



Tennessee Valley Authority, 1101 Market Street, LP 5A, Chattanooga, Tennessee 37402-2801

October 20, 2009

10 CFR 52.79

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555

In the Matter of)
Tennessee Valley Authority)

Docket No. 52-014 and 52-015

**BELLEFONTE COMBINED LICENSE APPLICATION – RESPONSE TO SAFETY
EVALUATION REPORT WITH OPEN ITEMS FOR CHAPTER 13, “CONDUCT OF
OPERATIONS”**

Reference: Letter from Stephanie Coffin (NRC) to Andrea L. Sterdis (TVA), Safety
Evaluation Report with Open Items Related to SRP Section 13 for the Bellefonte
Units 3 and 4 Combined License Application, dated September 9, 2009

This letter provides the Tennessee Valley Authority’s (TVA) response to the Nuclear Regulatory
Commission’s (NRC) Open Items (OI) included in the subject Safety Evaluation Report (SER).

A response to each NRC Open Item is addressed in the enclosure which also identifies any
associated changes that will be made in a future revision of the BLN application. The Enclosure
also provides necessary changes associated with Confirmatory Items for which the changes had
not been previously identified to NRC.

If you should have any questions, please contact Tom Spink at 1101 Market Street, LP5A,
Chattanooga, Tennessee 37402-2801, by telephone at (423) 751-7062, or via email at
tespink@tva.gov.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on this 20th day of Oct, 2009.

Andrea L. Sterdis
Manager, New Nuclear Licensing and Industry Affairs
Nuclear Generation Development & Construction

Enclosure
cc: See Page 2

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NR0

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cc: (w/Enclosure)

B.C. Anderson/NRC/HQ
J. P. Berger, EDF
E. Cummins, Westinghouse
S. P. Frantz, Morgan Lewis
M.W. Gettler, FP&L
R. C. Grumbir, NuStart
P. S. Hastings, NuStart
P. Hinnenkamp, Entergy
B. Hughes, NRC/HQ
D. Lindgren, Westinghouse
G. D. Miller, PG&N
M. C. Nolan, Duke Energy
N. T. Simms, Duke Energy
K. N. Slays, NuStart
G. A. Zinke, NuStart

cc: (w/o Enclosure)

M. M. Comar, NRC/HQ
R. G. Joshi, NRC/HQ
R. H. Kitchen, PGN
M. C. Kray, NuStart
A. M. Monroe, SCE&G
C. R. Pierce, SNC
R. Reister, DOE/PM
L. Reyes, NRC/RII
T. Simms, NRC/HQ
J. M. Sebrosky, NRC/HQ

Enclosure
TVA letter dated October 20, 2009
SER OI Responses

Responses to NRC Safety Evaluation Report with Open Items letter dated September 9, 2009
(63 pages, including this list)

Subject: Emergency Planning, Security Plan and Fitness for Duty for the Bellefonte Units 3 and 4
Combined License Application

<u>Open Item Number</u>	<u>Date of TVA Response</u>
Open Item 13.03-01	This letter – see following pages
Open Item 13.03-02	This letter – see following pages
Open Item 13.03-03	This letter – see following pages
Open Item 13.03-04	This letter – see following pages
Open Item 13.03-05	This letter – see following pages
Open Item 13.03-06	This letter – see following pages
Open Item 13.03-07	This letter – see following pages
Open Item 13.03-08	This letter – see following pages
Open Item 13.03-09	This letter – see following pages
Open Item 13.03-10	This letter – see following pages
Open Item 13.03-11	This letter – see following pages
Open Item 13.03-12	This letter – see following pages
Open Item 13.03-13	This letter – see following pages
Open Item 13.03-14	This letter – see following pages
Open Item 13.03-15	This letter – see following pages
Open Item 13.03-16	This letter – see following pages
Open Item 13.03-17	This letter – see following pages
Open Item 13.03-18	This letter – see following pages
Open Item 13.03-19 (2 nd Open Item 13.03-12 in SER)	This letter – see following pages
Open Item 13.03-20	This letter – see following pages
Open Item 13.03-21	This letter – see following pages
Open Item 13.03-22	This letter – see following pages
Open Item 13.03-23	This letter – see following pages
Open Item 13.03-24	This letter – see following pages
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Open Item 13.03-28	This letter – see following pages
Open Item 13.03-29	This letter – see following pages

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Open Item Number

Open Item 13.03-30
Open Item 13.03-31
Open Item 13.03-32
Open Item 13.03-33
Open Item 13.03-34
Open Item 13.03-35
Open Item 13.03-36
Open Item 13.03-37
Open Item 13.06-01
Open Item 13.07-01

Date of TVA Response

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This letter – see following pages

Confirmatory Item Number

Confirmatory Item 13.03-08
Confirmatory Item 13.03-09
Confirmatory Item 13.03-10
Confirmatory Item 13.03-12

Date of TVA Response

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Associated Additional Attachments

Attachment OI 13.03-03
Attachment OI 13.03-04
Attachment OI 13.03-27

Pages Included

4 (including cover letter)
3 (including cover letter)
24 (including cover letter)

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NRC Letter Dated: September 9, 2009

NRC Review of Final Safety Analysis Report

NRC SER OI NUMBER: Open Item 13.03-01 (eRAI 13.03-41)

In RAI 13.03-38(B), the NRC staff asked the applicant to discuss why staffing of the emergency operations facility was not addressed. The applicant's response to RAI 13.03-38(B) refers to Section H.4, "Activation and Staffing of Emergency Response Facilities [ERFs]," of the BLN Emergency Plan, which states that the ERFs are staffed and activated in accordance with emergency plan implementing procedures (EPIPs). However, the applicant did not address specific timeliness goals associated with activating and staffing the ERFs. This is designated as Open Item 13.3-1.

BLN RAI/OI ID: 3720

BLN RESPONSE:

In the September 22, 2008 response to RAI 13.03-38(B), TVA described activating the Emergency Response Organizations which includes staffing the Emergency Response Facilities (ERFs). Section II.H.4 of the Emergency Plan states that ERFs are required to be staffed at an Alert or higher level emergency classification. Table II-2, "Plant Staff Emergency Functions," lists the augmented staffing times as 60 and 90 minutes. In order to activate an ERF within 60 minutes, the minimum staffing required for facility activation must be met. The specific timeliness goals associated with activation and staffing of the ERFs will be described in the Emergency Plan Implementing Procedure (EPIP), "Activation of the Emergency Response Organization," listed in Appendix 5 of the Emergency Plan. To address the NRCs concern, Section II.H.4 of the Emergency Plan will be revised to include a reference to the EPIP.

This response is PLANT-SPECIFIC.

ASSOCIATED BLN COL APPLICATION REVISIONS:

COLA Part 5, Emergency Plan, Section II.H.4 will be revised from:

Following declaration of an emergency condition, the ERFs are staffed and activated in accordance with EPIPs.

To read:

Following declaration of an emergency condition, the ERFs are staffed and activated in accordance with EPIP, "Activation of the Emergency Response Organization," listed in Appendix 5, which provides specific timeliness goals for staffing each of the ERFs.

ASSOCIATED ATTACHMENTS/ENCLOSURES:

None

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NRC Letter Dated: September 9, 2009

NRC Review of Final Safety Analysis Report

NRC SER OI NUMBER: Open Item 13.03-02 (eRAI 13.03-42)

Section II.A.3, "Written Agreements," of the BLN Emergency Plan states Appendix 7, "Certification Letters," includes copies of certification letters established between TVA and State and local government agencies and private sector organizations supporting the emergency response effort. The letters from TVA state "The actual emergency planning arrangements would be finalized in Letters of Agreement at a later stage in the licensing process". In RAI 13.03-18(E), the staff requested that the applicant identify when the letters of agreement will be available and incorporated into the BLN Emergency Plan. In the supplemental information provided in response to RAI 13.03-18(E), the applicant stated that letters of agreement will be available for NRC inspection prior to the full-participation exercise to be conducted in accordance with the requirements of Appendix E to 10 CFR Part 50.

The letters of agreement are required prior to COL issuance. Therefore, the staff requires either the letters of agreement be provided prior to COL issuance or a proposed license condition describing the applicant's plans for providing them. This is being tracked as Open Item 13.3-2.

BLN RAI/OI ID: 3721

BLN RESPONSE:

Appendix 7 of the Emergency Plan contains Certification Letters from the Alabama Emergency Management Agency (AEMA), the Alabama Department of Public Health (ADPH), Jackson County and DeKalb County, certifying that the proposed emergency plans are practicable; that these agencies are committed to participating in any further development of the plans, including any required field demonstrations; and these agencies are committed to executing their responsibilities under the plans in the event of an emergency, as required by 10 CFR 52.79(a)(22)(i).

Regulatory Guide 1.206 section C.I.13.3.1 and Standard Review Plan (NUREG-0800) Acceptance Criterion 18 specify that "copies of letters of agreement (or other certifications)" reflecting contacts and arrangements made with State and local agencies with emergency planning responsibilities should be included in applications for construction permits, operating licenses, early site permits or combined licenses, and that the information should be up-to-date when the application is submitted.

Adequate emergency planning arrangements have been established between TVA and State and local government agencies and private sector organizations supporting the Bellefonte emergency response effort. As indicated in the Certification Letters provided in Appendix 7 of the Emergency Plan, the Letters of Agreement will be finalized at a later stage in the planning process.

In the September 8, 2008 response to RAI 13.03-18(E), TVA stated the Letters of Agreement would be available for NRC inspection prior to the full-participation exercise to be conducted in accordance with the requirements of Appendix E to 10 CFR Part 50. However, to satisfy the NRC's concern, Part 10 of the Combined License (COL) Application will be revised in a future revision of the BLN COL Application to include the proposed license condition described below.

This response is PLANT-SPECIFIC.

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ASSOCIATED BLN COL APPLICATION REVISIONS:

COLA Part 10, Proposed License Condition 4, will be revised from (as included in supplemental response to BLN-RAI-LTR-063, dated July 13, 2009):

4. EMERGENCY PLANNING ACTIONS:

The COL Application does not fully address certain aspects of the EAL scheme because various equipment setpoints and other information cannot be determined until the as-built information is available. Thus, COL applicants using EAL schemes in accordance with NEI 07-01 are proposing the following license condition.

PROPOSED LICENSE CONDITION:

The licensee shall submit a fully developed set of site-specific Emergency Action Levels (EALs) to the NRC in accordance with the NRC-endorsed version of NEI 07-01, Rev. 0, with no deviations. These fully developed EALs shall be submitted to the NRC for confirmation at least 180 days prior to initial fuel load.

