, ADP and Duke Energy successfully completed the transaction.

CR-3 was inspected under the “Actively Decommissioning (DECON), No Fuel in the Spent Fuel Pool” category as described in IMC 2561 during this inspection period.

2.0 Active Decommissioning Performance and Status Review

2.1 Inspection Procedures (IPs) 37801, 40801, 64704, 71801, 83750, 86750

a. Inspection Scope

The inspectors performed on-site decommissioning inspections on February 7 – 9 and February 28 – March 3, supplemented by in-office reviews of information supplied by ADP and periodic phone calls. The inspection consisted of observations by the inspectors, interviews with site personnel, a review of procedures and records, and plant walkdowns.

The inspectors conducted document reviews and interviews with plant personnel to determine if ADP procedures and processes were adequate and in accordance with the regulations and guidance associated with 10 CFR 50.59, and to determine if changes made by ADP under 10 CFR 50.59 required prior NRC approval.

The inspectors reviewed a specific selection of CAP documents related to the January 10, 2022 fire to determine if a sufficiently low threshold for problem identification existed, if follow-up evaluations were of sufficient quality, and if ADP assigned timely and appropriate prioritization for issue resolution commensurate with the significance of the issue. Inspectors attended a condition review group meeting and evaluated the effectiveness of the site’s review of identified conditions and associated prioritization. The inspectors reviewed the results of a February 2022 Safety Conscious Work Environment (SCWE) survey and continued review of the site SCWE.

The inspectors conducted plant walk-downs to assess field conditions and decommissioning activities by evaluating material condition of structures, systems, and

components, housekeeping, system configurations, and worker level of knowledge or procedure use and adherence. These walk-downs included the reactor, auxiliary, and turbine buildings. The inspectors observed select pre-job briefings and associated work activities, including work in the 'B' decay heat vault and various work in the reactor building. The inspectors also observed select management meetings, including a site leadership meeting and various morning status meetings to assess the licensee's status, progress and changes that could potentially impact decommissioning.

The inspectors observed activities, reviewed documentation, and interviewed personnel associated with occupational radiation exposure to evaluate the licensee's protection of worker health and safety. The inspectors conducted several site walk-downs, including radiologically controlled areas, to examine and verify radiological postings, airborne and contamination controls, and locked high radiation doors and gates. The inspectors also toured instrument and sealed source storage locations to determine the adequacy of radiological instrumentation. The inspectors observed demonstrations of several source checks and calibrations of hand held instruments, scaler equipment and portal monitors. The inspectors reviewed radiation work permits (RWP's), and As Low As Reasonably Achievable (ALARA) work plans to determine if radiation work activities were effectively pre-planned effectively to limit worker exposure. The inspectors observed radiation protection (RP) technicians perform work activities to determine if implementation of radiological work controls, training and skill level were sufficient for the activities being performed. The inspectors reviewed 2021 radiological dose records to verify compliance with the regulations.

The inspectors observed a portion of the transport of the reactor head from the reactor building to the mausoleum, reviewed its security status as it pertains to 10 CFR 37, and walked down its storage location and postings. The inspectors discussed the planned disposition of reactor vessel internals and reactor vessel with site personnel, including Greater-Than-Class-C (GTCC) waste.

The inspectors reviewed documents and interviewed plant personnel to assess the licensee's effectiveness of its decommissioning fire protection program and if it was maintained and implemented to address the potential for fires that could result in the release or spread of radioactive materials. The inspectors performed plant walkdowns to assess field conditions and the storage of combustible materials. Specific follow up to a fire that occurred on January 10, 2022, was performed, including interviews with personnel, review of initial corrective actions, and site walkdowns of areas where hot work will be performed.

b. Observations and Findings

The inspectors determined that selected 10 CFR 50.59 screenings and evaluations had been properly performed. The inspectors determined that selected changes under 10 CFR 50.59 did not require prior NRC approval and safety reviews were performed for design changes and modifications in accordance with applicable regulatory requirements, license conditions and the Decommissioning Safety Analysis Report.

The inspectors determined that issues had been identified, entered into the CAP, and evaluated commensurate with their safety significance through document reviews. The inspectors reviewed CAP documents associated with the January 10th fire,

including the basic cause evaluation, condition report, and initial and planned long term corrective actions.

The inspectors reviewed the site fire protection program as defined by Crystal River Unit 3 Fire Protection Plan, Revision 38 and associated procedures and fire hazards analysis for compliance with regulatory and license requirements. The inspectors' initial review focused on the January 10, 2022 fire to evaluate the site's immediate corrective actions. During the subsequent inspection, the inspectors' focus included a review of the site's ongoing and planned corrective actions. At the time of the review, the site had recommenced hot work with numerous corrective actions in place, including a daily sign-off instead of weekly sign-off of hot work permits and a required work area walk down by a knowledgeable individual. The inspectors observed several of these work area walkdowns, including one in the 'B' decay heat vault and noted that the knowledgeable individual appropriately identified combustibles that required them to be removed or covered prior to hot work being conducted. Additional corrective actions included weekly field observations by responsible managers and assignment of knowledgeable staff members to each major work area for the purpose of increasing knowledge transfer between work groups. The inspectors will continue to follow up on these corrective actions during future inspections.

