

# SAFETY EVALUATION REPORT

## OFFICE OF NUCLEAR SECURITY AND INCIDENT RESPONSE

### DOMINION, NORTH ANNA, UNIT 3

### NEW NUCLEAR POWER REACTOR

### COMBINED LICENSE APPLICATION

### DOCKET NUMBER 52-017

## 1.0 INTRODUCTION AND BACKGROUND

The U.S. Nuclear Regulatory Commission (NRC), Office of Nuclear Security and Incident Response (NSIR), Division of Security Policy (DSP), Fuel Cycle and Transportation Security Branch (FCTSB) was asked to review the Dominion new reactor application. By letter dated June 24, 2014, Dominion has submitted a revised application that incorporated by reference the Economic Simplified Boiling Water Reactor (ESBWR), design control document (DCD), Revision 10. In a letter dated January 23, 2015, Dominion followed the design center approach and reviewed the recent Detroit Edison Company Fermi 3 combined operating license application (COLA) updates (Agencywide Documents Access and Management System (ADAMS) Accession Numbers ML14295A354 and ML14308A337) that reflected the changes to the Fermi 3 COLA incorporating by reference the codified version of the ESBWR design certification rule (DCR) which is contained in 10 CFR Part 52, Appendix E, "Design Certification Rule for the U.S. Economic Simplified Boiling Water Reactor." The ESBWR DCR was published on October 15, 2014 (79 Federal Register 61944) and is effective November 14, 2014. The ESBWR nuclear reactor design is a 4,500-megawatt thermal reactor that uses natural circulation for normal operations and has passive safety features. In developing the final safety evaluation report (FSER) for North Anna Unit 3, the staff reviewed the ESBWR DCD to ensure that the combination of the information in the DCD and the information in the COLA represents the complete scope of information relating to a particular review topic. Specifically, FCTSB was requested to review the application to determine if all requirements for fixed-site and in-transit physical protection requirements for special nuclear material (SNM) of low strategic significance were met, as appropriate. It was found that the applicant planned to bring SNM of low strategic significance in the form of new fuel assemblies on-site before the protected area was declared operational in accordance with Title 10 of the *Code of Federal Regulations* (10 CFR) 73.55(a) and therefore would be subject to the applicable portions of 10 CFR 73.67 "Licensee fixed site and in-transit requirements for the physical protection of special nuclear material of moderate and low strategic significance" and the applicable post September 11, 2001, security order measures for SNM of low strategic significance.

## 2.0 REGULATORY GUIDANCE AND EVALUATION

Fixed site and in-transit physical protection requirements:  
10 CFR 73.67, "Licensee fixed site and in-transit requirements for the physical protection of special nuclear material of moderate and low strategic significance."

Regulatory Guide 5.59, "Standard Format and Content for a Licensee Physical Security Plan for the Protection of Special Nuclear Material of Moderate or Low Strategic Significance (1983)."

NRC Regulatory Issue Summary 2005-22, "Requirements for the Physical Protection During Transportation of Special Nuclear Material of Moderate and Low Strategic Significance: 10 CFR Part 73 vs. Regulatory Guide 5.59 (1983)."

### 3.0 TECHNICAL EVALUATION

A technical evaluation of the Dominion, North Anna, Unit 3, COL, Final Safety Evaluation Report (FSAR), against applicable 10 CFR 73.67 fixed site and in-transit: 1) general performance objectives, 2) general requirements, and 3) physical protection requirements for SNM of low strategic significance, was performed. In addition, the post September 11, 2001, security order measures for SNM of low strategic significance were sent to the applicant to be addressed. The letter conveying those order measures was sent on August 27, 2015, (ML15224B618) and the safeguards-information-containing-order-measures were sent under separate cover (Safeguards Lan Electronic Safe (SLES), Accession No. NS113220). Subsequently, the applicant submitted a letter dated October 9, 2015, which provided a reviewer's aid matrix that covered the applicable 10 CFR 73.67 requirements. The reviewer's aid matrix pointed out the text of the application that described the intent of meeting each element of the applicable portions of 10 CFR 73.67 (ML15288A072). In addition, the applicant submitted, in the same letter dated October 9, 2015, a revised Special Nuclear Material Physical Protection Program Plan (SNMPPPPP) description and a response to the post September 11, 2001, security order measures for SNM of low strategic significance. The revised SNMPPPPP was labeled as: Revision 2, draft dated October 8, 2015, and is noted by the applicant, in the letter dated October 9, 2015, that it will be included in the next revision of the FSAR submitted to the NRC.

#### 3.1 FIXED SITE GENERAL PERFORMANCE OBJECTIVES

The applicable physical protection requirements specified in 10 CFR 73.67 titled, "Licensee fixed site and in-transit requirements for the physical protection of special nuclear material of moderate and low strategic significance," had general performance objectives described.

The physical protection requirements of 10 CFR 73.67(a)(1), stated, "General performance objectives.

- (1) Each licensee who possess, uses or transports special nuclear material of moderate or low strategic significance shall establish and maintain a physical protection system that will achieve the following objectives:
  - (i) Minimize the possibilities for unauthorized removal of special nuclear material consistent with the potential consequences of such actions; and

- (ii) Facilitate the location and recovery of missing special nuclear material.
- (2) To achieve these objectives, the physical protection system shall provide:
- (i) Early detection and assessment of unauthorized access or activities by an external adversary within the controlled access area containing special nuclear material;
  - (ii) Early detection of removal of special nuclear material by an external adversary from a controlled access area;
  - (iii) Assure proper placement and transfer of custody of special nuclear material; and
  - (iv) Respond to indications of an unauthorized removal of special nuclear material and then notify the appropriate response forces of its removal in order to facilitate its recovery.”

Therefore, the fixed site physical protection requirements of 10 CFR 73.67(a)(1) were applicable because of the manner in which SNM of low strategic significance was described in the Dominion, Unit 3, COL, FSAR.

- 3.1.1 Applicable Requirement: 10 CFR 73.67(a)(1), “General performance objectives. (1) Each licensee who possesses, uses or transports special nuclear material of moderate or low strategic significance shall establish and maintain a physical protection system that will achieve the following objectives.”

The applicant stated in “Table 13.4-201,” their commitment to meet the requirements of 10 CFR 73.67, “...prior to initial receipt of SNM of low strategic significance.” Establishment of the physical protection system is outlined in the SNMPPPP, Revision 2, drafted October 10, 2015, sent to the NRC by letter dated October 9, 2015, ML15288A072. Specifically, in Section 4.4 “Physical Protection System Testing” there are five establishment elements described that pertain to: lighting, surveillance, communications, access control and initial inspection of the controlled access area. In addition, in Section 3.0 “Organizational Requirements” of the SNMPPPP it is described that security equipment will be maintained in a satisfactory functioning condition.

Dominion’s application described that 10 CFR 73.67 will be fully implemented before SNM is on site. Also, the application outlined establishment and maintenance elements for the physical protection system. Therefore, the staff finds the requirement of 10 CFR 73.67(a)(1) to have a physical protection system established and maintained, would be met.

