BellBendCOLPEm Resource

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Subject: Bell Bend COLA - Draft Request for Information No. 114 (RAI No. 114) - NSIR-DSP-RSRLIB 5966
Attachments: DRAFT RAI Letter 114 NSIR-DSP-RSRLB 5966.doc

Attached is DRAFT RAI No. 114 for the Bell Bend COL Application. Please contact me at your earliest convenience to identify whether you need a clarifying conference call prior to issuance of this RAI.

During the call, a schedule for response submittal will also need to be established

If you have any questions, please contact me.

Michael A. Canova
Project Manager - Bell Bend COL Application
Docket 52-039
EPR Project Branch
Division of New Reactor Licensing
Office of New Reactors
301-415-0737

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Application Revision 2

DRAFT

3/5/2012

Bell Bend
PPL Bell Bend LLC.
Docket No. 52-039
SRP Section: 14.03.12 - Physical Security Hardware - Inspections, Tests, Analyses, and Acceptance Criteria
Application Section: Part 10 ITAAC

Request for Additional Information No. 5966

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

14.03.12-1

Additional information is requested pertaining to the Bell Bend Nuclear Power Plant (BBNPP) Combined License Application (COLA), Revision 2, Part 10: Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC) Closure, Appendix B, Table 2.2-1, "Physical Security ITAAC," which incorporates by reference the U.S. EPR FSAR, Revision 3, Table 3.1-1-Security ITAAC.

Specifically the staff requests additional information concerning the physical security ITAAC associated with the requirement for penetrations through the protected area perimeter barrier to be secured and monitored in a manner that prevents, or delays, and detects the exploitation of any penetration.

Regulatory Basis:

Consistent with 10 CFR 73.55(e) Physical barriers, (8) Protected area, (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.

The staff requests that the following be addressed:

a) Describe all planned penetration features (e.g. personnel access gates within the fence, oversize vehicle gates within the fence, etc.) that have been designed into the protected area perimeter barrier and how these penetrations will be secured and monitored to prevent or delay, and detect the exploitation.

b) If there will be penetrations through the protected area perimeter barrier (e.g. personnel access gates within the fence, oversize vehicle gates within the fence, etc.), revise Appendix B, Table 2.2-1, "Physical Security ITAAC," to confirm that these penetrations will be included in the site's ITAAC and provide a description within the table that confirms that they will be secured and monitored in a manner that prevents or

delays, and detects the exploitation of any penetration consistent with 10 CFR 73.55(e)(8)(ii) and the acceptance criteria of NRC NUREG 0800, “Standard Review Plan for the Review of Safety Analysis Reports for Nuclear Power Plants,” Chapter 14, “Initial Test Program and ITAAC Design Certification,” Section 14.3.12, “Physical Security Hardware - Inspections, Tests, Analyses, and Acceptance Criteria,” Rev.1, Appendix A, PS-ITAAC # 2, Item 2(b).

14.03.12-2

Additional information is requested pertaining to the BBNPP COLA, Revision 2, Part 10: ITAAC Closure, Appendix B, Table 2.2-1, “Physical Security ITAAC,” which incorporates by reference the U.S. EPR FSAR, Revision 3, Table 3.1-1-Security ITAAC.

Specifically, the staff requests additional information concerning the physical security ITAAC associated with the requirement for unattended openings that intersect a security boundary such as underground pathways to be protected by a physical barrier and monitored by intrusion detection equipment of observed by security personnel at a frequency sufficient to detect exploitation.

Regulatory Basis:

Consistent with 10 CFR 73.55(i) Detection and assessment systems, (5) Surveillance, observation and monitoring, (iii) Unattended openings that intersect a security boundary such as underground pathways must be protected by a physical barrier and monitored by intrusion detection equipment or observed by security personnel at a frequency sufficient to detect exploitation.

