



UNITED STATES
NUCLEAR REGULATORY COMMISSION

REGION I
2100 RENAISSANCE BLVD., SUITE 100
KING OF PRUSSIA, PA 19406-2713

April 29, 2014

Docket No. 05000302

License No. DPR-72

Terry Hobbs
Decommissioning Director
Duke Energy Florida, Inc.
Crystal River Nuclear Plant
15760 W. Power Line Street
Crystal River, FL 34428-6708

SUBJECT: DUKE ENERGY FLORIDA, INC., CRYSTAL RIVER NUCLEAR PLANT,
UNIT 3 – NRC INSPECTION REPORT 05000302/2014001

Dear Mr. Hobbs:

On March 31, 2014, the U.S. Nuclear Regulatory Commission (NRC) completed a quarterly inspection of activities at Crystal River Nuclear Plant Unit 3 (CR-3). On-site inspections were performed on February 11-12 and March 17-21, 2014. In-office reviews of information supplied by Duke Energy Florida, Inc. were also performed during the inspection period. 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 personnel, and a review of procedures and records. The results of the inspection were discussed with Blair Wunderly, Plant Manager, and other members of your staff on April 7, 2014, and are described in the enclosed report. No findings of safety significance were identified.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosure(s), and your response, 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.

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T. Hobbs

2

No reply to this letter is required. Please contact Steve Hammann, at 610-337-5399, if you have any questions regarding this matter.

Sincerely,

A handwritten signature in black ink, appearing to read "Mr S Ferdas", with a long horizontal stroke extending to the right.

Marc S. Ferdas, Chief
Decommissioning and Technical
Support Branch
Division of Nuclear Materials Safety

Enclosure: Inspection Report No. 05000302/2014001

cc w/encl: Distribution via Listserv

T. Hobbs

2

No reply to this letter is required. Please contact Steve Hammann, at 610-337-5399, if you have any questions regarding this matter.

Sincerely,
/RA/

Marc S. Ferdas, Chief
Decommissioning and Technical
Support Branch
Division of Nuclear Materials Safety

Enclosure: Inspection Report No. 05000302/2014001

cc w/encl: Distribution via Listserv

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U.S. NUCLEAR REGULATORY COMMISSION
REGION I

INSPECTION REPORT

Inspection No. 05000302/2014001

Docket No. 05000302

License No. DPR-72

Licensee: Duke Energy Florida, Inc. (Duke Energy)

Facility: Crystal River Nuclear Plant Unit 3 (CR-3)

Address: 15760 W. Power Line Road
Crystal River, FL 34428-6708

On-site Inspection Dates: February 11-12, 2014
March 17-21, 2014

In-Office Reviews: January – March, 2014

Inspectors: Stephen Hammann, Senior Health Physicist
Decommissioning and Technical
Support Branch
Division of Nuclear Materials Safety

Laurie A. Kauffman, Health Physicist
Decommissioning and Technical
Support Branch
Division of Nuclear Materials Safety

Steve Barr, Senior EP Inspector
Plant Support Branch 1
Division of Reactor Safety

Robert Carrion, Senior Reactor Inspector
Engineering Branch 3
Division of Reactor Safety, Region II

Approved By: Marc S. Ferdas, Chief
Decommissioning and Technical
Support Branch
Division of Nuclear Materials Safety

EXECUTIVE SUMMARY

Duke Energy Florida, Inc. (Duke Energy)
Crystal River Nuclear Plant, Unit 3 (CR-3)
NRC Inspection Report No. 05000302/2014001

An announced quarterly inspection was completed at CR-3 on March 31, 2014. On-site inspections were conducted on February 11-12 and March 17-21, 2014. In-office reviews of information supplied by Duke Energy were also performed during the inspection period. The inspection included a review of operations and management oversight, corrective action program (CAP) implementation, and plant support activities. The inspection consisted of observations by the inspectors, interviews with Duke Energy personnel, a review of procedures and records, and plant walk-downs. The U.S. Nuclear Regulatory Commission's (NRC's) program for overseeing the safe operation of a shut-down nuclear power reactor is described in Inspection Manual Chapter (IMC) 2561, "Decommissioning Power Reactor Inspection Program." Based on the results of this inspection, no findings of safety significance were identified.

