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SOUTHERN COMPANY

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U.S. Nuclear Regulatory Commission
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Southern Nuclear Operating Company
Vogtle Electric Generating Plant Units 3 and 4 Combined License Application
Voluntary Letter Regarding Protection of Special Nuclear Material
Prior to 10 CFR 73.55 Implementation

Ladies and Gentlemen:

By letter dated March 28, 2008, Southern Nuclear Operating Company (SNC) submitted an application for combined licenses (COLs) for proposed Vogtle Electric Generating Plant (VEGP) Units 3 and 4 to the U.S. Nuclear Regulatory Commission (NRC) for two Westinghouse AP1000 reactor plants, in accordance with 10 CFR Part 52. SNC also submitted a physical security plan (PSP) to the NRC as part of the COL application for proposed VEGP Units 3 and 4. Following issuance of the Final Rule on Power Reactor Security Requirements, on July 30, 2010, SNC submitted a PSP revision that meets the revised requirements of 10 CFR 73.55. By letter dated November 23, 2010, SNC provided a response to RAI Letter No. 064 concerning the applicant's program for material control and accounting (MC&A) of special nuclear material (SNM). The Enclosure to this letter clarifies SNC's plans regarding the physical protection of new fuel as SNM at the VEGP Units 3 and 4 plant site prior to declaration of an operational protected area and implementation of 10 CFR 73.55 requirements, as described in the SNM MC&A Program description, which was attached to SNC's November 23, 2010 letter.

This letter identifies changes that will be made to a future revision of the VEGP Units 3 and 4 combined license application (COLA).

If you have any questions regarding this letter, please contact Mr. Wes Sparkman at (205) 992-5061.

D092
NRO

Mr. C. R. Pierce states he is the AP1000 Licensing Manager of Southern Nuclear Operating Company, is authorized to execute this oath on behalf of Southern Nuclear Operating Company and to the best of his knowledge and belief, the facts set forth in this letter are true.

Respectfully submitted,

SOUTHERN NUCLEAR OPERATING COMPANY

C. R. Pierce

C. R. Pierce

Sworn to and subscribed before me this 3rd *day of* March, *2011*

Notary Public: Dana Marie Williams

My commission expires: December 1, 2014

NOTARY PUBLIC STATE OF ALABAMA AT LARGE
MY COMMISSION EXPIRES: Dec 1, 2014
BONDED THRU NOTARY PUBLIC UNDERWRITERS

CRP/BJS

Enclosure: Physical Protection Requirements Applicable to Special Nuclear Material Received and Stored in the Controlled Access Area

cc: Southern Nuclear Operating Company
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Southern Nuclear Operating Company

ND-11-0313

Enclosure

Physical Protection Requirements Applicable to Special Nuclear Material Received and Stored in the Controlled Access Area

NuStart Qb Tracking No. 4256

RAI/OI Letter #: n/a

Official NRC RAI/OI #: VEGP 13.06 VR2

Based on recent discussions with the applicant, the NRC staff understands that the applicant plans to implement the requirements of 10 CFR §73.67 for the receipt and storage of new fuel as special nuclear material (SNM) prior to implementing the 10 CFR §73.55 requirements for physical protection of licensed activities against radiological sabotage. In support of these plans, the applicant is requested to:

(1) Provide the 10 CFR Part 70 licensing basis applicable to implementing the §73.67 requirements between the time period prior to receipt of SNM and ending with the declaration of an operational protected area (PA), and

(2) In the absence of existing NRC regulation regarding the timing for providing an operational PA, identify the appropriate milestone for declaration of an operational PA and implementation of the §73.55 requirements, and specify an acceptable regulatory framework for assuring the licensee's adherence to this milestone activity.

SNC response:

Consistent with 10 CFR 73.55(a)(4), applicants for an operating license under the provisions of 10 CFR Part 50 or holders of a combined license under the provisions of 10 CFR Part 52, must implement the requirements of 10 CFR 73.55 before fuel is allowed onsite (protected area). Fuel is expected to arrive several months before the planned fuel load date because of the logistics needed to inspect the fuel and check out all the needed systems leading up to fuel load. Completion of the physical security systems, which create multiple barriers for gaining access, are some of the last systems to be completed due to construction sequences and may not be fully operational at the time that fuel is initially received onsite. The objectives of the physical protection program applied prior to initial fuel load should be focused on minimizing the possibility of theft of SNM and locating and recovering any misplaced SNM.

