

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION  
OFFICE OF NUCLEAR REACTOR REGULATION

Eric J. Leeds, Director

In the Matter of	)	Docket No. 50-302
	)	
DUKE ENERGY FLORIDA, INC.	)	License No. DPR-72
	)	
	)	
Crystal River Unit 3 Nuclear Generating Plant	)	

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**DIRECTOR'S DECISION UNDER 10 CFR 2.206**

**I. Introduction**

By letter dated December 5, 2009, as supplemented on January 7, 2010, Mr. Thomas Saporito (the Petitioner) filed a petition under Title 10 of the *Code of Federal Regulations* (10 CFR) 2.206, "Requests for Action under This Subpart," related to damage to the Crystal River Nuclear Generating Plant, Unit 3 (CR-3), containment structure (Agencywide Documents Access and Management System (ADAMS) Accession No. ML093430702). The Petitioner also filed a separate petition regarding the containment structure under 10 CFR 2.206 on August 6, 2010 (ADAMS Accession No. ML102220032). The U.S. Nuclear Regulatory Commission (NRC) has consolidated the relevant portions of the August 6, 2010, petition with the December 5, 2009, petition. The Petitioner requested that the NRC take enforcement action.

Action Requested for December 5, 2009, Petition

In the original petition, the Petitioner requested that the NRC take enforcement action against Duke Energy Florida, Inc. The Petitioner requested that the NRC issue a confirmatory order to Duke Energy Florida, Inc., the licensee (formerly Florida Power Corp., Inc., a subsidiary of Progress Energy), requiring that the licensee perform the following actions:

1. Physically remove the outer 25 centimeters (10 inches) of concrete surrounding the CR-3 containment building from the top of the containment building to the bottom of the containment building and encompassing 360 degrees around the entire containment building.
2. Test samples of the concrete removed from the CR-3 containment building for composition and compare the test results to a sample of concrete from a similarly designed facility like the Florida Power and Light Company, Turkey Point Nuclear Plant.
3. Keep the CR-3 in cold shutdown mode until such time as the licensee can demonstrate full compliance with its NRC operating license for CR-3 within the safety margins delineated in the licensee's final safety analysis report (FSAR) and within the CR-3 site-specific technical specifications.
4. Provide the public with an opportunity to intervene at a public hearing before the NRC Atomic Safety and Licensing Board to challenge any certification made by the licensee to the NRC that it has reestablished full compliance with 10 CFR Part 50, "Domestic Licensing of Production and Utilization Facilities," and the safety margins delineated in its FSAR and technical specifications.

By a teleconference on January 7, 2010 (ADAMS Accession No. ML100200966), the Petitioner supplemented the December 5, 2009, petition by requesting that the licensee reform the containment building with additional concrete. The NRC determined that this additional information supplemented the first requested action of the December 5, 2009, petition.

The NRC's acknowledgement letter to the Petitioner for the December 5, 2009, petition, dated March 4, 2010 (ADAMS Accession No. ML100471416), addressed the original petition dated December 5, 2009, as supplemented on January 7, 2010. In this letter, the NRC accepted the Petitioner's third requested action because it met the criteria established in Management Directive (MD) 8.11, "Review Process for 10 CFR 2.206 Petitions," for review under the 10 CFR 2.206 process. Items 1, 2, and 4 did not meet the criteria established in MD 8.11 for review under the 10 CFR 2.206 process, as described in the March 4, 2010, letter.

By letter dated August 6, 2010, the Petitioner filed a separate request related, in part, to the containment delamination; however, it was not accepted for review under the 10 CFR 2.206 process. The decision to not accept the request as a petition was documented in a letter dated September 3, 2010 (ADAMS Accession No. ML102290577). In the August 6, 2010, request, the Petitioner stated that at the end of a June 30, 2010, public meeting, he verbally supplemented the December 5, 2009, petition by asserting that:

1. The licensee discovered new cracks when concrete was removed from the external walls of the containment building near the access cut made for replacement of steam generators.
2. The licensee failed to identify these cracks earlier upon the initial discovery of the delamination event.

3. The licensee cannot realistically provide any degree of assurance to the NRC that additional cracks within the containment building structure do not exist because, as with the newly discovered cracks, the licensee has no means to inspect the existing containment building structure to detect the existence of further cracks in the concrete.
4. The licensee has not sufficiently addressed the delamination event to effectively make repairs that will return CR-3 to the safety margins described in the licensee's FSAR and technical specifications.