To read:

4. EMERGENCY PLANNING ACTIONS:

The COL Application does not contain final versions of some implementation aspects of emergency planning such as EALs and Letters of Agreement because the information will not be developed until it is necessary to implement those aspects of the plan. Thus, COL applicants are proposing the following license condition.

PROPOSED LICENSE CONDITION:

A. The licensee shall submit a fully developed set of site-specific Emergency Action Levels (EALs) to the NRC in accordance with the NRC-endorsed version of NEI 07-01, Rev. 0, with no deviations. These fully developed EALs shall be submitted to the NRC for confirmation at least 180 days prior to initial fuel load.

B. Prior to the full participation exercise to be conducted in accordance with the requirements of Appendix E to 10 CFR Part 50, TVA shall establish Letters of Agreement with the following entities:

- a. Alabama Department of Public Health
- b. Alabama Emergency Management Agency
- c. Jackson County Emergency Management Agency
- d. DeKalb County Emergency Management Agency.

These Letters of Agreement will identify the specific nature of arrangements in support of emergency preparedness for operation of the proposed new nuclear units and certify the agency's concurrence with the emergency action levels described in Bellefonte Units 3 & 4 Combined License Application Emergency Plan Implementing Procedure, "Emergency Classification."

ASSOCIATED ATTACHMENTS/ENCLOSURES:

None

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NRC Letter Dated: September 9, 2009

NRC Review of Final Safety Analysis Report

NRC SER OI NUMBER: Open Item 13.03-03 (eRAI 13.03-43)

Minimum on-shift staffing and goals for providing additional resources after declaration of an emergency are indicated in Table II-2, "Plant Staff Emergency Functions." Section II.B.5, "Plant Emergency Response Staff," of the BLN Emergency Plan states that positions, title and major tasks to be performed by the persons assigned to the functional areas of emergency activity at the station are described in EPIPs. Open Item 13.3-3 was created to track the addition of the name of this EPIP to Appendix 5, "Emergency Plan Implementing Procedures - Topical List," of the BLN Emergency Plan.

BLN RAI/OI ID: 3722

BLN RESPONSE:

In the September 8, 2008 response to RAI 13.03-33(A), TVA provided a table indicating that the positions, titles, and major tasks of the plant staff emergency organization discussed in Section II.B.5 of the Emergency Plan are within the scope of the topical area, "Activation of the Emergency Response Organization," listed in Appendix 5 of the Emergency Plan. TVA will revise Appendix 5 of the Emergency Plan to include Emergency Plan Implementing Procedure (EPIP) titles, the associated subject matter for each EPIP, and the corresponding Emergency Plan section(s) implemented by that EPIP. The EPIP describing the positions, titles, and major tasks to be performed by the persons assigned to the functional areas of emergency activity will be shown in Appendix 5 as procedure, "Activation of the Emergency Response Organization."

Appendix 5 of the COL Emergency Plan will be replaced in a future revision of the BLN COL Application with Appendix 5 provided as Attachment OI 13.03-03 of this letter. Appendix 5 will reflect the titles of the procedures required to implement the Emergency Plan and provide the subject matter and the corresponding COL Emergency Plan section(s) for each procedure.

This response is PLANT-SPECIFIC.

ASSOCIATED BLN COL APPLICATION REVISIONS:

COLA Part 5, Emergency Plan, Appendix 5 will be replaced with Appendix 5 provided in Attachment OI 13.03-03 of this letter.

ASSOCIATED ATTACHMENTS/ENCLOSURES:

Attachment OI 13.03-03

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NRC Letter Dated: September 9, 2009

NRC Review of Final Safety Analysis Report

NRC SER OI NUMBER: Open Item 13.03-04 (eRAI 13.03-44)

Table II-2 indicates that there will be two non-licensed operators (NLOs) on each shift, whereas, BLN COL FSAR Table 13.1-202 identifies a minimum number for NLOs as three. In RAI 13.03-19(G), the applicant was asked to discuss the rationale for not having three NLOs in Table II-2. In response, the applicant stated that the minimum number of NLOs required to support operations for a two-unit plant, with both units operating, under declared emergency conditions, is four. Because Table II-2 remains unclear relative to the number of NLOs that will be on shift to support a response in the event of an emergency on a per unit basis when one or both units are shutdown, Open Item 13.3-4 was created to track this issue.

BLN RAI/OI ID: 3723

BLN RESPONSE:

In the September 23, 2008 response to RAI 13.03-19(G), TVA explained that Table 13.1-202 of the Final Safety Analysis Report (FSAR) addresses the minimum number of personnel required on-duty for operation of two units at Bellefonte. According to Table 13.1-202, the minimum number of non-licensed operators (NLOs) required on shift when two units are operating is four and the minimum number of NLOs required on shift when one or both units are in cold shutdown or refueling mode is three.

Technical Specifications in Section 5.2.2.a of Chapter 16 of the AP1000 Design Control Document (DCD) states a NLO shall be assigned to each unit containing fuel and an additional NLO shall be assigned for each unit not in cold shutdown or refueling mode. Figure 13.1-202 of the FSAR, illustrating the on shift operating organization, indicates five NLOs, including building operators and auxiliary operators, are on shift per unit.

Table II-2 of the Bellefonte Emergency Plan requires a minimum of two NLOs per unit for emergency response. To expand on TVA's previous explanation related to how minimum shift staffing relates to minimum emergency response staffing for NLOs, TVA recognizes that there may be instances where NLO staffing does not meet FSAR (Technical Specifications) minimum staffing requirements. In these cases, Technical Specifications provide compensatory measures to replace unanticipated vacancies in section 5.2.2 of Chapter 16 of the AP1000 DCD. However, TVA recognizes the language presented in Note 2 of Table II-2 could be clarified. Table II-2 will be replaced with Attachment OI 13.03-04 in a future revision to the COL Application to clarify consistency with the FSAR and section 5.2.2 of Chapter 16 of the DCD.

This response is PLANT-SPECIFIC.

ASSOCIATED BLN COL APPLICATION REVISIONS:

COLA Part 5, Emergency Plan, Table II-2 will be replaced with Table II-2 provided in Attachment OI 13.03-04 of this letter.

ASSOCIATED ATTACHMENTS/ENCLOSURES:

None

NRC Letter Dated: September 9, 2009

NRC Review of Final Safety Analysis Report

NRC SER OI NUMBER: Open Item 13.03-05 (eRAI 13.03-45)

Table II-2 of the BLN Emergency Plan describes the proposed staff augmentation capabilities for listed emergency functions. In RAI 13.03-19(N), the applicant was asked to discuss how the on-shift/per unit personnel numbers would be assigned without collateral duty assignments. In response, the applicant stated that the number of individuals who do not have collateral emergency response duties has not yet been determined. Details regarding staffing of certain functions, such as fire-fighting and first aid functions, are also not yet determined. Details regarding these functions will be developed based upon an assessment of plant design features and TVA's operating experience with its existing nuclear facilities, such that sufficient numbers are available. Open Item 13.3-5 was created to track the need for the applicant to determine the number of individuals who have collateral emergency response duties.

Section II.B, "On-site Emergency Organization," of the BLN Emergency Plan states that the minimum emergency response staffing in Table II-2, "Plant Staff Emergency Functions," of the BLN Emergency Plan is based upon guidance provided in Table B-1, "Minimum Staffing Requirements for NRC Licensees for Nuclear Power Plant Emergencies," of NUREG-0654/FEMA-REP-1. In addition, the justification provided in Section 5 states that the 60 and 90 minute goals for emergency response staff augmentation are consistent with those implemented for existing TVA nuclear facilities. In RAI 13.03-19(D), the applicant was asked to justify extending the staff augmentation times an additional 30 minutes from the times specified in NUREG-0654/FEMA-REP-1. In response, the applicant stated that these times are necessary due to the remote location of the facility. In addition, the CECC is capable of providing additional management, technical, and communications support to the plant staff pending activation of the OSC and TSC. TVA's experience in conducting drills and exercises and responding to emergency conditions at the existing facilities indicate that the plant staff is capable of carrying out the initial emergency response activities and that the proposed staff augmentation times do not adversely affect TVA's emergency response capabilities.

This portion of the BLN Emergency Plan is unacceptable because Table II-2 remains unclear relative to the number of NLOs that will be on shift to support a response in the event of an emergency on a per unit basis when one or both units are shutdown. The applicant needs to identify the number of individuals who have collateral emergency response duties, and the name of the EPIP that will address the positions, title and major tasks to be performed by the persons assigned to the functional areas of emergency activity at the station and needs to be added to Appendix 5, "Emergency Plan Implementing Procedures - Topical List," of the BLN Emergency Plan. This is being tracked as Open Item 13.3-5.

BLN RAI/OI ID: 3724

BLN RESPONSE:

The Shift Manager and the Senior Radiation Protection Technician are the only individuals with collateral emergency response duties. Collateral duties of the Shift Manager are discussed in Section II.A of the Emergency Plan. The collateral duties of the on shift Senior Radiation Protection Technician were described in TVA's September 23, 2008 response to RAI 13.3-18(N.2). According to Table II-2 of the Emergency Plan, Fire Team Members are assigned per the Final Safety Analysis Report (FSAR). Subsection 13.1.2.1.5 of the FSAR states that the station is designed and the fire brigade is organized to be self-sufficient with respect to fire fighting activities. The assigned fire brigade members for any shift do not include the manager in charge on shift nor any other members of the minimum shift operating crew necessary for safe shutdown of the unit. It does not include any other personnel required for other essential functions during a fire emergency. Section II.L.2 of the Emergency Plan describes TVA's

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Medical Emergency Response Team (MERT). TVA maintains a dedicated, trained MERT at the site to provide 24 hour per day first aid support.

TVA recognizes that Table II-2 could be clarified. Existing Table II-2 will be replaced with Table II-2 provided as Attachment OI 13.03-04 of this letter in a future revision to the COL Application. Table II-2 will acknowledge the collateral duties of the Shift Manager and the Senior Radiation Protection Technician as well as the lack of collateral duties associated with MERT personnel.

This response is PLANT-SPECIFIC.

ASSOCIATED BLN COL APPLICATION REVISIONS:

COLA Part 5, Emergency Plan, Table II-2 will be replaced with Table II-2 provided in Attachment OI 13.03-04 of this letter.

ASSOCIATED ATTACHMENTS/ENCLOSURES:

Attachment OI 13.03-04

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NRC Letter Dated: September 9, 2009

NRC Review of Final Safety Analysis Report

NRC SER OI NUMBER: Open Item 13.03-06 (eRAI 13.03-46)

The NRC staff has confirmed that Revision 1 to the BLN Emergency Plan identifies Hollywood Volunteer Fire Department, Highlands Medical Center Emergency Medical Services, and WEC in Section II.B.8. The response to RAI 13.03-19(C) adequately addresses the issue. However, the BLN Emergency Plan does not identify other engineering and technical services support firms that may be requested to provide technical assistance to, and augmentation of, the emergency organization. Similar to the Open Item 13.3-2 discussed in Section 13.3.1C.A.1 of this SER, the applicant should identify and provide letters of agreement for engineering and technical service support, or a proposed license condition describing the applicant's plans for providing them. This is being tracked as Open Item 13.3-6.