The staff requests that the following be addressed:

a) Describe the unattended openings within the facility design such as underground pathways that intersect security boundaries (e.g. storm water drainage or underground electrical vaults, etc.), and how these unattended openings will be provided protection consistent with 10 CFR 73.55(i)(5)(iii).

b) If the facility design will include unattended openings such as underground pathways that will intersect security boundaries (e.g. storm water drainage or underground electrical vaults, etc.), revise Appendix B, Table 2.2-1, “Physical Security ITAAC,” to confirm that these unattended openings will be included in the site’s ITAAC and provide a description within the table that confirms they will be protected by a physical barrier and monitored by intrusion detection equipment or observed by security personnel at a frequency sufficient to detect exploitation consistent with 10 CFR 73.55(i)(5)(iii) and the acceptance criteria of NRC NUREG 0800, "Standard Review Plan for the Review of Safety Analysis Reports for Nuclear Power Plants,” Chapter 14, “Initial Test Program and ITAAC Design Certification,” Section 14.3.12, “Physical Security Hardware - Inspections, Tests, Analyses, and Acceptance Criteria,” Rev.1, Appendix A, PS-ITAAC # 2, Item 2(c)..

14.03.12-3

Additional information is requested pertaining to the BBNPP COLA, Revision 2, Part 10: ITAAC Closure, Appendix B, Table 2.2-1, “Physical Security ITAAC,” which incorporates by reference the U.S. EPR FSAR, Revision 3, Table 3.1-1-Security ITAAC.

Specifically, the staff requests additional information concerning Item 1.3 within Table 2.2-1, which states that there may be portions of the protected area perimeter that will not have an isolation zone because there will be building walls that comprise a portion of the protected area perimeter barrier.

Regulatory Basis:

Consistent with 10 CFR 73.55(e) Physical barriers, (8) Protected area, (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.

The intrusion detection and assessment requirements of 10 CFR 73.55 specified within the above regulatory citation include the requirements of 10 CFR 73.55(e)(7)(i)(B) (designed to satisfy the requirements of 10 CFR 73.55(i) and capable of detection of attempted and actual penetration of the protected area perimeter barrier before completed penetration of the barrier) and; 10 CFR 73.55(e)(7)(i)(C) (assessment equipment designed to satisfy 10 CFR 73.55(i) and capable of providing real-time and play-back/recorded video images of detected activities before and after each alarm annunciation); as well as all requirements under 10 CFR 73.55(i) Detection and assessment systems.

The staff requests that the following be addressed:

a) Describe the areas of the protected area perimeter in which a building wall or roof comprises a portion of the protected area perimeter barrier that will not have an isolation zone as identified within Table 2.2-1, Item 1.3, and how these areas will be designed to meet the intrusion detection and assessment requirements of 10 CFR 73.55 as identified above. This description should include details of the intrusion detection and assessment equipment as well as the physical barriers (type, configuration, planned location for installation, annunciation and display capabilities, barrier material and height, etc.) that are employed in areas where building walls or roofs comprise a portion of the protected area perimeter barrier.

b) Revise Appendix B, Table 2.2-1, “Physical Security ITAAC,” Item 1.3 to confirm that these areas will meet the intrusion detection and assessment requirements of 10 CFR 73.55 as required by 10 CFR 73.55(e)(8)(iv) and the acceptance criteria of NRC NUREG 0800, “Standard Review Plan for the Review of Safety Analysis Reports for Nuclear Power Plants,” Chapter 14, “Initial Test Program and ITAAC Design Certification,” Section 14.3.12, “Physical Security Hardware - Inspections, Tests, Analyses, and Acceptance Criteria,” Rev.1, Appendix A, PS-ITAAC # 3, Item 3(c).

Additional information is requested pertaining to the BBNPP COLA, Revision 2, Part 10: ITAAC Closure, Appendix B, Table 2.2-1, "Physical Security ITAAC," which incorporates by reference the U.S. EPR FSAR, Revision 3, Table 3.1-1-Security ITAAC.

Specifically, the staff requests additional information concerning Item 1.4 within Table 2.2-1 of the BBNPP ITAAC and Item 1.6 within Table 3.1-1 of the U.S. EPR FSAR ITAAC which address the physical security ITAAC associated with the protected area perimeter intrusion detection and assessment requirements of 10 CFR 73.55.