REPORT DETAILS

1.0 Background

On February 20, 2013, Duke Energy sent a letter (ADAMS Accession Number ML13056A005) to the NRC certifying the permanent cessation of activities and certifying that the fuel had been permanently removed from reactor. This met the requirements of 10 Code of Federal Regulations (CFR) 50.82(a)(1)(i) and 50.82(a)(1)(ii). CR-3 is currently in the "Post Operation Transitional Phase" of decommissioning as described in IMC 2561.

2.0 Post Operation Transition Phase Performance and Status Review

a. Inspection Scope (Inspection Procedures (IPs) 36801, 37801, 40801, 60801)

An announced on-site safety inspection was conducted on February 11-12 and March 17-21, 2014, at CR-3. In-office reviews of information supplied by Duke Energy were also performed during the inspection period. The inspection consisted of observations by the inspectors, interviews with Duke Energy personnel, review of procedures and records, and plant walk-downs.

The inspectors assessed management oversight of the site's transition to decommissioning status and reviewed the organizational structure, staffing levels, and personnel qualifications to ensure the safe storage of radioactive materials was not adversely impacted. The inspectors also reviewed Duke Energy's plans to address a potential job action at the site associated with the December 2013 expiration of their contract with the International Brotherhood of Electrical Workers (IBEW) Local 433. The review included an evaluation of the content and actions contained in their plans.

Inspectors evaluated employee training, including that of contracted work force. Inspectors reviewed Duke Energy's process for reviewing, responding to, and implementing regulatory information and the methods in which Duke Energy resolved employee/safety concerns and provided information to employees. The inspectors toured the control room and verified that requirements detailed in plant technical specifications (TS) were being met. The inspectors also reviewed the CAP to determine if issues were being properly identified, evaluated, and prioritized, and corrective actions were being appropriately implemented.

The inspectors reviewed the modifications being performed to stabilize the containment building and reviewed work orders associated with the de-tensioning of the hoop tendons to verify they were completed in accordance with site procedures. The inspectors also toured the mock-up facilities used for the de-tensioning and weatherization activities to verify workers were being trained properly to implement the procedures. Quality control documentation was reviewed to determine if the appropriate management and technical reviews were completed.

The inspectors reviewed the programs for the safe wet storage of spent fuel and verified that maintenance was being performed within the established frequencies and that the

equipment was being properly maintained. The inspectors also reviewed the material condition of systems used to support spent fuel pool cooling during plant tours.

The inspectors conducted reviews of 10 CFR 50.54(q) evaluations to determine whether the CR-3 emergency preparedness program was maintained in a state of operational readiness and whether changes made to the licensee's emergency preparedness program continue to meet commitments, NRC requirements, and have not resulted in a reduction in effectiveness of the CR-3 Emergency Plan.

b. Observations and Findings

The inspectors noted that the decrease in staffing at CR-3 had slowed down since the last inspection at which time staffing had decreased by approximately 50 percent from the date when Duke Energy announced the site had permanently ceased operations. The inspectors also noted that reviews were continuously being performed by Duke Energy to ensure that adequate staffing levels were being maintained to support plant activities and regulatory requirements. New training procedures, as well as, specific training programs, were put in effect to better address the training needs of the organization as it transitions into the decommissioning process.

Duke Energy developed a Staffing Contingency Plan to ensure a sufficient number of qualified personnel were available to continue operations in the event of a job disruption. The Staffing Contingency Plan properly identified the number of qualified personnel needed for operation of the facility and their availability. The Staffing Contingency Plan also appropriately ensured that TS and other NRC requirements could be met if a job action occurred. Negotiations between Duke Energy and IBEW Local 433 continued without a job disruption and on February 28, 2014, Duke Energy and IBEW, Local 433, announced an agreement of a new contract.

The inspectors determined that issues were entered into the CAP, prioritized, and evaluated commensurate with their safety significance. Corrective actions were implemented to address identified issues and were being tracked to closure.

The inspectors determined the CR-3 program to stabilize the containment was properly being implemented. The de-tensioning of the tendons was completed and the re-greasing phase of the project was underway as of the conclusion of this inspection. Duke Energy was planning to perform weatherization of the containment to seal it against water intrusion.

The inspectors noted that changes made to the CR-3 Emergency Plan did not reduce its effectiveness and that screenings and evaluations contain the appropriate level of detail and sufficient basis to support the change. However, this review is not a formal safety evaluation and does not constitute formal NRC approval of the changes. Therefore, these changes remain subject to future NRC inspection in their entirety.

c. Conclusions

Based on the results of this inspection, no findings of safety significance were identified.

