

## PMNorthAnna3COLPEmails Resource

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**From:** Jessie, Janelle  
**Sent:** Thursday, October 01, 2009 9:20 AM  
**To:** Dominion.Naps3ColaRAI@DOM.COM  
**Cc:** Wanda.K.Marshall@dom.com; wanda.d.craft@dom.com; Regina.Borsh@dom.com;  
NorthAnna3COL Resource  
**Subject:** North Anna RCOL - RAI Letter 43  
**Attachments:** North Anna RCOL RAI Letter 43-ML0927302155.pdf

Good Morning Gina

RAI letter #43 for the North Anna SER has been issued.

Thanks

Janelle

Janelle B. Jessie  
Project Manager  
U.S. Nuclear Regulatory Commission  
Office of New Reactors  
Division of New Reactor Licensing  
NGE1 Projects Branch  
301-415-6775  
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*God makes three requests of his children: Do the best you can, where you are, with what you have, now. Do not worry about tomorrow; for tomorrow will care for itself. Each day has enough trouble of its own.*

*-----African-American folklore*

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**Subject:** North Anna RCOL - RAI Letter 43  
**Sent Date:** 10/1/2009 9:20:26 AM  
**Received Date:** 10/1/2009 9:20:29 AM  
**From:** Jessie, Janelle

**Created By:** Janelle.Jessie@nrc.gov

**Recipients:**

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Tracking Status: None

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**Expiration Date:**

**Recipients Received:**

September 30, 2009

Mr. Eugene S. Grecheck  
Vice President - Nuclear Development  
Dominion  
Innsbrook Technical Center  
5000 Dominion Boulevard  
Glen Allen, VA 23060-6711

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 043  
(SRP SECTIONS: 13.06.01 - PHYSICAL SECURITY - COMBINED LICENSE)  
RELATED TO THE NORTH ANNA UNIT 3 COMBINED LICENSE APPLICATION

Dear Mr. Grecheck:

By letter dated November 26, 2007, Dominion Virginia Power (Dominion) submitted a combined license application for North Anna Unit 3 pursuant to 10 CFR Part 52. The U.S. Nuclear Regulatory Commission (NRC) staff is performing a detailed review of this application.

The staff has identified that additional information is needed to continue portions of the review and the request for additional information (RAI) is contained in the enclosure to this letter. To support the review schedule, Dominion is requested to respond within 90 days of the date of this letter. If the RAI response involves changes to application documentation, Dominion is requested to include the associated revised documentation with the response.

Should you have questions, please contact me at (301) 415-6775 or [Janelle.Jessie@nrc.gov](mailto:Janelle.Jessie@nrc.gov).

Sincerely,

*/RA/*

Janelle B. Jessie, Project Manager  
ESBWR/ABWR Projects Branch 1  
Division of New Reactor Licensing  
Office of New Reactors

Docket No. 52-017

Enclosure: Request for Additional Information

September 30, 2009

Mr. Eugene S. Grecheck  
Vice President - Nuclear Development  
Dominion  
Innsbrook Technical Center  
5000 Dominion Boulevard  
Glen Allen, VA 23060-6711

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 043  
(SRP SECTIONS: 13.06.01 - PHYSICAL SECURITY - COMBINED LICENSE)  
RELATED TO THE NORTH ANNA UNIT 3 COMBINED LICENSE APPLICATION

Dear Mr. Grecheck:

By letter dated November 26, 2007, Dominion Virginia Power (Dominion) submitted a combined license application for North Anna Unit 3 pursuant to 10 CFR Part 52. The U.S. Nuclear Regulatory Commission (NRC) staff is performing a detailed review of this application.

The staff has identified that additional information is needed to continue portions of the review and the request for additional information (RAI) is contained in the enclosure to this letter. To support the review schedule, Dominion is requested to respond within 90 days of the date of this letter. If the RAI response involves changes to application documentation, Dominion is requested to include the associated revised documentation with the response.

Should you have questions, please contact me at (301) 415-6775 or [Janelle.Jessie@nrc.gov](mailto:Janelle.Jessie@nrc.gov).