Regulatory Basis:

Consistent with 10 CFR 73.55(e) Physical barriers, (7) Isolation zone, (i) An isolation zone must be maintained in outdoor areas adjacent to the protected area perimeter barrier. The isolation zone shall be: (B) Monitored with intrusion detection equipment designed to satisfy the requirements of 10 CFR 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.

Consistent with 10 CFR 73.55(i), Detection and assessment systems, (2) Intrusion detection equipment must annunciate and video assessment equipment shall display concurrently, in at least two continuously staffed onsite alarm stations, at least one of which must be protected in accordance with the requirements of the central alarm station within this section.

Consistent with 10 CFR 73.55(i), Detection and assessment systems, (3) The licensee's intrusion detection and assessment systems must be designed to: (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.

The staff requests that the following be addressed:

a) Describe how the site's perimeter intrusion detection and assessment system will:

* be designed to satisfy the requirements of 10 CFR 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.

* annunciate and display concurrently in two continuously staffed onsite alarm stations.

* remain operable from an uninterruptible power supply in the event of the loss of normal power.

b) Revise Appendix B, Table 2.2-1, "Physical Security ITAAC," Item 1.4 to confirm that the systems will satisfy the requirements of 10 CFR 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; annunciate and display concurrently in two continuously staffed onsite alarm stations and; will remain operable from an uninterruptible power supply in the event of the loss of normal power consistent with the applicable requirements of 10 CFR 73.55 as identified above and the acceptance criteria of NRC NUREG 0800, "Standard Review Plan for the Review of Safety Analysis Reports for Nuclear Power Plants," Chapter 14, "Initial Test Program

and ITAAC Design Certification," Section 14.3.12, "Physical Security Hardware - Inspections, Tests, Analyses, and Acceptance Criteria," Rev.1, Appendix A, PS-ITAAC # 3, Item 3(b), PS-ITAAC # 4, Item 4(a) and Item 4(c).

14.03.12-5

Additional information is requested pertaining to the BBNPP COLA, Revision 2, Part 10: ITAAC Closure, Appendix B, Table 2.2-1, "Physical Security ITAAC," which incorporates by reference the U.S. EPR FSAR, Revision 3, Table 3.1-1-Security ITAAC.

Specifically, the staff requests additional information concerning the physical security ITAAC associated with the assessment requirement for the perimeter assessment equipment to be designed to satisfy the requirements of 10 CFR 73.55(i) and provide video image recording with real-time and play-back capability of detected activities before and after each alarm annunciation.

Regulatory Basis:

Consistent with 10 CFR 73.55(e) Physical barriers, (7) Isolation zone, (i) An isolation zone must be maintained in outdoor areas adjacent to the protected area perimeter barrier. The isolation 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.

The staff requests that the following be addressed:

a) Describe how the isolation zone that is adjacent to the protected area perimeter barrier will be monitored with assessment equipment designed to satisfy the requirements of 10 CFR 73.55(i) and provide real-time and play-back/recorded video images of the detected activities before and after each alarm annunciation. This description should include details of the assessment equipment that will be used to monitor the protected area perimeter isolation zones (type, location, configuration, display capabilities within the CAS and SAS, etc.)

b) Revise Appendix B, Table 2.2-1, "Physical Security ITAAC," to confirm that the site's protected area perimeter assessment equipment that monitors the isolation zones will satisfy the requirements of 10 CFR 73.55(i) and provide real-time and play-back/recorded video images of the detected activities before and after each alarm annunciation consistent with 10 CFR 73.55(e)(7)(i)(C) and the acceptance criteria of NRC NUREG 0800, "Standard Review Plan for the Review of Safety Analysis Reports for Nuclear Power Plants," Chapter 14, "Initial Test Program and ITAAC Design Certification," Section 14.3.12, "Physical Security Hardware - Inspections, Tests, Analyses, and Acceptance Criteria," Rev.1, Appendix A, PS-ITAAC # 4, Item 4(b) and 4(c).

14.03.12-6

Additional information is requested pertaining to the BBNPP COLA, Revision 2, Part 10: ITAAC Closure, Appendix B, Table 2.2-1, “Physical Security ITAAC,” which incorporates by reference the U.S. EPR FSAR, Revision 3, Table 3.1-1-Security ITAAC.

