

April 7, 2010

Mr. Scott Head, Manager  
Regulatory Affairs  
STP Nuclear Operating Company  
P. O. Box 289  
Wadsworth, TX 77483

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 398 RELATED TO  
SRP SECTION 13.06 FOR THE SOUTH TEXAS PROJECT COMBINED  
LICENSE APPLICATION

Dear Mr. Head:

By letter dated September 20, 2007, STP Nuclear Operating Company (STP) submitted for approval a combined license application pursuant to 10 CFR Part 52. The U. S. Nuclear Regulatory Commission (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 safety analysis report, the staff requests that the RAI response include the proposed wording changes.

S. Head

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If you have any questions or comments concerning this matter, I can be reached at 301-415-5787 or by e-mail at [Rocky.Foster@nrc.gov](mailto:Rocky.Foster@nrc.gov) or you may contact George Wunder at 301-415-1494 or [George.Wunder@nrc.gov](mailto:George.Wunder@nrc.gov).

Sincerely,

**/RA/**

Rocky D. Foster, Project Manager  
ABWR Projects Branch  
Division of New Reactor Licensing  
Office of New Reactors

Docket Nos. 52-012, 52-013

eRAI Tracking No. 4535

Enclosure:  
Request for Additional Information

cc: William Mookhoek  
Richard Bense

S. Head

-2-

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NRO-002

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|--------|-----------|-----------|----------|-----------|
| OFFICE | RSRLB     | BC:RSRLB  | NGE2/PM  | NGE2/L-PM |
| NAME   | VWilliams | DHuyck    | RFoster  | GWunder   |
| DATE   | 3/19/2010 | 3/22/2010 | 4/7/2010 | 4/6/2010  |

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

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## Request for Additional Information No. 4535 Revision 3

**South Texas Project Units 3 and 4  
South Texas Project Nuclear Operating Co  
Docket No. 52-012 and 52-013  
SRP Section: 13.06.01 - Physical Security - Combined License  
Application Section: 13.6**

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

#### 13.06.01-3

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. Describe how these features were considered. Also add the additional information to the maps provided in the security plan.

**Regulatory Basis:** 10 CFR 73.55, Appendix C Section II, Paragraph B.3.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.

#### 13.06.01-4

Physical Security Plan, section 4, does the South Texas Project units 3 & 4 use a contract force? If so, modify the sentence to state that a contract force is used or remove the sentence.

**Regulatory Basis:** 10 CFR 73.55(q)(3) If a contracted security force is used to implement the onsite physical protection program, the licensee's written agreement with the contractor must be retained by the licensee as a record for the duration of the contract.

#### 13.06.01-5

Physical Security Plan, section 4.1, the position of Security Training Supervisor is identified in the security organization as the individual responsible for ensuring security personnel are trained and qualified per the Security Training and Qualification Plan. Per Section VI, paragraph B.1(b) of Appendix B to 10 CFR Part 73, the qualification of each individual to perform assigned duties and responsibilities must be documented by a qualified training instructor and attested to by a security supervisor. Describe the specific duties of the Security Training Supervisor and if this individual meets NRC requirements for documenting qualifications of security personnel.

Enclosure

**Regulatory Basis:** Section VI, paragraph B.1(b), of Appendix B to 10 CFR Part 73, the qualification of each individual to perform assigned duties and responsibilities must be documented by a qualified training instructor and attested to by a security supervisor.

#### **13.06.01-6**

Physical Security Plan, Page 1, Section 1.1. Figure 1 is not of sufficient size/magnification or detail to clearly identify or discern the appropriate information such as OCA boundary, PA perimeter boundary, Vehicle Barrier System (to include natural terrain features). Figure 2 is not of sufficient size/magnification or detail to clearly identify or discern the local roads described in this section. As required by 10 CFR Part 73, Appendix C, clarify the applicability of railroads, airports, pipelines, hazardous material facilities, and pertinent environmental features to the facility. If applicable, provide figures of sufficient size to detail the features, or justify their exclusion.

**Regulatory Basis:** 10 CFR 73.55, Appendix C Section II, Paragraph B.3.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.

