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

January 8, 2015

Mr. Terry D. Hobbs
General Manager, Decommissioning
Crystal River Nuclear Plant (NA2C)
15760 W. Power Line Street
Crystal River, FL 34428-6708

SUBJECT: CRYSTAL RIVER UNIT 3 NUCLEAR GENERATING PLANT – REQUEST FOR ADDITIONAL INFORMATION REGARDING THE TRANSITION TO THE DEFUELED LICENSE AND TECHNICAL SPECIFICATIONS (TAC NO. MF3089)

Dear Mr. Hobbs:

By letter dated October 29, 2013 (Agencywide Documents Access and Management System Accession No. ML13316C083), Duke Energy Florida, Inc. submitted a License Amendment Request (LAR) regarding Crystal River Unit 3 Nuclear Generating Plant (CR-3) Facility Operating License. The amendment proposes to revise certain license conditions that are no longer applicable to CR-3 in the permanently defueled condition.

The U.S. Nuclear Regulatory Commission (NRC) staff determined that additional information is needed to complete our review of the LAR. Attached is our list of information requests. The NRC staff requests that you respond by March 1, 2015.

If you have any questions, please contact me at 301-415-3229, or by e-mail at Michael.Orenak@nrc.gov.

Sincerely,

Michael D. Orenak, Project Manager
Plant Licensing IV-2 and Decommissioning
Transition Branch
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-302

Enclosure:
Request for Additional Information

cc w/enclosure: Distribution via Listserv

UNITED STATES
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REQUEST FOR ADDITIONAL INFORMATION

LICENSE AMENDMENT REQUEST TO TRANSITION TO THE DEFUELED LICENSE AND TECHNICAL SPECIFICATIONS

DUKE ENERGY FLORIDA, INC.

CRYSTAL RIVER UNIT 3 NUCLEAR GENERATING PLANT

DOCKET NO. 50-302

By letter dated October 29, 2013 (Agencywide Documents Access and Management System (ADAMS) Accession Number ML13316C083), Duke Energy Florida, Inc. (the licensee) submitted a license amendment request (LAR) regarding the Crystal River Nuclear Generating Plant Unit 3 (CR-3), facility operating license. The U.S. Nuclear Regulatory Commission (NRC) staff determined that the following request for additional information (RAI) is needed to complete the review of the LAR.

RAI #1:

The proposed amendment would revise license condition 2.B.(1), which currently states:

> Duke Energy Florida, Inc., pursuant to Section 104b of the Act and 10 CFR [Title 10 of the Code of Federal Regulations] Part 50, "Licensing of Production and Utilization Facilities," to possess, use and operate the facility;

The licensee is proposing that the revised license condition states:

> Duke Energy Florida, Inc., pursuant to Section 104b of the Act and 10 CFR Part 50, "Licensing of Production and Utilization Facilities," to possess and operate the facility as required for fuel storage;

The licensee is proposing to revise the license condition by removing the word "use" and adding the phrase "required for fuel storage." The licensee intends to maintain the word "operate" in the license condition.

CR-3 is no longer authorized to operate the facility as a nuclear reactor (utilization facility) or place fuel in the reactor vessel. By letter dated February 20, 2013 (ADAMS Accession No. ML13056A005), the licensee provided certification in accordance with 10 CFR 50.82(a)(1)(i) and (ii) that operation was permanently ceased and all fuel was permanently removed from the reactor vessel at CR-3. As 10 CFR 50.82(a)(2) states:

> Upon docketing of the certifications for permanent cessation of operations and permanent removal of fuel from the reactor vessel, or when a final legally effective order to permanently cease operations has come into effect, the 10 CFR part 50 license no longer authorizes operation of the reactor or emplacement or retention of fuel into the reactor vessel.

Please clarify how the facility will continue to be operated as required for fuel storage or modify license condition 2.B.(1) of the submittal accordingly.

