## VogtlecolRAIsPEm Resource

**From:** Anderson, Brian
**Sent:** Thursday, September 17, 2009 10:29 AM
**To:** VogtlecolRAIsPEm Resource
**Subject:** REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 041 RELATED TO SRP SECTION 13.6 FOR THE VOGTLE ELECTRIC GENERATING PLANT UNITS 3 AND 4 COMBINED LICENSE APPLICATION
**Attachments:** VOG-RAI-LTR-041.doc

**Importance:** High

**Hearing Identifier:** Vogtle_COL_eRAIs
**Email Number:** 44

**Mail Envelope Properties** (CB87FC66F95637428C5E0D066E756B6FC07137E123)

**Subject:** REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 041 RELATED TO SRP SECTION 13.6 FOR THE VOGTLE ELECTRIC GENERATING PLANT UNITS 3 AND 4 COMBINED LICENSE APPLICATION
**Sent Date:** 9/17/2009 10:29:17 AM
**Received Date:** 9/17/2009 10:29:18 AM
**From:** Anderson, Brian

**Created By:** Brian.Anderson@nrc.gov

**Recipients:**
"VogtlecolRAIsPEm Resource" <VogtlecolRAIsPEm.Resource@nrc.gov>
Tracking Status: None

**Post Office:** HQCLSTR01.nrc.gov

| **Files** | **Size** | **Date & Time** |
|---|---|---|
| MESSAGE | 3 | 9/17/2009 10:29:18 AM |
| VOG-RAI-LTR-041.doc | 80890 | |

**Options**
**Priority:** High
**Return Notification:** No
**Reply Requested:** No
**Sensitivity:** Normal
**Expiration Date:**
**Recipients Received:**

September 17, 2009

Mr. Joseph A. (Buzz) Miller
Executive Vice President, Nuclear Development
Southern Nuclear Operating Company
P.O. Box 1295
Birmingham, AL 35201

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 041 RELATED TO SRP SECTION 13.6 FOR THE VOGTLE ELECTRIC GENERATING PLANT UNITS 3 AND 4 COMBINED LICENSE APPLICATION

Dear Mr. Miller:

By letter dated March 28, 2008, Southern Nuclear Operating Company (SNC), submitted its application to the U.S. Nuclear Regulatory Commission (NRC) for a combined license (COL) for two AP1000 advanced passive pressurized water reactors pursuant to 10 CFR Part 52. The NRC staff is performing a detailed review of this application to enable the staff to reach a conclusion on the safety of the proposed application.

The NRC staff has identified that additional information is needed to continue portions of the review. The staff's request for additional information (RAI) is contained in the enclosure to this letter.

To support the review schedule, you are requested to respond within 30 days of the date of this letter. If changes are needed to the final safety analysis report, the staff requests that the RAI response include the proposed wording changes.

If you have any questions or comments concerning this matter, you may contact me at 301-415-9967 or you may contact Ravindra Joshi, the lead project manager for the Vogtle Electric Generating Plant combined license at 301-415-6191.

Sincerely,

/**RA**/

Brian C. Anderson, Project Manager
AP1000 Projects Branch 1
Division of New Reactor Licensing
Office of New Reactors

Docket Nos. 52-025
52-026

eRAI Tracking No. 3384
3388
3391
3394
3395
3396
3403

Enclosure:
Request for Additional Information

If you have any questions or comments concerning this matter, you may contact me at 301-415-9967 or you may contact Ravindra Joshi, the lead project manager for the Vogtle Electric Generating Plant combined license at 301-415-6191.

Sincerely,

/**RA**/

Brian C. Anderson, Project Manager
AP1000 Projects Branch 1
Division of New Reactor Licensing
Office of New Reactors

Docket Nos. 52-025
52-026

eRAI Tracking No. 3384
3388
3391
3394
3395
3396
3403

Enclosure:
Request for Additional Information

Distribution:

| | | | |
|---|---|---|---|
| Public | SCoffin | TSimms | DHuyck |
| RidsNroDnrlNwe1 | JSebrosky | SGoetz | JFrost |
| RidsNroLAKGoldstein | BHughes | DHabib | PPrescott |
| RidsOgcMailCenter | MComar | AHodgdon | |
| RidsAcrsAcnw_MailCenter | CPatel | SHaggerty | |
| RidsRgn2MailCenter | RJoshi | BAnderson | |

NRO-002

| OFFICE | RSPLB/BC | NWE1/PM | OGC | NWE1/L-PM |
|---|---|---|---|---|
| NAME | DHuyck * | BAnderson * | AHodgdon* | RJoshi* |
| DATE | 08/04/09 | 08/07/09 | 08/24/09 | 09/17/09 |

*Approval captured electronically in the electronic RAI system.

