

NUCLEAR REGULATORY COMMISSION

[Docket No. 52-016; NRC-2008-0066]

Dominion Virginia Power Combined License Application for North Anna, Unit 3

AGENCY: Nuclear Regulatory Commission.

ACTION: Exemption; issuance.

SUMMARY: The U.S. Nuclear Regulatory Commission (NRC) is issuing an exemption in a response to a September 23, 2015, letter from Dominion Virginia Power (Dominion or applicant), which requested an exemption from the requirement to submit an annual update of the Final Safety Analysis Report (FSAR) included in Dominion's Combined License (COL) application for calendar year 2015. The NRC staff reviewed this request and determined that it is appropriate to grant the exemption based on the schedule for completion of the applicant's seismic closure plan (SCP) submitted on October 22, 2014, which outlined a revised approach to performing certain aspects of the seismic analysis for the North Anna 3 COL application (COLA) as well as use of the most current NRC-approved ground motion model.

DATES: The effective date of the Dominion FSAR exemption issuance is **[INSERT DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]**.

ADDRESSES: Please refer to Docket ID NRC-2008-0066 when contacting the NRC about the availability of information regarding this document. You may obtain publicly-available information related to this document using any of the following methods:

- **Federal Rulemaking Web Site:** Go to <http://www.regulations.gov> and search for Docket ID NRC-2008-0066. Address questions about NRC dockets to Carol Gallagher; telephone: 301-415-3463; e-mail: Carol.Gallagher@nrc.gov. For technical questions, contact the individual listed in the FOR FURTHER INFORMATION CONTACT section of this document.

- **NRC's Agencywide Documents Access and Management System (ADAMS):** You may obtain publicly available documents online in the ADAMS Public Documents collection 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. The ADAMS accession number for each document referenced in this document (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.

FOR FURTHER INFORMATION CONTACT: James Shea, Office of New Reactors, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001; telephone: 301-415-1388; e-mail: James.Shea@nrc.gov.

SUPPLEMENTARY INFORMATION:

I. Background.

By letter dated November 26, 2007 (ADAMS accession number ML073320913), Dominion submitted its application to the NRC for a COL to construct and operate a General

Electric-Hitachi Economic Simplified Boiling-Water Reactor (ESBWR) at North Anna Power Station (North Anna), Unit 3 site pursuant to part 52 of title 10 of the *Code of Federal Regulations* (10 CFR), "Licenses, Certifications, and Approvals for Nuclear Power Plants." By letter dated June 28, 2010, Dominion revised its application to incorporate by reference the Mitsubishi Heavy Industries, Ltd. United States - Advanced Pressurized Water Reactor technology to construct and operate at the North Anna, Unit 3 site.

On August 23, 2011, a 5.8 magnitude earthquake occurred near Mineral, Virginia, which is approximately 11 miles from the North Anna Unit 3 site. In view of the earthquake, the NRC staff requested additional analysis of the proposed reactor design to verify that the design, if built at the North Anna site, would satisfy the requirements of 10 CFR part 50, Appendix A, "General Design Criteria," Criterion 2, "Design Bases for Protection Against Natural Phenomena," and 10 CFR part 50, Appendix S, "Earthquake Engineering Criteria for Nuclear Power Plants." During the applicant's seismic evaluation, the NRC staff had requests for additional information and had held public meetings with the applicant to provide staff feedback on the North Anna 3 site seismic analyses.

By letter dated April 25, 2013, Dominion notified the NRC staff that it planned to revert back to ESBWR reactor technology for its North Anna Unit 3 COLA. Dominion then submitted a revised application that incorporated by reference the ESBWR Design Control Document (DCD), Revision 9, by letter dated December 18, 2013. After meeting with the NRC staff in 2014 and performing seismic sensitivity analyses, Dominion modified its site-specific seismic analyses approach intended to simplify it and make it more consistent with the seismic analyses presented in the ESBWR DCD. Therefore, in its SCP submitted on October 22, 2014 (ADAMS accession number ML14297A199), Dominion outlined a schedule for completing all technical reports, analyses, and COLA changes needed to address seismic issues by December 31, 2015.

