

BellBendCOLPEm Resource

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Sent: Friday, January 20, 2012 10:33 AM
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Cc: BellBendCOL Resource; Foggie, Kirk; Miernicki, Michael; Williams, Stephen; Hodgdon, Ann; Segala, John
Subject: Bell Bend COLA - FINAL Request for Information No. 111 (RAI No. 111)- NSIR-EP 4820
Attachments: Final RAI Letter 111 - NSIR-EP 4820.doc

Attached is RAI No. 111 for the Bell Bend COL Application. Per your discussion on 1/19/2012, we understand that you have no further questions on this RAI. You are requested to respond by [March 5, 2012](#). If additional time is required to respond, please inform me of your proposed schedule your earliest opportunity.

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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1/20/2012

Bell Bend
PPL Bell Bend LLC.
Docket No. 52-039
SRP Section: 13.03 - Emergency Planning
Application Section: Part 5

Request for Additional Information 4820

QUESTIONS for Licensing and Inspection Branch (NSIR/DPR/LIB) (EP)

13.03-40

Supplemental to RAI 13.3-12: On-site Emergency Organization

Basis: 10 CFR 50, Appendix E.IV.A: 1, 2, 4, 5; NUREG-0654/FEMA-REP-1, Evaluation Criterion B1 through 9

SRP ACCEPTANCE CRITERIA: Requirements A and B; Acceptance Criteria 1 and 2. In response to RAI 13.3-16(B-9), the applicant explained that the mechanical maintenance, electrical/instrumentation and control, first aid and rescue, and radiation protection personnel positions will be filled by qualified individuals, and competing priorities during an emergency will be resolved by the Shift Supervisor. It is the NRC's expectation that emergency planning will identify competing priorities and minimize the number of ad hoc decisions to be made by the Shift Supervisor.

Should the need arise prior to staff augmentation in 60 minutes, discuss which on-shift emergency responders identified in Table B-1a, "Shift Emergency Response Organization," of the BBNPP Emergency Plan will be qualified to perform the major tasks of:

- a. dose assessment,
- b. offsite surveys
- c. onsite surveys
- c. core/thermal hydraulics
- d. electrical/instrument and control

Include in the response a listing of, and supporting discussion on, any collateral duties or potentially competing priorities that may impact the individual's ability to perform his primary emergency response functions. If on-shift responders to perform this function do not exist, revise the BBNPP Emergency Plan to include 30-minute responders to perform the major tasks.

NUREG-0654 states that the Electrical position is a 60 minute response and the I&C is a 30 minute response.

Provide additional justification to support the conclusion that Electrical and I&C repair activities are not necessary, or significant, for up to several hours depending on the event.

13.03-41

Supplemental to RAI 13.3-14: Emergency Response Support and Resources

Basis: 10 CFR 50.47(b)(3), Planning Standard C; Appendix E, IV.A.6,7; NUREG-0654/FEMA-REP-1, Evaluation Criterion C.3

SRP ACCEPTANCE CRITERIA: Requirement A and B; Acceptance Criterion 1, 2

In response to RAI 13.3-17(C-2), the applicant stated a fixed counting laboratory provided by an offsite environmental contractor can be utilized to assist with environmental analysis.

Revise the BBNPP Emergency Plan to include the name, location, and expected availability of the offsite environmental contractor.

13.03-42

Supplemental to RAI 13.3-16: Emergency Communications

Basis: 10 CFR 50.47(b)(6), Planning Standard F; 10 CFR, Appendix E. IV.E.9; 10 CFR 50, Appendix E. IV.E.9; Generic Letter 91-14; 10 CFR 50.72(a)(4); NUREG 0654/FEMA-REP1; Evaluation Criterion F.1, F.2, F.3.

SRP ACCEPTANCE CRITERIA: Requirements A, B, F; Acceptance Criteria 1, 2, 6, 12, 23, 29, 30.

In response to RAI 13.3-20(F-1), the applicant referenced its response to NRC RAI 13.3-34, which describes the backup power for onsite and offsite communication systems:

Communications systems in the Control Room and the TSC will be powered from either a safety-related power source or non-safety-related power source with a UPS having either a battery or generator backup. Communications systems in the EOF are powered via two independent underground power lines that supply the industrial park complex.

