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Dated at Rockville, Maryland, this 28th day of March 2005.

For the Nuclear Regulatory Commission.

**Brenda Jo. Shelton,**

*NRC Clearance Officer, Office of Information Services.*

[FR Doc. E5-1448 Filed 3-31-05; 8:45 am]

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## NUCLEAR REGULATORY COMMISSION

[Docket No. 50-346]

### FirstEnergy Nuclear Operating Company; Notice of Withdrawal of Application for Amendment to Facility Operating License

The U.S. Nuclear Regulatory Commission (the Commission) has granted the request of FirstEnergy Nuclear Operating Company (the licensee) to withdraw its October 12, 2001, application for a proposed amendment to Facility Operating License No. NPF-3 for the Davis-Besse Nuclear Station, Unit 1, located in Ottawa County, Ohio.

The proposed amendment would have made necessary revisions to the DBNPS technical specifications to reflect an increase in the authorized rated thermal power from 2772 MWt to 2817 MWt (approximately 1.63 percent), based on the use of Caldon Inc. Leading Edge Flow Meter (LEFM) CheckPlus™ System instrumentation to improve the accuracy of the feedwater mass flow input to the plant power calorimetric measurement.

The Commission had previously issued a Notice of Consideration of Issuance of Amendment published in the **Federal Register** December 26, 2001 (66 FR 66467). However, by letter dated December 20, 2004, the licensee withdrew the proposed change.

For further details with respect to this action, see the application for amendment dated October 12, 2001, and the licensee's letter dated December 20, 2004, which withdrew the application for license amendment. Documents may be examined, and/or copied for a fee, at the NRC's Public Document Room (PDR), located at One White Flint North, Public File Area O1 F21, 11555 Rockville Pike (first floor), Rockville, Maryland. Publicly available records will be accessible electronically from the Agencywide Documents Access and Management Systems (ADAMS) Public Electronic Reading Room on the Internet at the NRC Web site, <http://www.nrc.gov/reading-rm/adams/html>. Persons who do not have access to ADAMS or who encounter problems in accessing the documents located in ADAMS, should contact the NRC PDR Reference staff by telephone at 1-800-397-4209, or 301-415-4737 or by e-mail to [pdr@nrc.gov](mailto:pdr@nrc.gov).

Dated at Rockville, Maryland, this 25th day of March 2005.

For the Nuclear Regulatory Commission.

**Jon B. Hopkins,**

*Project Manager, Section 2, Project Directorate III, Division of Licensing Project Management, Office of Nuclear Reactor Regulation.*

[FR Doc. E5-1451 Filed 3-31-05; 8:45 am]

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## NUCLEAR REGULATORY COMMISSION

[Docket Nos. 50-424 and 50-425]

### Southern Nuclear Operating Company, Inc., Vogtle Electric Generating Plant, Units 1 and 2; Exemption

#### 1.0 Background

Southern Nuclear Operating Company, Inc. (SNC, or the licensee) is the holder of Facility Operating License Nos. NPF-68 and NPF-81 that authorize operation of the Vogtle Electric Generating Plant, Units 1 and 2 (Vogtle, Units 1 and 2). The license provides, among other things, that the facility is subject to all rules, regulations, and orders of the Nuclear Regulatory Commission (NRC, the Commission) now or hereafter in effect.

The facility consists of two pressurized water reactors located in Burke County, Georgia.

#### 2.0 Request/Action

Title 10 of the Code of Federal Regulations (10 CFR) part 50, Appendix G requires that pressure-temperature (P-T) limits be established for reactor pressure vessels (RPVs) during normal

operating and hydrostatic or leak rate testing conditions. Specifically, 10 CFR part 50, Appendix G states that "[t]he minimum temperature requirements \* \* \* pertain to the controlling material, which is either the material in the closure flange or the material in the beltline region with the highest reference temperature. \* \* \* the minimum temperature requirements and the controlling material depend on the operating condition (*i.e.*, hydrostatic pressure and leak tests, or normal operation including anticipated normal operational occurrences), the vessel pressure, whether fuel is in the vessel, and whether the core is critical. The metal temperature of the controlling material, in the region of the controlling material which has the least favorable combination of stress and temperature, must exceed the appropriate minimum temperature requirement for the condition and pressure of the vessel specified in Table 1 [of 10 CFR part 50, Appendix G]." Footnote 2 to Table 1 in 10 CFR Part 50, Appendix G specifies that RPV minimum temperature requirements related to RPV closure flange considerations shall be based on "[t]he highest reference temperature of the material in the closure flange region that is highly stressed by bolt preload."

