PMBelCOL PEmails

From: Anderson, Brian
Sent: Thursday, September 17, 2009 4:13 PM
To: Sterdis, Andrea Lynn; bobhirman@live.com; erg-xl@cox.net; pshastings@duke-energy.com; kslays@duke-energy.com; rgrumbir@gmail.com; Spink, Thomas E; Neil Haggerty
Cc: Sebrosky, Joseph; PMBelCOL PEmails
Subject: REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 166 RELATED TO SRP SECTION 13.6 FOR THE BELLEFONTE UNITS 3 AND 4 COMBINED LICENSE APPLICATION
Attachments: BLN RAI - 166 - ML092600419.pdf

Importance: High

Attached is RAI Letter No. 166 related to SRP Section 13.6 for the Bellefonte Units 3 and 4 combined license application. The ADAMS Accession number is ML092600419.

Brian Anderson
301-415-9967
Senior Project Manager, AP1000 Projects Branch 1
Office of New Reactors
U.S. Nuclear Regulatory Commission

Hearing Identifier: Bellefonte_COL_Public_EX
Email Number: 1672

Mail Envelope Properties (CB87FC66F95637428C5E0D066E756B6FC071420C7C)

Subject: REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 166 RELATED TO SRP SECTION 13.6 FOR THE BELLEFONTE UNITS 3 AND 4 COMBINED LICENSE APPLICATION
Sent Date: 9/17/2009 4:13:11 PM
Received Date: 9/17/2009 4:13:13 PM
From: Anderson, Brian

Created By: Brian.Anderson@nrc.gov

Recipients:
"Sebrosky, Joseph" <Joseph.Sebrosky@nrc.gov>
Tracking Status: None
"PMBelCOL PEmails" <PMBelCOL.PEmails@nrc.gov>
Tracking Status: None
"Sterdis, Andrea Lynn" <alsterdis@tva.gov>
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"bobhirman@live.com" <bobhirman@live.com>
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Tracking Status: None
"rgrumbir@gmail.com" <rgrumbir@gmail.com>
Tracking Status: None
"Spink, Thomas E" <tespink@tva.gov>
Tracking Status: None
"Neil Haggerty" <neilhaggerty@comcast.net>
Tracking Status: None

Post Office: HQCLSTR01.nrc.gov

Files	**Size**	**Date & Time**
MESSAGE	326	9/17/2009 4:13:13 PM
BLN RAI - 166 - ML092600419.pdf	167982	

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

BellefonteRAIsPEm Resource

From: Anderson, Brian
Sent: Thursday, September 17, 2009 11:21 AM
To: BellefonteRAIsPEm Resource
Subject: REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 166 RELATED TO SRP SECTION 13.6 FOR THE BELLEFONTE UNITS 3 AND 4 COMBINED LICENSE APPLICATION
Attachments: BLN-RAI-LTR-166.doc

Importance: High

Hearing Identifier: Bellefonte_COL_RAI_Public
Email Number: 155

Mail Envelope Properties (CB87FC66F95637428C5E0D066E756B6FC07137E187)

Subject: REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 166 RELATED TO SRP SECTION 13.6 FOR THE BELLEFONTE UNITS 3 AND 4 COMBINED LICENSE APPLICATION
Sent Date: 9/17/2009 11:21:23 AM
Received Date: 9/17/2009 11:21:24 AM
From: Anderson, Brian

Created By: Brian.Anderson@nrc.gov

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

Post Office: HQCLSTR01.nrc.gov

Files	**Size**	**Date & Time**
MESSAGE	8	9/17/2009 11:21:24 AM
BLN-RAI-LTR-166.doc	76794	

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

September 17, 2009

Ms. Andrea L. Sterdis
Manager, Nuclear Licensing & Industry Affairs
Nuclear Generation Development & Construction
Tennessee Valley Authority
1101 Market Street
Chattanooga, Tennessee 37402-2801

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 166 RELATED TO SRP SECTION 13.6 FOR THE BELLEFONTE UNITS 3 AND 4 COMBINED LICENSE APPLICATION

Dear Ms. Sterdis:

By letter dated October 30, 2007, as supplemented by letters dated November 2, 2007, January 8, 2008 and January 14, 2008, Tennessee Valley Authority (TVA) submitted its application to the U. S. Nuclear Regulatory Commission (NRC) for a combined license (COL) for two AP1000 advance 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 Joesph Sebrosky, the lead project manager for the Bellefonte combined license at 301-415-1132.

Sincerely,

/**RA**/

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

Docket Nos. 52-014
52-015

eRAI Tracking No. 3424
3425
3426
3428
3429
3431

Enclosure:
Request for Additional Information

CC: see next page

If you have any questions or comments concerning this matter, you may contact me at 301-415-9967 or you may contact Joesph Sebrosky, the lead project manager for the Bellefonte combined license at 301-415-1132.

Sincerely,

/**RA**/

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

Docket Nos. 52-014
52-015

eRAI Tracking No. 3424
3425
3426
3428
3429
3431

Enclosure:
Request for Additional Information

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NRO-002

OFFICE	RSPLB/BC	NWE1/PM	OGC	NWE1/L-PM
NAME	DHuyck*	BAnderson*	AHodgdon*	JSebrosky*
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
Bellefonte Units 3 and 4
Tennessee Valley Authority
Docket No. 52-014 and 52-015
SRP Section: 13.06 - Physical Security
Application Section: 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 makes reference to over 61 Facility/Site Procedures, plans, implemented controls, and letters 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, Section 11.2.1. Please provide some additional description of natural terrain features that make-up portions of the outer VBS and provide a reference to the criteria used to determine its acceptability and stand-off distances. If applicable, this additional information should be incorporated in the Facility Physical Layout Drawing.

Regulatory Basis: 10 CFR 73.55, Appendix C Section II, Paragraph B.3.b. Plans must also include a description and map of the site in relation to nearby town, 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.

13.06-3

Physical Security Plan, Section 11.3, Page 11. Please 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

Regarding Physical Security Plan, section 4.1, Page 4, Last paragraph, please clarify whether the duties, responsibilities and training requirements for the position of Lieutenant include being the one member, onsite and available at all times, who has the authority to direct the activities of the security organization. In addition, please clarify whether the position of Lieutenant should be included in to Appendix A, page A-8, Security Supervision, Appendix B, 3.3. and Appendix C, Section 4.5 & 4.6.

Regulatory Basis: 10 CFR 73.55(d)(2)(ii). 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.
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.

13.06-5

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, 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).

13.06-7

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) Upon receipt of an alarm or other indication of a threat, the Licensee shall: (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.

13.06-8

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.

13.06-9

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).

13.06-10

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.

13.06-11

Physical Security Plan, Section 11.3, Page 11. 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/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.

13.06-12

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.

13.06-13

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.

13.06-14

Physical Security Plan, Section 15.3, Page 23, Please address whether the secondary power supply systems located inside a vital area applies to the entire IDS and is not limited to only alarm annunciation equipment and non-portable communication equipment.

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.

13.06-15

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.

13.06-16

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.