II. Request/Action.

The regulations specified in 10 CFR 50.71(e)(3)(iii) require that an applicant for a COL under 10 CFR part 52 shall, during the period from docketing of a COL application until the NRC makes a finding under 10 CFR 52.103(g) pertaining to facility operation, submit an annual update to the application's FSAR, which is a part of the application.

Pursuant to 10 CFR 50.71(e)(3)(iii), the next annual update of the North Anna, Unit 3, COL application FSAR would be due on or before December 31, 2015. By letter to the NRC dated September 23, 2015, Dominion requested a one-time exemption from the 10 CFR 50.71(e)(3)(iii) requirement to submit the scheduled 2015 COL application FSAR update, and proposed a new submission deadline of June 30, 2016, for the next FSAR update (ADAMS Accession Number ML15268A039). Dominion then proposes to submit the next annual FSAR update required by 10 CFR 50.71(e)(3) in 2017.

Dominion's requested exemption is a one-time schedule change from the requirements of 10 CFR 50.71(e)(3)(iii). The exemption, as requested, would allow Dominion to submit the next FSAR update no later than June 30, 2016. Dominion states that the FSAR, if submitted as requested, would include all the FSAR changes based on the Dominion SCP to allow a more efficient and effective submittal of an updated FSAR reflecting all changes associated with the site-specific seismic analyses.

III. Discussion.

Pursuant to 10 CFR 50.12, the NRC may, upon application by any interested person or upon its own initiative, grant exemptions from the requirements of 10 CFR part 50, including section 50.71(e)(3)(iii) 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) special circumstances are present. As relevant to the requested exemption, special circumstances exist if: (1) "Application of the regulation in the particular circumstances would not serve the underlying purpose of the rule or is not necessary to achieve the underlying purpose of the rule" (10 CFR 50.12(a)(2)(ii)); or (2) "The exemption would provide only temporary relief from the applicable regulation and the licensee or applicant has made good faith efforts to comply with the regulation" (10 CFR 50.12(a)(2)(v)).

The review of the North Anna, Unit 3, ESBWR COL application has been ongoing since Dominion submitted the revised COL application dated December 18, 2013. The technical issues currently under consideration by the NRC staff are primarily associated with the revised North Anna, Unit 3 seismic analyses, which Dominion has been addressing since it submitted the revised COL application, as described in detail in the 2014 SCP. According to the SCP, in December 2015, Dominion is scheduled to submit to the NRC technical reports and COL application markups that incorporate the results of analyses of seismic design capacities of certain structures, systems, and components. In addition, during the week of September 28, 2015, the NRC staff completed an audit associated with the proposed North Anna, Unit 3 site-specific seismic issues. The NRC staff plans to conduct a second audit in the first or second quarter of 2016 relating to the capacities of the systems structures and components to withstand the site-specific seismic ground motion. Therefore, the NRC staff may identify additional requests for information regarding seismic issues in the course of its review through the end of December 2015; as a result of the technical reports and COL application markups due to be submitted in December 2015; and as a result of the second technical audit planned for spring 2016. The COL application markups due in December 2015, together with any NRC staff requests for additional information, will likely result in the need to change the FSAR. These changes could not be completed before the current FSAR update is due at the end of calendar year 2015.

Authorized by Law

The exemption is a one-time schedule exemption from the requirements of 10 CFR 50.71(e)(3)(iii). The exemption, as requested, would allow Dominion to submit the next North Anna, Unit 3, COL application FSAR update on or before June 30, 2016, in lieu of the required scheduled submittal on or before December 31, 2015. As stated above, 10 CFR 50.12 allows the NRC to grant such an exemption. The NRC staff has determined that granting Dominion a one-time exemption from the requirements of 10 CFR 50.71(e)(3)(iii) with updates to the FSAR to be submitted on or before June 30, 2016, will provide only temporary relief from this regulation and will not result in a violation of the Atomic Energy Act of 1954, as amended, or NRC regulations. Therefore, the exemption is authorized by law.

No Undue Risk to Public Health and Safety

The underlying purpose of 10 CFR 50.71(e)(3)(iii) is to provide for a timely and comprehensive update of the FSAR associated with a COL application in order to support an effective and efficient review by the NRC staff and issuance of the NRC staff's safety evaluation report. The requested exemption is solely administrative in nature, in that it pertains to the schedule for submission to the NRC of revisions to an application under 10 CFR part 52, for which a license has not been granted. Based on the nature of the requested exemption as described above, no new accident precursors are created by the exemption; thus, neither the probability, nor the consequences of postulated accidents are increased. Therefore, there is no undue risk to public health and safety.