The inspectors continued an increased focus on the site's safety conscious work environment (SCWE), including follow up the condition reports and associated corrective actions generated from the results of the 3Q2021 and 4Q2021 inspections (NRC Inspection Reports (IRs) 2021003 and 2021004 respectively). The inspectors noted that a SCWE survey conducted in February 2022 identified a strength in the staff's understanding of the process to initiate a condition report, a previously identified weakness. However, the assessment identified several weaknesses, including in the areas of respectful work environment and workplace safety as well as lack of confidence that management would appropriately resolve issues, and lack of confidence of the ability to stop work without fear of retaliation. These weaknesses are consistent with issues identified in the SCWE assessment conducted in July 2021. The NRC will maintain an increased inspection focus in this area and will review the site response and corrective actions in future inspections.

The inspectors verified that RWP's and ALARA plans as implemented were effective in limiting worker exposure, and occupational dose was appropriate for the scope of the radiological activities performed. The inspectors determined that RP staff effectively controlled work activities, used appropriate instruments for the surveys, and survey records were clear and complete. The inspectors observed an RP technician perform routine surveys in the auxiliary building and determined that the individual was adequately trained for the task. The inspectors determined that the site dosimetry program was adequate, and 2021 worker exposures were within regulatory limits.

The inspectors verified appropriate radiological controls of the reactor head both during transportation and in storage. The inspectors toured the reactor building, including the reactor vessel internals segmentation set-up and verified that security controls and access requirements were in accordance with 10 CFR 37 controls.

The inspectors were unable to observe segmentation activities due to maintenance activities on the segmentation system. The inspectors noted the increased site water usage for the segmentation and that the site was in the process of modifying the water management system to accommodate for the increased inventory. The inspectors performed walked downs of the system with the Operations Field Work Supervisor and did not identify any issues of concern.

The inspectors noted that during this inspection period, the site continued decommissioning and dismantlement activities in the auxiliary and turbine buildings, demolished the emergency diesel generator enclosure, removed the reactor head from the reactor building, and had initiated segmentation of the reactor vessel internals.

Violation

The inspectors identified one Severity Level IV non-cited violation of 10 CFR 50.48(f)(1), for the licensee's failure to reasonably prevent fires from occurring. Specifically, the site did not properly implement site procedure FIR-0003, "Control of Hot Work and Ignition Sources" to (1) to ensure combustible material met the required minimum distance from ignition sources, and (2) assure no outbreak of fire by not having an individual assigned to fire watch duties remain in the area for 30 minutes after completion of hot work activities. These procedural failures resulted in a fire.

On January 10, 2022, a crew in the Radioactive Materials Area-6 (RMA-6) room on the 119' elevation of the auxiliary building conducted hot work and left the area, including the fire watch. Soon after, a site employee conducting other activities noticed smoke on elevation 143' of the auxiliary building and investigated the 119' level where the fire was discovered in the RMA-6 area. The site employee sought assistance from radiation protection personnel, extinguished the fire using a fire extinguisher, and notified management. Initial investigation determined that the material that was on fire included a safety harness, air hoses, plasma cutting tools, and extension cords, all located within the 35' required minimum distance from ignition sources. The licensee took immediate corrective actions, including: (1) stopping all hot work; (2) performing an investigation of the fire; and (3) holding a stand-down with craft personnel to re-train and reinforce expectations on fire watch, and (4) implementing site wide housekeeping and hazard recognition walkdowns. The licensee entered the issue into its corrective action program as condition report 2022000007.

Title 10 CFR 50.48(f) requires, in part, that licensees maintain a fire protection program to address the potential for fires that could cause the release or spread of radioactive materials, including reasonably preventing these fires from occurring. Crystal River Unit 3 procedure, FIR-0003, "Control of Hot Work and Ignition Sources," is a quality procedure that is part of the Crystal River fire protection program used to meet 10 CFR 50.48(f)(1). FIR-0003 requires, in part, that the licensee: (1) ensure combustible material meets the required minimum distance

from ignition sources, and (2) an individual assigned to fire watch duties remain in the area after completion of hot work activities for at least 30 minutes to assure no outbreak of fire.

Contrary to the above, the site did not perform required work area inspections to ensure combustible material in the Unit 3 Auxiliary Building were maintained at an adequate distance of the ongoing hot work and did not ensure that a fire watch was maintained for 30 minutes after hot work activities were completed. This resulted in a fire, which started shortly after the completion of hot work when nearby combustible materials became ignited, going undetected for a period of time until fortuitously identified by an individual passing through the area.