#### **13.06.01-7**

Physical Security Plan, section 11.2, provide the reference and criteria used to determine stand-off distances and the acceptability of natural terrain features as a component of the VBS. Also, provide an additional description of natural terrain features that make-up a portion of the VBS. If applicable, these areas should be identified in the Facility Physical Layout Drawing.

**Regulatory Basis:** 10 CFR Part 73, Appendix C, Section II, paragraph B.3.b, safeguards contingency plan must 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.

10 CFR 52.17(a)(1)(x) Information demonstrating that site characteristics are such that adequate security plans and measures can be developed.

#### **13.06.01-8**

Physical Security Plan, Section 11.2, clarify that the VBS was designed in accordance with NUREG/CR-4250, "Vehicle Barriers: Emphasis on Natural Features." Describe what applicable NRC guidance (e.g. RIS 2008-06 "Protection Against The Malevolent Use Of Vehicles When Utilizing Landform Obstacles", PDC-TR-06-05 "Evaluating Adequacy of Landform Obstacles as Vehicle Barriers" (dated August 2007), RG 5.68, NUREG/CR 6190, NUREG/CR-4250) was

considered for this portion of the VBS, as well as the remaining portions of the VBS described in section 11.2.2 of the PSP.

**Regulatory Basis:** 10 CFR 73.55(e)(10)(A), vehicle barrier systems passive and active are designed positioned at a stand-off distance adequate to meet physical performance objectives for a vehicle bomb assault. 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.

#### **13.06.01-9**

Physical Security Plan, Section 11.2.2, provide additional description that the active barrier can be placed in the denial position in a specific timeframe to prevent an unauthorized vehicle access to the site and that the security position and process to close the active barrier is described in detail in facility procedures.

**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.

#### **13.06.01-10**

Physical Security Plan, section 11.2.3, provide the justification for why this specific condition was not addressed in the security plan.

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

#### **13.06.01-11**

Physical Security Plan, section 11.3, page 16, revise the last sentence of the second paragraph to match the regulation.

**Regulatory Basis:** 10 CFR 73.55(e)(7)(B) Monitored with intrusion detection equipment designed to satisfy the requirements of § 73.55(i) and be capable of detecting both attempted and actual penetration of the protected area perimeter barrier before completed penetration of the protected area perimeter barrier; and

#### **13.06.01-12**

Physical Security Plan, section 11.3, provide the justification for why rail access to the protected area was not addressed in the security plan.

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

#### **13.06.01-13**

Physical Security Plan, section 11.4, insert the secondary alarm station (SAS) after the reference to CAS into the last paragraph of this section to be consistent with the construction of the SAS as described in section 15.4 of the security plan.

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

#### **13.06.01-14**

Physical Security Plan, section 14.2, remove the last paragraph of this section and insert a sentence that states that the details of target set patrols is described in facility procedures.

10 CFR 73.55(i)(5)(vi) The licensee shall provide random patrols of all accessible areas containing target set equipment.

#### **13.06.01-15**

Physical Security Plan, Section 14.4.1, the template text was modified and site specific information was not described in third paragraph of this section. Is the change in the template text the site specific fill-in? If this is not correct, provide the site specific information and re-insert the template text to complete the paragraph.

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

#### **13.06.01-16**

Physical Security Plan, Section 14.4.4, the title Shift Supervisor is used in the first and second paragraphs. Is this the Operations Shift Supervisor?

**Regulatory Basis:** 10 CFR 73.55(g)(5)(ii) To satisfy the design criteria of paragraph (g)(5)(i) of this section during emergency conditions, the licensee shall implement security procedures to ensure that authorized emergency personnel are provided prompt access to affected areas and equipment.

### 13.06.01-17

Physical Security Plan, Section 14.4.5, verify that alternate entry or exit locations for personnel are using similar security system equipment to control ingress or egress for the protected area.

**Regulatory Basis:** 10 CFR 73.55(g)(1), Consistent with the function of each barrier or barrier system, the licensee shall control personnel, vehicle, and material access as applicable, at each access control point in accordance with the physical protection program design requirements of 73.55(b).