RAI #2:

The provisions of 10 CFR 50.51(b) require licensees that have provided certifications for permanent cessation of power operations and permanent removal of fuel in accordance with 10 CFR 50.82(a)(1)(i) and 10 CFR 50.82(a)(1)(ii) to take actions necessary to decommission and decontaminate the facility and continue to maintain the facility in a safe condition. The structures and components (SCs) required to maintain the safe operation of the facility during the decommissioning period may remain operational beyond the normal licensed operating period of 40 years. Under the provisions of 10 CFR 50.82, the licensee must complete decommissioning within 60 years of permanent cessation of operations.

The provisions of 10 CFR 50.65 require licensees to monitor performance or condition of structures, systems, and components to ensure they are capable of fulfilling their intended function. The scope of the monitoring specified in 10 CFR 50.65(a)(1) applies to safety-related structures, systems, and components (e.g., the spent fuel pool) as stated in Section 50.65(b)(1) and to nonsafety-related structures, systems, or components whose failure could prevent safety-related structures, systems, and components from fulfilling their intended function as stated in Section 50.65(b)(2)(ii).

The provisions of 10 CFR 50.48(f) require that licensees who have submitted certifications under 10 CFR 50.82(a)(1) maintain a fire protection program to address potential fires that could cause the release or spread of radioactive materials.

The provisions of 10 CFR Part 20 continue to be requirements for licensees that have submitted the certifications of 10 CFR 50.82(a)(1)(i) and 10 CFR 50.82(a)(1)(ii). Specifically, 10 CFR 20.1101 requires that licensees develop, document, and implement a radiation protection program with the scope and extent of their licensed activities.

The treatment of passive, long-lived SCs under the monitoring program during the original period of operation is likely to involve minimal performance or condition monitoring to maintain functionality. Passive SCs generally have functions that do not have performance and condition characteristics that are as readily observable as SCs that perform active functions. Long-lived SCs may not be subjected to periodic replacement based on a qualified life or specified time period. The NRC staff needs to determine whether the licensee's programs are sufficient to adequately manage the degradation effects of passive, long-lived SCs to prevent the loss of intended function beyond the normal licensed operating period of 40 years. Licensees, under the provisions of 10 CFR 50.51(b) and 10 CFR 50.82, shall take actions necessary to decommission and decontaminate the facility and continue to maintain the facility in a safe condition until license termination, the time period of which willl extend beyond the normal licensed operating period of 40 years.

In the LAR, the licensee does not describe their proposed actions to maintain (1) the spent fuel in a safe condition (i.e., how it intends to monitor and maintain the intended function of passive, long-lived SCs (e.g., the neutron absorbing materials)) in the spent fuel pool; (2) the SCs of the fire protection program; and (3) the SCs of the radiation protection program beyond the normal licensed operating period of 40 years. Accordingly, the staff requests that the licensee provide

the following information:

1. Identify and list the long-lived, passive SCs (e.g., neutron absorbing materials) in the spent fuel pool, the fire protection program, and the radiation protection program that are needed, pursuant to the provisions of 10 CFR 50.51(b), to provide reasonable assurance that safe condition of the spent fuel will be monitored and maintained during the decommissioning period.

2. Provide a summary description of actions that will be taken to monitor and maintain the performance or condition of long-lived, passive SCs identified in the response to Request 1 to provide reasonable assurance that the long-lived, passive SCs are capable of fulfilling their intended functions during the decommissioning period.

January 8, 2015

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/RA/

Michael D. Orenak, Project Manager
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ADAMS Accession No.: ML14274A139 *** via memo**

OFFICE	LPL4-2/PM	LPL2-2/LAiT	LPL4-2/LA	NRR/DLR/RSRG/BC	LPL4-2/BC	LPL4-2/PM
NAME	MOrenak	LRonewicz	BClayton	SBloom*	DBroaddus	MOrenak
DATE	1/8/15	12/8/14	12/8/14	12/4/14	1/8/15	1/8/15

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