Revise the BBNPP Emergency Plan to include this information.

13.03-43

Supplemental to RAI 13.3-17: Emergency Communications

Basis: 10 CFR 50.47(b)(6), Planning Standard F; 10 CFR, Appendix E. IV.E.9; 10 CFR 50, Appendix E. IV.E.9; Generic Letter 91-14; 10 CFR 50.72(a)(4); NUREG 0654/FEMA-REP1; Evaluation Criterion F.1, F.2, F.3.

SRP ACCEPTANCE CRITERIA: Requirements A, B, F; Acceptance Criteria 1, 2, 6, 12, 23, 29, 30.

In response to RAI 13.3-20(F-2), the applicant described that NRC communications are channeled from the station through the Federal Telephone System (FTS), which is routed to the appropriate link or bridge by the NRC.

Describe, in the Emergency Plan, the availability of the Reactor Safety Counterpart Link (RSCL), Protective Measures Counterpart Link (PMCL), Management Counterpart Link (MCL), and Local Area Network communication links as specified in Generic Letter 91-14, "Emergency Communications."

13.03-44

Supplemental to RAI 13.3-19: Emergency Facilities and Equipment

Basis: 10 CFR 50.47(b)(8), Planning Standard H; 10 CFR 50, Appendix E.IV.E.1 through 3; 10 CFR 52.79(a)(17), Three Mile Island Requirements; Appendix E.IV.E.4; Appendix E.IV.E.8; Appendix E.VI Emergency Response Data System; Appendix E.VI. Maintaining Emergency Response Data System; 10 CFR 50.34(f)(2)(xxv); 10 CFR 50, Appendix E.IV.G.; Supplement 1 to NUREG-0737, "Clarification of TMI Action Plan Requirements," NUREG-0654/FEMA-REP-1, Evaluation Criterion H1 through H12

SRP ACCEPTANCE CRITERIA: Requirements A and B; Acceptance Criteria 1, 2, 4, 5, 12, 25, and 26.

In response to RAI 13.3-22(H-6), the applicant explained that Appendix 1 to NUREG-0654/FEMA REP-1, Revision 1, states that the EOF staff and other key emergency personnel will be brought to standby status at the Alert emergency classification level. The applicant explained that the NUREG-0696 statement that the EOF shall achieve full functional operation within 1 hour is based on the declaration of a Site Area Emergency (SAE) or higher. The applicant states that the Emergency Plan requires that the EOF minimum staffing be met within 90 minutes of an Alert declaration; however, this approach omits consideration that an initial declaration could be SAE or General Emergency.

Identify positions in Table B-1b, "Minimum Staffing Requirements for the BBNPP ERO," that fulfill 60 minute augmentation times for EOF responders as specified in NUREG-0654/FEMA-REP-1, Revision 1, Table B-1, or identify on-shift staff that provide adequate compensation for extending staff augmentation time of the EOF to 90 minutes, or provide additional justification as to why this is not necessary.

13.03-45

Supplemental to RAI 13.3-21: Protective Response

Basis: 10 CFR 50.47(b)(10); Planning Standard J.; 10 CFR 50, Appendix E.IV; NUREG-0654/FEMA-REP-1, Evaluation Criterion J.1; Evaluation Criterion J.2; Evaluation Criterion J.1 through 12; RIS 2003-12, "Clarification of NRC Guidance for Modifying Protective Actions." SRP ACCEPTANCE CRITERIA: Requirements A and B; Acceptance Criteria 1 and 2.

In response to RAI 13.3-24(J-1.A), the applicant explained that provisions for the warning of personnel in outbuildings within the site boundary and Owner Controlled Areas (OCA) may include public address (PA) announcements and area sweeps and these provisions will be specified in the implementing procedures appropriate to the areas where they are applicable.

Describe in the Emergency Plan that warning of personnel in outbuildings within the site boundary and OCA areas may include PA announcements and area sweeps, and provide a reference to where this information will be located.

13.03-46

Supplemental to RAI 13.3-23: Protective Response

Basis: 10 CFR 50.47(b)(10); Planning Standard J.; 10 CFR 50, Appendix E.IV; NUREG-0654/FEMA-REP-1, Evaluation Criterion J.1; Evaluation Criterion J.2; Evaluation Criterion J.1 through 12; RIS 2003-12, "Clarification of NRC Guidance for Modifying Protective Actions." SRP ACCEPTANCE CRITERIA: Requirements A and B; Acceptance Criteria 1 and 2.