### 13.06.01-18

Physical Security Plan, Section 14.5, clarify, by position title, whether there is a person(s) within the security organization that has the authority to direct implementation of "override" capability concerning the access authorization system for unescorted access to vital areas during emergency conditions.

**Regulatory Basis:** 10 CFR 73.55(e)(9)(ii). The licensee shall protect all vital area access portals and vital area emergency exits with intrusion detection equipment and locking devices that allow rapid egress during an emergency and satisfy the vital area entry control requirements of this section.

### 13.06.01-19

Physical Security Plan, Section 14.5, 10 CFR 73.55(e)(9)(v) list the minimum areas that are considered vital areas. Certain vital areas listed in the regulation are not reflected in the vital area list in the security plan. Revise section 14.5 of the security plan to reflect the vital areas listed in the regulations. Modify the vital areas listed in the security plan that don't reflect a unit designation for certain nuclear island buildings.

**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).

### 13.06.01-20

Physical Security Plan, Section, section 15.1, p.27, the last sentence of the next to last paragraph identifies certain buildings or structures. Modify the sentence to state why these buildings or structures do not meet lighting requirements.

**Regulatory Basis:** 10 CFR 73.55(i)(6)(i) The licensee shall ensure that all areas of the facility are provided with illumination necessary to satisfy the design requirements of § 73.55(b) and implement the protective strategy.

### 13.06.01-21

Physical Security Plan, Section 15.2, describe the surveillance equipment at the PA perimeter that requires UPS. Modify language to confirm requirement for intrusion detection and assessment equipment at PA boundary are met.

**Regulatory Basis:** 10 CFR 73.55(i)(3)(vii). Ensure intrusion detection and assessment equipment at the protected area perimeter remains operable from an uninterruptible power supply in the event of the loss of normal power.

#### **13.06.01-22**

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

**Regulatory Basis:** 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

#### **13.06.01-23**

Physical Security Plan, Section 15.4, describe how the locations of the CAS and SAS meets the requirements of 10 CFR 73.55(i)(4)(i).

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

#### **13.06.01-24**

Physical Security Plan, section 20.1, an option was selected in the text. Explain the statement provided in the last sentence of this section.

**Regulatory Basis:** 10 CFR 73.55(n)(1)(ii), describe the maintenance, testing and calibration program in the physical security plan. Implementing procedures must specify operational and technical details required to perform maintenance, testing, and calibration activities to include, but not limited to, purpose of activity, actions to be taken, acceptance criteria, and the intervals or frequency at which the activity will be performed.

#### **13.06.01-25**

Physical Security Plan, Appendix A, correct the typo in the definition for “Bullet Resisting” in the next to the last line for the reference to the National Institute of Justice Standard is incorrectly written.

**Regulatory Basis:** 10 CFR 73.55(e)(3) Physical barriers must: (i) Be designed and constructed to: (A) Protect against the design basis threat of radiological sabotage; (B) Account for site-specific conditions; and (C) Perform their required function in support of the licensee physical protection program.

### 13.06.01-26

Physical Security Plan, Appendix A, add the following words in the first line after “and incendiary devices”, “or other items” in the definition for “Contraband”.

**Regulatory Basis:** 10 CFR 73.55(h) Search programs. (1) The objective of the search program is to detect, deter, and prevent the introduction of firearms, explosives, incendiary devices, or other items which could be used to commit radiological sabotage. To accomplish this, the licensee shall search individuals, vehicles, and materials consistent with the physical protection program design requirements in paragraph (b) of this section, and the function to be performed at each access control point or portal before granting access.

### 13.06.01-27

Physical Security Plan, Appendix A, revise the definition for “Insider” in accordance with the definition in NEI 03-12 (Revision 6) March 2009.

**Regulatory Basis:** 10 CFR 73.55 (b)(9), the licensee shall establish, maintain, and implement an insider mitigation program and shall describe the program in the Physical Security Plan.

### 13.06.01-28

Security Training and Qualification Plan, Section 2.4, revise the incorrect reference in the 5<sup>th</sup> bullet item, 2<sup>nd</sup> paragraph, last line, “PSP” to “Security Training and Qualification Plan”.