**OFFICIAL RECORD COPY**

**Request for Additional Information**
**Vogtle Units 3 and 4**
**Southern Nuclear Operating Co.**
**Docket No. 52-0025 and 52-0026**
**SRP Section: 13.06 - Physical Security**
**Application Section: 13.6 Physical Security**

**QUESTIONS for Reactor Security and Programs Branch (NSIR/DRP/RSPLB)**

13.06-1

The Physical Security Plan (revision 1) dated March 31, 2009 make references to over 61 Facility/Site Procedures, plans, implemented Controls, and Letter of agreement. Please describe the process that is being used to track the development of these documents and their implementation.

Regulatory Basis: 10 CFR 73.55(a)(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. 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).

13.06-2

Physical Security Plan, (revision 1) dated March 31, 2009, Section 11.2.1, Page 10. Please provide additional description of natural terrain features that make up portions of the outer VBS and provide reference to the criteria used to determine its acceptability and stand-off distances. Explain the process to development the VBS and guidance for the design. (RG 5.76 or NUREG 6190). Explain that stand - off distance for Units 3 & 4 has been analyzed to ensure there are no negative effects on the equipment needed for Units 1 & 2.

Regulatory Basis: 10 CFR 73.55(e)(2). The licensee shall retain, in accordance with 73.70, all analyses and descriptions of the physical barriers and barrier systems used to satisfy the requirements of this section, and shall protect these records in accordance with the requirements of § 73.21.

13.06-3

Physical Security Plan, (revision 1) dated March 31, 2009, Section 11.3, Page 13. Describe which of the three options identified is or will be established to prevent an unauthorized train from penetrating the protected area boundary. Also describe the frequency of surveillance measures, and the implementing process.

Regulatory Basis: 10 CFR 73.55(e)(10)(i)(D) area, install a train derailer, remove a section of track, or restrict access to railroad sidings and provide periodic surveillance of these measures.

13.06-4

Physical Security Plan, (revision 1) dated March 31, 2009, Section 14.4.5, Page 22. Please provide clarification of the phrase “normally manned by” as it relates to staffing at the Primary Access Point. Please include in this description the minimum number of staff for each post within the Primary Access Point.

Regulatory Basis: 10 CFR 73.55(k)(1) The licensee shall establish and maintain, at all times, properly trained, qualified and equipped personnel required to interdict and neutralize threats up to and including the design basis threat of radiological sabotage as defined in § 73.1, to prevent significant core damage and spent fuel sabotage.

13.06-5

Regarding Physical Security Plan, Section 15.4, please clarify the relationship between this video assessment equipment and the fixed and non-fixed cameras and surveillance systems equipment identified in Sections 15.1 and 15.2 of the PSP. Describe how the real time video play-back recorder captures activities before and after each alarm annunciation.

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. 10 CFR 73.55(i)(5)(ii). The licensee shall provide continuous surveillance, observation, and monitoring of the owner controlled area as described in the security plans to detect and deter intruders and ensure the integrity of physical barriers or other components and functions of the onsite physical protection program. Continuous surveillance, observation, and monitoring responsibilities may be performed by security personnel during continuous patrols, through use of video technology, or by a combination of both. 10 CFR 73.55(e)(7)(i) An isolation zone must be maintained in outdoor areas adjacent to the protected area perimeter battier. The isoloation zone shall be: (C) Monitored with assessment equipment designed to satisfy the requirements of § 73.55(i) and provide real-time and play-back/recorded video images of the detected activities before and after each alarm annunciation.

13.06-6

Physical Security Plan, (revision 1) dated March 31, 2009, section 14.4.1., Pages 19. Please provide clarification for the search process, immediate response and the surveillance of searched vehicles. This information should provide a clear task ownership and describe the tasks performed by each officer, at each location.

Regulatory Basis: 73.55(h)(2)(iii) specifles implementing details for the conduct of vehicle searches within the OCA including the number of personnel required and the duties to be performed by each. The search process applied in the OCA must be performed by two personnel at least one of which must be armed and positioned to observe the search to provide an immediate response if needed. The rule requirement for searches conducted at vehicle checkpoints within the OCA is that one individual will conduct the search function, a second armed individual will be physically located at the checkpoint to provide an immediate armed response if needed, and a third individual, in accordance with § 73.55(h)(2)(v), will monitor the search function via video equipment at a location from which that individual can initiate an additional response. 10 CFR 73.55(h)(2)(iii) Vehicle searches must be

performed by at least two (2) trained and equipped security personnel, one of which must be armed. The armed individual shall be positioned to observe the search process and provide immediate response. 10 CFR 73.55(h)(2)(v): Vehicle access control points must be equipped with video surveillance equipment that is monitored by an individual capable of initiating a response.