In response to RAI 13.3-24(J-3), the applicant explained that all personnel will use personal transportation and those who cannot utilize their normal means of work transportation during a site evacuation will be paired with employees who have room in their personal vehicle. The applicant explained this process and its steps will be provided in the emergency plan implementing procedures.

Provide a reference in the Emergency Plan to the procedure that will describe how transportation for those personnel without private transportation will be provided.

13.03-47

Supplemental to RAI 13.3-24: Protective Response

Basis: 10 CFR 50.47(b)(10); Planning Standard J.; 10 CFR 50, Appendix E.IV; NUREG-0654/FEMA-REP-1, Evaluation Criterion J.1; Evaluation Criterion J.2; Evaluation Criterion J.1 through 12; RIS 2003-12, A Clarification of NRC Guidance for Modifying Protective Actions. @

SRP ACCEPTANCE CRITERIA: Requirements A and B; Acceptance Criteria 1 and 2

In response to RAI 13.3-24(J-4.A), the applicant explained that the process for establishing accountability may include access card readers, roll calls, the security computer, or other means applicable to the particular assembly area, and specific instruction for performing accountability will be provided in the emergency plan implementing procedures.

Provide a reference in the Emergency Plan to the emergency plan implementing procedure that describes the process for establishing accountability.

13.03-48

Supplemental to RAI 13.3-25: Protective Response

Basis: 10 CFR 50.47(b)(10); Planning Standard J.; 10 CFR 50, Appendix E.IV; NUREG-0654/FEMA-REP-1, Evaluation Criterion J.1; Evaluation Criterion J.2; Evaluation Criterion J.1 through 12; RIS 2003-12, "Clarification of NRC Guidance for Modifying Protective Actions." SRP ACCEPTANCE CRITERIA: Requirements A and B; Acceptance Criteria 1 and 2.

In response to RAI 13.3-24(J-6), the applicant explained that pre-established radiological sampling and monitoring points are defined and controlled by the Radiological Environmental Monitoring Program (REMP) and documented in the Offsite Dose Calculation Manual (ODCM).

Include a map of the pre-established radiological sampling and monitoring points in the Emergency Plan or state in the Emergency Plan that the ODCM is subject to 10 CFR 50.54(q) review.

13.03-49

Supplemental to RAI 13.3-26: Emergency Action Levels

Basis: 10 CFR 52.79(a)(21), 10 CFR 50.47(b)(4), Section IV.B of Appendix E to 10 CFR Part 50

SRP Acceptance Criteria: Requirement A

A. In response to RAI 13.3-26, the applicant proposed the following License Condition:

PPL Bell Bend, LLC shall submit a complete set of plant-specific emergency action levels (EALs) for PPL Bell Bend, LLC in accordance with NEI 99-01, Revision 5, or the most current NRC endorsed version available at the time of EAL submittal, to the NRC for confirmation at least 180 days prior to initial fuel load. The submitted EALs will be written with no deviations other than those attributable to specific U.S. EPR reactor design considerations.

Revise the License Condition to refer to NEI 99-01, Revision 5 only, and identify and provide the specific deviations.

B. In addition, the Emergency Plan Annex states:

3.1 Emergency Action Levels (EALs)

An Emergency Action Level scheme based on Revision 5 of NEI 99-01, "Methodology for Development of Emergency Action Levels," currently approved for use by NRC letter from Christopher G. Miller to NEI dated 02/22/08, or the most current NRC endorsed version available at the time of EAL submittal used for BBNPP. The submittal EALs will be written with no deviations other than those attributable to specific US EPR reactor design considerations.

Revise the License Condition to refer to NEI 99-01, Revision 5 only, and identify and provide the specific deviations.