Specifically, the staff requests additional information concerning the physical security ITAAC associated with the illumination requirements for the illumination in isolation zones and exterior areas within the protected area to provide a minimum of 0.2 foot candles measured horizontally at ground level or alternatively augmented, sufficient to permit assessment and observation or otherwise implement the protective strategy.

Regulatory Basis:

Consistent with 10 CFR 73.55(i) Detection and assessment systems, (6) Illumination, (ii) The licensee shall provide a minimum illumination level of 0.2 footcandles, measured horizontally at ground level, in the isolation zones and appropriate exterior areas within the protected area. Alternatively, the licensee may augment the facility illumination system by means of lowlight technology to meet the requirements of 10 CFR 73.55 or otherwise implement the protective strategy.

The staff requests that the following be addressed:

a) Provide a description of the equipment to include any lowlight technologies used to augment illumination systems the site will implement to meet the illumination requirement of 10 CFR 73.55(i)(6)(ii). This description should include details (type, location, capabilities, power source configuration for continued operation, lighting re-strike time, etc.) of the illumination equipment as well as any lowlight technologies that will be employed at the site.

b) Revise Appendix B, Table 2.2-1, “Physical Security ITAAC,” to confirm that the site’s illumination system will provide a minimum illumination level of 0.2 footcandles, measured horizontally at ground level, in the isolation zones and appropriate exterior areas within the protected area and/or alternatively, will be augmented by means of lowlight technology to meet the requirements of 10 CFR 73.55 or otherwise implement the protective strategy consistent with 10 CFR 73.55(i)(6)(ii) and the acceptance criteria of NRC NUREG 0800, “Standard Review Plan for the Review of Safety Analysis Reports for Nuclear Power Plants,” Chapter 14, “Initial Test Program and ITAAC Design Certification,” Section 14.3.12, “Physical Security Hardware - Inspections, Tests, Analyses, and Acceptance Criteria,” Rev.1, Appendix A, PS-ITAAC # 5.

14.03.12-7

Additional information is requested pertaining to the BBNPP COLA, Revision 2, Part 10: ITAAC Closure, Appendix B, Table 2.2-1, “Physical Security ITAAC,” which incorporates by reference the U.S. EPR FSAR, Revision 3, Table 3.1-1-Security ITAAC.

Specifically, the staff requests additional information concerning Item 1.5, within Table 2.2-1, of the BBNPP ITAAC and Item 1.3 within Table 3.1-1 of the U.S. EPR FSAR ITAAC that address the bullet resistant design of the Central Alarm Station (CAS), the Reactor Control Room, and the location in which the last access control function is performed.

Regulatory Basis:

Consistent with 10 CFR 73.55(e) Physical barriers, (5) Bullet Resisting Physical Barriers, The reactor control room, the central alarm station, and the location within which the last access control function for access to the protected area is performed, must be bullet-resisting.

Consistent with 10 CFR 73.55(i) Detection and assessment systems, (4) Alarm stations, (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.

The staff requests that the following be addressed:

a) Confirm that the site's secondary alarm station (SAS) will be constructed, located, protected and equipped to the standards of the CAS which includes being bullet resisting.

b) Revise Appendix B, Table 2.2-1, "Physical Security ITAAC," to confirm that the site's SAS will also be designed and constructed to be bullet resisting consistent with the requirements of 10 CFR 73.55(e)(5), 10 CFR 73.55(i)(4)(iii) and the acceptance criteria of NRC NUREG 0800, "Standard Review Plan for the Review of Safety Analysis Reports for Nuclear Power Plants," Chapter 14, "Initial Test Program and ITAAC Design Certification," Section 14.3.12, "Physical Security Hardware - Inspections, Tests, Analyses, and Acceptance Criteria," Rev.1, Appendix A, PS-ITAAC # 6.

14.03.12-8

Additional information is requested pertaining to the BBNPP COLA, Revision 2, Part 10: ITAAC Closure, Appendix B, Table 2.2-1, "Physical Security ITAAC," which incorporates by reference the U.S. EPR FSAR, Revision 3, Table 3.1-1-Security ITAAC.