Title 10 of the Code of Federal Regulations, Section 73.67 (10 CFR 73.67) provides the requirements that licensees must meet for the physical protection of SNM of moderate and low strategic significance at fixed sites (such as nuclear plant sites) and while SNM is in transit to the plant site. The general performance objectives of 10 CFR 73.67 are consistent with the risk of theft or inadvertent loss of SNM that must be mitigated when new fuel is received and stored at the nuclear plant site. Consequently, the requirements of the appropriate sub-sections of 10 CFR 73.67 will be followed during the period of time beginning with the receipt of new fuel and concluding with the implementation of the 10 CFR 73.55 physical security program.

Based on the above discussion, the applicant will revise final safety analysis report (FSAR) Table 13.4-201 to improve clarity of the implementation requirements for the physical protection program applicable to SNM prior to the declaration of an operational PA. The FSAR change will include the addition of a reference to 10 CFR 73.67 as the source of the requirements for the physical protection program, which is required to be implemented prior to receipt of SNM. This change is congruent with the use of the applicable security requirements of 10 CFR 73.67 prior to the transition to the security requirements of 10 CFR 73.55.

Currently, FSAR Table 13.4-201 also includes references to 10 CFR 30.34 and 10 CFR 40.41 for the portions of the Security Program that will be implemented prior to receipt of byproduct or source material. In a separate letter, SNC will provide a change to COLA FSAR Subsection 12.2.1.1.10 to state that no 10 CFR Part 40 specifically licensed source material, including natural uranium, depleted uranium, and uranium hexafluoride, will be received, possessed, or used prior to initial fuel loading. Therefore, the reference to 10 CFR 40.41, for the terms and conditions applicable to 10 CFR Part 40 source material licenses is not applicable during this period. Additionally, the terms and conditions applicable to 10 CFR Part 30 byproduct material licenses, as specified in 10 CFR 30.34, will be implemented through the provisions for secure storage and positive control of licensed radioactive materials (e.g., check sources and calibration sources), as specified in 10 CFR 20.1801 and 20.1802. Those regulations are addressed in the Radiation Protection Program, which is described in FSAR Appendix 12AA (NEI 07-03A). The portions of the Radiation Protection Program that are applicable to radioactive source control will be implemented prior to initial receipt of byproduct materials, as indicated in FSAR Table 13.4-201, Item 10, Radiation Protection Program. Therefore, the revision to Table 13.4-201 will delete references to the requirements of 10 CFR Part 30 and 10 CFR Part 40 for the portions of the Security Program that will be implemented prior to receipt of byproduct or source material.

The licensee has developed a Special Nuclear Material Physical Protection Program description that provides the 10 CFR Part 70 licensing basis applicable to implementing the 10 CFR 73.67(d), (e), (f), and (g) requirements between the time period beginning prior to the receipt of SNM and ending with the declaration of an operational PA. (It should be noted that the fixed site SNM requirements of 10 CFR 73.67(d) that are addressed in the program description are applicable to SNM of moderate strategic significance, and therefore conservatively bound the requirements for SNM of low strategic significance that will be received as new fuel for the AP1000 plants.) This program description, which will be addressed in FSAR Subsection 13.5.2.2.8, Security Procedures, will be provided to the NRC under a separate cover letter, as safeguards information (SGI).

In the absence of existing NRC regulation regarding the timing for providing an operational PA, the applicant proposes the addition of a new license condition to provide assurance of the licensee's adherence to this milestone activity. This milestone would specify that new fuel as SNM may be received and stored in a controlled access area (CAA) in accordance with the requirements of 10 CFR 73.67, until such time as an operational PA that satisfies the requirements of 10 CFR 73.55(e)(8) is established. Because SNM will be stored inside the CAA, which is entirely encompassed within the boundary of the proposed PA, upon declaration of an operational PA, the remaining requirements of 10 CFR 73.55 shall be implemented. The PA shall be established and declared operational prior to initial fuel load.

As a result of the above discussed evaluation, the associated COL Application Revisions identified below will be included in a future COLA revision.

This response is expected to be STANDARD for each S-COLA.