C. The deviation regarding containment depressurization is not discussed in the response to RAI 13.3-38.

- 1. Discuss the rationale for deleting the deviations regarding containment depressurization.**
- 2. Discuss why Initiating Conditions for the EPR digital instrumentation and control design for SU, SA, and SS EALs have not been developed.**
- 3. Discuss why Initiating Conditions for the EPR digital instrumentation and control design for CU and CA EALs have not been developed.**

D. The response to RAI 13.3-38 states that the EALs for SU3, SA4, and SS6 are to be deleted, but EAS SA4 and SS6 were not deleted from Attachment 1 to Enclosure B, "Description of Changes and Technical Basis, of the "US EPR Design Specific Emergency Action Levels (EALs)" **Explain the discrepancy.**

13.03-50

Supplemental to RAI 13.3-27: Subject: Security-based Considerations

Regulatory Basis: 10 CFR 50.47; Appendix E to 10 CFR 50; Regulatory Guide 1.206, Section C.I.13.3.1

SRP Acceptance Criteria: Requirement G, Acceptance Criteria 1, 2, and 30
RG 1.206 requests that applicants for a combined license address the NRC orders issued February 25, 2002, as well as any subsequent NRC guidance, to determine what security-related aspects of emergency planning and preparedness are addressed in the emergency plan.

- A. NRC Bulletin 2005-02 provides guidance for identifying an alternative facility to support emergency response organization augmentation during hostile-action events.

Describe in the emergency plan an alternative facility to support rapid response to a hostile-action event, or provide justification as to why this information is not necessary.

As stated in BL 2005-02, the alternative facility should include the following characteristics:

- Accessibility even if the site is under threat or attack;
- Communication links with the emergency operations facility, control room, and security;
- Capability to notify offsite response organizations if the emergency operations facility is not performing this action;
- Capability for engineering and damage control teams to begin planning mitigative actions (e.g., general drawings and system information)

- B. Part 2, "FSAR," of the BBNPP COL application, Section 2.2, "Nearby Industrial, Transportation, and Military Facilities," provides a discussion regarding the potential effect on the plant from damage to nearby hazardous facilities, dams, and other nearby sites. However, the potential effect on onsite staffing and augmentation, and onsite evacuation strategies in consideration of a security event is not addressed.

Clarify whether this evaluation has been performed. Discuss the potential effect to onsite staffing with augmentation, and onsite evacuation strategies in consideration of a security event from damage to nearby hazardous facilities, dams, and other nearby sites. Address any changes needed or made to the BBNPP Emergency Plan.

- C. NRC Bulletin 2005-02 provides guidance for the prompt notification of the NRC during a security event to support subsequent notifications made by the NRC to warn other licensees regarding a potential security threat and to inform other Federal agencies in accordance with the National Response Framework. This notification should not be construed to imply that immediate notifications to local law enforcement will be adversely affected, or that the required licensee notification to State and local government agencies within 15 minutes after declaring an emergency will be changed.

Describe in the emergency plan/procedures, the notification to the NRC of hostile-action based events immediately after notification of local law enforcement agencies or within about 15 minutes following its recognition, or provide justification as to why this information is not necessary.

D. NRC Bulletin 2005-02 provides guidance for a drill and exercise program to maintain the key skills necessary for mitigating a security-based event.

Describe in the emergency plan, or provide reference to where this information is contained, for conducting drills and exercises for a security-based event.

E. NRC Bulletin 2005-02, "Emergency Preparedness and Response Actions for Security-Based Events," provides guidance concerning onsite protective measures during a security based event.

Describe in the emergency plan, or provide reference to where this information is contained, regarding a range of protective measures for site workers, as appropriate, during a security-based event (e.g., evacuation of personnel from target buildings, site evacuation by opening security gates, dispersal of licensed operators, sheltering of personnel in structures away from potential site targets, and arrangements for accounting for personnel after attack).

F. The Commission Orders issued February 25, 2002, and security-related enhancements identified in NRC Bulletin 2005-02 identify specific security-based EALs. The emergency plan should contain EALs to ensure that a site-specific security event results in an emergency classification declaration of at least a notification of unusual event. The classification scheme should also reflect the strategy for escalation to a higher-level event classification.

Provide EALs that address the security-based events.

13.03-51

Supplemental to RAI 13.3-30

Subject: EP ITAAC

Regulatory Basis: 10 CFR 52.80(a)

NUREG-0800 SRP Acceptance Criteria: Requirement E; Acceptance Criterion 23
EP ITAAC Planning Standard 6, "Accident Assessment," Acceptance Criterion 6.4, is
incomplete.

**Provide additional information to state specifically what Acceptance Criterion 6.4
will test or verify.**