In order to address provisions of amendments to modify the Vogtle, Units 1 and 2 Technical Specifications to revise the pressure-temperature limits report methodology for each unit, SNC requested in its submittal dated February 26, 2004, that the staff exempt Vogtle, Units 1 and 2 from the application of specific requirements of 10 CFR part 50, Appendix G, as they pertain to the establishment of minimum temperature requirements, for all modes of operation addressed by 10 CFR part 50, Appendix G, based on the material properties of the material of the RPV closure flange region that is highly stressed by the bolt preload. The licensee's technical basis for this exemption request is contained in Enclosure 4 of its February 26, 2004, submittal: WCAP-16142-P, Revision 1, "Reactor Vessel Closure Head/Vessel Flange Requirements Evaluation for Vogtle Units 1 and 2," and a response to an NRC staff request for additional information contained in an SNC letter dated October 22, 2004. The requirements from which SNC requested that Vogtle, Units 1 and 2 be exempted shall be referred to, for the purpose of this exemption, as those requirements related to the application of footnote (2) to Table 1 of 10 CFR part 50, Appendix G.

WCAP-16142-P, Revision 1 included a fracture mechanics analysis of

postulated flaws in the Vogtle, Units 1 and 2 RPV closure flange regions under boltup, 100 °F per hour (/hr) heatup, 100 °F/hr cooldown, and steady-state conditions, with the heatup and cooldown transients being modeled in accordance with what would be permissible using P-T limit curves based on the most limiting Vogtle, Units 1 and 2 beltline materials. Westinghouse performed finite element analyses to calculate the stresses present at the flange region and determined two limiting locations: (1) The top head dome-to-torus weld at the end of the 100 °F/hr heatup transient, and (2) the torus-to-flange weld at the boltup condition. With these stresses, Westinghouse calculated the applied stress intensity factor ( $K_{\text{applied}}$ ) for semi-elliptical, outside diameter initiated, surface breaking flaws with an aspect ratio (length vs. depth) of 6:1, and with depths ranging from 0 to 80 percent of the thickness of the component wall. The  $K_{\text{applied}}$  values were calculated by using the Raju-Newman stress intensity factor influence coefficients for external surface cracks in cylindrical vessels and is in accordance with the American Society of Mechanical Engineers Boiler and Pressure Vessel Code (ASME Code) Section XI, Appendix G, Subparagraph G-2220 requirements for the analysis of flange locations. Westinghouse then compared these  $K_{\text{applied}}$  values to ASME Code lower bound plane strain fracture toughness ( $K_{\text{Ic}}$ ) values determined from the nil-ductility transition reference temperature (RTNDT) values for the Vogtle, Units 1 and 2 RPV closure flange materials. Westinghouse also provided an assessment of the potential for changes in the material RTNDT values for the Vogtle, Units 1 and 2 RPV closure flange materials due to thermal aging resulting from exposure to the RPV operating environment.

The use of ASME Code  $K_{\text{Ic}}$  as the material property for the fracture mechanics analysis represents the most significant change between the analysis provided in WCAP-16142-P, Revision 1 and the analysis that was performed as the basis for establishing the minimum temperature requirements in 10 CFR part 50, Appendix G. The minimum temperature requirements related to footnote (2) to Table 1 of 10 CFR part 50, Appendix G were incorporated into the Code of Federal Regulations in the early 1980s and were based on analyses that used ASME Code lower bound crack arrest fracture toughness (KIA) as the parameter for characterizing a material's ability to resist crack initiation and propagation. The use of

ASME Code KIA is always conservative with respect to the use of ASME Code KIC for fracture mechanics evaluations, and its use in the evaluations that established the requirements in 10 CFR part 50, Appendix G was justified based on the limited knowledge of RPV material behavior that was available in the early 1980s. However, the use of ASME Code KIC, not ASME Code KIA, is consistent with the actual physical processes that would govern flaw initiation under conditions of normal RPV operation, including RPV heatup, cooldown, and hydrostatic and leak testing. Based on our current understanding of the behavior of RPV materials, the NRC staff has routinely approved licensees' utilization of ASME Code KIC as the basis for evaluating RPV beltline materials to demonstrate compliance with the intent of 10 CFR part 50, Appendix G through licensees' use of ASME Code Cases N-640 and N-641, which have been incorporated into Appendix G to Section XI of the 2001 Edition through the 2003 Addenda of the ASME Code endorsed in 10 CFR 50.55a.