13.06-7

Regarding Physical Security Plan, (revision 1) dated March 31, 2009 section 4.1, Page 5 & 6, paragraphs 5, 6 & 13, please clarify how the Nuclear Security Captain will fulfill the requirements of Armed Response Team Leader, Security Shift Supervisor and is also assigned as being the one member, onsite and available at all times, who has the authority to direct the activities of the security organization. Appendix A, page A-8, Security Supervision, Appendix B, 3.3. and Appendix C, Section 4.5. & 4.6 do not appear to contain the position of Captain. Please provide this information, or justify its omission.

Regulatory Basis: 10 CFR 73.55(d)(2)(ii). The security organization must include at least one member, onsite and available at all times, who has the authority to direct the activities of the security organization and who is assigned no other duties that would interfere with this individual's ability to perform these duties in accordance with the security plans and the licensee protective strategy.

13.06-8

Regarding Physical Security Plan, Section 9, please clarify the statement "Security Officers are properly equipped with weapons and equipment..." Page 5 of the PSP does not appear to include the title "security officer." However, "Armed Security Officer" and "Unarmed individuals" are defined. Please clarify whether all "Security Officers" are armed.

Regulatory Basis: 10 CFR 73.55(k)(6). Armed security officers. (i) Armed security officers, designated to strengthen onsite response capabilities, shall be onsite and available at all times to carry out their assigned response duties. (ii) The minimum number of armed security officers designated to strengthen onsite response capabilities must be documented in the security plans.

13.06-9

Regarding Physical Security Plan, (revision 1) dated March 31, 2009,Appendix C, Safeguards Contingency Plan, Section 4.1.1, Page C-26, and section 4.1.2, page C-28, the duty position Field Team Leader (FTL) does not appear to be described in the Physical Security Plan, section 4.1, Page 5 & 6. Please clarify the duties, responsibilities and training requirements for this position. Please clarify whether this position conflicts with the duties, responsibilities and training requirements for the Nuclear Security Captain. In addition, please clarify the apparent inconsistency of this position description with Appendix B, Section 3.3 and Table 1- Critical Task Matrix.

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.

13.06-10

Physical Security Plan Appendix B Training and Qualification Plan, Section 2.4, refers to the phrase Physical Performance Test. Please describe how the Physical Performance Test differs from the Physical Fitness Test. In addition, please provide a general description of the Physical Fitness Test (Critical Task 22) to be used, including how the physical fitness test will measure strength, endurance and agility.

Regulatory Basis:. 10 CFR Part 73, Appendix B, Section II, paragraph B.4.b(3). The physical fitness test must include physical attributes and performance objectives which demonstrate the strength, endurance, and agility, consistent with assigned duties in the Commission-approved security plans, licensee protective strategy, and implementing procedures during normal and emergency conditions.

13.06-11

Physical Security Plan, (revision 1) dated March 31, 2009, Appendix B Training and Qualification Plan, Page B14, Table 1, task 15 is identified as being performed by watch personnel. Please provide clarification that demonstrates a timely response and interdiction for this task by watch personnel.

Regulatory Basis Title 10 CFR 73.55(K)(8)(ii) Initiate response actions to interdict and neutralize the threat in accordance with the requirements of part 73, appendix C, section II, the safeguards contingency plan, and the licensee's response strategy. Appendix C to part 73 A (4) The responses should be timely, and include personnel who are trained and qualified to respond in accordance with a documented training and qualification program.

13.06-12

Physical Security Plan, Section 11.2.2. Please describe the location of secondary power for active vehicle barriers and describe how this back-up power source is protected to ensure availability when needed.

Regulatory Basis:. 10 CFR 73.55(e)(10)(i)(B). Periodically check the operation of active vehicle barriers and provide a secondary power source, or a means of mechanical or manual operation in the event of a power failure, to ensure that the active barrier can be placed in the denial position to prevent unauthorized vehicle access beyond the required standoff distance.

13.06-13

Physical Security Plan, Section 11.4 does not appear to describe if the secondary alarm station shall be equal and redundant. Please clarify whether the secondary alarm station shall be equal and redundant.

Regulatory Basis:. 10 CFR 73.55 (i)(4)(iii) 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 construct, locate, protect, and equip both the central and secondary alarm stations to the standards for the central alarm station contained in this section. Both alarm stations shall be equal and redundant, such that all functions needed to satisfy the requirements of this section can be performed in both alarm stations. 10 CFR 73.55(e)(9)(v)(D) At a minimum, the following shall be considered vital areas: (A) The reactor control room; (B) The spent fuel pool; (C) The central alarm station; (D) The secondary alarm station in accordance with § 73.55(i)(4)(iii).

