

ENCLOSURE

PROPOSED DIRECTOR'S DECISION UNDER TITLE 10 OF THE *CODE OF FEDERAL REGULATIONS*, SECTION 2.206, "REQUESTS FOR ACTION UNDER THIS SUBPART"

Agencywide Documents Access and Management System Accession No. ML15162B053

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

William M. Dean, Director

In the Matter of	)	Docket Nos. 50-250 and 50-251
	)	
Florida Power & Light Company	)	License Nos. DPR-31 and DPR-41
	)	
Turkey Point Nuclear Generating	)	
Unit Nos. 3 and 4	)	

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**I. Introduction**

By electronic mail (e-mail) dated July 18, 2014, as supplemented by e-mail and the transcripts from a teleconference on September 3, 2014 (Agencywide Documents Access and Management System (ADAMS) package Accession No. ML14202A521), Mr. Thomas Saporito (the petitioner) of SaproDani Associates filed a petition under Title 10 of the *Code of Federal Regulations* (10 CFR), Section 2.206, "Requests for Action under This Subpart." The petitioner requested that the U.S. Nuclear Regulatory Commission (NRC or the Commission) take enforcement action against Florida Power & Light Company (FPL, the licensee) related to the Turkey Point Nuclear Generating Unit Nos. 3 and 4 (Turkey Point).

In his e-mail dated July 18, 2014 (ADAMS Accession No. ML14202A520), the petitioner requested that the NRC suspend or revoke the license for Turkey Point, issue a violation with a civil penalty of \$1 million, and issue a confirmatory order that the plant stays in a cold shutdown

mode until the licensee completes an independent assessment (via a contractor) to assess, fully understand, and correct the root cause of the rise in ultimate heat sink (UHS) temperature; a comprehensive evaluation of all nuclear safety-related equipment and components that may have been affected; and an independent evaluation of all nuclear safety-related equipment and components that may have been affected. As the basis for his request, the petitioner stated that operation at an UHS temperature in excess of 100 degrees Fahrenheit (°F) would result in a loss of control of the reactors and an accident at the plant.

On September 3, 2014, the petitioner spoke with the NRC's Petition Review Board through a public and recorded telephone conference and provided additional information concerning his request. The transcripts for the telephone conference are located in ADAMS under Accession No. ML14266A123.

By letter dated January 30, 2015 (ADAMS Accession No. ML14349A597), the NRC notified the petitioner that it acknowledged receiving his petition and accepted a portion of the petition for review in the 10 CFR 2.206 process and explained why the NRC did not accept the remaining portions of the petition for review under the 10 CFR 2.206 process. The portion of the petition that the NRC accepted for review under the 10 CFR 2.206 process was the petitioner's request that the NRC take enforcement action until the licensee completes an independent root cause assessment for the rise in UHS temperature. The letter also states that the NRC staff would determine the resolution of the petition after the NRC regional staff completes its inspection of the licensee's root cause assessment and associated corrective actions.

## **II. Discussion**

As documented in Section 4OA3.2 of the NRC's Integrated Inspection Report No. 05000250(251)/2014004, dated October 23, 2014 (ADAMS Accession No. ML14296A129), the

NRC staff opened an “unresolved item” that discusses the staff’s plans to inspect the licensee’s root cause of the UHS conditions and associated corrective actions. In March 2015, NRC staff finished its inspection activities for this unresolved item, and the inspection results are documented in Section 4OA3 of NRC’s Integrated Inspection Report No. 05000250(251)/2015001, dated April 30, 2015 (ADAMS Accession No. ML15121A674).

On July 20, 2014, the Turkey Point UHS temperature exceeded the Technical Specifications (TSs) limit for the UHS temperature, which was 100 °F at that time. The Turkey Point TSs require that when the temperature exceeds the limit, both units be in at least the hot standby mode of operation within 12 hours and in the cold shutdown mode of operation within the following 30 hours. The plant did not exceed the 12-hour requirement to be in hot standby and was not in a condition prohibited by TSs. The licensee requested that the NRC exercise discretion not to enforce compliance with the required actions of the TSs because doing so would result in the unnecessary shutdown of both units without a corresponding health and safety benefit because operation of the units was essential for maintaining electrical grid voltage stability. The NRC granted verbal approval of the enforcement discretion on July 20, 2014 (ADAMS Accession Nos. ML14204A652 and ML14213A069). The enforcement discretion period ended when the NRC subsequently issued license amendments under exigent circumstances for Turkey Point on August 8, 2014 (ADAMS Accession No. ML14199A107), which raised the TS temperature limit for the UHS from 100 °F to 104 °F. On September 18, 2014, the licensee submitted Licensee Event Report (LER) 050002502014-004-00 (ADAMS Accession No. ML14280A484) for the UHS temperature exceeding the TS limit of 100 °F.