BLN RAI/OI ID: 3725

BLN RESPONSE:

Appendix 7 of the Emergency Plan does not include engineering or technical services firms that may be requested to provide technical assistance to, and augmentation of, the emergency organization because these firms have not yet been identified.

In the September 23, 2008 response to RAI 13.03-19(C), TVA stated that when additional supporting organizations are identified details regarding arrangements and supporting Letters of Agreement will be developed.

In the February 10, 2009 supplemental response to RAI 13.03-19(C), TVA stated the Letters of Agreement would be available for NRC inspection prior to the full-participation exercise to be conducted in accordance with the requirements of Appendix E to 10 CFR Part 50 and that the Letters of Agreement will be incorporated in a future revision of the Emergency Plan as part of updates to the Final Safety Analysis Report required by regulation. TVA considered this response to be a commitment as discussed in NEI 99-04. However, to satisfy the NRC's concern, Part 10 of the Combined License (COL) Application will be revised in a future revision of the BLN COL Application to include the proposed license condition described below.

This response is PLANT-SPECIFIC.

ASSOCIATED BLN COL APPLICATION REVISIONS:

COLA Part 10, Proposed License Condition 4 (see response to OI 13.03-02, this letter), will be revised to include:

C. Prior to the full participation exercise to be conducted in accordance with the requirements of Appendix E to 10 CFR Part 50, TVA shall establish Letters of Agreement with engineering and technical services firms that may be requested to provide engineering and technical support during an emergency.

These Letters of Agreement will identify the emergency response capabilities.

ASSOCIATED ATTACHMENTS/ENCLOSURES:

None

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TVA letter dated October 20, 2009
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NRC Letter Dated: September 9, 2009

NRC Review of Final Safety Analysis Report

NRC SER OI NUMBER: Open Item 13.03-07 (eRAI 13.03-47)

No letters of agreement were provided for INPO, WEC or REAC/TS. In RAI 13.03-20(D), the staff requested that the applicant provide letters of agreement or other appropriate supporting documentation related to the emergency assistance provided by INPO, WEC and REAC/TS. In its letter dated September 8, 2008, TVA stated that Appendix 7 of the BLN Emergency Plan will be revised to include letters of agreement with the following organizations: INPO, WEC and REAC/TS.

Letters of agreement have not been provided for the three emergency response support organizations discussed above. Open Item 13.3-7 will track the need for incorporation of letters of agreement with INPO, WEC and REAC/TS in the BLN Emergency Plan.

BLN RAI/OI ID: 3726

BLN RESPONSE:

In the September 8, 2008 response to RAI 13.03-20(D), TVA stated the Letters of Agreement with the Institute of Nuclear Power Operations (INPO), Westinghouse Electric Company (WEC) and Radiation Emergency Assistance Center/Training Site (REAC/TS) would be available and incorporated into the BLN COL Emergency Plan prior to receipt of nuclear fuel on the site. The revisions discussed in this response stating that Letters of Agreement with INPO, WEC, and REAC/TS will be included in Appendix 7 prior to receipt of nuclear fuel, were incorporated in Appendix 7 in Revision 1 of the Emergency Plan.

To satisfy additional NRC staff concerns TVA provided the February 10, 2009 supplemental response to RAI 13.03-19(C), stating the Letter of Agreement with WEC will be available for NRC inspection prior to the full-participation exercise to be conducted in accordance with the requirements of Appendix E to 10 CFR Part 50 and that the Letter of Agreement will be incorporated in a future revision of the Emergency Plan as part of updates to the Final Safety Analysis Report required by regulation. TVA considered this response to be a commitment as discussed in NEI 99-04. However, to satisfy the NRC's concern provided in this Open Item, Part 10 of the Combined License (COL) Application will be revised in a future revision of the BLN COL Application to include the proposed license condition described below.

This response is PLANT-SPECIFIC.

ASSOCIATED BLN COL APPLICATION REVISIONS:

COLA Part 10, Proposed License Condition 4 (see response to OI 13.03-02, this letter), will be revised to include:

D. Prior to the full-participation exercise to be conducted in accordance with the requirements of Appendix E to 10 CFR Part 50, TVA shall establish Letters of Agreement with the following organizations:

- a. Institute of Nuclear Power Operations
- b. Westinghouse Electric Corporation
- c. Radiation Emergency Assistance Center/Training Site

These Letters of Agreement will identify the emergency response capabilities.

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ASSOCIATED ATTACHMENTS/ENCLOSURES:

None

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NRC Letter Dated: September 9, 2009

NRC Review of Final Safety Analysis Report

NRC SER OI NUMBER: Open Item 13.03-08 (eRAI 13.03-48)

The Executive Summary of Appendix 1 to the BLN Emergency Plan states that the set of EALs and ICs are based on the industry guidance provided in NEI 07-01, Revision 0, draft dated September 2007. In RAI 13.03-40, the NRNC staff requested that the applicant address its plans to finalize the required EAL scheme.

In response to RAI 13.03-40, the applicant provided a revised Section D, and proposed a license condition to submit a fully developed set of site-specific EALs in accordance with the NRC-endorsed version of NEI 07-01, Revision 0, with no deviations. The NRC notes that NEI 07-01, Revision 0, has not been endorsed. Until the applicant references an NRC-endorsed methodology for developing its site-specific EAL scheme, the NRC cannot find the license condition acceptable. Thus, the staff created Open Item 13.3-8 to track the applicant's reference to an NRC-endorsed methodology and the inclusion of the proposed license condition in the COL application.

BLN RAI/OI ID: 3727

BLN RESPONSE:

In the July 13, 2009 supplemental response to RAI 13.03-40, TVA provided a Proposed License Condition related to Critical Element 3 of the RAI for the creation of a fully developed set of site-specific Emergency Action Levels (EALs). Based on discussions with NRC staff, the Proposed License Condition submitted in the July 13, 2009 letter sufficiently addresses this Open Item. Part 10 of the Combined License (COL) Application will be revised in a future revision of the BLN COL Application to include the Proposed License Condition provided in TVA's July 13, 2009 letter.

This response is PLANT-SPECIFIC.

ASSOCIATED BLN COL APPLICATION REVISIONS:

COLA Part 10, Proposed License Condition 4 will be revised as shown in the response to SER Open Item 13.03-02 (this letter).

ASSOCIATED ATTACHMENTS/ENCLOSURES:

None

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NRC Letter Dated: September 9, 2009

NRC Review of Final Safety Analysis Report

NRC SER OI NUMBER: Open Item 13.03-09 (eRAI 13.03-49)

Letters of Certification with State and local governments are included in Appendix 7, "Certification Letters," of the BLN Emergency Plan. These letters state that the signature on the letter indicates that the parties concurred with the emergency classification system, initiating conditions, and emergency action levels for BLN. EALs and ICs, based upon the September 2007 draft of NEI 07-01, are included in the BLN Emergency Plan as Appendix 1, "Emergency Action Levels." However, NEI 07-01 has not been endorsed by the NRC. In RAI 13.03-21(B), the staff asked the applicant to discuss when the initial EALs will be discussed and agreed upon, with State and local governmental authorities. In its response, the applicant did not state when the initial EALs (reflecting the NRC-endorsed methodology) will be discussed and agreed upon, with State and local governmental authorities. Therefore, the staff requires either confirmation that the initial EALs were discussed and agreed upon or provide a proposed license condition describing the applicant's plans for obtaining agreement. This is being tracked as Open Item 13.3-9.

BLN RAI/OI ID: 3728

BLN RESPONSE:

Consistent with the requirements of Section IV.B of Appendix E to 10 CFR Part 50, initial emergency action levels will be discussed and agreed upon with State and local agencies responsible for emergency planning. The initial emergency action levels will be submitted to NRC for approval.

TVA will include a Proposed License Condition in a future revision to Part 10 of the Combined License Application as described below.

This response is PLANT-SPECIFIC.

ASSOCIATED BLN COL APPLICATION REVISIONS:

COLA Part 10, Proposed License Condition 4 will be revised as shown in the response to SER Open Item 13.03-02 (this letter).

ASSOCIATED ATTACHMENTS/ENCLOSURES:

None

Enclosure
TVA letter dated October 20, 2009
SER OI Responses

NRC Letter Dated: September 9, 2009

NRC Review of Final Safety Analysis Report

NRC SER OI NUMBER: Open Item 13.03-10 (eRAI 13.03-50)

Note: SER Open Item 13.3-10 and 13.3-11 are the same issue.

Section II.N.2.a of the BLN Emergency Plan, does not address periodic testing of communications from the licensee to the NRC Headquarters and the appropriate NRC Regional Office Operations Center. These communications systems are required to be tested monthly in accordance with 10 CFR Part 50, Appendix E, Section IV.E.9.d. In RAI 13.03-23(B), the staff requested that the applicant provide clarification regarding the testing frequency from the licensee to the NRC Headquarters and the appropriate NRC Regional Office Operations Center. In response, the applicant provided additional information but did not address testing of communications from the licensee to the NRC Headquarters and the appropriate NRC Regional Office Operations Center on a monthly basis. Open Item 13.3-10 was created to track the addition of the communications link testing frequency from the licensee to the NRC Headquarters and the appropriate NRC Regional Office Operations Center in the BLN Emergency Plan.

BLN RAI/OI ID: 3729

BLN RESPONSE:

Section II.F.1.f of the Emergency Plan describes the communications between the Control Room, the Technical Support Center (TSC), the Central Emergency Control Center (CECC) and the NRC Operations Center and NRC Regional Office. These communications systems are tested monthly in accordance with Section IV.E.9.d of Appendix E to 10 CFR Part 50. Section II.N.2.a of the Emergency Plan will be revised in a future revision of the BLN COL Application as discussed below to include the required tests of the communications systems.

This response is PLANT-SPECIFIC.

ASSOCIATED BLN COL APPLICATION REVISIONS:

COLA Part 5, Emergency Plan, Section II.N.2.a will be revised from:

TVA tests communications with State and local governments within the Plume Exposure Pathway EPZ, as identified in Section II.A of this plan on a monthly basis.

To read:

TVA tests communications with NRC Headquarters and the NRC Regional Operations Center from the Control Room, TSC, and CECC monthly.