Specifically, the staff requests additional information concerning the physical security ITAAC associated with the requirement for vehicle barrier systems (VBS) to be designed, constructed, installed, and maintained at a standoff distance adequate to protect against the design-basis threat vehicle bombs.

Regulatory Basis:

Consistent with 10 CFR 73.55 (e) Physical barriers, (10) Vehicle control measures, (i) Land vehicles. Licensees shall: (A) Design, construct, install, and maintain a vehicle barrier system, to include passive and active barriers, at a stand-off distance adequate to protect personnel, equipment, and systems necessary to prevent significant core damage and spent fuel sabotage against the effects of the design basis threat of radiological sabotage land vehicle bomb assault.

The staff requests that the following be addressed:

a) Describe the site's VBS (including active and passive barriers) and the analysis that was conducted to ensure that it will be designed, constructed, installed, and maintained, at a stand-off distance with consideration for adequate protection of personnel, equipment, and systems necessary to prevent significant core damage and spent fuel sabotage against the effects of the design basis threat of radiological sabotage land vehicle bomb assault. This description should include confirmation that the analysis used to determine the location of the VBS included consideration for the protection of personnel, equipment, and systems necessary to prevent significant core damage and spent fuel sabotage against the effects of the design basis threat of radiological sabotage land vehicle bomb assault.

b) Revise Appendix B, Table 2.2-1, “Physical Security ITAAC,” to confirm that the site’s active and passive vehicle barriers will be designed, constructed, installed, and maintained, at a stand-off distance adequate to protect personnel, equipment, and systems necessary to prevent significant core damage and spent fuel sabotage against the effects of the design basis threat of radiological sabotage land vehicle bomb assault consistent with 10 CFR 73.55(e)(10)(i)(A) and the acceptance criteria of NRC NUREG 0800, “Standard Review Plan for the Review of Safety Analysis Reports for Nuclear Power Plants,” Chapter 14, “Initial Test Program and ITAAC Design Certification,” Section 14.3.12, “Physical Security Hardware - Inspections, Tests, Analyses, and Acceptance Criteria,” Rev.1, Appendix A, PS-ITAAC # 7.

14.03.12-9

Additional information is requested pertaining to the BBNPP COLA, Revision 2, Part 10: ITAAC Closure, Appendix B, Table 2.2-1, “Physical Security ITAAC,” and the U.S. EPR FSAR, Revision 3, Table 3.1-1-Security ITAAC.

Specifically, the staff requests additional information concerning item 1.7 within Table 2.2-1 of the BBNPP ITAAC which addresses the physical security ITAAC associated with the requirement for the detection of firearms, explosives, and incendiary devices at protected area perimeter access control points.

Regulatory Basis:

Consistent with 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.

Consistent with 10 CFR 73.55(h) Search programs, (3) Protected area searches, (i) The search for firearms, explosives, incendiary devices, or other items which could be used to commit radiological sabotage shall be accomplished through the use of equipment capable of detecting these items, or through visual and physical searches, or both, to ensure that all items are clearly identified before granting access to protected areas. The

licensee shall subject all persons except official Federal, state, and local law enforcement personnel on official duty to these searches upon entry to the protected area. Armed security officers who are on duty and have exited the protected area may re-enter the protected area without being searched for firearms.

The staff requests that the following be addressed:

a) Provide clarification to Item 1.7 within Table 2.2-1 of the BBNPP ITAAC describing how the protected area search process will account for the search of "other items which may be used to commit radiological sabotage."

b) Revise Appendix B, Table 2.2-1, “Physical Security ITAAC,” Item 1.7 to confirm that the site’s access control points established at the protected area perimeter barrier will include a search process for the detection of firearms, explosives, incendiary devices, or other items which could be used to commit radiological sabotage consistent with 10 CFR 73.55(h)(3)(i) and the acceptance criteria of NRC NUREG 0800, “Standard Review Plan for the Review of Safety Analysis Reports for Nuclear Power Plants,” Chapter 14, “Initial Test Program and ITAAC Design Certification,” Section 14.3.12, “Physical Security Hardware - Inspections, Tests, Analyses, and Acceptance Criteria,” Rev.1, Appendix A, PS-ITAAC # 8, Item 8(b).

