



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY  
THE OFFICE OF NUCLEAR MATERIAL SAFETY AND SAFEGUARDS  
RELATED TO AMENDMENT NO. 261  
TO FACILITY OPERATING LICENSE NO. DPR-72  
ACCELERATED DECOMMISSIONING PARTNERS CRYSTAL RIVER UNIT 3, LLC  
DUKE ENERGY FLORIDA, LLC  
CRYSTAL RIVER UNIT 3 NUCLEAR GENERATING PLANT AND  
THE INDEPENDENT SPENT FUEL STORAGE INSTALLATION  
DOCKET NOS. 50-302 AND 72-1035

1.0 INTRODUCTION

The Crystal River Unit 3 Nuclear Plant (CR3) is a decommissioning power reactor located in Citrus County, Florida. The site is about 8 miles west-northwest of Crystal River, Florida, and 70 miles north-northwest of Tampa, Florida, and is situated on the Gulf of Mexico within the Crystal River Energy Complex. The licensee, Accelerated Decommissioning Partners (ADP) CR3, LLC, (ADP CR3), is the holder of the CR3 Operating License No. DPR-72, issued pursuant to the Atomic Energy Act of 1954, as amended, and Part 50, "[Domestic Licensing of Production and Utilization Facilities](#)," of Title 10 of the *Code of Federal Regulations* (10 CFR).

By letter dated January 26, 2022 (Agencywide Documents Access and Management System Accession No. [ML22026A433](#)), ADP CR3 submitted a license amendment request to remove Appendix B of the CR3 facility operating license, entitled "Environmental Protection Plan (Non-Radiological) Technical Specifications" (EPP). The proposed amendment would remove technical specification requirements no longer applicable during decommissioning because CR3 has permanently ceased operation eliminating the non-radiological environmental effects from plant operation and has addressed compliance with requirements for non-radiological environmental effects in other plant procedures or permits.

2.0 REGULATORY EVALUATION

This safety evaluation addresses the acceptability of the proposed changes to the appendix (technical specifications) of the CR3 license. The regulatory requirements on which the U.S. Nuclear Regulatory Commission (NRC) staff based its review are provided below.

## 2.1 Regulatory Requirements

By letter dated February 20, 2013 ([ML13056A005](#)), CR3 certified the permanent cessation of power operations and removal of fuel from the reactor vessel pursuant to 10 CFR 50.82(a)(1)(ii), "[Termination of license](#)." Therefore, the 10 CFR Part 50 license for CR3 no longer authorizes operation of the reactor or emplacement or retention of fuel into the reactor vessel.

CR3 is currently dismantling the plant site and the reactor as described in the revised Post-Shutdown Decommissioning Activities Report (PSDAR) dated June 26, 2019 ([ML19177A080](#)). All spent fuel is stored in the Independent Spent Fuel Storage Installation. Due to the CR3 reactor being permanently shutdown and the spent fuel being in permanent dry storage, there are no longer releases of heated water from the plant, and the intake pumps for cooling water that were used when the CR3 reactor was operating have been permanently removed.

The EPP contains requirements for:

- 1) The adequate protection of the environment from, and reporting of, non-radiological effluent discharges;
- 2) Evaluation of changes, tests or experiments for unreviewed environmental questions and compliance with other environmental regulations;
- 3) Reporting of significant environmental events; and,
- 4) The protection of endangered or threatened sea turtles.

## 2.2 Basis for removing the requirements in the EPP from the CR3 facility operating license

Since these requirements were developed for protection of the environment from the effects of plant construction and power operations, ADP CR3 proposes that the EPP be deleted in its entirety as the requirements are no longer applicable to CR3 since the plant has permanently ceased operation and is prohibited from resuming operations.

## 2.3 Guidance

The associated guidance document on which the NRC staff based its evaluation and acceptance of the proposed changes to the CR3 license were Regulatory Guide (RG) 1.185, Revision 1, "[Standard Format and Content for Post-Shutdown Decommissioning Activities Report](#)," which provides guidance for decommissioning nuclear power plant licensees to evaluate the site-specific environmental impacts of decommissioning their facilities.

## 3.0 TECHNICAL EVALUATION

### 3.1 Proposed Changes

In its application dated January 26, 2022, ADP CR3 proposed that Appendix B, "Environmental Protection Plan (Non-Radiological) Technical Specifications," be deleted in its entirety. As part of its evaluation, the NRC staff has reviewed the licensee's regulatory and technical analyses in support of the proposed changes to the CR3 license, as described in the application dated January 26, 2022. The NRC staff's evaluation is provided below.