TVA tests communications with State and local governments within the Plume Exposure Pathway EPZ, as identified in Section II.A of this plan on a monthly basis.

ASSOCIATED ATTACHMENTS/ENCLOSURES:

None

Enclosure
TVA letter dated October 20, 2009
SER OI Responses

NRC Letter Dated: September 9, 2009

NRC Review of Final Safety Analysis Report

NRC SER OI NUMBER: Open Item 13.03-11 (eRAI 13.03-51)

Note: SER Open Item 13.3-10 and 13.3-11 are the same issue.

The applicant's communication plans have arrangements for emergencies, including titles and alternates for those in charge at both ends of the communication links and the primary and backup means of communication. These arrangements included provision for monthly communications with contiguous State/local governments in the plume exposure pathway EPZ; provisions for annual communications with Federal EROs; provision for annual communications among the nuclear power reactor control room, the onsite TSC, and the EOF, and among the nuclear facility, the principal State and local EOCs, and the field assessment teams. Provisions for monthly communications by the licensee with NRC Headquarters and the appropriate NRC Regional Office Operations Center from the nuclear power reactor control room, the TSC, and the CECC has not been addressed and Open Item 13.3-11 was created to track the issue.

BLN RAI/OI ID: 3730

BLN RESPONSE:

Section II.F.1.f of the Emergency Plan describes the communications between the Control Room, the Technical Support Center (TSC), the Central Emergency Control Center (CECC), and the NRC Operations Center and NRC Regional Office. These communications systems are tested monthly in accordance with Section IV.E.9.d of Appendix E to 10 CFR Part 50. Section II.N.2.a of the Emergency Plan will be revised in a future revision of the BLN COL Application as discussed in the response to Open Item 13.03-10, this letter, to include the required tests of the communications systems.

This response is PLANT-SPECIFIC.

ASSOCIATED BLN COL APPLICATION REVISIONS:

COLA Part 5, Emergency Plan, Section II.N.2.a will be revised as provided in the response to SER Open Item 13.03-10 (this letter).

ASSOCIATED ATTACHMENTS/ENCLOSURES:

None

Enclosure
TVA letter dated October 20, 2009
SER OI Responses

NRC Letter Dated: September 9, 2009

NRC Review of Final Safety Analysis Report

NRC SER OI NUMBER: Open Item 13.03-12 (eRAI 13.03-52)

The NRC staff finds that the BLN Emergency Plan describes a public information program that provides the permanent and transient adult population in the plume exposure EPZ an adequate opportunity to become aware of the information annually. The program includes provision for written material that is likely to be available in a residence during an emergency. The BLN Emergency Plan describes the updating of disseminated information at least annually. Signs or other measures are used to disseminate to transient populations in the plume exposure pathway EPZ appropriate information that would be helpful if an emergency or accident occurs. Such notices refer the transient to the telephone directory or other source of local emergency information and guide the visitor to appropriate radio and television frequencies.

However, the staff finds the distribution of public information prior to exceeding 5 percent of rated thermal power to be unacceptable. The staff has determined that this program needs to be implemented and demonstrated in concert with the full-participation exercise in accordance with 10 CFR Part 50, Appendix E, IV.F.2 and the applicant's commitment to the NUREG-0654/FEMA-REP- 1, Appendix 3, "Means for Providing Prompt Alerting and Notification of Response Organizations and the Public," Section B, "Criteria for Acceptance." The staff created Open Item 13.3-12 to track the need for the applicant to propose an EP-ITAAC that addresses the distribution of public information prior to fuel load.

BLN RAI/OI ID: 3731

BLN RESPONSE:

TVA includes provisions for disseminating emergency planning information to the public in Section II.G of the Emergency Plan. These provisions ensure compliance with the requirements of Section IV.D.2 of Appendix E to 10 CFR Part 50 for distributing emergency planning information to the public within the plume exposure pathway Emergency Planning Zone (EPZ) on an annual basis. To satisfy the NRC's concern, TVA will include a Proposed License Condition, rather than an EP-ITAAC, in a future revision to Part 10 of the Combined License Application as described below.

This response is PLANT-SPECIFIC.

ASSOCIATED BLN COL APPLICATION REVISIONS:

COLA Part 10, Proposed License Condition 4, (see response to OI 13.03-02, this letter), will be revised to include:

E. Prior to fuel load, TVA shall:

- a. Distribute written information to permanent residences within the plume exposure pathway Emergency Planning Zone (EPZ).
- b. Provide public postings at locations within the EPZ as agreed to with Jackson and DeKalb County Emergency Management.
- c. Distribute publications to hotels, motels, and campgrounds within the EPZ.
- d. Verify information has been published in telephone directories distributed within the EPZ.

Enclosure
TVA letter dated October 20, 2009
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ASSOCIATED ATTACHMENTS/ENCLOSURES:

None

Enclosure
TVA letter dated October 20, 2009
SER OI Responses

NRC Letter Dated: September 9, 2009

NRC Review of Final Safety Analysis Report

NRC SER OI NUMBER: Open Item 13.03-13 (eRAI 13.03-53)

Section II-H.1, "On-Site Emergency Response Facilities," states that in the event that all offsite and onsite alternating current (ac) power is unavailable the TSC could be evacuated and the management function transferred to an unaffected location.

In RAI 13.03-25(E), the staff requested additional information regarding the transfer of the management function in the event the TSC were evacuated. In response, the applicant stated that the most likely location to which the TSC management function would be transferred is the Control Room of the affected unit. Because of the potential heat load limitations in the Control Room during a loss of power event, the number of people that may occupy the Control Room may be limited. The staff created Open Item 13.3-13 to track the issue related to the transfer of the TSC management function to the Control Room of the affected unit and Control Room heat loading.

BLN RAI/OI ID: 3732

BLN RESPONSE:

For the specific condition identified in the Open Item, the personnel in the Technical Support Center (TSC) would not be expected to evacuate to the Main Control Room, therefore there is no impact on heat load in the Main Control Room. In the September 8, 2008 response to RAI 13.03-25(E), TVA indicated the most likely location to which TSC management functions would be transferred would be the Main Control Room of the affected unit. Section 6.4 of the AP1000 Design Control Document (DCD), Revision 17, states if ac power is unavailable for more than 10 minutes the Protection and Safety Monitoring System automatically isolates the Main Control Room and operator habitability requirements are then met by the Main Control Room emergency habitability system. According to DCD Subsection 6.4.1.1, a maximum Main Control Room occupancy of 11 persons can be accommodated by the emergency habitability system for 72 hours. The Main Control Room emergency habitability system, including the ability to limit temperature rise, is described in subsection 6.4.2.2 of the DCD.

In the event of loss of ac power, management functions, including the responsibility for emergency classification, would be transferred to the Main Control Room of the affected unit. Upon transfer of the management functions, the Shift Manager would assume the role of Site Emergency Director (SED). Subsection II.H.1 of the Emergency Plan states that within the Main Control Room, the SED has access to the information needed to classify the emergency.

Other support functions would be assumed by the Central Emergency Control Center (CECC). According to Section II.A.1.d, the CECC is activated upon declaration of an Alert, Site Area Emergency or General Emergency. Upon activation, the CECC communicates emergency status to the State and counties, directs the efforts of the off-site monitoring teams, makes radiological assessments, recommends off-site protective measures to the State and counties, and arranges for dispatch of any special assistance or services requested by the station. As described in Section II.H.2 of the Emergency Plan, the CECC is activated within 60 minutes of the declaration of an Alert or higher level emergency.

This response is PLANT-SPECIFIC.

Enclosure
TVA letter dated October 20, 2009
SER OI Responses

ASSOCIATED BLN COL APPLICATION REVISIONS:

No COLA revisions have been identified associated with this response.

ASSOCIATED ATTACHMENTS/ENCLOSURES:

None

Enclosure
TVA letter dated October 20, 2009
SER OI Responses

NRC Letter Dated: September 9, 2009

NRC Review of Final Safety Analysis Report

NRC SER OI NUMBER: Open Item 13.3-14 (eRAI 13.03-54)

The applicant has identified that the CECC is used for TVA's existing nuclear stations at Browns Ferry, Sequoyah, and Watts Bar, and that the CECC has proven to be an effective facility for implementing the nuclear station emergency plans. The introductory paragraph in Appendix 9 to the BLN Emergency Plan states that on March 19, 1981, the NRC approved the CECC concept with certain provisions. The NRC staff confirmed that provisions related to the CECC concept in the NRC letter dated March 19, 1981, were added to Appendix 9 in Revision 1 to the BLN Emergency Plan. The staff found the response to RAI 13.03-25(O) acceptable because it meets the guidance in Supplement 1 to NUREG-0737. Because the CECC is located greater than 25 miles from the BLN TSC, Commission approval is required by SRM-SECY-96-170. The staff is preparing its request for Commission approval. This is being tracked as Open Item 13.3-14.

BLN RAI/OI ID: 3733

BLN RESPONSE:

As discussed in Appendix 9 of the Emergency Plan, TVA proposes to use the Central Emergency Control Center (CECC) as the Emergency Operations Facility (EOF) for the Bellefonte Nuclear Plant. Since the early 1980's, TVA has used a centralized concept for providing the EOF function for TVA's Browns Ferry, Sequoyah, and Watts Bar Nuclear Plants. TVA acknowledges that Commission approval is required for the CECC because it is located greater than 25 miles from the Bellefonte Technical Support Center (TSC) and that the staff is preparing the request for Commission approval. TVA is confident the location of the CECC provides reasonable assurance that protective measures can and will be implemented in the event of a radiological emergency at the Bellefonte Nuclear Plant. The location of the CECC will not impede TVA's and the Nuclear Regulatory Commission's (NRC's) ability to perform their respective emergency response functions as demonstrated during numerous emergency drills conducted for TVA's operating nuclear plants.

TVA is prepared to respond to any additional requests for information related to locating the CECC greater than 25 miles from the Bellefonte TSC.

This response is PLANT-SPECIFIC.

ASSOCIATED BLN COL APPLICATION REVISIONS:

No COLA revisions have been identified associated with this response.

