



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

January 24, 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. 05000302/2021004

Dear Mr. Reid:

On December 31, 2021, 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). A combination of on-site and remote inspection activities (in-office reviews) were performed as a consequence of the COVID-19 public health emergency (PHE) during this inspection period. The inspector 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 inspector, 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 January 6, 2022, and are described in the enclosed report.

Based on the results of this inspection, the NRC has determined that one Severity Level IV violation of NRC requirements occurred. The violation is being treated as a non-cited violation (NCV), consistent with Section 2.3.2.a of the Enforcement Policy. The NCV is described in the subject inspection report. If you contest the violation or the significance of the NCV, 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).

B. Reid

2

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

Docket No. 05000302
License No. DPR-72

Enclosure: Inspection Report 05000302/2021004
w/Attachment

cc w/encl: Distribution via ListServ

ACCELERATED DECOMMISSIONING PARTNERS (ADP) CR3, LLC, CRYSTAL RIVER UNIT 3, NRC INSPECTION REPORT NO. 05000302/2021004, DATED JANUARY 24, 2022.

DOCUMENT NAME: https://usnrc.sharepoint.com/:w:/r/teams/Region-I-Decommissioning-Branch/_layouts/15/Doc.aspx?sourcedoc=%7B3B576BED-DDF6-4AFA-B15B-412906238124%7D&file=3Q%202021%20Crystal%20River%20report%20draft.docx&action=default&mobileredirect=true

SUNSI Review Complete: KWarner

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

To receive a copy of this document, indicate in the box: C = Copy w/o attach/encl E = Copy w/ attach/encl N = No copy

ML22011A005

OFFICE	DNMS/RI	DNMS/RI	
NAME	KWarner/kw	ADimitriadis/ad	
DATE	01/10/2022	01/24/2022	

OFFICIAL RECORD COPY

U.S. NUCLEAR REGULATORY COMMISSION
REGION I

INSPECTION REPORT

Report No. 05000302/2021004
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: October 1 – December 31, 2021
Inspector: Katherine Warner, Senior Health Physicist
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 Nuclear Plant
NRC Inspection Report No. 05000302/2021004

An announced decommissioning inspection was completed on December 31, 2021 at the permanently shutdown Crystal River Unit 3 (CR3). Certain inspection activities (in-office reviews) were conducted remotely as a consequence of the COVID-19 PHE during this inspection period. The inspection included a review of design changes and modifications, corrective actions, occupational radiation exposure, quality assurance, 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 inspector, interviews with site personnel, a review of procedures and records, and plant walkdowns. The NRC's program for overseeing the safe decommissioning of a shut down nuclear power reactor is described in Inspection Manual Chapter (IMC) 2561, "Decommissioning Power Reactor Inspection Program."

One Severity Level IV non-cited violation (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 maintain combustible material in the Unit 3 Sea Water Room at an adequate distance of hot work which resulted in a fire. However, because the violation was of very low safety significance and was entered into Crystal River's CAP (2021000123), this violation is being treated as an NCV consistent with Section 2.3.2 of the Enforcement Policy. **(NCV 05000302/2021004-01, Failure to reasonably prevent fire from occurring in the auxiliary building).**

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, and 86750

a. Inspection Scope

The inspector performed on-site decommissioning inspections November 29 – December 1, 2021, supplemented by in-office reviews of information supplied by ADP and periodic phone calls. The inspection consisted of observations by the inspector, interviews with site personnel, a review of procedures and records, and plant walk-downs.

The inspector 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 inspector reviewed a representative selection of CAP documents 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

The inspector conducted walkdowns and tours of various facilities and storage areas, including the reactor and auxiliary buildings. The inspector 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 inspector also observed select management meetings.

The inspector reviewed documentation associated with quality assurance under the site decommissioning quality assurance program (DQAP), occupational exposure, and radioactive waste management to determine the effectiveness of site programs. The inspector interviewed radiation workers, radiation protection management and technicians, and the site quality assurance manager.

The inspector 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 inspector performed plant walkdowns to assess field conditions and the storage of combustible materials.

The inspector performed a continued follow-up inspection to review the site's continued actions and progress regarding the results of the Safety Conscious Work Environment assessment conducted in July 2021 and follow-up inspection in September 2021 (NRC Inspection Report 2021003). The inspector interviewed site personnel and reviewed the associated condition reports to determine if the site screened the condition reports per their corrective action program, identified appropriate corrective actions, and the progress on these items.

b. Observations and Findings

The inspector determined that 10 CFR 50.59 screenings and evaluations had been properly performed. The inspector 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. Several of these condition reports included radiation monitoring alarms on trucks prior to leaving the site, including one that the inspector directly observed. The inspector determined that the site implemented appropriate immediate actions to disposition and survey the contents of the truck to ensure that any radioactive material remained on-site and long-term corrective actions, including implementing a requirement for a radiation protection technician to accompany all trucks to the truck monitoring portal to ensure all appropriate surveys were complete and available for immediate response to any alarms (CRs 2021000111 and 2021000116). The inspector determined that ADP had performed activities described in the DQAP as appropriate.