14.03.12-10

Additional information is requested pertaining to the BBNPP COLA, Revision 2, Part 10: ITAAC Closure, Appendix B, Table 2.2-1, “Physical Security ITAAC,” which incorporates by reference the U.S. EPR FSAR, Revision 3, Table 3.1-1-Security ITAAC.

Specifically, the staff requests additional information concerning the physical security ITAAC associated with the requirement for intrusion detection equipment to annunciate and video assessment equipment to display concurrently in two continuously staffed onsite alarm stations.

Regulatory Basis:

Consistent with 10 CFR 73.55(i) Detection and assessment systems, (2) Intrusion detection equipment must annunciate and video assessment equipment shall display concurrently, in at least two continuously staffed onsite alarm stations, at least one of which must be protected in accordance with the requirements of the central alarm station within this section.

Consistent with 10 CFR 73.55(i) Detection and assessment systems, (4) Alarm stations, (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.

The staff requests that the following be addressed:

a) Provide a description that explains how the site's intrusion detection and assessment system will be designed to provide intrusion detection alarm annunciation and video assessment equipment display concurrently, in two continuously staffed onsite alarm stations (CAS and SAS). Confirm within the description that alarm annunciation and video assessment equipment will display concurrently in the alarm stations (CAS and SAS) and specifically identify the location of the alarm stations (CAS and SAS).

b) Revise Appendix B, Table 2.2-1, "Physical Security ITAAC," to confirm that the site's intrusion detection and assessment equipment will annunciate and display concurrently in at least two continuously staffed onsite alarm stations (CAS and SAS) consistent with 10 CFR 73.55(i)(2) and the acceptance criteria NRC NUREG 0800, "Standard Review Plan for the Review of Safety Analysis Reports for Nuclear Power Plants," Chapter 14, "Initial Test Program and ITAAC Design Certification," Section 14.3.12, "Physical Security Hardware - Inspections, Tests, Analyses, and Acceptance Criteria," Rev.1, Appendix A, PS-ITAAC #4, Item 4 (a), and PS-ITAAC # 11, Item 11 (a).

14.03.12-11

Additional information is requested pertaining to the BBNPP COLA, Revision 2, Part 10: ITAAC Closure, Appendix B, Table 2.2-1, "Physical Security ITAAC," which incorporates by reference the U.S. EPR FSAR, Revision 3, Table 3.1-1-Security ITAAC.

Specifically, the staff requests additional information concerning the physical security ITAAC associated with the requirement for intrusion detection and assessment systems to provide a visual display and audible annunciation of alarms in the alarm stations (CAS and SAS).

Regulatory Basis:

Consistent with 10 CFR 73.55(i) Detection and assessment systems, (3) The licensee's intrusion detection and assessment systems must be designed to: (i) Provide visual and audible annunciation of the alarm; (ii) Provide a visual display from which assessment of the detected activity can be made; (iii) Ensure that annunciation of an alarm indicates the type and location of the alarm; (iv) Ensure that alarm devices to include transmission lines to annunciators are tamper indicating and self-checking; (v) Provide an automatic indication when the alarm system or a component of the alarm system fails, or when the system is operating on the backup power supply.

Consistent with 10 CFR 73.55(i) Detection and assessment systems, (4) Alarm stations, (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.

The staff requests that the following be addressed:

a) Describe how the site's intrusion detection and assessment system will be designed to provide visual and audible annunciation of alarms in both alarm stations (CAS and SAS).

b) Revise Appendix B, Table 2.2-1, "Physical Security ITAAC," to confirm that the site's intrusion detection and assessment system will be designed to provide visual and audible annunciation of the alarms in both alarm stations consistent with 10 CFR 73.55(i)(3)(i) and the acceptance criteria of NRC NUREG 0800, "Standard Review Plan for the Review of Safety Analysis Reports for Nuclear Power Plants," Chapter 14, "Initial Test Program and ITAAC Design Certification," Section 14.3.12, "Physical Security Hardware - Inspections, Tests, Analyses, and Acceptance Criteria," Rev.1, Appendix A, PS-ITAAC # 13, Item 13 (b).