ASSOCIATED ATTACHMENTS/ENCLOSURES:

None

Enclosure
TVA letter dated October 20, 2009
SER OI Responses

NRC Letter Dated: September 9, 2009

NRC Review of Final Safety Analysis Report

NRC SER OI NUMBER: Open Item 13.03-15 (eRAI 13.03-55)

Information describing the OSC is provided in Section II.H.1, "On-site Emergency Response Facilities," and Appendix 6, "Emergency Equipment and Supplies," of the BLN Emergency Plan. The introduction to Section H.1 states that the OSC was designed to meet the intent of the guidance in NUREG-0696, "Functional Criteria for Emergency Response Facilities," and the clarification in NUREG-0737, Supplement 1. TVA filed for a departure from the AP1000 DCD (BLN DEP 18.8-1) as listed in Part 7, "Departures and Exemption Requests," of the COL application, to move the OSC to the CSA initially designated for the TSC. Additional information regarding the operation of the OSC can be found in AP1000.DCD Section 18.8.3.6, "Operational Support Center Mission and Major Tasks." Protective clothing and respirators are discussed in Section II.J, "Protective Response." However, the detail in the section is not sufficient to determine that the protective equipment is adequate. Communication is covered in Sections II.E, "Notification Methods and Procedures," and II.F, "Emergency Communications." However, the detail provided is not sufficient to determine that adequate communications are available in the OSC.

In RAI 13.03- 25(M), the staff requested additional information related to protective clothing, respirators and communication equipment in the OSC. In its response, the applicant stated that the OSC will be provided a variety of protective clothing (e.g., coveralls, boots, gloves, etc.) and respiratory protection equipment (e.g., full-face respirators with particulate filters and iodine cartridges, self-contained breathing apparatus, etc.) in order for the OSC to be able to perform assigned tasks. Open Item 13.3-15 was created to track the inclusion of information related to protective clothing and respirators and communication equipment in the OSC in the BLN Emergency Plan.

BLN RAI/OI ID: 3734

BLN RESPONSE:

In the October 2, 2008 response to RAI 13.03-25(M), TVA stated that the Operations Support Center (OSC) emergency equipment and supply inventory includes a variety of protective clothing (e.g., coveralls, boots, gloves, etc.) and respiratory protection equipment (e.g., full-face respirators with particulate filters and iodine cartridges, self-contained breathing apparatus, etc.) in order for OSC staff to be able to perform assigned tasks. Personnel in the OSC will have ready access to the plant page system and telephones. OSC teams dispatched from the OSC will have access to hand-held radios to ensure adequate communications. Section II.H.1 of the Emergency Plan will be revised in a future revision to the Combined License Application to include information related to emergency equipment and supplies available in the OSC.

Details regarding the types of emergency equipment and supplies are included in Appendix 6 of the Emergency Plan, "Emergency Equipment and Supplies." The specific locations and quantity of protective clothing, respiratory protection devices, communication devices, and other emergency equipment and supplies is included in Emergency Plan Implementing Procedure, "Emergency Equipment and Inventory," listed in Appendix 5 of the Emergency Plan, as described in the response to Open Item 13.03-03.

This response is PLANT-SPECIFIC.

ASSOCIATED BLN COL APPLICATION REVISIONS:

1. COLA Part 5, Emergency Plan, Section II.H.1, will be revised (in the discussion of the Operations Support Centers) from:

Designated plant support personnel, as indicated in Section II.B of this plan, assemble in the designated OSC to provide support to both the Control Room and TSC. The primary function of the OSC staff is to dispatch assessment, corrective action, and rescue personnel to locations in the plant, as directed by the TSC and Control Room. TVA would provide for an OSC assembly area separate from the control room and the TSC. Personnel reporting to the OSC can be assigned duties in support of emergency operations.

To read:

Designated plant support personnel, as indicated in Section II.B of this plan, assemble in the designated OSC to provide support to both the Control Room and TSC. The primary function of the OSC staff is to dispatch assessment, corrective action, and rescue personnel to locations in the plant as directed by the TSC and Control Room. TVA provides an OSC assembly area separate from the control room and the TSC. Personnel reporting to the OSC can be assigned duties in support of emergency operations.

Personnel directed to perform emergency operational activities from the OSC are provided with adequate inventories of equipment and supplies, including protective clothing, respiratory protection and hand-held radios to ensure adequate communications, consistent with Appendix 6 of this Plan. The location and quantity of specific equipment and supplies is included in EPIP, "Emergency Equipment and Inventory," listed in Appendix 5.

2. COLA Part 5, Emergency Plan, Appendix 6, 5th, 7th, and 16th bulleted items will be revised from:

- Protective clothing
- Respiratory protection equipment
- Communications equipment

To read:

- Protective clothing (coveralls, rubber overshoes, rubber gloves, surgeon caps, hoods, cotton glove inserts, and booties)
- Respiratory protection equipment (full-face respirators with particulate filters and iodine cartridges, and self-contained breathing apparatuses (SCBAs))
- Communications equipment (plant page system, hand-held radios, telephones, facsimile)

ASSOCIATED ATTACHMENTS/ENCLOSURES:

None

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TVA letter dated October 20, 2009
SER OI Responses

NRC Letter Dated: September 9, 2009

NRC Review of Final Safety Analysis Report

NRC SER OI NUMBER: Open Item 13.03-16 (eRAI 13.03-56)

Onsite first aid capability is discussed in Section II.L.2, "Medical and Public Health Support" of the BLN Emergency Plan. Supplies are discussed in Appendix 6, "Emergency Equipment and Supplies." However, in RAI 13.03-29(C), the staff requested additional information regarding facilities and medical supplies to treat onsite medical emergencies. In response, the applicant referenced two offsite facilities and services that will be available and stated that the onsite locations for medical-related activities are not currently known. The staff created Open Item 13.3-16 to track the description of the facilities and medical supplies at the site for appropriate emergency first aid treatment in the BLN Emergency Plan.

BLN RAI/OI ID: 3735

BLN RESPONSE:

Section II.L.2 of the Emergency Plan describes on-site first aid capabilities. As described, TVA will maintain a trained Medical Emergency Response Team (MERT) at the site to provide 24 hour per day first aid support. First Aid stations will be located throughout BLN providing the normal complement of first aid supplies and equipment necessary to treat those injuries not involving hospitalization or professional medical services.

In the September 8, 2008 response to RAI 13.03-29(B), TVA stated it provides first aid equipment and supplies that are consistent with the requirements of OSHA regulations concerning medical services and first aid provided in 29 CFR 1910.151A. These regulations do not require specific first aid kit equipment and supplies. However, TVA included a table of first aid supplies considered to be a minimum inventory as suggested by industry standards and consistent with TVA's other nuclear facilities. In the February 6, 2009 response to RAI 13.03-29(B), TVA provided a revision to Section II.L.2 of the Emergency Plan to include the information provided in the September 8, 2008 response. To satisfy the NRC's concern regarding the location of facilities and medical supplies, Section II.L.2 of the Emergency Plan will be revised to include the locations of onsite first aid stations described in the September 8, 2008 response to RAI 13.03-29(C).

Appendix 6, "Emergency Equipment and Supplies" of the Emergency Plan included "first aid supplies (e.g., bandages, stretchers, splints, topical ointments)." Additional supplies may be added based on experience from actual emergencies, station personnel feedback or emergency exercise experience. To satisfy the NRC's concern regarding medical supplies, Appendix 6 will be revised to include the list of first aid supplies included in the September 8, 2008 response to RAI 13.03-29(B).

This response is PLANT-SPECIFIC.

ASSOCIATED BLN COL APPLICATION REVISIONS:

1. COLA Part 5, Emergency Plan, Section II.L.2 will be revised from (based on RAI response 13.03-29(B) provided in February 6, 2009 letter):

TVA maintains a trained Medical Emergency Response Team (MERT) at the site to provide 24 hour per day first aid support. TVA provides for MERT readiness through training consistent with Section II.O of this plan and drills and exercises consistent with Section II.N of this plan.

First Aid stations are located throughout BLN providing the normal complement of first aid supplies and equipment necessary to treat those injuries not involving hospitalization or professional medical services.

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TVA letter dated October 20, 2009
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To read:

TVA maintains a trained Medical Emergency Response Team (MERT) at the site to provide 24 hour per day first aid support. TVA provides for MERT readiness through training consistent with Section II.O of this plan and drills and exercises consistent with Section II.N of this plan. First Aid stations are located in the following locations and provide the normal complement of first aid supplies and equipment necessary to treat those injuries not involving hospitalization or professional medical services:

- Auxiliary Building
- Annex Building
- Turbine Building
- Maintenance Building
- Administration Building
- Training Building
- Adjacent to the Spent Fuel Pool
- Adjacent to the Reactor Cavity
- Main Control Rooms
- Technical Support Center
- Operations Support Center
- Central Emergency Control Center

2. COLA Part 5, Emergency Plan, Appendix 6, bulleted item will be revised from:

- First aid supplies (e.g., bandages, stretchers, splints, topical ointments)

To read:

- First aid supplies, including (at a minimum):
 - Absorbent compresses
 - Adhesive bandages
 - Adhesive tape
 - Antiseptic
 - Burn treatment
 - Medical exam gloves
 - Sterile pads
 - Triangular bandages
 - Bandage compresses
 - Eye coverings with means of attachment
 - Eye wash
 - Cold pack
 - Roller bandages

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TVA letter dated October 20, 2009
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ASSOCIATED ATTACHMENTS/ENCLOSURES:

None

Enclosure
TVA letter dated October 20, 2009
SER OI Responses

NRC Letter Dated: September 9, 2009

NRC Review of Final Safety Analysis Report

NRC SER OI NUMBER: Open Item 13.03-17 (eRAI 13.03-57)

The NRC staff finds that the BLN Emergency Plan acceptably addresses the development of a methodology for determining the release rate/projected doses if the instrumentation used for assessment are off-scale or inoperable consistent with the guidance provided in NUREG-0654/FEMA-REP-1. The staff created Open Item 13.3-17 to track the need for the applicant to add the title of the implementing procedures that will establish the processes for estimating release rates and projected doses when instrumentation used for assessments is not available to the BLN Emergency Plan.

BLN RAI/OI ID: 3736

BLN RESPONSE:

In the September 8, 2008 response to RAI 13.03-33(A), TVA provided a table indicating that the procedures for estimating release rates and projected doses when associated instrumentation is inoperable or off-scale are within the scope of the topical areas, "Plume Tracking and Assessment of Off-Site Radiological Conditions" and "Core Damage Assessment" as listed in Appendix 5 of the Emergency Plan. As indicated in the response to Open Item 13.03-03 (this letter), TVA will revise Appendix 5 of the Emergency Plan to include Emergency Plan Implementing Procedure (EPIP) titles, the associated subject matter for each EPIP, and corresponding Emergency Plan section(s) implemented by that EPIP in a future revision of the COL Application. The EPIPs describing these topical areas will be included in Appendix 5 as EPIPs titled, "Plume Tracking and Assessment of Off-Site Radiological Conditions" and "Core Damage Assessment."

As stated in the response to Open Item 13.03-03 (this letter), Appendix 5 of the Emergency Plan will be replaced in a future revision of the BLN COL Application with Appendix 5 provided in Attachment OI 13.03-03 of this letter. Appendix 5 will reflect the titles of the procedures required to implement the Emergency Plan and provide the subject matter of each procedure and the corresponding Emergency Plan section(s) for each procedure.