Consistent with Common Defense and Security

The exemption would allow Dominion to submit the next FSAR update prior to final North Anna, Unit 3 NRC staff safety evaluation. This schedule change has no relation to security issues. Therefore, the common defense and security is not impacted by this exemption.

Special Circumstances

Special circumstances, in accordance with 10 CFR 50.12(a)(2), are present whenever: (1) Application of the regulation in the particular circumstances would not serve the underlying purpose of the rule or is not necessary to achieve the underlying purpose of the rule” (10 CFR 50.12(a)(2)(ii)); or (2) The exemption would provide only temporary relief from the applicable regulation and the licensee or applicant has made good faith efforts to comply with the regulation (10 CFR 50.12(a)(2)(v)).

The underlying purpose of 10 CFR 50.71(e)(3)(iii) in the context of a COL application is to provide for a timely and comprehensive update of the FSAR associated with a COL application in order to support an effective and efficient review by the NRC staff and issuance of the NRC staff’s safety evaluation report. As discussed above, the requested one-time exemption is solely administrative in nature, in that it pertains to a one-time schedule change for submittal of revisions to an application under 10 CFR part 52, for which a license has not been granted. In addition, since the remaining review of the application primarily relates to the issues discussed in the Dominion SCP, there will not likely be any significant FSAR updates until the elements of the SCP and the NRC staff seismic audits are completed. Completion of the SCP (through submission of technical reports and COL application markups) in December 2015 and the additional information submitted as a result of NRC staff audits scheduled for spring of 2016 cannot be reflected in a December 2015 FSAR update, but will be reflected in an FSAR update scheduled for June 2016. At that time, the revised FSAR update submitted by Dominion will be reviewed by the NRC to confirm that COL markups and changes identified in requests for additional information responses will be reflected in the FSAR prior to completion of the final North Anna, Unit 3 NRC staff safety evaluation. The requested one-time exemption would permit Dominion time to submit all the necessary technical information for NRC staff review and the updated COL markups associated with the revised North Anna, Unit 3, seismic analyses in accordance with the submitted Dominion SCP. The NRC staff has determined that this one-

time exemption will support the staff's effective and efficient review of the COL application, as well as issuance of the safety evaluation report, and, therefore, submission of an FSAR update in December 2015 is not necessary to achieve the underlying purpose of 10 CFR 50.71(e)(3)(iii). Accordingly, the NRC staff finds that special circumstances are present under 10 CFR 50.12(a)(2)(ii) in connection with Dominion's requested exemption.

Further, the NRC staff finds that granting a one-time exemption from 10 CFR 50.71(e)(3)(iii) would provide only temporary relief, since Dominion would update the FSAR in June 2016. The 2014 Dominion SCP outlined the approach to meet NRC regulatory requirements and address requests for additional information as a result of NRC staff technical review. Under the Dominion SCP for the proposed North Anna, Unit 3, technical reports and analyses have been submitted as they have been completed to date, and two sets of COLA markups (the first revising geotechnical information and the second incorporating the results of soil-structure interaction analyses, structure-soil-structure interaction analyses, and stability analyses) have been completed and submitted for NRC staff review. As described in the Dominion SCP, the last technical reports and a third set of COLA markups, which incorporate the results of the analyses of the design capacities of certain structures, systems, and components (SSCs), are scheduled in the SCP to be submitted in December 2015. Accordingly, the NRC staff finds that Dominion has made good faith efforts to comply with the regulation, and the special circumstances defined by 10 CFR 50.12(a)(2)(v) are present.

Therefore, the special circumstances required by 10 CFR 50.12(a)(2) for the granting of an exemption from 10 CFR 50.71(e)(3)(iii) exist.