### 3.1.1 Reporting of non-radiological effluent discharges

The requirements for reporting of non-radiological effluent discharges have been moved to plant compliance procedure CP-500, "Special Actions and Reporting Requirements;" therefore, the same requirements no longer need to be in the EPP. Removing the National Pollutant Discharge Elimination System (NPDES) reporting requirements from the EPP and maintaining them in a licensee procedure, which is subject to 10 CFR 50.59, "[Changes, tests, and experiments](#)," for control of changes, is also consistent with the NRC's Final Policy Statement on Technical Specification Improvements for Nuclear Power Reactors that was published in the *Federal Register* (FR) on July 22, 1993 ([58 FR 39132](#)), which endorsed relocation of Technical Specification content not associated with plant safety to controlled licensee programs and procedures. The NPDES Permit (Permit ID# FL0A00004) reporting requirements that remain applicable during decommissioning have been incorporated into site compliance procedure CP-500, Special Actions and Reporting Requirements. This procedure also contains other NRC applicable reporting requirements, such as for the Offsite Dose Calculation Manual. NRC staff have reviewed procedure CP-500 and have verified that the NPDES reporting requirements have been relocated from the EPP.

### 3.2.2 Evaluation of changes, tests or experiments for unreviewed environmental questions and compliance with other environmental regulations

The EPP requirement to perform an evaluation of unreviewed environmental questions for changes in plant design and operation no longer applies since plant operation is permanently prohibited and operational plant systems have been abandoned and/or are being dismantled. For decommissioning, the evaluation of changes, tests or experiments for unreviewed environmental questions and compliance with other environmental regulations during decommissioning are required under 10 CFR 50.82(a)(6) – i.e., licensees shall not perform any decommissioning activities that result in significant environmental impacts not previously reviewed. In addition, significant environmental impacts from decommissioning of power reactors have been reviewed in the NUREG-0586, Supplement 1, Volume 1, "[Generic Environmental Impact Statement on Decommissioning of Nuclear Facilities: Supplement 1, Regarding the Decommissioning of Nuclear Power Reactors](#)." Site specific environmental impacts of decommissioning CR3 were reviewed in the NRC's acceptance of the original CR3 PSDAR dated March 11, 2015 ([ML14321A751](#)). NRC found that the potential environmental impacts associated with the CR3 decommissioning activities are bounded by the previously issued GEIS and its supplement, were described consistent with the guidance in RG 1.185, and met the requirements of 10 CFR 50.82(a)(4)(i). Therefore, this EPP requirement can be deleted.

### 3.2.3 Reporting of significant environmental events

Reporting of significant environmental events under the requirements of 10 CFR 50.72(b)(2)(xi), "[Immediate notification requirements for operating under nuclear power reactors](#)," is still applicable and has been incorporated into section 4.3 of CP-500. The incorporation of this requirement into CP-500 will provide for notification related to any significant environmental events that might occur while in decommissioning. Therefore, this requirement can be removed from the EPP.

### 3.2.4 The protection of endangered or threatened sea turtles.

By letter to the NRC dated January 24, 2022 ([ML22024A214](#)), the National Marine Fisheries Services (NMFS) stated that the original Biological Opinion issued to the NRC dated August 8, 2002 ([ML022460361](#)) on the protection of endangered or threatened sea turtles from the cooling water intake system at the Crystal River Energy Complex, that included CR3, is no longer applicable to CR3 since it is permanently shutdown and its former cooling water intake system, now being used by the Duke Energy Citrus Combined Cycle Station, is no longer in use for nuclear power generation.

Since the NMFS has determined that the CR3 cooling water intake is no longer a threat to sea turtles, and the repurposed and modified cooling water intake for the Duke Energy Citrus Combined Cycle Station is currently compliant with the Programmatic Biological Opinion on the U.S. Environmental Protection Agency's Issuance and Implementation of the Final Regulations Section 316(b) of the Clean Water Act, the requirements on the protection of sea turtles them can be removed from the CR3 EPP.

### 3.4 Summary

The NRC staff performed a regulatory and technical review of the proposed elimination of Appendix B of the CR3 facility operating license (i.e., the CR3 EPP). Based on this review, the NRC staff finds that the proposed elimination of the requirements in the CR3 EPP are appropriate given the change to permanent shutdown and decommissioning of CR3 or that requirements have been relocated to appropriate plant procedures. Therefore, the NRC staff concludes that the proposed elimination of the CR3 EPP, as described in the application dated January 26, 2022, are acceptable.

## 4.0 STATE CONSULTATION

In accordance with the Commission's regulations, the State of Florida official was notified of the proposed issuance of the amendment on August 8, 2022. The State of Florida official did not have any comments.

## 5.0 ENVIRONMENTAL CONSIDERATION

The proposed amendment removes environmental non-radiological technical specifications from the facility operating license. The NRC staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendment involves no significant hazards consideration, and there has been no public comment on such finding published in the *Federal Register* on March 22, 2022 ([87 FR 16249](#)). Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9), "[Criterion for categorical exclusion; identification of licensing and regulatory actions eligible for categorical exclusion or otherwise not requiring environmental review](#)," and 51.22(c)(10). Therefore, pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.

## 6.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) there is reasonable assurance that such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

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