While the request was not accepted, the information contained in the August 6, 2010, petition request was consolidated with the December 5, 2009, petition, as discussed in the letter dated September 3, 2010.

The NRC sent a copy of the proposed director's decision to the Petitioner and to Duke Energy Florida, Inc., for comment on January 24, 2014. The staff did not receive any comments on the proposed director's decision.

## **II. Discussion**

Under 10 CFR 2.206(b), the director of the NRC office with responsibility for the subject matter shall either institute the requested proceeding or shall advise the person who made the request in writing that no proceeding will be instituted in whole or in part, with respect to the request, and the reason for the decision. Accordingly, the decision of the Director of the Office of Nuclear Reactor Regulation is provided below.

As stated previously, the NRC accepted for review the December 5, 2009, petition request that the NRC issue a confirmatory order requiring CR-3 to remain in cold shutdown mode until the licensee demonstrates full compliance with the safety margins delineated in the

license's FSAR and technical specification requirements. Since September 26, 2009, CR-3 has been shutdown while the licensee performed repairs related to the containment delamination. The licensee has not attempted to restart the reactor.

On February 5, 2013, the licensee publicly announced that it had decided to retire the CR-3 plant. On February 20, 2013 (ADAMS Accession No. ML13056A005), the licensee provided the certifications required by 10 CFR 50.82(a)(1)(i) and (ii) to the NRC staff that CR-3 had permanently ceased power operations and that all fuel had been permanently removed from the reactor vessel. In accordance with 10 CFR 50.82(a)(2), upon docketing of these two certifications, the licensee's 10 CFR Part 50 license no longer authorized operation of the CR-3 reactor or emplacement or retention of fuel into the reactor vessel. Accordingly, the licensee is prohibited by regulation from restarting CR-3 or loading fuel into the reactor vessel. Because the licensee is no longer authorized to operate the reactor, CR-3 may not enter a mode of operation that requires the containment to be in an operable condition. As such, the Petitioner's request for CR-3 to remain in cold shutdown mode until satisfying FSAR and technical specification limits is moot.

Although the NRC staff will not take action on the Petition's request, the following additional information is provided concerning other actions the NRC has taken related to the containment delamination issue. In fall 2010, the NRC conducted a special inspection of the Crystal River containment building to better understand the containment delamination issue, its impact to public safety, and to assess the licensee's actions to address it. The NRC reviewed the licensee's root-cause evaluation, design analysis, and planned corrective actions, along with the licensee's programs for containment inspection, maintenance, and testing. The results of the special inspection were documented in a special inspection report dated October 12, 2010

(ADAMS Accession No. ML102861026). The NRC found that the licensee's root-cause evaluation was thorough and supported its conclusions that the delamination occurred during initial containment detensioning. Detensioning occurred after the plant was shut down, when containment operability was not required. The NRC determined that the delamination did not represent an increase in risk to the public and it discovered no violations of NRC requirements.

### **III. Conclusion**

The Petitioner raised issues related to the containment delamination that occurred at CR-3 during steam generator replacement in fall 2009. The NRC performed a special inspection at CR-3 and found that the licensee's root-cause evaluation was thorough and supported its conclusions that the delamination occurred during initial containment detensioning. Detensioning occurred after the plant was shut down, when containment operability was not required. The NRC determined that the delamination did not represent an increase in risk to the public.

Since the special inspection, CR-3 has permanently ceased power operations and the licensee has permanently removed the fuel from the reactor vessel. As such, the Petitioner's request for the NRC to issue an order for CR-3 to remain in a shutdown mode is moot because the licensee decided to retire the plant. Based on the above, the Director of the Office of Nuclear Reactor Regulation will not be instituting the proceeding requested by the Petitioner, either in whole or in part.

As provided in 10 CFR 2.206(c), a copy of this director's decision will be filed with the Secretary of the Commission for the Commission to review. As provided for by this regulation, the decision will constitute the final action of the Commission 25 days after the date of the decision unless the Commission, on its own motion, institutes a review of the decision within that time.

Dated at Rockville, Maryland, this 6<sup>th</sup> day of May 2014.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

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Jennifer L. Uhle, Deputy Director  
Office of Nuclear Reactor Regulation