3.1.2           Applicable Requirement: 10 CFR 73.67(a)(1)(i), “General performance objectives. Each licensee who possesses, uses or transports special nuclear material of moderate or low strategic significance shall establish and maintain a physical protection system that will achieve the following objectives: (i) Minimize the possibilities for unauthorized removal of special nuclear material consistent with the potential consequences of such actions.”

The applicant stated in “Table 13.4-201,” their commitment to meet the requirements of 10 CFR 73.67, “...prior to initial receipt of SNM of low strategic significance.” In addition, the SNMPPPP describes: 1) in section 5.2 “Storage” the physical characteristics of the controlled access area, 2) in section 5.3 “Monitoring/Early Detection” observation of the controlled access area methodologies, 3) in section 5.4 “Access Control” access controls for the controlled access area, and 4) in sections 5.3 “Monitoring/Early Detection” and 5.5 “Communications” how a deployed watchperson will conduct security operations.

Dominion’s application describes that 10 CFR 73.67 will be fully implemented before SNM is received. In addition, their SNMPPPP describes how the possibilities for unauthorized removal are minimized consistent with the consequences of such actions. Therefore, the staff finds the requirement of 10 CFR 73.67(a)(1)(i) to have a physical protection system established and maintained that has the objective to minimize the possibilities for unauthorized removal of special nuclear material consistent with the potential of such actions, would be met.

3.1.3           Applicable Requirement: 10 CFR 73.67(a)(1)(ii), “General performance objectives. Each licensee who possesses uses or transports special nuclear material of moderate or low strategic significance shall establish and maintain a physical protection system that will achieve the following objectives: “...(ii) Facilitate the location and recovery of missing special nuclear material.”

The applicant stated in “Table 13.4-201,” their commitment to meet the requirements of 10 CFR 73.67, “...prior to initial receipt of SNM of low strategic significance.” In addition, their SNMPPPP in section 5.8 “Contingency Response” describes the detection, assessment and response strategies of the physical protection system that would facilitate the location and recovery of missing special nuclear material. Furthermore, Dominion states, in response to the post September 11, 2001 security order measure C.2., that an existing Memorandum of Understanding with a local law enforcement agency would be exercised. The applicant describes that the local law enforcement agency Memorandum of Understanding would enable the development and implementation of procedural response actions

to be in place before the receipt of SNM of low strategic significance on site. This Memorandum of Understanding is also discussed in section 5.3.2 “Early Detection...” of the SNMPPPP.

Dominion’s application describes that 10 CFR 73.67 will be fully implemented before SNM is received. In addition, their SNMPPPP describes the detection, assessment and response attributes of the physical protection system that would facilitate the location and recovery of missing SNM. Also, the applicant stated that arrangements with local law enforcement will facilitate a Dominion/local law enforcement response to unauthorized activities. Therefore, the staff finds the requirement, of 10 CFR 73.67(a)(1)(ii) to have a physical protection system established and maintained that has the objective to facilitate the location and recovery of missing special nuclear material, would be met.

- 3.1.4 Applicable Requirement: 10 CFR 73.67(a), “General performance objectives. ... (2) To achieve these objectives, the physical protection system shall provide: (i) Early detection and assessment of unauthorized access or activities by an external adversary within the controlled access area containing special nuclear material.”

The applicant stated in “Table 13.4-201,” their commitment to meet the requirements of 10 CFR 73.67, “...prior to initial receipt of SNM of low strategic significance.” In addition, their SNMPPPP in Sections 5.3 “Monitoring/Early Detection” and 5.4 “Access Control and Badging,” describes how the physical protection system provides for: 1) how the attributes of the SNMPPPP provide for adequate detection and assessment of unauthorized access or activities by an external adversary within the controlled access area containing SNM, and 2) restrictive access provisions for personnel who desire to enter the controlled access area.

Dominion’s application describes that 10 CFR 73.67 will be fully implemented before SNM is received. In addition, their SNMPPPP describes the early detection and assessment physical protection strategies to address unauthorized access or activities by an external adversary within the controlled access area containing special nuclear material. Therefore, the staff finds the requirement, of 10 CFR 73.67(a)(2)(i) to have a physical protection system that provides early detection and assessment of unauthorized access or activities by an external adversary within the controlled access area containing special nuclear material, would be met.

- 3.1.5 Applicable Requirement: 10 CFR 73.67(a)(2)(ii), “General performance objectives. To achieve these objectives, the physical protection system shall provide: ... (ii) Early detection of removal of special nuclear material by an external adversary from a controlled access area.”

The applicant stated in “Table 13.4-201,” their commitment to meet the requirements of 10 CFR 73.67, “...prior to initial receipt of SNM of low strategic significance.” In addition, their SNMPPPP in sections 5.3.1 “Monitoring” and 5.3.2 “Early Detection...” describe how the physical protection system provides for early detection of removal of SNM by an external adversary from a controlled access area.

Dominion’s application describes that 10 CFR 73.67 will be fully implemented before SNM is received. In addition, their SNMPPPP describes the early detection and assessment physical protection strategies to address the potential removal of SNM by an external adversary from a controlled access area. Therefore, the staff finds the requirement, of 10 CFR 73.67(a)(2)(ii) to have a physical protection system that provides early detection of removal of SNM by an external adversary from a controlled access area, would be met.

- 3.1.6 Applicable Requirement: 10 CFR 73.67(a)(2)(iii), “General performance objectives. To achieve these objectives, the physical protection system shall: ... (iii) Assure proper placement and transfer of custody of special nuclear material;”

The applicant stated in “Table 13.4-201,” their commitment to meet the requirements of 10 CFR 74, (i.e., Material Control and Accounting of Special Nuclear Material) “Prior to receipt of special nuclear material” as a “license condition.” Also, the applicant stated section 5.1 “Receipt of SNM” of the SNMPPPP that “For SNM received at the plant site, Dominion personnel perform the following actions in accordance with the MC&A Program...” which is then followed by six specific descriptions of actions to be accomplished, that would assure proper placement and transfer of custody.

Dominion’s application describes that the appropriate provisions of 10 CFR 74 will be fully implemented before SNM is received. In addition, the applicant has described in their SNMPPPP how specific MC&A measures apply to meet this general performance objective. Therefore, the staff finds the requirement, of 10 CFR 73.67(a)(2)(iii), to “Assure proper placement and transfer of custody of special nuclear material,” would be met.

- 3.1.7 Applicable Requirement: 10 CFR 73.67(a)(2)(iv), “General performance objectives. To achieve these objectives, the physical protection system shall: ... (iv) Respond to indications of an unauthorized removal of special nuclear material and then notify the appropriate response forces of its removal in order to facilitate its recovery.”