This response is PLANT-SPECIFIC.

ASSOCIATED BLN COL APPLICATION REVISIONS:

COLA Part 5, Emergency Plan, Appendix 5 will be replaced with Appendix 5 provided in Attachment OI 13.03-03 of this letter.

ASSOCIATED ATTACHMENTS/ENCLOSURES:

Attachment OI 13.03-03

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TVA letter dated October 20, 2009
SER OI Responses

NRC Letter Dated: September 9, 2009

NRC Review of Final Safety Analysis Report

NRC SER OI NUMBER: Open Item 13.03-18 (eRAI 13.03-58)

The staff finds that the information provided in the response to RAI 13.03-26(D) and the information in the BLN Emergency Plan adequately describe the capability and resources for field monitoring in the plume exposure EPZ and is acceptable because it meets the guidance in NUREG-0654/FEMA-REP-1. The staff created Open Item 13.3-18 to track the need for the applicant to add the title of the implementing procedure that will describe radiological monitoring during, or after, an emergency to the BLN Emergency Plan.

BLN RAI/OI ID: 3737

BLN RESPONSE:

In the September 23, 2008 response to RAI 13.03-26(D), TVA stated that Emergency Plan Implementing Procedures (EPIPS) have not yet been written. TVA provided a procedure currently in place for its other operating nuclear power plants and stated that it expects to employ this or a similar procedure for the Bellefonte Nuclear Plant.

In the September 8, 2008 response to RAI 13.03-33(A), TVA provided a table indicating that the procedures for field team monitoring are within the scope of the topical area, "Plume Tracking and Assessment of Off-Site Radiological Conditions" listed in Appendix 5 of the Emergency Plan. As provided in the response to Open Item 13.03-03 (this letter), TVA will revise Appendix 5 of the Emergency Plan to include Emergency Plan Implementing Procedure (EPIP) titles, the associate subject matter for each EPIP, and corresponding Emergency Plan section(s) implemented by that EPIP in a future revision of the COL Application. The EPIP describing this topical area will be included in Appendix 5 as EPIPs titled, "Plume Tracking and Assessment of Off-Site Radiological Conditions."

As stated in the response to Open Item 13.03-03 (this letter), Appendix 5 of the Emergency Plan will be replaced in a future revision of the BLN COL Application with Appendix 5 provided in Attachment OI 13.03-03 of this letter. Appendix 5 will reflect the titles of the procedures required to implement the Emergency Plan and provide the subject matter of each procedure and the corresponding Emergency Plan section(s) for each procedure.

This response is PLANT-SPECIFIC.

ASSOCIATED BLN COL APPLICATION REVISIONS:

COLA Part 5, Emergency Plan, Appendix 5 will be replaced with Appendix 5 provided in Attachment OI 13.03-03 of this letter.

ASSOCIATED ATTACHMENTS/ENCLOSURES:

Attachment OI 13.03-03

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TVA letter dated October 20, 2009
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NRC Letter Dated: September 9, 2009

NRC Review of Final Safety Analysis Report

NRC SER OI NUMBER: Open Item 13.03-12 (Open Item 13.03-19) (eRAI 13.03-88)

Section J.2, "Evacuation Routes and Transportation," of the BLN Emergency Plan states that evacuation routes are determined by the Shift Manager/SED, using available information regarding conditions. Provisions for evacuation of onsite individuals include evacuation by private automobile. RAI 13.03-27(B) requested an explanation regarding why provisions for evacuation routes for onsite individuals were not identified. In the supplemental response dated February 10, 2009, the applicant addressed two access/egress routes at the BLN site. Because the applicant did not provide a proposed revision to the BLN Emergency Plan that addresses the two access/egress routes at the BLN site, the staff created Open Item 13.3-12 [Confirmed as Open Item 13.03-19 in a NRC teleconference on October 1, 2009].

BLN RAI/OI ID: 3738

BLN RESPONSE:

As indicated in the discussion of the Open Item, in the February 10, 2009 response to RAI 13.03-27(B), TVA provided a description of the current access/egress roads at the Bellefonte Nuclear Plant site. To satisfy the NRC's concern, Section II.J.2 of the Emergency Plan will be revised in a future revision of the BLN Combined License (COL) Application as indicated below to include the two access/egress routes at the BLN site.

This response is PLANT-SPECIFIC.

ASSOCIATED BLN COL APPLICATION REVISIONS:

COLA Part 5, Bellefonte Nuclear Plant Units 3 & 4 COL Application Emergency Plan, Section II.J.2 will be revised from:

The Shift Manager/Site Emergency Director or designee uses station and local area maps, information available from meteorological tower instrument readouts and current radiological data for determining the evacuation route. Provisions for evacuation of on-site individuals include evacuation by private automobile. The designated relocation site has decontamination and contamination control capability and equipment in the event it is needed. High traffic density is not considered in estimating evacuation times due to the sparsely populated area selected for the site.

Affected individuals evacuate the site via personal vehicles. If any individual on site does not have access to a personal vehicle, the Security Force makes arrangements for transportation with another evacuating individual. TVA directs evacuees to the designated assembly area.

TVA informs individuals of the evacuation routes and appropriate instructions via plant training programs, visitor orientation, escort instructions, posted instructions, or within the content of audible messages.

Should site evacuation via either designated evacuation route be determined to be inadvisable due to adverse conditions (e.g., weather-related, radiological, or traffic density conditions), TVA directs affected individuals to a safe on-site area (as determined by the Site Emergency Director or his designee) for accountability and, if necessary, contamination monitoring and decontamination.

Appendix 8 of this plan provides a cross-reference to these provisions in State and local plans, as applicable.

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TVA letter dated October 20, 2009
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To read:

The Shift Manager/Site Emergency Director or designee uses station and local area maps, information available from meteorological tower instrument readouts and current radiological data for determining the evacuation route. There are two access/egress roads at the Bellefonte Nuclear Plant site. Each of these roads intersects U.S. 72. The south exit route intersects with U.S. 72 approximately 1.5 miles east of the Bellefonte Nuclear Plant. The north exit route intersects with U.S. 72 approximately 1.5 miles north of the site. Provisions for evacuation of on-site individuals include evacuation by private automobile. The designated relocation site has decontamination and contamination control capability and equipment in the event it is needed. High traffic density is not considered in estimating evacuation times due to the sparsely populated area selected for the site.

Should site evacuation via either designated evacuation route be determined to be inadvisable due to adverse conditions (e.g., weather-related, radiological, or traffic density conditions), affected individuals would be directed to a safe on-site area (as determined by the Site Emergency Director or his designee) for accountability and, if necessary, contamination monitoring and decontamination.

Affected individuals evacuate the site via personal vehicles. If any individual on site does not have access to a personal vehicle, the Security Force makes arrangements for transportation with another evacuating individual. TVA directs evacuees to the designated assembly area.

TVA informs individuals of the evacuation routes and appropriate instructions via plant training programs, visitor orientation, escort instructions, posted instructions, or within the content of audible messages.

Appendix 8 of this plan provides a cross-reference to these provisions in State and local plans, as applicable.

ASSOCIATED ATTACHMENTS/ENCLOSURES:

None

Enclosure
TVA letter dated October 20, 2009
SER OI Responses

NRC Letter Dated: September 9, 2009

NRC Review of Final Safety Analysis Report

NRC SER OI NUMBER: Open Item 13.03-20 (eRAI 13.03-59)

Section II.J.10.a, "Protective Measure Implementation" of the BLN Emergency Plan states that maps of evacuation routes, evacuation areas, and general locations of shelter areas and relocation sites are provided in Appendix 4, "Evacuation Time Estimate." RAI 13.03-27(E) requested a description of the location of shelter areas and relocation sites. The applicant's response dated October 2, 2008, and supplemental information provided in a letter dated February 10, 2009, stated that the applicant has determined the general areas where the shelter areas or reception centers for BLN may be located. Shelter areas and reception centers will be located in a manner that reduces the exposure of evacuating individuals to radiological hazards arising from the emergency condition. Consideration will also be given to prevailing traffic patterns and the effect of the area evacuation on public access to the facilities. Shelter areas and reception centers will be provided with adequate facilities and equipment to accommodate expected activities, including registering and sheltering relocated individuals, parking of vehicles, monitoring individuals and vehicles, and providing decontamination services, if needed. These details will be established considering TVA's experience operating three other nuclear plant sites and the proximity of available facilities. If the shelter areas and reception centers are not under the control of TVA, a letter of agreement will be provided. Any letters of agreement that are received will be available and incorporated into the BLN Emergency Plan prior to receipt of nuclear fuel at the site.

Details addressing locations of shelter areas and reception centers will be developed on a schedule that supports NRC inspection activities and execution of the emergency exercise required by 10 CFR Part 50, Appendix E, Section IV.F.2. However, the applicant did not identify the locations of shelter areas and reception centers. Therefore, the staff created Open Item 13.3-20 to track identification of shelter areas and reception centers on a map in the BLN Emergency Plan.

BLN RAI/OI ID: 3739

BLN RESPONSE:

In the October 2, 2008 response to RAI 13.03-27(E), TVA indicated that only general areas where shelter areas and reception centers for the Bellefonte Nuclear Plant might be located have been identified, but specific locations will be determined and developed on a schedule that supports NRC inspection activities prior to the full-participation exercise required by Section IV.F.2 of Appendix E to 10 CFR Part 50. In the February 10, 2009, supplemental response to RAI 13.03-27(E), TVA committed to provide details regarding specific locations for shelter areas and reception centers prior to the full-participation exercise to be conducted in accordance with the requirements of Appendix E to 10 CFR Part 50. To address the NRC's stated concern in this Open Item, TVA is providing a Proposed License Condition regarding identification of the locations of shelter areas and reception centers for the Bellefonte Nuclear Plant to be incorporated in a future revision of the BLN COL Application.

This response is PLANT-SPECIFIC.

Enclosure
TVA letter dated October 20, 2009
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ASSOCIATED BLN COL APPLICATION REVISIONS:

COLA Part 10, Proposed License Condition 4 (see response to OI 13.3-02, this letter), will be revised to include:

PROPOSED LICENSE CONDITION:

F. Prior to the full-participation exercise required by Section IV.F.2 of Appendix E to 10 CFR Part 50, TVA shall identify the specific locations of shelter areas and reception centers, on a map, for Bellefonte Nuclear Plant workers evacuated from the site during an emergency .