Eligibility for Categorical Exclusion from Environmental Review:

With respect to the exemption's impact on the quality of the human environment, the NRC has determined that this specific exemption request is eligible for categorical exclusion as identified in 10 CFR 51.22(c)(25). Under 10 CFR 51.22(c)(25), granting of an exemption from

the requirements of any regulation of 10 CFR Chapter 1 (which includes 10 CFR 50.71(e)(3)(iii)) is an action that is a categorical exclusion, provided that:

(i) There is no significant hazards consideration;

(ii) There is no significant change in the types or significant increase in the amounts of any effluents that may be released offsite;

(iii) There is no significant increase in individual or cumulative public or occupational radiation exposure;

(iv) There is no significant construction impact;

(v) There is no significant increase in the potential for or consequences from radiological accidents; and

(vi) The requirements from which an exemption is sought involve:

(A) Recordkeeping requirements;

(B) Reporting requirements;

(C) Inspection or surveillance requirements;

(D) Equipment servicing or maintenance scheduling requirements;

(E) Education, training, experience, qualification, requalification or other employment suitability requirements;

(F) Safeguard plans, and materials control and accounting inventory scheduling requirements;

(G) Scheduling requirements;

(H) Surety, insurance or indemnity requirements; or

(I) Other requirements of an administrative, managerial, or organizational nature.

The requirements from which this exemption is sought involve only “(B) Reporting requirements” or “(G) Scheduling requirements” of those required by 10 CFR 51.22(c)(25)(vi).

The NRC staff’s determination that each of the applicable criteria for this categorical

exclusion is met as follows:

- I. 10 CFR 51.22(c)(25)(i): There is no significant hazards consideration.

Staff Analysis: The criteria for determining if an exemption involves a significant hazards consideration are found in 10 CFR 50.92. The proposed action involves only a schedule change regarding the submission of an update to the application for which the licensing review is ongoing. Therefore, there is no significant hazard consideration because granting the proposed exemption would not:

- (1) Involve a significant increase in the probability or consequences of an accident previously evaluated; or
- (2) Create the possibility of a new or different kind of accident from any accident previously evaluated; or
- (3) Involve a significant reduction in a margin of safety.

- II. 10 CFR 51.22(c)(25)(ii): There is no significant change in the types or significant increase in the amounts of any effluents that may be released offsite.

Staff Analysis: The proposed action involves only a schedule change, which is administrative in nature, and does not involve any changes in the types or significant increase in the amounts of effluents that may be released offsite.

- III. 10 CFR 51.22(c)(25)(iii): There is no significant increase in individual or cumulative public or occupational radiation exposure.

Staff Analysis: Since the proposed action involves only a schedule change, which is administrative in nature, it does not contribute to any significant increase in occupational or public radiation exposure.

- IV. 10 CFR 51.22(c)(25)(iv): There is no significant construction impact.

Staff Analysis: The proposed action involves only a schedule change, which is administrative in nature. The NRC has not granted the COL application, and the requested exemption will not allow construction at the North Anna site; therefore, the proposed action

does not involve any construction impact.

V. 10 CFR 51.22(c)(25)(v): There is no significant increase in the potential for or consequences from radiological accidents.

Staff Analysis: The proposed action involves only a schedule change which is administrative in nature and does not impact the probability or consequences of accidents.

VI. 10 CFR 51.22(c)(25)(vi): The requirements from which this exemption is sought involve only "(B) Reporting requirements" or "(G) Scheduling requirements."

Staff Analysis: The exemption request involves requirements in both of these categories because it involves submitting an updated FSAR by Dominion, and also relates to the schedule for submitting FSAR updates to the NRC.

Accordingly, Dominion's exemption requests satisfies the criteria of 10 CFR 51.22(c)(25) for categorical exclusion from environmental review, and the granting of this exemption will not have a significant effect on the quality of the human environment.

IV. Conclusion.

The NRC has determined that, pursuant to 10 CFR 50.12, 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 as described in 10 CFR 50.12(a)(2)(ii) and (v) are present. Therefore, the NRC hereby grants Dominion a one-time exemption from the requirements of 10 CFR 50.71(e)(3)(iii) pertaining to the North Anna, Unit 3, COL application to allow submission of the next North Anna 3 FSAR update no later than June 30, 2016.

Pursuant to 10 CFR 51.22, the NRC has determined that the exemption request meets the applicable categorical exclusion criteria set forth in 10 CFR 51.22(c)(25), and the granting of this exemption will not have a significant effect on the quality of the human environment.

This exemption is effective upon issuance.

Dated at Rockville, Maryland, this 20th day November 2015.

FOR THE NUCLEAR REGULATORY COMMISSION.

/RA/

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