The applicant stated in "Table 13.4-201," their commitment to meet the requirements of 10 CFR 73.67, "...prior to initial receipt of SNM of low strategic significance." In addition, their SNMPPPP in section 5.8 "Contingency Response," describes the detection, assessment and response measures that would provide indications of missing or stolen SNM and subsequent recovery thereof. The appropriate response from offsite (i.e., the specifically coordinated with local law enforcement agency) is identified in section 5.5 of the SNMPPPP.

Dominion's application describes that 10 CFR 73.67 will be fully implemented before SNM is received. In addition, their SNMPPPP describes the early detection, assessment and response physical protection strategies that would facilitate recovery of missing or stolen SNM. Therefore, the staff finds the requirement, of 10 CFR 73.67(a)(2)(iv) to have a physical protection system that will "Respond to indications of an unauthorized removal of special nuclear material and then notify the appropriate response forces of its removal in order to facilitate its recovery," would be met.

### 3.2 FIXED SITE GENERAL REQUIREMENTS

The applicable requirements specified in 10 CFR 73.67 titled "Licensee fixed site and in-transit requirements for the physical protection of special nuclear material of moderate and low strategic significance," had general requirements.

"(c) Each licensee who possesses, uses, transports, or delivers to a carrier for transport special nuclear material of moderate strategic significance, or 10 kg or more of special nuclear material of low strategic significance shall:

- (1) Submit a security plan or an amended security plan describing how the licensee will comply with all the requirements of paragraphs (d), (e), (f), and (g) of this section, as appropriate, including schedules of implementation. The licensee shall retain a copy of the effective security plan as a record for three years after the close of period for which the licensee possesses the special nuclear material under each license for which the original plan was submitted. Copies of superseded material must be retained for three years after each change.
- (2) Within 30 days after the plan submitted pursuant to paragraph (c)(1) of this section is approved, or when specified by the NRC in writing, implement the approved security plan."

- 3.2.1 Applicable Requirement: 10 CFR 73.67(c)(1), "Submit a security plan...including schedules for implementation...shall retain a copy...for three years..." ... "Copies of the superseded material must be retained for three years after each change."

The applicant stated in section 5.6 "Records" of their submitted SNMPPPP that the security plan (i.e., the SNMPPPP) would be retained for three years and that copies of superseded material will be retained for three years after each change.

Therefore, the staff finds the requirement, of 10 CFR 73.67(c)(1) to submit a security plan, retain the security plan for three years after the specific type of SNM has been removed from the site, and to retain superseded security plan change(s) for three years after each change, would be met.

- 3.2.2 Applicable Requirement: 10 CFR 73.67(c)(2), "Within 30 days after the plan submitted pursuant to paragraph (c)(1) of this section is approved, or when specified by the NRC in writing, implement the approved security plan."

The applicant has stated that the SNMPPPP will be fully implemented in "Table 13.4-201" of the FSAR "Prior to fuel on site." Therefore, for the fixed site requirement of 10 CFR 73.67(f), when the NRC licenses the applicant, the milestone set forth in "Table 13.4-201" to implement those requirements, is adequate to meet the requirement of 10 CFR 76.67(c)(2).

### 3.3 FIXED SITE PHYSICAL PROTECTION REQUIREMENTS

The applicable requirements specified in 10 CFR 73.67 titled, "Licensee fixed site and in- transit requirements for the physical protection of special nuclear material of moderate and low strategic significance," had fixed site physical protection requirements for SNM of low strategic significance.

The physical protection requirements of 10 CFR 73.67(f), titled, "Fixed site requirements for special nuclear material of low strategic significance," state that, "Each licensee who possesses, stores, or uses special nuclear material of low strategic significance at a fixed site or contiguous sites, except those who are licensed to operate a nuclear power reactor pursuant to Part 50, shall:

- (1) Store or use the material only within a controlled access area,
- (2) Monitor with an intrusion alarm or other device or procedures the controlled access areas to detect unauthorized penetrations or activities,
- (3) Assure that a watchman or offsite response force will respond to all unauthorized penetrations or activities, and

- (4) Establish and maintain response procedures for dealing with threats of thefts or thefts of this material. The licensee shall retain a copy of the current response procedures as a record for three years after the close of period for which the licensee possesses the special nuclear material under each license for which the procedures were established. Copies of superseded material must be retained for three years after each change.”

The fixed site physical protection requirements of 10 CFR 73.67(f) are applicable because of the manner in which SNM of low strategic significance (i.e., reactor fuel) was described in the Dominion application.

- 3.3.1 Applicable Requirement: 10 CFR 73.67(f)(1), “Fixed site requirements for special nuclear material of low strategic significance. Each licensee who possesses, stores, or uses special nuclear material of low strategic significance at a fixed site or contiguous sites, except those who are licensed to operate a nuclear power reactor pursuant to Part 50, shall:

- (1) Store or use the material only within a controlled access area.”

The applicant stated in “Table 13.4-201,” their commitment to meet the requirements of 10 CFR 73.67, “...prior to initial receipt of SNM of low strategic significance.” In addition, their SNMPPPP in Section 5.2 “Storage,” describes the physical characteristics of the controlled access area in an adequate manner when considering the guidance on to how to present a controlled access area, as depicted in RG 5.59.

Dominion’s application describes that 10 CFR 73.67 will be fully implemented before SNM is received. In addition, their SNMPPPP describes the characteristics of their planned-for controlled access area. Therefore, the staff finds the requirement, of 10 CFR 73.67(f)(1) to “Store or use...” SNM of low strategic significance “...only within a controlled access area,” would be met.

- 3.3.2 Applicable Requirement: 10 CFR 73.67(f)(2) “Fixed site requirements for special nuclear material of low strategic significance. Each licensee who possesses, stores, or uses special nuclear material of low strategic significance at a fixed site or contiguous sites, except those who are licensed to operate a nuclear power reactor pursuant to Part 50, shall: ... (2) Monitor with an intrusion alarm or other device or procedures the controlled access areas to detect unauthorized penetrations or activities.”

The applicant stated in "Table 13.4-201," their commitment to meet the requirements of 10 CFR 73.67, "...prior to initial receipt of SNM of low strategic significance." In addition, their SNMPPPP in sections 5.3, "Monitoring/Early Detection," 5.3.1 "Monitoring" and 5.3.2 "Early Detection..." describe the detection processes that would result in recognition of unauthorized penetrations or activities in the locations of SNM of low strategic significance and the controlled access area.

Dominion's application describes that 10 CFR 73.67 will be fully implemented before SNM is received. In addition, their SNMPPPP describes the detection processes that would result in recognition of unauthorized penetrations or activities in the locations of SNM of low strategic significance and the controlled access area. Therefore, the staff finds the requirement, of 10 CFR 73.67(f)(2) to "Monitor with an intrusion alarm or other device or procedures the controlled access areas to detect unauthorized penetrations or activities," would be met.

- 3.3.3 Applicable Requirement: 10 CFR 73.67(f)(3), "Fixed site requirements for special nuclear material of low strategic significance. Each licensee who possesses, stores, or uses special nuclear material of low strategic significance at a fixed site or contiguous sites, except those who are licensed to operate a nuclear power reactor pursuant to part 50, shall: ... (3) Assure that a watchman or offsite response force will respond to all unauthorized penetrations or activities."