ASSOCIATED ATTACHMENTS/ENCLOSURES:

None

Enclosure
TVA letter dated October 20, 2009
SER OI Responses

NRC Letter Dated: September 9, 2009

NRC Review of Final Safety Analysis Report

NRC SER OI NUMBER: Open Item 13.03-21 (eRAI 13.03-60)

RAI 13.03-27(E) also requested a description of the pre-selected radiological sampling and monitoring point locations. In response, the applicant provided preliminary, pre-identified radiological sampling and monitoring locations on a map and a summary provided on a table attached to the RAI response. The staff created Open Item 13.3-21 to track the final descriptions of pre-selected radiological sampling and monitoring point locations in the BLN Emergency Plan.

BLN RAI/OI ID: 3740

BLN RESPONSE:

In the October 2, 2008 response to RAI 13.03-27(E), TVA provided the preliminary, pre-identified, radiological sampling and monitoring locations on a map, and a tabular description of these locations. This information was provided as Attachments 13.03-27A and 13.03-27B, respectively in the October 2, 2008 response.

The figure depicting the preliminary, pre-selected radiological sampling points, included in the response to RAI 13.03-027(E), has been revised to remove the phrase "preliminary – subject to change." This figure and Appendix 4 of the Emergency Plan will be revised in a future revision of the Combined License (COL) Application to reflect the addition of the map as Figure A4-8 and the tabular description as Table A4-4.

This response is PLANT-SPECIFIC.

ASSOCIATED BLN COL APPLICATION REVISIONS:

COLA Part 5, Emergency Plan, Appendix 4 will be revised to include new Figure A4-8 and new Table A4-4 as follows:

Figure A4-8 – Radiological Sampling and Monitoring Locations

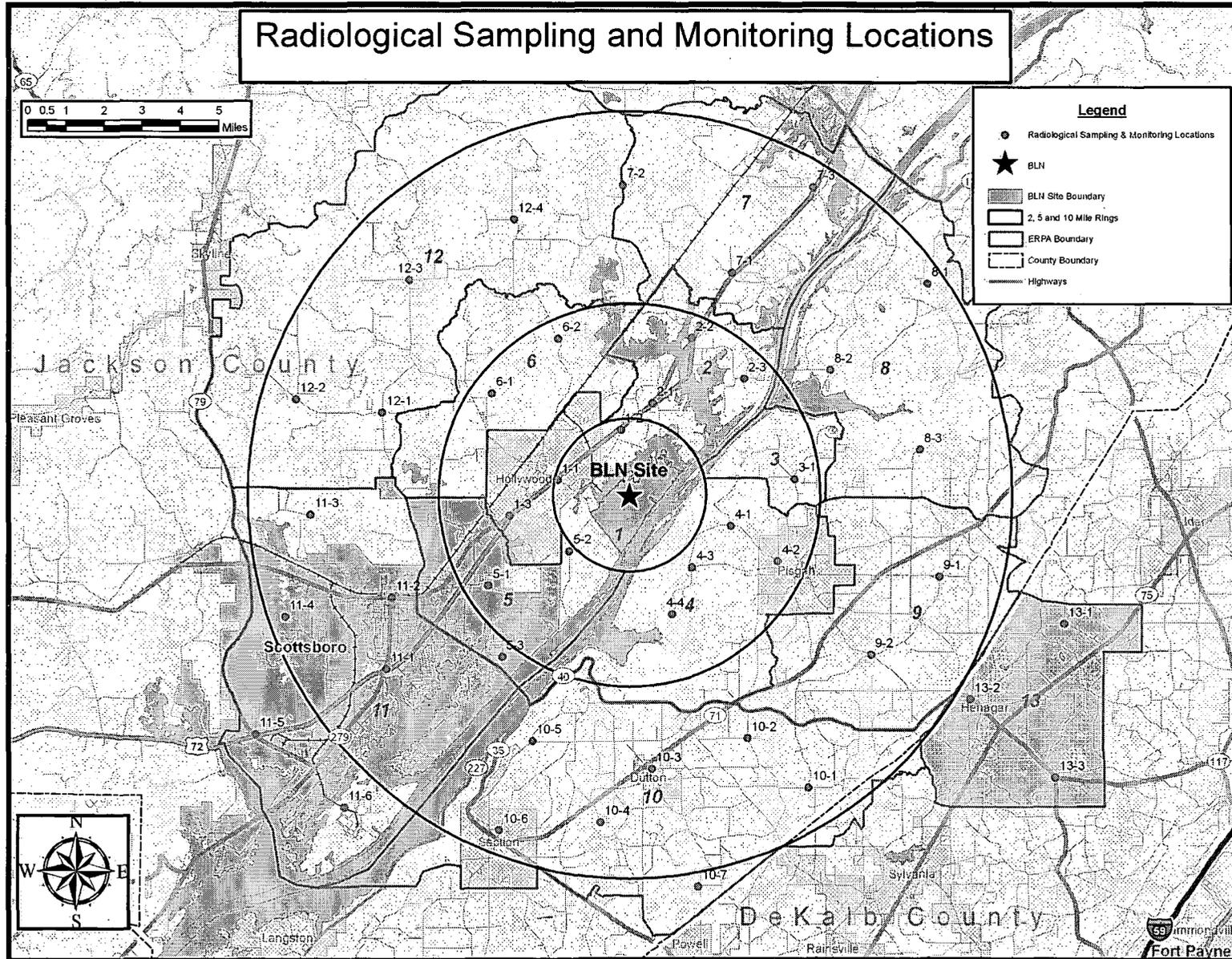


Table A4-4 – BLN Radiological Sampling and Monitoring Locations

Sample Media	ID (Based on ERPA Section)	Longitude (N)	Latitude (W)	Distance from BLN (Miles)	Direction	Location
Airborne ¹ and Direct Radiation	1-1	85°57'28"	34°43'6.5"	1.90	WNW	SR 33 & US 72
Airborne ¹ and Direct Radiation	1-2	85°55'43"	34°44'15.17"	1.74	N	SR 113 & US 72
Airborne ¹ and Direct Radiation	1-3	85°58'47.93"	34°42'17.46"	3.19	W	SR 279 & US 72 SR 213 & US 72 - South of Mud Creek
Airborne ¹ and Direct Radiation	2-1	85°54'50.68"	34°44'51.5"	2.50	NNE	SR 213 & US 72 - North of Mud Creek
Airborne ¹ and Direct Radiation	2-2	85°53'46.74"	34°46'19.43"	4.39	NNE	Creek
Airborne ¹ and Direct Radiation	2-3	85°52'18.2"	34°45'25.1"	3.20	NE	CR 46 & SR 116
Airborne ¹ and Direct Radiation	3-1	85°50'55.25"	34°43'8.32"	4.33	E	CR 359 & CR 457
Airborne ¹ and Direct Radiation	4-1	85°52'42.07"	34°42'4.38"	2.74	ESE	CR 369 & CR 88
Airborne ¹ and Direct Radiation	4-2	85°51'22.87"	34°41'16.06"	4.26	ESE	CR 432 & CR 88 CR 88 90 degree curve at transmission corridor west of Pisgah Transmission Corridor South of CR 88
Airborne ¹ and Direct Radiation	4-3	85°53'45.65"	34°41'7.34"	2.50	SE	
Airborne ¹ and Direct Radiation	4-4	85°54'17.98"	34°40'4.12"	3.29	SSE	
Airborne ¹ and Direct Radiation	5-1	85°59'22.44"	34°40'41.9"	4.36	WSW	SR 33 & Snodgrass Rd
Airborne ¹ and Direct Radiation	5-2	85°57'9.11"	34°41'30.23"	2.17	SW	SR 33 & CR 186
Airborne ¹ and Direct Radiation	5-3	85°58'59.56"	34°39'5.99"	5.39	SW	Carter St & Talley St
Airborne ¹ and Direct Radiation	6-1	85°59'17.36"	34°45'4.22"	4.47	NW	SR 229 90 degree turn east of SR 33
Airborne ¹ and Direct Radiation	6-2	85°57'27.27"	34°46'19.79"	4.48	NNW	SR 42

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Sample Media	ID (Based on ERPA Section)	Longitude (N)	Latitude (W)	Distance from BLN (Miles)	Direction	Location
Radiation						
Airborne ¹ and Direct Radiation	7-1	85°52'39.16"	34°47'49.17"	6.40	NNE	SR 231 & US 72
Airborne ¹ and Direct Radiation	7-2	85°55'40.11"	34°49'49.03"	8.36	N	CR 562 & CR 35
Airborne ¹ and Direct Radiation	7-3	85°50'23.32"	34°49'45.55"	9.16	NNE	SR 137 & US 72
Airborne ¹ and Direct Radiation	8-1	85°49'55.82"	34°45'36.78"	8.81	NE	End of CR 81
Airborne ¹ and Direct Radiation	8-2	85°48'51.73"	34°45'24.2"	6.97	ENE	SR 491 & CR 673
Airborne ¹ and Direct Radiation	8-3	85°47'28.16"	34°43'47.92"	7.66	E	End of CR 126 North of Market St.
Airborne ¹ and Direct Radiation	9-1	85°46'56.19"	34°40'54.62"	8.39	ESE	SR 61 & SR 83
Airborne ¹ and Direct Radiation	9-2	85°48'48.46"	34°39'8.17"	7.57	ESE	SR 83 & CR 288
Airborne ¹ and Direct Radiation	10-1	85°50'32.37"	34°36'37"	8.93	SSE	SR 16 & SR 22
Airborne ¹ and Direct Radiation	10-2	85°52'12.64"	34°37'15.18"	7.04	SSE	SR 123 & CR 384
Airborne ¹ and Direct Radiation	10-3	85°54'52.14"	34°36'32.67"	7.15	S	SR 71 & Main St
Airborne ¹ and Direct Radiation	10-4	85°56'17.15"	34°20'37"	8.58	S	End of SR 408 South of SR 71
Airborne ¹ and Direct Radiation	10-5	85°58'8.69"	34°37'11.54"	6.87	SSW	CR 390 & Scenic Drive
Airborne ¹ and Direct Radiation	10-6	85°59'5"	34°35'9.83"	9.40	SSW	Williams St. & Hodge Rd
Airborne ¹ and Direct Radiation	10-7	85°53'35.11"	34°33'52.18"	10.38	S	CR 406 & CR 406 East of CR 51
Airborne ¹ and Direct Radiation	11-1	86°2'11.39"	34°38'49.64"	7.84	SW	S Broad St & US 72
Airborne ¹ and Direct Radiation	11-2	86°2'3.03"	34°40'25.56"	6.82	WSW	S Broad St & E Willow St