14.03.12-12

Additional information is requested pertaining to the BBNPP COLA, Revision 2, Part 10: ITAAC Closure, Appendix B, Table 2.2-1, "Physical Security ITAAC," which incorporates by reference the The U.S. EPR FSAR, Revision 3, Table 3.1-1-Security ITAAC.

Specifically, the staff requests additional information concerning Item 1.9 within Table 2.2-1 of the BBNPP ITAAC and Item 1.5 within Table 3.1-1 of the U.S. EPR FSAR ITAAC which describe the site's physical security ITAAC associated with the requirements for: vital area's to be locked and alarmed when unattended; equipping vital area access portals and emergency exits with intrusion detection equipment and locking devices that allow rapid egress during emergencies and; protected area emergency exits to be alarmed and secured by locking devices that allow prompt egress during emergencies.

Regulatory Basis:

Consistent with 10 CFR 73.55(e) Physical barriers, (8) Protected area, (iii) All emergency exits in the protected area must be alarmed and secured by locking devices that allow prompt egress during an emergency and satisfy the requirements of this section for access control into the protected area.

Consistent with 10 CFR 73.55(e) Physical barriers, (9) Vital areas, (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.

The staff requests that the following be addressed:

a) Describe how all protected and vital area emergency exits will be equipped with intrusion detection alarms and secured by locking devices that satisfy the access control requirements of 10 CFR 73.55 and allow prompt/rapid egress during an emergency.

b) Revise Appendix B, Table 2.2-1, "Physical Security ITAAC," to confirm that all protected and vital area emergency exits at the site will be equipped with intrusion detection alarms and secured by locking devices that satisfy the applicable access

control requirements of 10 CFR 73.55 and allow prompt/rapid egress during an emergency consistent with 10 CFR 73.55(e)(8)(iii), 10 CFR 73.55(e)(9)(ii) and the acceptance criteria of NRC NUREG 0800, “Standard Review Plan for the Review of Safety Analysis Reports for Nuclear Power Plants,” Chapter 14, “Initial Test Program and ITAAC Design Certification,” Section 14.3.12, “Physical Security Hardware - Inspections, Tests, Analyses, and Acceptance Criteria,” Rev.1, Appendix A, PS-ITAAC # 15.

14.03.12-13

Additional information is requested pertaining to the BBNPP COLA, Revision 2, Part 10: ITAAC Closure, Appendix B, Table 2.2-1, “Physical Security ITAAC,” which incorporates by reference the U.S. EPR FSAR, Revision 3, Table 3.1-1-Security ITAAC.

Specifically, the staff requests additional information concerning the physical security ITAAC associated with the requirement for the non-portable communications equipment within the CAS and SAS to remain operable from an independent power source in the event of loss of normal power.

Regulatory Basis:

Consistent with 10 CFR 73.55(j) Communications requirements, (5) Non-portable communications equipment must remain operable from independent power sources in the event of the loss of normal power.

The staff requests that the following be addressed:

a) Describe how the site’s security non-portable communications equipment will remain operable from independent power sources in
the event of the loss of normal power. The description of these independent power sources should include details of the type, configuration and capability to provide power to non-portable communication devices without allowing an interruption in operation.

b) Revise Appendix B, Table 2.2-1, “Physical Security ITAAC,” to confirm that the site’s security non-portable communications equipment will remain operable from independent power sources in the event of the loss of normal power consistent with 10 CFR 73.55(j)(5) and the acceptance criteria of NRC NUREG 0800, “Standard Review Plan for the Review of Safety Analysis Reports for Nuclear Power Plants,” Chapter 14, “Initial Test Program and ITAAC Design Certification,” Section 14.3.12, “Physical Security Hardware - Inspections, Tests, Analyses, and Acceptance Criteria,” Rev.1, Appendix A, PS-ITAAC # 16, Item 16 (c).