The applicant stated in "Table 13.4-201," their commitment to meet the requirements of 10 CFR 73.67, "...prior to initial receipt of SNM of low strategic significance." In addition, their SNMPPPP in sections 5.3.1 "Monitoring," 5.3.2 "Early Detection..." and 5.8 "Contingency Response," describe the detection, assessment and response measures for the physical protection of the material. As described in the SNMPPPP, the detection, assessment and response includes a watchperson assigned to oversee the SNM of low strategic significance. Furthermore, the appropriate response from offsite (i.e., the specifically coordinated with local law enforcement agency) was identified in section 5.3.2 "Early Detection..." of the SNMPPPP.

Dominion's application describes that 10 CFR 73.67 will be fully implemented before SNM is received. In addition, their SNMPPPP describes the detection, assessment and response measures for the physical protection of the material. Therefore, the staff finds the requirement, of 10 CFR 73.67(f)(3) to "Assure that a watchman or offsite response force will respond to all unauthorized penetrations or activities," would be met.

3.3.4 Applicable Requirement: 10 CFR 73.67(f)(4), “Fixed site requirements for special nuclear material of low strategic significance. Each licensee who possesses, stores, or uses special nuclear material of low strategic significance at a fixed site or contiguous sites, except those who are licensed to operate a nuclear power reactor pursuant to Part 50, shall: ... (4) Establish and maintain response procedures for dealing with threats of thefts or thefts of this material. The licensee shall retain a copy of the current response procedures as a record for three years after the close of period for which the licensee possesses the special nuclear material under each license for which the procedures were established. Copies of superseded material must be retained for three years after each change.”

The applicant stated in “Table 13.4-201,” their commitment to meet the requirements of 10 CFR 73.67, “...prior to initial receipt of SNM of low strategic significance.” In addition, their SNMPPPP in Sections: 4.1 “Procedures,” 5.3.1 “Monitoring,” 5.3.2 “Early Detection...,” 5.7 “Audits and Records” and 5.8 “Contingency Response,” describe the framework of and details to the development of response procedures. Also, within section 5.6 “Records” of the SNMPPPP states that “...records will be maintained in accordance with the requirements of 10 CFR 73.67.” Furthermore, within the Section 4.1 “Procedures” of the SNMPPPP, listed are two response procedures that will be developed.

Dominion’s application describes that 10 CFR 73.67 will be fully implemented before SNM is received. In addition, their SNMPPPP describes the framework of the response procedures, details on the development of response procedures and affirmation of compliance with record requirements. Therefore, the staff finds the requirement, of 10 CFR 73.67(f)(4), to “Establish and maintain response procedures...,” would be met.

#### 3.4 IN-TRANSIT GENERAL PERFORMANCE OBJECTIVES

The applicable requirements specified in 10 CFR 73.67 titled “Licensee fixed site and in- transit requirements for the physical protection of special nuclear material of moderate and low strategic significance,” had general performance objectives described.

The physical protection requirements of 10 CFR 73.67(a), stated: “General performance objectives.

(1) Each licensee who possesses, uses, or transports special nuclear material of moderate or low strategic significance shall establish and maintain a physical protection system that will achieve the following objectives:

(i) Minimize the possibilities for unauthorized removal of special

- nuclear material consistent with the potential consequences of such actions; and
- (ii) Facilitate the location and recovery of missing special nuclear material.

(2) To achieve these objectives, the physical protection system shall provide:

- (i) Early detection and assessment of unauthorized access or activities by an external adversary within the controlled access area containing special nuclear material;
- (ii) Early detection of removal of special nuclear material by an external adversary from a controlled access area;
- (iii) Assure proper placement and transfer of custody of special nuclear material; and
- (iv) Respond to indications of an unauthorized removal of special nuclear material and then notify the appropriate response forces of its removal in order to facilitate its recovery.”

The in-transit physical protection requirements of 10 CFR 73.67(a) were applicable because of the manner in which SNM of low strategic significance was described in the Dominion, North Anna, Unit 3, Docket No. 52-017, submitted COL application (ML073510494).

3.4.1 Applicable Requirement: 10 CFR 73.67(a), “General performance objectives. (1) Each licensee who possesses, uses or transports special nuclear material of moderate or low strategic significance shall establish and maintain a physical protection system that will achieve the following objectives.”

The applicant included a description of how it intended to meet the in-transit physical protection requirements of 10 CFR 73.67(g) in section 6 of their SNMPPPP. It is stated in the SNMPPPP that a SNM qualified licensed-shipper, other than Dominion, will be used for transport of SNM of low strategic significance both to and from the site.

The Dominion application stated that arrangements with a SNM qualified licensed-shipper would be made for the transport of SNM of low strategic significance. Therefore, the staff finds the requirement, of 10 CFR 73.67(a)(1) to “...establish and maintain a physical protection system...,” would be met.

3.4.2           Applicable Requirement: 10 CFR 73.67(a)(1)(i), “General performance objectives. Each licensee who possesses, uses or transports special nuclear material of moderate or low strategic significance shall establish and maintain a physical protection system that will achieve the following objectives: (i) Minimize the possibilities for unauthorized removal of special nuclear material consistent with the potential consequences of such actions.”

The applicant included a description of how it intended to meet the in-transit physical protection requirements of 10 CFR 73.67(g) in section 6 of their SNMPPPP. It is stated in the SNMPPPP that a SNM qualified licensed-shipper, other than Dominion, will be used for transport of SNM of low strategic significance both to and from the site.

The Dominion application stated that arrangements with a SNM qualified licensed-shipper would be made for the transport of SNM of low strategic significance. Therefore, the staff finds the requirement, of 10 CFR 73.67(a)(1)(i) to “Minimize the possibilities for unauthorized removal of special nuclear material consistent with the potential consequences of such actions,” would be met.

3.4.3           Applicable Requirement: 10 CFR 73.67(a)(1)(ii), “General performance objectives. Each licensee who possesses uses or transports special nuclear material of moderate or low strategic significance shall establish and maintain a physical protection system that will achieve the following objectives: ... (ii) Facilitate the location and recovery of missing special nuclear material.”

The applicant included a description of how it intended to meet the in-transit physical protection requirements of 10 CFR 73.67(g) in section 6 of their SNMPPPP. It is stated in the SNMPPPP that a SNM qualified licensed-shipper, other than Dominion, will be used for transport of SNM of low strategic significance both to and from the site.

The Dominion application stated that arrangements with a SNM qualified licensed-shipper would be made for the transport of SNM of low strategic significance. Therefore, the staff finds the requirement, of 10 CFR 73.67(a)(1)(ii) to “Facilitate the location and recovery of missing special nuclear material,” would be met.

