

**NUCLEAR REGULATORY COMMISSION**

**[Docket Nos.: 50-338 and 50-339; NRC-2012-0051]**

**License Nos.: NPF-4 and NPF-7**

**Virginia Electric and Power Company**

**AGENCY:** Nuclear Regulatory Commission.

**ACTION:** Director's Decision; issuance.

**SUMMARY:** The U.S. Nuclear Regulatory Commission (NRC or the Commission) is giving notice that the Director of the Office of Nuclear Reactor Regulation (NRR) has issued a Director's Decision with regard to a petition dated September 8, 2011, filed by Mr. Thomas Saporito, hereinafter referred to as the "petitioner."

**ADDRESSES:** Please refer to Docket ID **NRC-2012-0051** when contacting the NRC about the availability of information regarding this document. You may access information related to this document, which the NRC possesses and is publicly available, using the following methods:

- **Federal Rulemaking Web Site:** Go to <http://www.regulations.gov> and search for Docket ID **NRC-2012-0051**. Address questions about NRC dockets to Carol Gallagher; telephone: 301-492-3668; e-mail: [Carol.Gallagher@nrc.gov](mailto:Carol.Gallagher@nrc.gov).

- **NRC's Agencywide Documents Access and Management System (ADAMS):**  
You may access publicly available documents online in the NRC Library at <http://www.nrc.gov/reading-rm/adams.html>. To begin the search, select "[ADAMS Public Documents](#)" and then select "[Begin Web-based ADAMS Search](#)." For problems with ADAMS,

please contact the NRC's Public Document Room (PDR) reference staff at 1-800-397-4209, 301-415-4737, or by e-mail to [PDR.Resource@nrc.gov](mailto:PDR.Resource@nrc.gov). The ADAMS accession number for each document referenced in this notice (if that document is available in ADAMS) is provided the first time that a document is referenced.

- **NRC's PDR:** You may examine and purchase copies of public documents at the NRC's PDR, Room O1-F21, One White Flint North, 11555 Rockville Pike, Rockville, Maryland 20852.

#### **SUPPLEMENTARY INFORMATION:**

Notice is hereby given that the Director, NRR, has issued a Director's Decision with regard to a petition dated September 8, 2011 (ADAMS Accession No. ML11256A019), filed by Mr. Thomas Saporito. The petition was supplemented on September 8, 2011 (ADAMS Accession No. ML11334A152), September 29, 2011 (ADAMS Accession No. ML11332A046), October 21, 2011 (ADAMS Accession No. ML11308A016), and November 7, 2011 (ADAMS Accession No. ML113530035). The petition concerns the operation of the North Anna Power Station, Units 1 and 2 (North Anna 1 and 2), by the Virginia Electric and Power Company (VEPCO or the licensee). The petition requested that the NRC:

- (1) Take escalated enforcement action against the licensee and suspend, or revoke, the operating licenses for North Anna 1 and 2;
- (2) Issue a notice of violation against the licensee with a proposed civil penalty in the amount of 1 million dollars; and
- (3) Issue an order to the licensee requiring the licensee to keep North Anna 1 and 2, in a "cold shutdown" mode of operation until such time as a series of actions described in the petition are completed.

As the basis for this request, the petitioner states in summary that:

(1) On August 23, 2011, North Anna 1 and 2, automatically tripped offline as a direct result of ground motion caused by an earthquake centered in Mineral, Virginia, approximately 10 miles from North Anna 1 and 2. The licensee has not determined the root cause of this event, nor has it explained why the reactor tripped on “negative flux rate” rather than on loss of offsite power.

(2) Subsequent to the earthquake, the licensee initiated various inspection activities and tests to discover the extent of damage to the nuclear facility, but these inspection and testing activities continue and remain incomplete and non-validated.

(3) The licensee had set an overly aggressive schedule for restarting North Anna 1 and 2, that was based on economic considerations rather than safety.

(4) The licensee needs to amend its licensing documents, including its licenses and the updated final safety analysis report. As a result, of ground motion experienced at, and damage sustained to, North Anna 1 and 2, due to the earthquake of August 23, 2011, which is greater than the licensee’s design and safety bases, North Anna 1 and 2, are in an unanalyzed condition and current licensing documents are erroneous and incomplete. As a result, the licensee cannot rely on them to provide reasonable assurance to the NRC that these nuclear reactors can be operated in a safe and reliable manner to protect public health and safety.

(5) The licensee needs to conduct new seismic and geological evaluations of the North Anna 1 and 2, site that are independent. These evaluations should ascertain the degree and magnitude of future earthquake events and address a “worst case” earthquake.

(6) There are numerous issues with the seismic instrumentation at North Anna 1 and 2, including lack of free field instrumentation, issues associated with conversion of analog data to digital data, issues with lack of on-site personnel with sufficient training in seismic

measurements, and potential skewing of ground motion data due to the location of the “scratch plates.”

(7) Retrofitting of North Anna 1 and 2, is required due to damage to North Anna 1 and 2, from the earthquake of August 23, 2011.