Information in WCAP-16142-P, Revision 1 and the licensee's October 22, 2004, response to NRC staff questions indicated that the resulting margin ( $K_{\text{Ic}}/K_{\text{applied}}$ ) from the fracture mechanics analysis is 3.19 for the boltup condition and 4.06 for the heatup condition, assuming that the crack depth is one tenth of the wall thickness (1/10t). The margins show that the boltup condition with lower  $K_{\text{applied}}$  (about one half the  $K_{\text{applied}}$  of the heatup condition) is more limiting because the low temperature associated with the boltup condition gives a much lower  $K_{\text{Ic}}$  value. Using these calculated margins and the  $K_{\text{applied}}$  plot shown in WCAP Figures 4-1 and 4-2, the NRC staff found that the ASME Code Appendix G margin of 2 can be maintained for a flaw much deeper than 1/10t at these limiting locations.

In summary, the analysis provided in WCAP-16142-P, Revision 1 has demonstrated that, for the most limiting transient addressed by 10 CFR Part 50, Appendix G, the combination of factors (high stresses in the RPV flange region along with low temperature at the metal of the flange region) cannot exist simultaneously, and the structural integrity of the Vogtle, Units 1 and 2 RPV closure flange materials will not be challenged by facility operation in accordance with P-T limit curves based consideration of Vogtle, Units 1 and 2 beltline materials. Therefore, the more conservative minimum temperature requirements related to footnote (2) to Table 1 of 10 CFR Part 50, Appendix G

are not necessary to meet the underlying intent of 10 CFR Part 50, Appendix G, to protect the Vogtle, Units 1 and 2 RPVs from brittle failure during normal operation under both core critical and core non-critical conditions and RPV hydrostatic and leak test conditions.

### 3.0 Discussion

Pursuant to 10 CFR 50.12, the Commission may, upon application by any interested person or upon its own initiative, grant exemptions from the requirements of 10 CFR Part 50 when (1) the exemptions are authorized by law, will not present an undue risk to public health or safety, and are consistent with the common defense and security; and (2) when special circumstances are present. These circumstances include the special circumstances where application of the regulation in the particular circumstances is not necessary to achieve the underlying purpose of the rule.

The underlying purpose of 10 CFR Part 50, Appendix G, footnote (2) to Table 1 is to protect the integrity of the reactor coolant pressure boundary during hydrostatic pressure and leak tests, and during normal operations, including heatup, cooldown, and operational occurrences. This is accomplished through these regulations that, in part, specify the minimum temperature requirements in the closure flange region. The NRC staff accepts the licensee's determination that an exemption would be required to permit SNC to not meet those requirements related to the application of footnote (2) to Table 1 of 10 CFR Part 50, Appendix G. The NRC staff examined the licensee's rationale to support the exemption request. Based on a consideration of the information provided in WCAP-16142-P, Revision 1 and SNC's October 22, 2004 letter, an acceptable technical basis has been established to exempt Vogtle, Units 1 and 2 from requirements related to footnote (2) to Table 1 of 10 CFR Part 50, Appendix G. The technical basis provided by SNC has established that an adequate margin of safety against brittle failure would continue to be maintained for the Vogtle, Units 1 and 2 RPVs without the application of those requirements related to the application of footnote (2) to Table 1 of 10 CFR Part 50, Appendix G, for normal operation under both core critical and core non-critical conditions and RPV hydrostatic and leak test conditions.

Therefore, the NRC staff concludes that, pursuant to 10 CFR 50.12(a)(2)(ii), the underlying purpose of 10 CFR part 50, Appendix G will be achieved without the application of those

requirements related to the application of footnote (2) to Table 1 of 10 CFR part 50, Appendix G, and the proposed exemption should be granted to SNC such that those requirements related to the application of footnote (2) to Table 1 of 10 CFR part 50, Appendix G need not be applied to Vogtle, Units 1 and 2.

#### 4.0 Conclusion

Accordingly, the Commission has determined that, pursuant to 10 CFR 50.12(a), the exemption is authorized by law, will not present an undue risk to the public health and safety, and is consistent with the common defense and security. Also, special circumstances are present. Therefore, the Commission hereby grants SNC an exemption from the requirements 10 CFR Part 50, Appendix G, Table 1, footnote (2), for Vogtle, Units 1 and 2.

Pursuant to 10 CFR 51.32, the Commission has determined that the granting of this exemption will not have a significant effect on the quality of the human environment (70 FR 13215).

This exemption is effective upon issuance.

Dated at Rockville, Maryland, this 24th day of March 2005.