Associated VEGP COL Application Revisions:

1. COLA Part 2, FSAR, Section 13.4, Table 13.4-201, Item 15, Security Program, will be revised by moving the entry for portions applicable to radioactive material above the line for "Physical Security Program," and revising the portions applicable to radioactive material entry from: (retain left margin annotation (LMA) of STD COL 13.4-1)

Item	Program Title	Program Source (Required by)	FSAR Section	Implementation Milestone	Implementation Requirement
	(portions applicable to radioactive material)	10 CFR 30.34 10 CFR 40.41 10 CFR 73.1		Prior to initial receipt of byproduct, source, or special nuclear materials (excluding Exempt Quantities as described in 10 CFR 30.18)	10 CFR 30.32(a) 10 CFR 40.31(a) 10 CFR 73.1(a)

To read:

Item	Program Title	Program Source (Required by)	FSAR Section	Implementation Milestone	Implementation Requirement
	Physical Protection Program (applicable to protection of special nuclear material prior to the protected area being declared operational)	10 CFR 73.1 10 CFR 73.67	13.5.2.2.8, 13.6	Prior to initial receipt of special nuclear material	10 CFR 73.1(a) 10 CFR 73.67

2. COLA Part 2, FSAR, Section 13.5.2.2.8, Security Procedures, will be revised by adding the following text after the current text in this section (retain LMA of STD COL 13.5-1):

   The Special Nuclear Material (SNM) Physical Protection Program describes the 10 CFR Part 70 required protection program in effect for the period of time during which new fuel as SNM is received and stored in a controlled access area (CAA), in accordance with the requirements of 10 CFR 73.67.

3. COLA Part 10, Proposed License Conditions (Including ITAAC), proposed License Condition (LC) #5, will be revised by renumbering and renaming the current proposed LC and adding a new License Condition #5B. This revision will change proposed LC#5 from:

   5. SECURITY PROGRAM REVISIONS:

   An implementation license condition approved in the SRM regarding SECY-05-0197 applies to the security program.

   PROPOSED LICENSE CONDITION:

   The licensee shall maintain in effect the provisions of the physical security plan, security personnel training and qualification plan, safeguards contingency plan, and

cyber security plan, and all amendments made pursuant to the authority of 10 CFR 50.90, 50.54(p), 52.97, and Section VIII of Appendix D to Part 52 when nuclear fuel is onsite (protected area), and continuing until all nuclear fuel is permanently removed from the site.

To read:

5. SECURITY PROGRAM:

A. SECURITY PROGRAM IMPLEMENTATION

An implementation license condition approved in the SRM regarding SECY-05-0197 applies to the security program.

PROPOSED LICENSE CONDITION:

The licensee shall maintain in effect the provisions of the physical security plan, security personnel training and qualification plan, safeguards contingency plan, and cyber security plan, and all amendments made pursuant to the authority of 10 CFR 50.90, 50.54(p), 52.97, and Section VIII of Appendix D to Part 52 when nuclear fuel is onsite (protected area), and continuing until all nuclear fuel is permanently removed from the site.

B. SPECIAL NUCLEAR MATERIAL PHYSICAL PROTECTION

A license condition is proposed to address when the boundary for physical protection of new fuel as SNM is required to be extended from the controlled access area (CAA) in accordance with the requirements of 10 CFR 73.67 to the operational protected area (PA) in accordance with 10 CFR 73.55.

PROPOSED LICENSE CONDITION

The licensee shall receive and store new fuel as SNM in a controlled access area (CAA) in accordance with the requirements of 10 CFR 73.67, until such time as an operational protected area (PA) that satisfies the requirements of 10 CFR 73.55(e)(8) is established. If new fuel is already stored in a CAA that is within the boundary of the proposed PA, then upon declaration of an operational PA, the remaining requirements of 10 CFR 73.55 shall be implemented. The PA shall be established and declared operational prior to initial fuel load.

4. COLA Part 10, Proposed License Conditions (Including ITAAC), LC #3.C, Operational Program Implementation, Receipt of Materials, Item C.5, will be revised, from:

   C.5 – Security Program (applicable portions)

   To read:

   C.5 – Deleted

5. COLA Part 10, Proposed License Conditions (Including ITAAC), LC #3.D, Operational Program Implementation, Fuel Receipt, Item D.3, will be revised, from:

   D.3 – Security Program (applicable portions)

   To read:

   D.3 – Special Nuclear Material Physical Protection Program