3.0 Exit Meeting Summary

On April 7, 2014, the inspectors presented the inspection results to Blair Wunderly, Plant Manager, and other members of Duke Energy's staff. The inspectors confirmed that proprietary information was not removed from the site.

PARTIAL LIST OF PERSONS CONTACTED

Licensee

R. Biddleman, Superintendent, Nuclear Oversight
S. Bowden, Performance Support Supervisor
J. Connor, Decommissioning Transition Organization (DTO) Engineering
P. Dixon, Decommissioning Support Manager
F. Dola, DTO Plant Support
J. Lane, Lead System Engineer, Spent Fuel Pool System Engineering
S. McDaniel, Senior Licensing Engineer
D. Westcott, DTO Licensing
B. Wunderly, Plant Manager

ITEMS OPEN, CLOSED, AND DISCUSSED

None

LIST OF DOCUMENTS REVIEWED

Action Requests

574867; 633490; 634424; 636033; 637077; 638296; 646423; 649852; 649953; 650921; 654680;
655828; 663337; 666006

Miscellaneous

2013-2014 Radiological Emergency Response Plan Change Log
Abandonment Package – Chemical Feed Secondary
Abandonment Package – Gland Water System
Memo, Termination of Continuous Audits, January 28, 2014
Radiological Emergency Response Plan, Rev. 33
Self Assessment Report, 2013 Radiation Protection Program Annual Review
Self Assessment Report, BWB Contractor Qualification
Third Cycle 2013 CR3 DTO Nuclear Oversight Status Report

Precision Surveillance Corporation (PSC)

Post-Tensioning System N1100 Field and Quality Control Procedure, Revision 3
PSC Safety Manual, STD-SFTY-001, Job Hazard Analysis/Pre-Job Brief for Greasing Tendons,
dated 3-3-2014
PSC Safety Manual, STD-SFTY-001, Job Hazard Analysis/Pre-Job Brief for Mock Up
Detensioning, dated 12-4-2013
PSC Safety Manual, STD-SFTY-001, Job Hazard Analysis/Pre-Job Brief for Platform and
Stressing Operations, dated 2-24-2014
Personnel Certification/Qualification/Training Records

Procedures

AD-NO-ALL-0201, Rev. 0, Responding to NRC Allegations and Comprehensive Employee Concerns
AD-NO-ALL-0202, Rev. 0, Employee Concern Program
AD-NO-ALL-0203, Rev. 0, Differing Professional Opinion Process
AD-NO-ALL-1001, Rev. 0, Conduct of Audit
AI-1500, Rev. 46, Administration of Environmental and Chemistry Department
AI-9003, Rev. 3, System Evaluation, Categorization, and Abandonment
EM-102, Rev. 55, Operation of the Technical Support Center (TSC)
EM-104, Rev. 17, Operation of the Operational Support Center (OSC)
EM-225, Rev. 29, Duties of the Technical Support Center Accident Assessment Team
PT-531, Rev. 11, Spent Fuel Handling Bridge Interlock Test
SP-300, Operating Daily Surveillance Log (Excerpts for SFP SSC checks)
TRN-1000, Rev. 1, DTO – Performance Based Training

Screenings and Reviews

EMG-NGGC-0010, Rev 3, Attachment 2 – 50-54(q)(3) Evaluation Sheet, Screening/Evaluation Numbers; EREG 611011, EREG, EREG 610019, EREG 609102, EREG 607430

Work Orders

WO 13306278-05, PSC Detensioning of the RX Building, Buttress 2 Field Side Platform Detension
WO 13306278-07, PSC Detensioning of the RX Building, Buttress 6 Shop Side Platform Detension
WO 13306278-09, PSC Detensioning of the RX Building, Buttress 6 Field Side Platform Detension
WO 13306278-20, Greasing of Vertical Tendons

LIST OF ACRONYMS USED

ADAMS	Agencywide Documents Access and Management System
CAP	Corrective Action Program
CFR	Code of Federal Regulations
CR-3	Crystal River Unit 3
Duke Energy	Duke Energy Florida, Inc.
DTO	Decommissioning Transition Organization
IMC	Inspection Manual Chapter
IP	Inspection Procedure
NRC	U.S. Nuclear Regulatory Commission
PSC	Precision Surveillance Corporation
TS	Technical Specifications