Sincerely,

*/RA/*

Janelle B. Jessie, Project Manager  
ESBWR/ABWR Projects Branch 1  
Division of New Reactor Licensing  
Office of New Reactors

Docket No. 52-017

Enclosure: Request for Additional Information

Distribution:

TKevern, NRO  
NRO\_DNRL\_NGE1                      DGordon, NSIR  
SGreen, NRO                              DHuyck, NSIR  
JJessie, NRO

E-RAI Tracking Nos: 3765, 3766, 3768, 3769, 3770, 3771, 3793  
ADAMS Accession No.: ML092730215

OFFICE	TR: NSIR/DSP	BC: NSIR/DSP	PM:DNRL:NGE1	PM:DNRL:NGE1
NAME	DGordon*	DHuyck*	JJessie*	TKevern*
DATE	09/17/09	09/23/09	09/28/09	09/29/09

**\*Approval captured electronically in the electronic RAI system.**

**OFFICIAL RECORD COPY**

**Request for Additional Information**  
**North Anna, Unit 3**  
**Dominion**  
**Docket No. 52-017**

SRP Section: 13.06.01 - Physical Security - Combined License  
Application Section: 13.06

QUESTIONS for Reactor Security Rulemaking and Licensing Branch (NSIR/DSP/RSRLB)

13.06.01-31

North Anna Unit 3 PSP, Section 11.3, 9th Paragraph, last sentence, Page 14 and the Appendix B, Critical Task Matrix/Task #11. The statement in Section 11.3 of the PSP is template text from NEI 03-12 and describes duties that may also be accomplished by the CAS or SAS. Task #11 in the Critical Task matrix does not reflect this type of duty/operation of equipment for CAS/SAS operators. Clarify the applicability of the template text and/or the applicability of task #11 to CAS/SAS operators.

Regulatory Basis: 10 CFR 73.55(d)(3) The licensee may not permit any individual to implement any part of the physical protection program unless the individual has been trained, equipped, and qualified to perform their assigned duties and responsibilities in accordance with appendix B to this part and the Training and Qualification Plan.

13.06.01-32

North Anna 3 COLA Part 2: FSAR - NAPS COL 1.9-3-A Table 1.9-202 Conformance with Regulatory Guides. Clarify the commitment to RG 5.66 "Access Authorization Program." In the FSAR, North Anna states that RG 5.66 is not applicable because NEI 03-01, Revision 1, April 2004, is used. This is not consistent with the PSP, Section 22.1 and the response to RAI Question Editorial Comments, which commits to RG 5.66. Also, the PSP contains a commitment to adopting RG 5.66, through which the NRC endorses the provisions of NEI 03-01, as an acceptable approach to meet the requirements of 10 CFR 73.56 and the requirements of 10 CFR Part 26 related to granting and maintaining unescorted access and certifying and maintaining unescorted access authorization.

Licensees who adopt this regulatory guide should include the following statement in their physical security plans: ***"All elements of Regulatory Guide 5.66, Revision 1, have been implemented to satisfy the requirements of 10 CFR 73.56 and 10 CFR Part 26 related to unescorted access and unescorted access authorization."***

Regulatory Basis: 10 CFR 73.55(b)(7) The licensee shall establish, maintain, and implement an access authorization program in accordance with § 73.56 and shall describe the program in the Physical Security Plan.

#### 13.06.01-33

Implementation Schedule - North Anna FSAR Table 13.4-201. North Anna generally commits to the implementation of the physical security plan as is specified in FSAR Table 13.4-201. This milestone and the physical security plan referenced in Table 13.4-201, is the NRC-approved corporate security plan which currently includes North Anna Units 1 & 2, Millstone, Surry, and Kewaunee. Provide a timeframe for which a revised corporate physical security plan, incorporating North Anna Unit 3, will be submitted to the NRC for review and approval.

Regulatory Basis: 10 CFR 73.55(a)(4). Applicants for an operating license under the provisions of part 50 of this chapter or holders of a combined license under the provisions of part 52 of this chapter shall implement the requirements of this section before fuel is allowed onsite (protected area).

#### 13.06.01-34

Implementation Schedule - North Anna FSAR Table 13.4-201. Table 13.4-201 describes milestones for when North Anna Unit #3 will implement the corporate physical security, training and qualification, and safeguards contingency plans. In a letter dated January 8, 2008, the NRC staff endorsed a generic set of milestones provided by NEI in a letter dated September 13, 2007, to implement a new reactor physical security program. Provide an implementation schedule that addresses the activities listed in the above NEI letter consistent with the revised requirements of 10 CFR Part 73, to ensure the complete implementation of the operational security programs, security systems and equipment, and physical barriers.

Regulatory Basis: 10 CFR 52.79(ii) A description of the implementation of the physical security plan; 10 CFR 52.79(iv) A description of the implementation of the safeguards contingency plan, training and qualification plan, and cyber security plan;

#### 13.06.01-35

NEDE-33391, Rev 2, ESBWR "Safeguards Assessment Report." Describe how the specific security features identified in NEDE 33391 will be tracked, incorporated, verified, and demonstrated through a combined North Anna physical protection program.

Regulatory Basis: 10 CFR Part 73.55(a): (2) The security plans must identify, describe, and account for site-specific conditions that affect the licensee's capability to satisfy the requirements of this section. (3) The licensee is responsible for maintaining the onsite physical protection program in accordance with Commission regulations through the implementation of security plans and written security implementing procedures.