13.06-14

Physical Security Plan, section 1.1 does not appear to describe or confirm that consideration was given to railroad/spur, airports, pipelines, hazardous material facilities and pertinent environmental features (e.g. flat or mountainous topography, wooded or grass land) that may have an effect upon coordination of response activities. Please describe how these features were considered. In addition, information related to the main and alternate entry routes for LLEA, the control point for marshalling and coordination response activities, and the "Red Zone Fence" does not appear to be described. Please provide this additional information, as appropriate, in Appendix A and/or figures 1, 2, and 3.

Regulatory Basis: 10 CFR 73.55, Appendix C Section II, Paragraph B(3)(b). b. Physical Layout. The safeguards contingency plan must include a site map depicting the physical structures located on the site, including onsite independent spent fuel storage installations, and a description of the structures depicted on the map. Plans must also include a description and map of the site in relation to nearby towns, transportation routes (e.g., rail, water, and roads), pipelines, airports, hazardous material facilities, and pertinent environmental features that may have an effect upon coordination of response activities. Descriptions and maps must indicate main and alternate entry routes for law enforcement or other offsite response and support agencies and the location for marshaling and coordinating response activities.

13.06-15

Physical Security Plan Section 11.3, Page 12. Please describe the measures taken to ensure that detection, assessment, observation, and surveillance requirements of 10 CFR 73.55 are met and appropriate barriers are installed to prevent potential exploitation of structures and buildings whose walls and roofs comprise a portion of the PA.

Regulatory Basis: 10 CFR 73.55(e)(8)(iv). Where building walls or roofs comprise a portion of the protected area perimeter barrier, an isolation zone is not necessary provided that the detection and, assessment requirements of this section are met, appropriate barriers are installed, and the area is described in the security plans. 10 CFR 73.55(e)(8)(ii). Penetrations through the protected area barrier must be secured and monitored in a manner that prevents or delays, and detects the exploitation of any penetration. 10 CFR 73.55(e)(7)(ii). Obstructions that could prevent the licensee's capability to meet the observation and assessment requirements of this section must be located outside of the isolation zone.

13.06-16

Physical Security Plan, (revision 1) dated March 31, 2009, Page vii. Table of Contents does not appear to provide a reference and page number location for Table 1- Critical Task Matrix. Please provide this information, or justify its omission.

Regulatory Basis: 10 CFR 73.55(a)(2). The security plans must identify, describe, and account for site-specific conditions that affect the license's capability to satisfy the requirements of this section.

13.06-17

The Physical Security Plan Section 14.1 contains a commitment to adopting Regulatory Guide 5.66. Section C in revision 1 of RG 5.66 states:
"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."

The PSP does not appear to contain the above statement. Please provide this additional information, or justify its exclusion.

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.

13.06-18

Physical Security Plan, Section 14.2, does not appear to address the methodology and frequency chosen to monitor and/or patrol the spent fuel pool. Please address the methodology and frequency chosen to monitor and/or patrol the spent fuel pool including proposed alternative measures, if applicable.

Regulatory Basis: 10 CFR 73.55(i)(5)(v) Armed security patrols shall periodically inspect vital areas to include the physical barriers used at all vital area portals.

13.06-19

Physical Security Plan, Section 14.5, does not appear to describe how the minimum vital areas and equipment are protected. Please clarify how the minimum vital areas and equipment are protected, including any proposed revision to this section of the security plan.

Regulatory Basis:. 10 CFR 73.55(e)(9)(v). At a minimum, the following shall be considered vital areas: (A) The reactor control room; (B) The spent fuel pool; (C) The central alarm station; and (D) The secondary alarm station in accordance with 73.55(i)(4)(iii).

13.06-20

Physical Security Plan, (revision 1) dated March 31, 2009, Section 15.3, Page 28, 6th paragraph does not appear to include the secondary power supply systems location. Please describe the secondary power supply systems location, or justify its exclusion.

Regulatory Basis: 10 CFR 73.55(e)(9)(v). At a minimum, the following shall be considered vital areas: (A) The reactor control room; (B) The spent fuel pool; (C) The central alarm station; and (D) The secondary alarm station in accordance with § 73.55(i)(4)(iii). 10 CFR 73.55(e)(9)(vi) At a minimum, the following shall be located within a vital area: (A) The secondary power supply systems for alarm annunciation equipment; and (B) The secondary power supply systems for non-portable communications equipment.