3.4.4           Applicable Requirement: 10 CFR 73.67(a), “General performance objectives.... (2) To achieve these objectives, the physical protection system shall provide: (i) Early detection and assessment of unauthorized access or activities by an external adversary within the controlled access area containing special nuclear material.”

The applicant included a description of how it intended to meet the in-transit physical protection requirements of 10 CFR 73.67(g) in section 6 of their SNMPPPP. It is stated in the SNMPPPP that a SNM qualified licensed-shipper, other than Dominion, will be used for transport of SNM of low strategic significance both to and from the site.

The Dominion application stated that arrangements with a SNM qualified licensed-shipper would be made for the transport of SNM of low strategic significance. Therefore, the staff finds the requirement, of 10 CFR 73.67(2)(i) to provide “Early detection and assessment of unauthorized access or activities by an external adversary within the controlled access area containing special nuclear material”, would be met.

- 3.4.5      Applicable Requirement: 10 CFR 73.67(a)(2)(ii), “General performance objectives. To achieve these objectives, the physical protection system shall provide: (ii) Early detection of removal of special nuclear material by an external adversary from a controlled access area...”

The applicant included a description of how it intended to meet the in-transit physical protection requirements of 10 CFR 73.67(g) in section 6 of their SNMPPPP. It is stated in the SNMPPPP that a SNM-qualified licensed shipper, other than Dominion, will be used for transport of SNM of low strategic significance both to and from the site.

Therefore, the staff finds the requirement, of 10 CFR 73.67(2)(ii) to provide “Early detection of removal of special nuclear material by an external adversary from a controlled access area...”, would be met.

- 3.4.6      Applicable Requirement: 10 CFR 73.67(a)(2)(iii), “General performance objectives. To achieve these objectives, the physical protection system shall: (iii) Assure proper placement and transfer of custody of special nuclear material.”

The applicant included a description of how it intended to meet the in-transit physical protection requirements of 10 CFR 73.67(g) in section 6 of their SNMPPPP. It is stated in the SNMPPPP that a SNM qualified licensed-shipper, other than Dominion, will be used for transport of SNM of low strategic significance both to and from the site. Also, Dominion describes in section 5.1 “Receipt of SNM” of their SNMPPPP, the process for receiving and placing SNM. Furthermore, SNM to be transported from the site or received at the site will have an MC&A program applied to it as described in Part 11D of the application.

The Dominion application stated that arrangements with a SNM qualified licensed-shipper would be made for the transport of SNM of low strategic significance. In addition, Dominion has a described process for receiving and placing SNM and will have a MC&A program applied to SNM to be shipped or received. Therefore, the staff finds the requirement, of 10 CFR 73.67(2)(iii) to “Assure proper placement and transfer of custody of special nuclear material,” would be met.

- 3.4.7 Applicable Requirement: 10 CFR 73.67(a)(2)(iv), “General performance objectives. To achieve these objectives, the physical protection system shall: (iv) Respond to indications of an unauthorized removal of special nuclear material and then notify the appropriate response forces of its removal in order to facilitate its recovery.”

The applicant included a description of how it intended to meet the in-transit physical protection requirements of 10 CFR 73.67(g) in section 6 of their SNMPPPP. It is stated in the SNMPPPP that a SNM-qualified licensed shipper, other than Dominion, will be used for transport of SNM of low strategic significance both to and from the site.

The Dominion application stated that arrangements with a SNM qualified licensed-shipper would be made for the transport of SNM of low strategic significance. Therefore, the staff finds the requirement, of 10 CFR 73.67(a)(2)(iv) to “Respond to indications of an unauthorized removal of special nuclear material and then notify the appropriate response forces of its removal in order to facilitate its recovery,” would be met.

### 3.5 IN-TRANSIT GENERAL REQUIREMENTS

The applicable requirements specified in 10 CFR 73.67 titled “Licensee fixed site and in- transit requirements for the physical protection of special nuclear material of moderate and low strategic significance,” had general requirements.

“(c) Each licensee who possesses, uses, transports, or delivers to a carrier for transport special nuclear material of moderate strategic significance, or 10 kg or more of special nuclear material of low strategic significance shall:

- (1) Submit a security plan or an amended security plan describing how the licensee will comply with all the requirements of paragraphs (d), (e), (f), and (g) of this section, as appropriate, including schedules of implementation. The licensee shall retain a copy of the effective security plan as a record for three years after the close of period for which the licensee possesses the special nuclear material under each license for which the original plan was submitted. Copies of superseded material must be retained for three years after each change.

(2) Within 30 days after the plan submitted pursuant to paragraph (c)(1) of this section is approved, or when specified by the NRC in writing, implement the approved security plan.”

3.5.1 Applicable Requirement: 10 CFR 73.67(c)(1), “Submit a security plan including schedules for implementation...shall retain a copy...for three years...” ... “Copies of the superseded material must be retained for three years after each change.”

The applicant stated in section 5.6 “Records” of their submitted SNMPPPP that the security plan (i.e., the SNMPPPP) would be retained for three years and that copies of superseded material will be retained for three years after each change.

The Dominion application provided a security plan that described the required retention parameters for the plan and changes to it. Therefore, the staff finds the requirement, of 10 CFR 73.67(c)(1), to “Submit a security plan or an amended security plan describing how the licensee will comply with all the requirements of paragraphs (d), (e), (f), and (g) of this section, as appropriate, including schedules of implementation. The licensee shall retain a copy of the effective security plan as a record for three years after the close of period for which the licensee possesses the special nuclear material under each license for which the original plan was submitted. Copies of superseded material must be retained for three years after each change...” would be met.

3.5.2 Applicable Requirement: 10 CFR 73.67(c)(2), “Within 30 days after the plan submitted pursuant to paragraph (c)(1) of this section is approved, or when specified by the NRC in writing, implement the approved security plan.”

The applicant included a description of how it intended to meet the in-transit physical protection requirements of 10 CFR 73.67(g) in section 6 of their SNMPPPP. It is stated in the SNMPPPP that a SNM-qualified licensed shipper, other than Dominion, will be used for transport of SNM of low strategic significance both to and from the site. In addition, it is stated in section 6 of the SNMPPPP that Dominion will confirm that the licensee used for transport of SNM has “...plans and procedures...” that are developed and implemented in such a manner that 10 CFR 73.67(c)(2), would be met.

The Dominion application stated that arrangements with a SNM qualified licensed-shipper would be made for the transport of SNM of low strategic significance, and that Dominion will confirm that the licensed-shipper has provisions in place to meet 10 CFR 73.67(c)(1). Therefore, the staff finds the requirement, of 10 CFR 73.67(c)(1), to “submit a security plan or an amended security plan describing how the licensee will comply with all the requirements of paragraphs (d), (e), (f), and (g) of this section, as appropriate, including schedules of implementation. The licensee shall retain a copy of the effective security plan as a record for three years after the close of period for which the licensee possesses the special nuclear material under each license for which the original plan was submitted. Copies of superseded material must be retained for three years after each change,” would be met.