13.06.01-36

North Anna Unit #3 FSAR, Chapter 13, Conduct of Operations. The FSAR does not address the requirements of 10 CFR 73.58 for Safety/Security Interface. Describe the process by which North Anna Units 1, 2, and 3 will assess and manage changes to plant configurations, facility conditions, and security to prevent the potential for adverse effects on safety and security, including the site emergency plan, before implementing such changes consistent with a Safety/Security Interface process. Regulatory Guide 5.74, "Managing the Safety/Security Interface" outlines a method acceptable to the NRC to meet 10 CFR 73.58.

Regulatory Basis: Safety/Security Interface. 10 CFR 73.58(a) The licensee shall assess and manage the potential for adverse effects on safety and security, including the site emergency plan, before implementing changes to plant configurations, facility conditions, or security.

13.06.01-37

The North Anna PSP makes reference to multiple site-specific/facility procedures, implementing controls, and coordinating documents. Describe the process used to track the development and implementation of these documents.

Regulatory Basis: 10 CFR 73.55(q)(2): The licensee shall maintain all records required to be kept by Commission regulations, orders or license conditions, until the Commission terminates the license for which the records were developed and shall maintain superseded portions of these records for at least three (3) years after the record is superseded, unless otherwise specified by the Commission.

13.06.01-38

RAI Question 13.06.01-22. In response to this RAI North Anna stated that a portion of the outer VBS which utilizes natural terrain features will be replaced with temporary man-made barriers during construction and that the location and design of the final VBS will be analyzed per NUREG 4250. Describe the final VBS stand-off distance and configuration/construction at the affected location for Units 1, 2, and 3. Notwithstanding NUREG 4250, describe in your response any other criteria used to determine applicable construction standards and stand-off distance for the final VBS for Units 1, 2, and 3 (i.e., RG 5.68, RG 5.69, and NUREG 6190).

As a VBS is not required during construction, this temporary condition must be addressed in the NRC-approved Dominion Energy, Inc. PSP for Units 1 & 2.

Regulatory Basis: 10 CFR 73.55(e)(10) Vehicle control measures. Consistent with the physical protection program design requirements of § 73.55(b), and in accordance with the site-specific analysis, the licensee shall establish and maintain vehicle control measures, as necessary, to protect against the design basis threat of radiological sabotage vehicle bomb assault.

13.06.01-39

RAI Question 13.06.01-24. Enclosure 2, page 2, 3rd paragraph. The description of the communication capabilities contained within CAS and SAS does not include communication capabilities between CAS/SAS and the control rooms for Units 1, 2, & 3. Clarify continuous communication capabilities between both alarm stations and all control rooms for Units 1, 2, and 3.

Regulatory Basis: 10 CFR 73.55(j)(4) The following continuous communication capabilities must terminate in both alarm stations required by this section: (i)... (ii) A system for communication with the control room.

13.06.01-40

RAI Question 13.06.01-24. Enclosure 2, page 4, 4th paragraph, subparagraph (g), 2nd paragraph, and Table 1 on page 6. Verify that the number of "zones" identified in these descriptions is correct.

Regulatory Basis: 10 CFR 73.55(i)(1) The licensee shall establish and maintain intrusion detection and assessment systems that satisfy the design requirements of § 73.55(b) and provide, at all times, the capability to detect and assess unauthorized persons and facilitate the effective implementation of the licensee's protective strategy.

13.06.01-41

RAI Question 13.06.01-24. Enclosure 2, page 4, 5th paragraph. The North Anna response addresses primary and back-up power for Unit 3 but only addresses primary power for Units 1 and 2. Clarify this description to address the back-up power for the combined Units 1, 2, and 3.

Regulatory Basis: 10 CFR 73.55(i)(4)(i) Both alarm stations required by paragraph (i)(2) of this section must be designed and equipped to ensure that a single act, in accordance with the design basis threat of radiological sabotage defined in § 73.1(a)(1), cannot disable both alarm stations. The licensee shall ensure the survivability of at least one alarm station to maintain the ability to perform the following functions:

13.06.01-42

Appendix C, Safeguards Contingency Plan, Section 4.1.2, Page C-18. Clarify the command-and-control succession/structure described and revise the Critical Task Matrix in Appendix B to the PSP for consistency with the described command and control succession/structure.

a. As identified in parenthesis "(RTL qualified)," in the absence of the RTL, will all individuals performing the positions listed be RTL qualified, or will individuals within the listed positions be specified? If only specified individuals, how will these individuals be identified and trained? The Critical task Matrix in Appendix B, does *not* reflect RTL training for the listed positions.