For the Nuclear Regulatory Commission

**Ledyard B. Marsh,**

*Director, Division of Licensing Project Management, Office of Nuclear Reactor Regulation.*

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## NUCLEAR REGULATORY COMMISSION

[Docket No. 030-01063]

### Notice of Environmental Assessment and Finding of No Significant Impact of License Amendment for Augustana College at Sioux Falls, SD

**AGENCY:** Nuclear Regulatory Commission.

**ACTION:** Environmental Assessment and Finding of No Significant Impact for license amendment.

**FOR FURTHER INFORMATION CONTACT:** D. Blair Spitzberg, PhD., Fuel Cycle and Decommissioning Branch, Division of Nuclear Materials Safety, Region IV, U.S. Nuclear Regulatory Commission, 611 Ryan Plaza Drive, Suite 400, Arlington, TX 76011. Telephone: (817) 860-8100; e-mail [dbs@nrc.gov](mailto:dbs@nrc.gov).

#### SUPPLEMENTARY INFORMATION:

##### I. Introduction

The U.S. Nuclear Regulatory Commission (NRC) is considering the

issuance of an amendment to NRC Materials License No. 40-06921-03 to remove a former burial site from the license. This licensing action will allow Augustana College to release the property for unrestricted use. If approved, Augustana College will continue to possess radioactive materials in accordance with the conditions of its license but will not be required to maintain radiological control over the burial site. The NRC has prepared an Environmental Assessment (EA) in support of this action in accordance with the requirements of 10 CFR Part 51. Based on the EA, the NRC has determined that a Finding of No Significant Impact (FONSI) is appropriate.

## II. Environmental Assessment

### Background

The radioactive burial site is located on the campus of Augustana College (the licensee) in the central part of Sioux Falls, South Dakota. The burial site is located in a grove of crabapple trees on the east side of the Gilbert Science Center near the corner of 33rd Street and Summit Avenue. Based on the licensee's records, the burial site consists of a line of six pits (holes) containing radioactive material. The holes were dug using manual equipment (post-hole digger & shovel) to a depth of 5 feet (1.5 meters) and are arranged in 6-foot (1.8-meter) intervals.

The licensee has been authorized by the NRC and its predecessor, the U.S. Atomic Energy Commission (AEC), to possess radioactive material since 1958. The docket file records indicate that Augustana College first began possessing radioactive material during 1963. The licensee's records document that about 12 millicuries (0.44 gigabecquerels) of carbon-14, a long-lived beta particle emitter, were disposed at the burial site between 1968 and 1969.

### Review Scope

By letters dated February 17, April 25 and August 25, 2003, the licensee requested that the former radioactive materials burial site located on campus property be released for unrestricted use. Prior to January 28, 1981, the NRC permitted licensees to dispose of small quantities of licensed materials by burial in soil without specific NRC authorization. This was authorized pursuant to 10 CFR 20.304. This regulation has since been rescinded by the NRC. The NRC is considering the issuance of an amendment to Materials License No. 40-06921-03 to release the burial site for unrestricted use. In

accordance with 10 CFR 30.36 and NUREG-1757, Volume 1, Revision 1, a decommissioning plan was not required from the licensee. The purpose of this EA is to assess the environmental consequences of this licensing action using the guidance provided in NUREG-1748.

### Proposed Action

The proposed action would approve the licensee's request to amend its license to release the former burial site located at Augustana College in Sioux Falls, South Dakota, for unrestricted use. The licensee would not be required to remediate the burial site if the NRC approves the license amendment request.

### Purpose and Need for Proposed Action

The proposed action is necessary to release the burial site from the license for unrestricted use. The need for the proposed action is for the licensee to be in compliance with the requirements of 10 CFR 30.36, "Expiration and Termination of Licenses and Decommissioning of Sites and Separate Buildings or Outdoor Areas." By releasing the site for unrestricted use, the applicant will not be burdened with additional regulations that would no longer be applicable to them.

### Alternatives

The alternatives to the proposed action are (1) the no-action alternative, or (2) to deny the amendment request and require the licensee to take additional actions such as the remediation of the burial site.

### Affected Environment and Environmental Impacts of Proposed Action

By letter dated March 25, 1968, the licensee requested information from the AEC on " \* \* \* how and where to dispose of solid and liquid form carbon-14 wastes \* \* \* accumulated." The AEC responded in a letter dated April 1, 1968, stating that the disposal options available to the licensee at the time included disposal by burial in soil. Licensees were authorized to dispose of radioactive material by burial in accordance with 10 CFR 20.304 between 1959 and 1981. The April 1, 1968, letter reminded the licensee of the regulatory requirements—that each burial may not exceed 50,000 microcuries (50 millicuries, or 1.85 gigabecquerels) of carbon-14, each burial must be made at a depth of at least 4 feet (1.2 meters), and each burial must be separated from other burial sites by at least 6 feet (1.8 meters).