### 3.6 IN-TRANSIT PHYSICAL PROTECTION REQUIREMENTS

The applicable requirements specified in 10 CFR 73.67 titled “Licensee fixed site and in-transit requirements for the physical protection of special nuclear material of moderate and low strategic significance,” had in-transit physical protection requirements described.

The physical protection requirements of 10 CFR 73.67(g), are titled, “In- transit requirements for special nuclear material of low strategic significance” and state that,

- (1) Each licensee who transports or who delivers to a carrier for transport special nuclear material of low strategic significance shall:
  - (i) Provide advance notification to the receiver of any planned shipments specifying the mode of transport, estimated time of arrival, location of the nuclear material transfer point, name of carrier and transport identification,
  - (ii) Receive confirmation from the receiver prior to commencement of the planned shipment that the receiver will be ready to accept the shipment at the planned time and location and acknowledges the specified mode of transport,
  - (iii) Transport the material in a tamper indicating sealed container,
  - (iv) Check the integrity of the containers and seals prior to shipment,  
and
  - (v) Arrange for the in- transit physical protection of the material in accordance with the requirements of Section 73.67(g)(3) of this part, unless the receiver is a licensee and has agreed in writing to arrange for the in-transit physical protection.
- (2) Each licensee who receives quantities and types of special nuclear material of low strategic significance shall:

- (i) Check the integrity of the containers and seals upon receipt of the shipment,
  - (ii) Notify the shipper of receipt of the material as required in Section 74.15 of this chapter, and
  - (iii) Arrange for the in-transit physical protection of the material in accordance with the requirements of Section 73.67(g)(3) of this part, unless the shipper is a licensee and has agreed in writing to arrange for the in-transit physical protection.
- (3) Each licensee, either shipper or receiver, who arranges for the physical protection of special nuclear material of low strategic significance while in transit or who takes delivery of such material free on board (f.o.b.) the point at which it is delivered to a carrier for transport shall:
- (i) Establish and maintain response procedures for dealing with threats or thefts of this material. The licensee shall retain a copy of the current response procedures as a record for three years after the close of period for which the licensee possesses the special nuclear material under each license for which the procedures were established. Copies of superseded material must be retained for three years after each change.
  - (ii) Make arrangements to be notified immediately of the arrival of the shipment at its destination, or of any such shipment that is lost or unaccounted for after the estimated time of arrival at its destination, and
  - (iii) Conduct immediately a trace investigation of any shipment that is lost or unaccounted for after the estimated arrival time and notify the NRC Operations Center within one hour after the discovery of the loss of the shipment and within one hour after recovery of or accounting for such lost shipment in accordance with the provisions of Section 73.71 of this part.”

The in-transit physical protection requirements of 10 CFR 73.67(g) are applicable because of the manner in which SNM of low strategic significance (i.e., reactor fuel) was described in the Dominion application.

- 3.6.1 Applicable Requirement: 10 CFR 73.67(g) “In-transit requirements for special nuclear material of low strategic significance. (1) Each licensee who transports or who delivers to a carrier for transport special nuclear material of low strategic significance shall: (i) Provide advance notification to the receiver of any planned shipments specifying the mode of transport, estimated time of arrival, location of the nuclear material transfer point, name of carrier and transport identification.”

The applicant included a description of how it was intended to meet the in-transit physical protection requirements of 10 CFR 73.67(g) in section 6 of their SNMPPPP. It is stated in the SNMPPPP that a SNM qualified licensed-shipper, other than Dominion, will be used for transport of SNM of low strategic significance both to and from the site.

The Dominion application stated that arrangements with a SNM qualified licensed-shipper would be made for the transport of SNM of low strategic significance. Therefore, the staff finds the requirement, of 10 CFR 73.67(g)(1)(i) to "Provide advance notification to the receiver of any planned shipments specifying the mode of transport, estimated time of arrival, location of the nuclear material transfer point, name of carrier and transport identification," would be met.

- 3.6.2      Applicable Requirement: 10 CFR 73.67(g)(1)(ii) "In-transit requirements for special nuclear material of low strategic significance. (1) Each licensee who transports or who delivers to a carrier for transport special nuclear material of low strategic significance shall: ... (ii) Receive confirmation from the receiver prior to commencement of the planned shipment that the receiver will be ready to accept the shipment at the planned time and location and acknowledges the specified mode of transport."

The applicant included a description of how it intended to meet the in-transit physical protection requirements of 10 CFR 73.67(g) in section 6 of their SNMPPPP. It stated in the SNMPPPP that a SNM qualified licensed-shipper, other than Dominion, will be used to transport SNM of low strategic significance both to and from the site.

The Dominion application stated that arrangements with a SNM qualified licensed-shipper would be made for the transport of SNM of low strategic significance. Therefore, the staff finds the requirement, of 10 CFR 73.67(g)(1)(ii) to "Receive confirmation from the receiver prior to commencement of the planned shipment that the receiver will be ready to accept the shipment at the planned time and location and acknowledges the specified mode of transport," would be met.

- 3.6.3      Applicable Requirement: 10 CFR 73.67(g)(1)(iii) "In-transit requirements for special nuclear material of low strategic significance. (1) Each licensee who transports or who delivers to a carrier for transport special nuclear material of low strategic significance shall: ... (iii) Transport the material in a tamper indicating sealed container."

The applicant included a description of how it intended to meet the in-transit physical protection requirements of 10 CFR 73.67(g) in section 6 of their SNMPPPP. It is stated in the SNMPPPP that a SNM-qualified licensed shipper, other than Dominion, will be used for transport of SNM of low strategic significance both to and from the site.

The Dominion application stated that arrangements with a SNM qualified licensed-shipper would be made for the transport of SNM of low strategic significance. Therefore, the staff finds the requirement, of 10 CFR 73.67(g)(1)(iii) to “Transport the material in a tamper indicating sealed container,” would be met.

- 3.6.4 Applicable Requirement: 10 CFR 73.67(g)(2)(i) “In-transit requirements for special nuclear material of low strategic significance. (2) Each licensee who receives quantities and types of special nuclear material of low strategic significance shall: (i) Check the integrity of the containers and seals upon receipt of the shipment.”

The applicant included a description of how it intended to meet the tamper seal inspection and container inspection requirement in the SNMPPPP in subsection 5.1.2, within section 5.1 “Receipt of SNM.” It is described that the integrity of both shipping containers and tamper-seals will be checked.

The Dominion application described that shipment containers and tamper-seals applied to those containers would be checked upon receipt. Therefore, the staff finds the requirement, of 10 CFR 73.67(g)(2)(i) to “Check the integrity of the containers and seals upon receipt of the shipment,” would be met.

- 3.6.5 Applicable Requirement: 10 CFR 73.67(g)(2)(ii) “In-transit requirements for special nuclear material of low strategic significance. (2) Each licensee who receives quantities and types of special nuclear material of low strategic significance shall: (ii) Notify the shipper of receipt of the material as required in Section 74.15 of this chapter.”