- b. The last two (2) listed positions do not have the caveat "RTL Qualified" in parenthesis following the position title, however, the Critical task Matrix in Appendix B, identifies RTL training for these positions. Clarify if these individuals will be RTL qualified and how these individuals will be able to perform RTL duties in conjunction with their primary duties.
- c. The position of Security Shift Supervisor (SSS) is identified in Section 4.1 (page 5) of the PSP and in the Critical Task Matrix in Appendix B. The North Anna command-and-control succession/structure does *not* include the SSS. If the SSS position is *not* applicable to North Anna Unit #3, clarify the site-specific applicability of this position in the PSP.

Regulatory Basis: 10 CFR 73, Appendix C, Section II, paragraph A.(4). Licensee safeguards contingency planning should result in organizing the licensee's resources in such a way that the participants will be identified, their responsibilities specified, and the responses coordinated. The responses should be timely, and include personnel who are trained and qualified to respond in accordance with a documented training and qualification program.

13.06.01-43

Appendix C, Safeguards Contingency Plan, Section 8, Pages C-24 - C-29. Clarify the following:

- a. The 3rd paragraph, 6th sentence. The 6th sentence uses the term "or" when describing the types of insiders addressed by the IMP. Clarify if the term "or" means a choice, or if the word "and" is the applicable term.
- b. The 3rd paragraph, 7th sentence. The 7th sentence should reference 10 CFR 50.54(p).
- c. The 5th paragraph, 3rd sentence states that the active barrier utilized at the OCA VBS "will stop any unauthorized vehicle..." The term "any" appears to be excessively broad. Clarify what is meant by the phrase "will stop any unauthorized vehicle..." and describe in your response to this RAI, the construction standards/criteria used to support this conclusion.
- d. The 5th paragraph, 10th sentence uses the term "stand off post." Clarify the meaning/function of this post.
- e. The 5th paragraph, 10th sentence uses the acronym "AR" which is understood to mean "Armed Responder" and also uses the term "checkpoint" which is generally used to describe the OCA VBS access control point. Clarify the use of an armed responder at the OCA checkpoint for consistency 10 CFR 73.55(k)(5)(iii) which states "armed responders shall be available at all times inside the protected area and may not be assigned other duties or responsibilities that could interfere with their assigned response duties."
- f. The 7th paragraph, 4th sentence. Clarify notification capabilities where a waterborne threat is identified. Will the off-site maritime officials identified in the 2nd sentence also be notified in addition to LLEA?
- g. The 10th paragraph. This paragraph identifies the use of a second line of chain-link fence located inside portions of the PA boundary which appears to be generically represented in Section 11.6 but is not addressed in Section 11.3 of the PSP, nor is it illustrated on Figures contained in the PSP. Clarify if the use and function of this second line of chain-link fence applies throughout the combined PA, clarify if the use of a second line fence is applicable to

NAPS ESP COL 13.6-1, and illustrate the use of this delay barrier consistent with STD COL 13.6-17-A?

- h. The 13th paragraph, 3rd sentence. The 3rd sentence, replace reference to "Paragraph B.5.a of Attachment 2 to the ICM Order," to 10 CFR 50.54(hh)(1).

Regulatory Basis: 10 CFR 73, Appendix C, Section II, paragraph A. The safeguards contingency plan is a documented plan that describes how licensee personnel implement their physical protection program to defend against threats to their facility, up to and including the design basis threat of radiological sabotage.

13.06.01-44

STD COL 13.6-9-A. A milestone for developing and implementing procedures addressed in STD COL 13.6-9-A is identified in Section 13.5.2.1 and a different milestone for STD COL 13.6-12-A and STD COL 13.6-13-A is identified in Table 13.4-201. Although the specific procedures addressed in STD COL 13.6-9-A are related to operations, some of these procedures are directly linked to security procedures addressed in STD COL 13.6-12-A and STD COL 13.6-13-A. Clarify when procedures will be developed and implemented relative to operator actions associated with security events.

Regulatory Basis: 10 CFR 52.79(ii) A description of the implementation of the physical security plan; 10 CFR 52.79(iv) A description of the implementation of the safeguards contingency plan, training and qualification plan, and cyber security plan.

13.06.01-45

STD SUP 13.6-1. In FSAR Section 13.6.2, STD SUP 13.6-1 states that the Physical Security Plan during construction, including control of access to the new plant construction site, is consistent with NEI 03-12, Appendix F (Reference 13.6-201), which is currently under NRC review and that Table 13.4-201 provides milestones for security program implementation. In a letter to Mr. Russell J. Bell at NEI, dated November 13, 2008, the NRC stated that the staff deferred a formal review and endorsement of Appendix F until completion of a rulemaking effort specifically addressing power reactor construction sites. Until such regulations are established, the staff will not evaluate physical security programs for new construction. Please revise FSAR Section 13.6.2 accordingly.