This violation was determined to be a Severity Level IV violation using Section 6.3.d of the NRC Enforcement Policy, dated January 14, 2022, regarding the failure to implement procedures, which has a low safety significance as no contamination was evaluated to be released from this event.

Since the licensee placed the deficiency into its corrective action program (2022000007), the safety significance of the issue was determined to be very low, and met other requirements, this violation is being treated as a non-cited violation (NCV) consistent with Section 2.3.2.a of the NRC Enforcement Policy **(NCV 05000302/2022001-02, Failure to reasonably prevent fires from occurring in the auxiliary building).**

c. Conclusions

One Severity Level IV NCV of 10 CFR 50.48(f)(1) was identified based on the licensee's failure to reasonably prevent fires from occurring. The NRC notes that there was a similar Severity Level IV violations in the fourth quarter of 2021 (IR 2021004). Fire protection and SCWE will continue to be inspection focus areas.

3.0 Exit Meeting Summary

On, April 7, 2022, the inspectors presented the inspection results to Mr. Billy Reid, Site Vice President, and other members of the CR-3 staff. No proprietary information was documented in this report.

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION**PARTIAL LIST OF PERSONS CONTACTED**

B. Reid, Site Vice President
N. Langub, Site Decommissioning Director
B. Akins, Radiation Protection Manager
D. Bartlett, RP Technician
M. Blake, LTP/FSS Consultant TSSD
C. Burtoff, RP Engineer
A. Doruff, D&D Planner
M. Erickson, LTP/FSS Consultant TSSD
L. Reader, RP Specialist
G. Thibodeaux, Vice President Director of Health and Safety
M. Van Sicklen, Licensing Manager
M. Walker, Site Manager
H. Walker, Employee Concerns
L. McDougal, ORANO Project Manager
M. Sirochman, Operations Field Work Supervisor
J. Strack, NorthStar HSE

ITEMS OPEN, CLOSED, AND DISCUSSED

None

PARTIAL LIST OF DOCUMENTS REVIEWED**Condition Reports**

2021000123
2022000007

Procedures

CAP-0200, "Corrective Action Program," Revision 7
FIR-0003, "Control of Hot Work and Ignition Sources," Revision 3
FIR-0005, "Guidelines for Handling Use and Control of Transient Combustibles," Revision 0
FIR-0006, "Fire Protection Program Surveillances," Revision 1
HPS-0009, "Operation of Radiation/Contamination Survey Instruments/Equipment," Revision 8
HPS-0013, "Personnel Contamination Monitoring, Decontamination, and Reporting," Revision 6
HPP-202A, "Radiological Surveys and Inspections," Revision 50
OP-0407A, "Liquid Releases," Revision 70

Miscellaneous

ALARA Plan – Large Component Removal (LCR), October 29, 2021
 Basic Cause Evaluation for CR2022000007, RMA6 Fire BCE, dated
 CALC-DDOPS.CR3-RDD-00010, RVH and CRDM Characterization, Revision 000
 Copy of in the field Observations by Responsible Managers, February 2022
 Crystal River 3, Optimized Segmentation Technical Approach, March 25, 2021
 Crystal River Unit 3 Fire Hazards Analysis, Revision 18
 Crystal River Unit 3, Fire Protection Plan, Revision 38
 Hot Work Permits, FIR-0003 Attachment 1, January 2022
 Hot Work Practices Survey and Results, Survey performed 1/13-19/2022.
 HPS-1055 Attachment 9.10, TEDE ALARA Respiratory Protection Evaluation, Cutting
 Contaminated Systems, January 4, 2022
 SAF01113, Incident Investigation Report for RMA-6 Fire on January 10, 2022
 Memo from Anthony Doruff to Nelson Langub, Hot Work Program Enhancement – Release for
 Work, dated February 3, 2022
 HPS-0013, Personnel Contamination Event Log, 2021
 RCA Exit logs 1-10-2022
 SAF0113, Reporting Industrial Occupational Incidents, Incident dated 1/10/2022
 Safety Conscious Work Environment Survey, February 2022
 Radiological Work Permits, RVI Destack and Segmentation Activities 40
 REG010-2021-45
 Training Certificate, Joseph P. Simon, February 10, 2020

Health Physics Survey Records

21-12-0061	22-12-0011
21-12-0071	22-12-0023
21-12-0100	22-12-0031
21-12-0103	22-01-0055
21-12-0128	22-01-0093
21-12-0162	22-02-0187
21-12-0163	OR-CR3-069

LIST OF ACRONYMS

ADAMS	Agencywide Document and Management System
ADP	Accelerated Decommissioning Partners
CAP	Corrective Action Program
CFR	Code of Federal Regulations
CR	Condition Report
CR-3	Crystal River Unit 3
Duke Energy/DEF	Duke Energy Florida, Inc.
IMC	Inspection Manual Chapter
IP	Inspection Procedure
NRC	U.S. Nuclear Regulatory Commission
PSDAR	Post Shutdown Activities Report
SAFSTOR	Safe Storage