In the Dominion SNMPPPP within sections 5.1.1 it is described that the shipper would be notified in accordance with 10 CFR 74.15. In addition, in a note to section 5.1 of the SNMPPPP it is stated that, “A completed copy of Form NRC-741, “Nuclear Material Transaction Report” will be sent to the shipper within 10 days after a material shipment has been received.”

The Dominion application described that the shipper would be notified in accordance with 10 CFR 74.15 for receipt of SNM fuel. Therefore, the staff finds the requirement, of 10 CFR 73.67(g)(2)(ii) to “Notify the shipper of receipt ...” of SNM, as required per 10 CFR 74.15, would be met.

- 3.6.6 Applicable Requirement: 10 CFR 73.67(g)(2)(iii) “Arrange for the in-transit physical protection of the material in accordance with the requirements of Section 73.67(g)(3) of this part, unless the shipper is a licensee and has agreed in writing to arrange for the in-transit physical protection.”

The applicant included a description of how it intended to meet the in-transit physical protection requirements of 10 CFR 73.67(g) in section 6 of their SNMPPPP. It is stated in the SNMPPPP that a SNM qualified licensed-shipper, other than Dominion, will be used for transport of SNM of low strategic significance both to and from the site.

Therefore, the staff finds the requirement, of 10 CFR 73.67(g)(2)(iii) to “Arrange for the in-transit physical protection of the material in accordance with the requirements of Section 73.67(g)(3) of this part, unless the shipper is a licensee and has agreed in writing to arrange for the in-transit physical protection,” would be met.

- 3.6.7      Applicable Requirement: 10 CFR 73.67(g)(3), “Each licensee, either shipper or receiver, who arranges for the physical protection of special nuclear material of low strategic significance while in transit or who takes delivery of such material free on board (f.o.b.) the point at which it is delivered to a carrier for transport shall: (i) Establish and maintain response procedures for dealing with threats or thefts of this material. The licensee shall retain a copy of the current response procedures as a record for three years after the close of period for which the licensee possesses the special nuclear material under each license for which the procedures were established. Copies of superseded material must be retained for three years after each change.”

The applicant included a description of how the how it was intended to meet the in-transit physical protection requirements of 10 CFR 73.67(g) in section 6 of their SNMPPPP. It is stated in the SNMPPPP that a SNM-qualified licensed shipper, other than Dominion, will be used for transport of SNM of low strategic significance both to and from the site.

Therefore, the staff finds the requirement, of 10 CFR 73.67(g)(3)(i) to, “Establish and maintain response procedures ...,” would be met.

- 3.6.8      Applicable Requirement: 10 CFR 73.67(g)(3), “Each licensee, either shipper or receiver, who arranges for the physical protection of special nuclear material of low strategic significance while in transit or who takes delivery of such material free on board (f.o.b.) the point at which it is delivered to a carrier for transport shall: ... (ii) Make arrangements to be notified immediately of the arrival of the shipment at its destination point, or of any shipment that is lost or unaccounted for after the estimated time of arrival at its destination.”

The applicant included a description of how it intended to meet the in-transit physical protection requirements of 10 CFR 73.67(g) in section 6 of their SNMPPPP. It is stated in the SNMPPPP that a SNM qualified licensed shipper, other than Dominion, will be used for transport of SNM of low strategic significance both to and from the site.

Therefore, the staff finds the requirement, of 10 CFR 73.67(g)(3)(ii) to, “Make arrangements to be notified immediately of the arrival of the shipment at its destination point, or of any shipment that is lost or unaccounted for after the estimated time of arrival at its destination,” would be met.

- 3.6.9 Applicable Requirement: 10 CFR 73.67(g)(3), “Each licensee, either shipper or receiver, who arranges for the physical protection of special nuclear material of low strategic significance while in transit or who takes delivery of such material free on board (f.o.b.) the point at which it is delivered to a carrier for transport shall: ... (iii) Conduct immediately a trace investigation of any shipment that is lost or unaccounted for after the estimated arrival time and notify the NRC Operations Center within one hour after the discovery of the loss of the shipment and within one hour after recovery of or accounting for such lost shipment in accordance with the provisions of Section 73.71 of this part.”

The applicant included a description of how it intended to meet the in-transit physical protection requirements of 10 CFR 73.67(g) in section 6 of their SNMPPPP. It is stated in the SNMPPPP that a SNM qualified licensed-shipper, other than Dominion, will be used for transport of SNM of low strategic significance both to and from the site.

Therefore, the staff finds the requirement, of 10 CFR 73.67(g)(3)(iii) to, “Conduct immediately a trace investigation of any shipment that is lost or unaccounted for after the estimated arrival time and notify the NRC Operations Center within one hour after the discovery of the loss of the shipment and within one hour after recovery of or accounting for such lost shipment in accordance with the provisions of Section 73.71 of this part,” would be met.

- 3.6.10 Applicable Requirement: 10 CFR 73.67(g)(4), “Each licensee who exports special nuclear material of low strategic significance shall comply with the appropriate requirements specified in paragraphs (c) and (g) (1) and (3) of this section. The licensee shall retain each record required by these sections for three years after the close of period for which the licensee possesses the special nuclear material under each license that authorizes the licensee to export this material. Copies of superseded material must be retained for three years after each change.”

Dominion stated in their “Conformance Matrix for North Anna Unit 3 (NA3)...” (ML15288A072) that the requirement was “...not applicable because NA3 will not export SNM.”

Dominion explicitly stated in their application that nuclear fuel of low strategic significance would not be exported from NA3. Therefore, the staff finds the requirement, of 10 CFR 73.67(g)(4), “Each licensee who

exports special nuclear material of low strategic significance shall comply with the appropriate requirements specified in paragraphs (c) and (g) (1) and (3) of this section. The licensee shall retain each record required by these sections for three years after the close of period for which the licensee possesses the special nuclear material under each license that authorizes the licensee to export this material. Copies of superseded material must be retained for three years after each change,” would be met.

- 3.6.11 Applicable Requirement: 10 CFR 73.67(g)(5)(i) “Each licensee who imports special nuclear material of low strategic significance shall: (i) Comply with the requirements specified in paragraphs (c) and (g) (2) and (3) of this section and retain each record required by these paragraphs for three years after the close of period for which the licensee possesses the special nuclear material under each license that authorizes the licensee to import this material. Copies of superseded material must be retained for three years after each change.”

Dominion stated in their “Conformance Matrix for North Anna Unit 3 (NA3)...” (ML15288A072) that the requirement was “...not applicable because NA3 will not import SNM.”

Dominion explicitly stated in their application that NA3 would not import nuclear fuel of low strategic significance. Therefore, the staff finds the requirement, of 10 CFR 73.67(g)(5), “Each licensee who exports special nuclear material of low strategic significance shall comply with the appropriate requirements specified in paragraphs (c) and (g)(2) and (3) of this section. The licensee shall retain each record required by these sections for three years after the close of period for which the licensee possesses the special nuclear material under each license that authorizes the licensee to export this material. Copies of superseded material must be retained for three years after each change,” would be met.