The inspector 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 inspector assessed the site's safety conscious work environment, including review of nine condition reports and associated corrective actions generated from the results of the July and September inspections (NRC Inspection Report 2021003). The inspector determined that the site generally implemented appropriate corrective

actions associated with these issues, including integrating daily planning meetings to include cross-participation by the various site groups, giving situational training on when to write a condition report, and establishing a weekly CR-3 site leadership team meeting. Several actions to include discussion at quarterly meetings on the organizational effectiveness of the site amongst other topics and an evaluation of the effectiveness of the corrective action plan associated with CR2021000078 are actions either to be continued or acceptable to perform after some time has passed. The inspectors noted that the previously identified weakness in the staff's understanding of how to initiate a condition report (NRC Inspection Report 2021003 and CR2021000114) had improved. The inspector observed discussions on condition report initiation during pre-job briefs and the sampling of individuals interviewed correctly identified the process of initiating a condition report and its purpose. The inspector will continue to follow up on any potential remaining tensions caused by contractual challenges and noted that safety conscious work environment is an area of inspection that is conducted annually through implementation of Inspection Procedure 40801, "Problem Identification and Resolution at Permanently Shutdown Reactors" and will therefore be reviewed in calendar year 2022.

The inspector noted that during this inspection period, the site continued decommissioning and dismantlement activities in the auxiliary and turbine buildings and continued preparations for reactor vessel internals and reactor vessel segmentation. The inspector discussed ongoing active decommissioning preparations and upcoming 2022 plans with ADP staff.

Violation

The NRC determined that one Severity Level IV non-cited violation of 10 CFR 50.48(f)(1), was identified based on the licensee's failure to reasonably prevent fires from occurring. Specifically, the site did not properly implement procedure FIR-0003, "Control of Hot Work and Ignition Sources" to store combustible material in the Unit 3 Sea Water Room at a minimum distance of 35 feet of hot work or otherwise protected, which resulted in a fire.

On September 24, 2021, hot work was being performed by several individuals in the seawater room on the 95' elevation of the auxiliary building. A fire watch had recently left the site, so the nearby fire watch was given additional responsibility to oversee two burners performing hot work in separate areas. The fire watch noticed smoke coming from an area proximal to a concrete column out of sight. An investigation found two 5-yard disposal bags on fire. The fire was extinguished by a site employee using an ABC fire extinguisher. Upon identification, hot work was immediately suspended and the licensee entered the issue into its corrective action program as condition report 2021000123. The licensee took the following immediate corrective actions: (1) stopped hot work; (2) performed a housekeeping check and clean up; and (3) performed a stand-down with craft personnel to re-train and reinforce expectations on fire watch, and (4) modified the procedure to require the burner (hot worker) to sign the hot work permit prior to commencing work.

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 ensure combustible material meets the required minimum distance from ignition sources.

Contrary to the above, the licensee failed perform required work area inspections to ensure combustible material in the Unit 3 Sea Water Room were maintained at an adequate distance of hot work, which resulted in a fire.

This violation was determined to be a Severity Level IV violation using Section 6.3.d of the NRC Enforcement Policy, dated May 15, 2018, 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 (2021000123), the safety significance of the issue was determined to be very low, and because the violation was not willful or repetitive, this violation is being treated as a non-cited violation (NCV), consistent with Section 2.3.2.a of the NRC Enforcement Policy (**NCV 05000302/2021004-01, Failure to reasonably prevent fire 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.

3.0 Exit Meeting Summary

On, January 6, 2022, the inspector presented the inspection results to Mr. Billy Reid, Site Vice President, and other members of the CR-3 staff. No proprietary information was retained by the inspector or documented in this report.

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

PARTIAL LIST OF PERSONS CONTACTED

B. Reid, Site Vice President
B. Akins, Radiation Protection Manager
D. Bartlett, RP Technician
M. Blake, LTP/FSS Consultant TSSD
C. Burtoff, RP Engineer
T. Doruff, D&D Planner
M. Erickson, LTP/FSS Consultant TSSD
C. Miller, Operations and Maintenance Manager
L. Reader, RP Specialist
G. Thibodeaux, Vice President Director of Health and Safety
M. Van Sicklen, Licensing Manager
M. Walker, D&D Manager
L. McDougal, ORANO Project Manager

ITEMS OPEN, CLOSED, AND DISCUSSED

None

PARTIAL LIST OF DOCUMENTS REVIEWED

Condition Reports

2021000013
2021000078
2021000079
2021000080
2021000081
2021000082
2021000083
2021000084
2021000111
2021000113
2021000114
2021000115
2021000116
2021000120
2021000121
2021000123
2021000127
2021000128
2021000130

Procedures

CAP-0200, "Corrective Action Program," Revision 7
HPP-202A, "Radiological Surveys and Inspections," Revision 50

Miscellaneous

10 CFR 50.59 Screenings Various Dated September - November 2021
REG10-2020-01, License Transfer to ADP CR3, LLC, October 1, 2020
CR3-QAPM, Crystal River Quality Assurance Program Manual, Revision 2
Crystal River #3 Decommissioning BL November 30, 2021 Schedule
Crystal River Unit 3 Fire Hazards Analysis, Revision 18
Crystal River Unit 3, Fire Protection Plan, Revision 38
Defueled Safety Analysis Report Crystal River Unit 3, Revision 7
QS-CR3021-001, Assessment of the Effectiveness of the Implementation of License Transfer
Activities, January 6, 2021
Radiological Surveys, various
REG10-2021-35
REG10-2021-36
REG10-2021-41
REG010-2021-46

LIST OF ACRONYMS USED

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
PHE	Public Health Emergency
PSDAR	Post Shutdown Activities Report
SAFSTOR	Safe Storage