**Regulatory Basis:** 10 CFR 73.55(b)(4) Training and Qualification Plan. The licensee shall establish, maintain, and implement, and follow a Training and Qualification Plan that describes how the criteria set forth in appendix B, to this part, “General Criteria for Security Personnel,” will be implemented.

### 13.06.01-29

Security Training and Qualification Plan, Section 2.4, describe how the physical fitness test demonstrates the level of strength necessary to meet training qualifications. Insert the strength description into the Training and qualification plan physical fitness test description.

**Regulatory Basis:** Section VI, paragraph B.4.b, of Appendix B to 10 CFR Part 73, the physical fitness test must consider physical conditions such as strenuous activity, physical exertion, levels of stress, and exposure to the elements as they pertain to each individual’s assigned security duties for both normal and emergency operations and must simulate site specific conditions under which the individual will be required to perform assigned duties and responsibilities.

### 13.06.01-30

Security Training and Qualification Plan Table 1, Task 18, revise this task to include the following words after “consistent”, “with NRC requirements, NRC-approved site security plans,”

**Regulatory Basis:** Subpart B of Title 10 CFR (10 CFR) 52, § 52.79(a)(35)(i) and (ii) requires that information submitted for combined license (COL) include how the applicant will meet the

requirements of 10 CFR 73 and descriptions of implementation of the physical security plan. Title 10 CFR 52.6, Completeness and accuracy of information, requires information provided “shall be complete and accurate in all material respects.” In addition, this will be consistent with other similar commitments in other Tasks.

#### **13.06.01-31**

Security Training and Qualification Plan Table 1, Task 20, is inconsistent with the NEI 03-12, Generic Security Plan Template, and Regulatory Guide 5.75, Training and Qualification of Security Personnel at Nuclear Power Reactor Facilities. Justify the deviation or revise the table to be consistent with the NEI 03-12 template and regulatory guidance.

**Regulatory Basis:** Section VI, paragraph C.1, of Appendix B to 10 CFR Part 73, the licensee must identify, in the NRC-approved training and qualification plan, the tasks that must be performed to provide a specified security function and the knowledge, skills, and abilities required by assigned personnel to ensure that the intended function can be performed.

#### **13.06.01-32**

Appendix C, Safeguards Contingency Plan, section 4.6, the position title provided in the second paragraph is not the same position title given in section 4.1 of the security plan that has the same responsibilities. Justify the difference and revise position if necessary.

**Regulatory Basis:** part 73, appendix C, Section II B.3.c.(iii) Licensees shall ensure that individuals assigned duties and responsibilities to implement the safeguards contingency plan are trained and qualified in those duties according to the Commission approved security plans, training and qualification plans, and the performance evaluation program.

#### **13.06.01-33**

Appendix C, Safeguards Contingency Plan, Section 5.2, 1st paragraph, clarify what is meant by the words “as described later” at the end of the last sentence. Provide a direct reference to where this information can be found.

**Regulatory Basis:** 10 CFR 73.55 (k)(6)(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.

#### **13.06.01-34**

Appendix C, Safeguards Contingency Plan, section 7, provide the title of the source document that contains the information utilized to develop target sets.

**Regulatory Basis:** part 73, appendix C, Section II B.3.c (v) Licensees shall develop, implement, and maintain a written protective strategy to be documented in procedures that describe in detail the physical protection measures, security systems and deployment of the armed response team relative to site specific conditions, to include but not be limited to, facility

layout, and the location of target set equipment and elements. The protective strategy should support the general goals, operational concepts, and performance objectives identified in the licensee's safeguards contingency plan. The protective strategy shall:

**13.06.01-35**

The 3rd paragraph, page 102. When referring "to a facility review process equivalent to a 50.54 review .....", the correct reference should be 10 CFR 50.54(p). Revise reference provided in the safeguards contingency plan.

**Regulatory Basis:** Title 10 CFR 52.6, Completeness and accuracy of information, requires information provided "shall be complete and accurate in all material respects."