- 3.6.12 Applicable Requirement: 10 CFR 73.67(g)(5)(ii) “Each licensee who imports special nuclear material of low strategic significance shall: ... (ii) Notify the person who delivered the material to a carrier for transport of the arrival of such material.”

Dominion stated in their “Conformance Matrix for North Anna Unit 3 (NA3) ...” (ML15288A072) that the requirement was “...not applicable because NA3 will not import SNM.”

Dominion explicitly stated in their application that NA3 would not import nuclear fuel of low strategic significance. Therefore, the requirement, of 10 CFR 73.67(g)(5)(ii) to “Notify the person who delivered the material to a carrier for transport of the arrival of such material,” would be met.

3.7 POST SEPTEMBER 11, 2001 SECURITY ORDER MEASURES FOR SNM OF LOW STRATEGIC SIGNIFICANCE

3.7.1 Applicable Requirement: “General Performance Objectives and Requirements,” described in the post September, 11, 2001, security order for SNM of low strategic significance, dated 2003 and titled, “Interim Compensatory Measures for Category-3 Fuel Cycle Facilities,” has an analysis required. The applicant considered the order and assessed that only parts C and D of those order must be addressed. The discussion of the analysis that justified only part C and D of the order needed to be addressed was within a letter sent to the NRC dated October 9, 2015, specifically in “Enclosure 2, Response to NRC RAI Letter 156, RAI 8074 Question 01.05-04 Part 2” (ML15288A072). In addition, in section 1 “Scope” of the SNMPPPP there is a statement reflecting that sections A and B of the order were not applicable for particular reasons. Therefore, the analysis requirement presented in the beginning of the order, was met.

3.7.2 Part C of the order “Response”

3.7.2.1 Applicable Requirement: Part C.1. of the order “Develop security response procedures...”

The discussion of how C and D of the order measures were addressed was within a letter sent to the NRC dated October 9, 2015, “Enclosure 2, Response to NRC RAI Letter 156, RAI 8074 Question 01.05-04 Part 2” (ML15288A072). In response to C.1, the applicant described the procedures that would be developed in section 4.1 of the SNMPPPP. Those procedures listed to be developed; included response procedures.

Because the applicant committed to develop response implementing procedures, the order requirement of C.1., would be met.

3.7.2.2 Applicable Requirement: Part C.2. of the order (Part C.2. contains safeguards information and is not described here).

The applicant addressed Part C.2. by discussing the arrangements with local law enforcement and affirming that the response criteria as described in section C.2 of the order would be met.

Because the applicant described the response attributes of the planned physical protection program that are commensurate with Part C.2. of the order, the order requirement of C.2., would be met.

### 3.7.3 Part D of the order “General”

#### 3.7.3.1 Applicable Requirement: Part D.1. of the order “...hexafluoride...”

This part of the order was associated with uranium hexafluoride. The applicant stated that no “...hexafluoride...” would be associated with NA3 operations.

Because the applicant described the conditions associated with uranium hexafluoride with the NA3 site, Part D.1., of the order, would be met.

#### 3.7.3.2 Applicable Requirement: Part D.2. of the order “...hazardous material...” This part of the order was associated with hazardous material.

The applicant addressed this order requirement by affirming the conditions of hazardous material would be suitable to meet this order requirement. In addition, the applicant stated that if materials of this nature would be needed within the vicinity of SNM of low strategic significance that it would be controlled through developed and implemented written procedural controls.

Because the applicant described a strategy to address Part D.2. of the order and committed to development of a procedure, if and when necessary, to implement that strategy, Part D. 2. of the order would be met.

#### 3.7.3.3 Applicable Requirement: Part D.3. of the order “Supplement the Emergency Action Levels...”

The applicant described how the requirement of Part D.3. of the order would be addressed. This description included development of procedures that would initiate particular security actions due to notification of a site specific credible threat. Actions described included both on-site actions and communications to the appropriate off-site response forces. Because the applicant adequately described the process in which it would react to site specific credible threat, Part D.3. of the order would be met.

#### 3.7.3.4 Applicable Requirement: Part D.4. of the order “Evaluate computer and communications...”

The applicant addressed Part D.4. of the order by affirming that computer and communication system will be evaluated as presented in the D.4. section of the order.

Because the applicant described how the requirement of Part D.4. of the order would be addressed, Part D.4. of the order, would be met.

3.7.3.5 Applicable Requirement: Part D.5. of the order “Evaluate Capabilities ... fire suppression...”

The applicant addressed Part D.5. of the order by describing: 1) an evaluation for fire suppression was performed, 2) the conditions of the planned controlled access area fire suppression capabilities, 3) fire response services would be in place during the use of the temporary controlled access area, and 4) the proposed license condition 3.4 would require a letter of agreement in place with local fire response authorities for the duration of receipt/and storage of the SNM of low strategic significance associated with the temporary controlled access area. Because the applicant described how the requirement of Part D.5. of the order would be addressed, Part D.5. of the order, would be met.

3.7.3.6 Applicable Requirement: Part D.6. of the order “Evaluate...medical...”

The applicant addressed Part D.6. of the order by describing that the temporary controlled access area will be serviced by arrangements made for the time frame of construction of NA3. In addition, the applicant pointed out that local medical response authorities would be available on an on-call basis during that time frame.

Because the applicant described how the requirement of Part D.6. of the order would be addressed, Part D.6. of the order, would be met.

3.7.3.7 Applicable Requirement: Part D.7. of the order “Limit...access...”

The applicant discussed how section D.7 of the order would be addressed by stating there was procedure in place to protect sensitive information associated with the controlled access area associated with the SNM of low strategic significance.

Because the applicant described how the requirement of Part D.7. of the order would be addressed, Part D.7. of the order, would be met.

3.7.4 Applicable Requirement: Part 3. of the order “Access Control and Badging.”

The applicant stated that the SNMPPPP would be revised to restrict access to certain types of individuals desiring to gain access to the controlled access area. In section 3 “Organizational Requirements” of the SNMPPPP it was described that Dominion would be responsible for granting unescorted access to the controlled access

area. In addition, it was discussed by the applicant that those with unescorted access to the controlled access area would be under the access authorization program as described in 10 CFR 73.56 "Personnel access authorization requirements for nuclear power plants."

The applicant stated that restrictions would be placed on access to the controlled access area and that these would be described in the SNMPPPP. In addition, the applicant stated that unescorted access individuals would be under the provisions of 10 CFR 73.56. Therefore, Part 3 of the order, which includes fingerprinting and other access authorization provisions, would be met.

#### 4.0 CONCLUSION

The NRC staff reviewed Dominion, North Anna, Unit 3, Docket No. 52-017, application and finds that the applicable requirements specified in 10 CFR 73.67, "Licensee fixed site and in-transit requirements for the physical protection of SNM of moderate and low strategic significance" and the post September 11, 2001, security order measures for SNM of low strategic significance, would be met.