The licensee entered the event into its corrective action program and performed a root cause evaluation. The inspectors reviewed the licensee’s evaluation and the associated

corrective actions taken or planned. The inspectors also reviewed licensee performance attributes associated with supplying the NRC with complete and accurate information of the problem, reporting requirements, the root or any contributing causes, and planning or completion of identified corrective actions. The inspectors interviewed plant personnel and evaluated the licensee's administration of this issue in accordance with its corrective action program as specified in licensee procedures.

The inspectors also reviewed information associated with the licensee's request for enforcement discretion to determine the accuracy and consistency of the licensee's assertions, including the potential for low grid voltage that would have resulted from the shutdown of the two units, and factors other than generation load affecting cooling canal temperature (i.e., algae levels and abnormally low rainfall). During its review of the licensee's request for enforcement discretion, the NRC staff independently verified the licensee's information on grid reliability with the North American Electric Reliability Corporation (NERC) and the Florida Reliability Coordinating Council (FRCC). NERC and FRCC confirmed the licensee's information about the electrical grid conditions. The inspectors also verified the licensee's implementation of the commitments and compensatory measures during the period of enforcement discretion, which included maintaining a third component cooling water (CCW) heat exchanger in service; increasing the frequency of the CCW heat exchanger performance testing and cleaning; increasing CCW and UHS temperature monitoring; management oversight, and just-in-time operator training; and minimizing the performance of coincident risk-significant maintenance activities.

The inspectors determined that the event was not reasonably within the licensee's ability to foresee and prevent. The licensee determined that high concentrations of algae combined with high summer temperatures and low rainfall conditions created increased solar heating

effects on the cooling canal system that were unexpected and considered a natural event. The licensee determined the root cause of the event was a lack of monitoring the overall “health” of the cooling canal system and its impact on the UHS TS temperature limit. The inspectors found that the licensee had identified and measured increased algae levels and water temperatures in the canal system dating back to the summer of 2013. The inspectors determined that the licensee was aware of the canal system changes in 2013 and, at that time, the licensee concluded the conditions would not affect the UHS temperature limit in the future. However, in the spring of 2014, the licensee found the algae and salinity concentrations in the canal system were increasing.

The licensee determined the increased salinity concentration enhanced the algae growth. The licensee performed a prompt operability evaluation focusing on CCW heat exchanger performance and concluded the heat exchangers were operable with the elevated canal conditions. In June 2014, the licensee initiated a chemical treatment project of the canal system in an attempt to reduce the algae concentration to reduce the solar heating effect on the UHS temperature before the late summer months. The project decreased algae concentrations slightly and was unsuccessful in limiting the solar heating effects, which resulted in increased canal temperatures in July and the request for the enforcement discretion. The licensee’s immediate corrective actions for this event included but were not limited to the following: (1) maintaining a third CCW heat exchanger in service, (2) performing CCW heat exchanger performance tests weekly instead of monthly, (3) performing more frequent cleanings of the CCW heat exchangers, and (4) monitoring the UHS temperature hourly when above 100 °F. The inspectors did not identify any trends not already identified by the licensee. The inspectors did not identify any new issues during the review of the unresolved item and LER and closed these items in the inspection report.

The NRC inspectors identified no inspection findings or more-than-minor violations of regulatory requirements in accordance with the NRC's Reactor Oversight Process. Therefore, the NRC did not have a basis for expanding its current level of regulatory oversight, or otherwise taking the petitioner's requested enforcement actions against the licensee.

### **III. Conclusion**

The NRC does not have a basis for taking the petitioner's requested enforcement actions against the licensee based the NRC's inspection results. The NRC did not find that the continued operation of the plants would adversely affect the health and safety of the public. Therefore, the petitioner's requested enforcement actions against the licensee are denied.

As provided in 10 CFR 2.206(c), the NRC will file a copy of this director's decision 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       day of       2015.

FOR THE NUCLEAR REGULATORY COMMISSION

William M. Dean, Director,  
Officer of Nuclear Reactor Regulation.