(8) There are concerns with the impact of the August 23, 2011, earthquake on the North Anna 1 and 2, Independent Spent Fuel Storage Installation (ISFSI) including the fact that 25 casks weighing over 115 tons were not supposed to shift as much as 4.5 inches during an earthquake, validation of the integrity of the seals inside the spent fuel casks, assessing whether spent nuclear fuel storage facilities could topple or otherwise sustain significant damage resulting in a release, and assessing whether the licensee’s emergency plans adequately addressed damage to the ISFSI as a result of a severe earthquake.

(9) The petitioner is concerned that the licensee cannot be trusted to communicate reliable information to the public or the regulator based on the fact that the licensee in the 1970s failed to promptly disclose the discovery of geological information and was subjected to a monetary fine for the violation.

On September 29, 2011, and November 7, 2011, the petitioner and the licensee met with the NRC staff’s petition review board via telephone conference (meeting transcripts at ADAMS Accession Nos. ML11332A046 and ML113530035) regarding the petition. These meetings gave the petitioner and the licensee an opportunity to provide additional information and to clarify issues raised in the petition.

The NRC sent a copy of the proposed Director’s Decision to the petitioner and the licensee for comment by letter dated February 22, 2012 (ADAMS Accession No. ML11356A164), and February 28, 2012 (ADAMS Accession No. ML11357A117), respectively. The licensee provided comments by letter dated March 12, 2012 (ADAMS Accession No. ML120720519). The comments and the NRC staff’s response to them are

included in the Director's Decision, the complete text of which is available in ADAMS under Accession No. ML12094A250.

The NRC staff has evaluated the petitioner's requests to: (1) take escalated enforcement action against the licensee and suspend, or revoke, the operating licenses for North Anna 1 and 2, and (2) issue a notice of violation against the licensee with a proposed civil penalty in the amount of 1 million dollars. With respect to these two requests, the evaluations of two NRC inspection teams as documented in inspection reports dated October 31, 2011 (ADAMS Accession No. ML113040031), and November 30, 2011 (ADAMS Accession No. ML113340345), did not find any violation of NRC regulations that would merit such enforcement actions. Further detail regarding this decision on these two requests is provided in the Director's Decision. With respect to the petition's third request for enforcement action: "to issue an order to the licensee requiring the licensee to keep North Anna 1 and 2, in a "cold shutdown" mode of operation until such time as a series of actions described in the petition are completed," the NRC staff concluded that it had partially granted that request in Confirmatory Action Letter (CAL) No. 2-2011-001 dated September 30, 2011 (ADAMS Accession No. ML11273A078), which stated the following:

This Confirmatory Action Letter (CAL) confirms that NAPS [North Anna Power Station] Units 1 and 2 will not enter Modes 1-4 (as defined in the technical specifications), until the Commission has completed its review of your information, performed confirmatory inspections, and completed its safety evaluation review. The permission to resume operations will be formally communicated to Virginia Electric and Power Company (VEPCO) in a written correspondence.

VEPCO shall submit to the NRC all documentation requested by the NRC as being necessary to demonstrate that NAPS Units 1 and 2 can be operated safely following the seismic event that exceeded the safe shutdown event analyzed in the current revision of the Updated Final Safety Analysis Report.

This CAL will remain in effect until the NRC has (1) reviewed your information, including responses to staff's questions and the results of your evaluations, and (2) the staff communicates to you in written correspondence that it has concluded that NAPS can be operated without undue risk to the health and safety of the public or the environment."

This CAL, therefore, confirmed the licensee's understanding that North Anna 1 and 2, could not be restarted unless and until the licensee had demonstrated to the NRC staff's satisfaction that "...no functional damage has occurred to those features necessary for continued operation without undue risk to the health and safety of the public," consistent with the requirements of Title 10 of the *Code of Federal Regulations* (10 CFR), Part 100, Appendix A, Section V(a)(2). Restart was contingent upon addressing a number of issues before startup, many of which had been identified, in whole or in part, in the petition as concerns.

Issues in the petition, previously identified and discussed as concerns 1, 2, 3, 5, 6, 7, and 8, were discussed and substantially addressed, either in the inspection reports issued October 31, 2011, and November 30, 2011, or in the NRC technical evaluation dated November 11, 2011. The activities by the NRC staff were completed before restart to ensure that, before resuming operations, the licensee had demonstrated no functional damage had occurred to those features at North Anna 1 and 2, necessary for continued operation without undue risk to the health and safety of the public. In that respect, these concerns described in the petition as requiring completion before the restart of North Anna 1 and 2, were addressed before restart, consistent with the third request for enforcement action described in the petition. Issues in the petition, previously identified and discussed as concerns 4 and 9, were evaluated by the NRC staff before restart of North Anna 1 and 2, but disposition of these concerns by the NRC staff differed from the course of action requested in the petition. In that respect, these aspects of the petition were denied.

A copy of the Director's Decision will be filed with the Secretary of the Commission for the Commission's review in accordance with 10 CFR 2.206 of the Commission's regulations. As provided for by this regulation, the Director's 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 Director's Decision in that time.

Dated at Rockville, Maryland, this 27<sup>th</sup> day of April 2012.

For the Nuclear Regulatory Commission.

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Bruce A. Boger Deputy Director,  
Reactor Safety Programs,  
Office of Nuclear Reactor Regulation.