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Sample Media	ID (Based on ERPA Section)	Longitude (N)	Latitude (W)	Distance from BLN (Miles)	Direction	Location
Airborne ¹ and Direct Radiation	11-3	86°4'17.82"	34°42'18.91"	8.39	W	CR 737 & CR 531
Airborne ¹ and Direct Radiation	11-4	86°4'58.15"	34°39'59.76"	9.58	WSW	North end of Christie Dr
Airborne ¹ and Direct Radiation	11-5	86°5'46.11"	34°37'19.54"	11.61	WSW	SR 79 & US 72
Airborne ¹ and Direct Radiation	11-6	86°3'20.91"	34°35'40.03"	10.89	SW	Goose Pond Dr & Industrial Park
Airborne ¹ and Direct Radiation	12-1	86°2'18.29"	34°44'38.42"	6.84	WNW	SR 470 & SR 21
Airborne ¹ and Direct Radiation	12-2	86°4'42.16"	34°56'56.59"	9.11	WNW	SR 21 & SR 28
Airborne ¹ and Direct Radiation	12-3	86°1'35.78"	34°47'39.36"	8.10	NW	SR 32 & SR 33
Airborne ¹ and Direct Radiation	12-4	85°58'39.57"	34°49'1.47"	7.80	NNW	CR 239 & CR 29
Airborne ¹ and Direct Radiation	13-1	85°43'29.1"	34°39'50.31"	11.86	ESE	Roberts Rd & Fleming Rd
Airborne ¹ and Direct Radiation	13-2	85°46'5.36"	34°38'7.92"	11.41	ESE	Henagar Middle School
Airborne ¹ and Direct Radiation	13-3	85°43'45.09"	34°36'21.77"	13.33	ESE	SR 40 & CR 85

1. Air sampling media selection is described in EPIP, "Plume Tracking and Assessment of Off-Site Radiological Conditions."

ASSOCIATED ATTACHMENTS/ENCLOSURES:

None

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TVA letter dated October 20, 2009
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NRC Letter Dated: September 9, 2009

NRC Review of Final Safety Analysis Report

NRC SER OI NUMBER: Open Item 13.03-22 (eRAI 13.03-61)

Section II.K.5.a, "Decontamination Action Levels," of the BLN Emergency Plan addresses personnel and area decontamination. RAI 13.03-28(C) asks the applicant to identify specific decontamination action levels that will be used in an emergency. The response provided on September 22, 2008, states that current TVA procedures establish requirements for decontamination of personnel, equipment, and areas when removable contamination levels exceed 1,000 disintegrations per minute (dpm) per 100 square centimeters (cm) beta-gamma or 20 dpm/100 square cm alpha and release of the affected personnel, equipment, and areas from radiological controls is desirable. Items and areas may be returned to unrestricted use when removable contamination levels have been reduced below the stated guidelines. Some exceptions may be implemented for contaminated personnel under the direction of a Radiation Protection Supervisor. The established contamination guidelines are consistent with industry standards.

The staff finds the information provided in the RAI response regarding action levels for determining the need for decontamination acceptable; however, the applicant did not propose to add this information to the BLN Emergency Plan. The staff created Open Item 13.3-22 to track the incorporation of the information in the RAI response related to decontamination levels into the BLN Emergency Plan.

BLN RAI/OI ID: 3741

BLN RESPONSE:

Section II.K.5 of the Emergency Plan will be revised in a future revision of the Combined License (COL) Application to reflect the addition of the information provided in the response to RAI 13.03-28(C) in the letter dated September 22, 2008, as indicated below.

This response is PLANT-SPECIFIC.

Enclosure
TVA letter dated October 20, 2009
RAI Responses

ASSOCIATED BLN COL APPLICATION REVISIONS:

COLA Part 5, Emergency Plan, Section II.K.5 will be revised from:

TVA implements requirements for personnel and area decontamination, including decontamination action levels and criteria for returning areas and items to normal use, in procedures supporting the radiation protection program.

To read:

TVA procedures establish requirements for decontamination of personnel, equipment, and areas when removable contamination levels exceed 1,000 disintegrations per minute per 100 square centimeters (dpm/100 cm²) beta-gamma or 20 dpm/100 cm² alpha and release of the affected personnel, equipment, and areas from radiological controls is desirable. Items and areas may be returned to unrestricted use when removable contamination levels have been reduced below the stated guidelines. Some exceptions may be implemented for contaminated personnel under the direction of a Radiation Protection Supervisor. TVA implements requirements for personnel and area decontamination, including decontamination action levels and criteria for returning areas and items to normal use, in procedures supporting the radiation protection program. Decontamination methods are established in Radiation Protection procedures and are implemented under the direction of trained Radiation Protection personnel.

ASSOCIATED ATTACHMENTS/ENCLOSURES:

None

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TVA letter dated October 20, 2009
RAI Responses

NRC Letter Dated: September 9, 2009

NRC Review of Final Safety Analysis Report

NRC SER OI NUMBER: Open Item 13.03-23 (eRAI 13.03-62)

Section K.6.a, "Contamination Control Measures," of the BLN Emergency Plan discusses access control in the event of an emergency by stating that requirements for site access control are established in the FSAR and Security Plan. State and local agencies will control access to the owner controlled area consistent with State and local plans. In RAI 13.03-28(E), the applicant was asked to discuss the control of access to contaminated onsite areas in additional detail. In response, the applicant stated that the security force would maintain control of the protected area in accordance with security procedures.

The guidance in Evaluation Criterion [K.6] relates to the control of access to contaminated areas and not site access control. The staff created Open Item 13.3-23 for the applicant to address the control of access to contaminated onsite areas in the BLN Emergency Plan.

BLN RAI/OI ID: 3742

BLN RESPONSE:

Section II.K.6.a of the Emergency Plan will be revised in a future revision of the Combined License (COL) Application to reflect the addition of the information provided in the response to RAI 13.03-28(C) in the letter dated September 22, 2008 as indicated below.

This response is PLANT-SPECIFIC.

ASSOCIATED BLN COL APPLICATION REVISIONS:

COLA Part 5, Emergency Plan, Section II.K.6.a will be revised from:

The FSAR and Security Plan establish requirements for site access control. Following a site evacuation, law enforcement agencies control access to the owner-controlled area consistent with the requirements of the supporting State and local plans.

To read:

The FSAR and Security Plan establish requirements for site access control. Following a site evacuation, law enforcement agencies control access to the owner-controlled area consistent with the requirements of the supporting State and local radiological emergency plans. Control of access to radiologically controlled areas, including contaminated areas, is provided by the Radiation Protection Program and its supporting procedures.

ASSOCIATED ATTACHMENTS/ENCLOSURES:

None

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NRC Letter Dated: September 9, 2009

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NRC SER OI NUMBER: Open Item 13.03-24 (eRAI 13.03-63)

Appendix 5, "Emergency Plan Implementing Procedures," of the BLN Emergency Plan provides a topical listing of EIPs that support the plan. However, the BLN Emergency Plan refers to procedures that do not appear to be listed in the topical list. In RAI 13.03-33(A), the staff requested that the applicant provide information regarding procedures that are discussed in the plan, but not listed in Appendix 5. In the September 8, 2008, response to the RAI, the applicant stated that Appendix 5 of the BLN Emergency Plan provides a list of broad topics to be addressed in the EIPs. TVA did not intend for this list to be construed as a list of procedure titles or narrow subject areas. In the response, TVA provided a table that addressed each procedure subject provided in the RAI and a related matrix showing the procedure subject and the related TVA procedural provisions topical area.

According to NUREG-0654/FEMA-REP-1, Evaluation Criterion P.7, "each plan shall contain an appendix listing, by title, procedures required to implement the plan." The staff created Open Item 13.3-24 to track the need for the applicant to provide a list of EIPs, by title, in the BLN Emergency Plan. The staff finds the proposed text acceptable pending resolution of Open Item 13.3-24.

BLN RAI/OI ID: 3743

BLN RESPONSE:

As stated in the response to Open Item 13.03-03 (this letter), Appendix 5 of the Emergency Plan will be replaced in a future revision of the Combined License (COL) Application with Appendix 5 provided in Attachment OI 13.03-03 of this letter. Appendix 5 will reflect the titles of the procedures required to implement the Emergency Plan and provide the subject matter and the corresponding Emergency Plan section(s) for each procedure.

This response is PLANT-SPECIFIC.

ASSOCIATED BLN COL APPLICATION REVISIONS:

COLA Part 5, Emergency Plan, Appendix 5 will be replaced with Appendix 5 provided in Attachment OI 13.03-03 of this letter.

ASSOCIATED ATTACHMENTS/ENCLOSURES:

Attachment OI 13.03-03

Enclosure
TVA letter dated October 20, 2009
RAI Responses

NRC Letter Dated: September 9, 2009

NRC Review of Final Safety Analysis Report

NRC SER OI NUMBER: Open Item 13.03-25 (eRAI 13.03-64)

The applicant did not address procedures to accomplish actions necessary in response to a security event that reflect the specific site needs as specified in NUREG-0800. The staff created Open Item 13.3-25 to track this issue.

BLN RAI/OI ID: 3744

BLN RESPONSE:

The NRC issued Regulatory Issue Summary (RIS) 2006-12 endorsing the Nuclear Energy Institute (NEI) White Paper, entitled "Enhancements to Emergency Preparedness Programs for Hostile Action," dated May 2005 (revised November 18, 2005). According to the RIS, the NRC found the NEI White Paper to contain an acceptable implementation methodology for licensees to apply in adopting the program enhancements discussed in NRC Bulletin 2005-02, "Emergency Preparedness and Response Actions for Security-Based Events." The NEI White Paper methodology has been addressed in the Emergency Plan.

As stated in NRC Bulletin 2005-02, the compensatory measures imposed under the NRC Order of February 25, 2002, included direction to "review Safeguards and Emergency Plans and take actions to ensure that emergency onsite staffing, facilities and procedures are adequate to accomplish actions necessary for response to terrorist threats."

To satisfy the requirements of the NRC Order and the NRC's concern related to this Open Item, Appendix 5 of the Emergency Plan will be replaced in a future revision of the Combined License (COL) Application with Appendix 5 provided in Attachment OI 13.03-03 of this letter. Appendix 5 will reflect the addition of the Emergency Plan Implementing Procedure, "Hostile Action Events," to accomplish the necessary actions in response to a security event in a future revision of the COL Application.

In accordance with RIS 2006-12, Section II.E.1 of the Emergency Plan contains a footnote indicating that in the event of an attack on the site by a hostile force, a brief notification (site name, emergency classification, if determined, and nature of threat) is provided to the NRC following notification of the designated State and local authorities within approximately fifteen minutes of the discovery of the event.

This response is PLANT-SPECIFIC.

ASSOCIATED BLN COL APPLICATION REVISIONS:

COLA Part 5, Emergency Plan, Appendix 5 will be replaced with Appendix 5 provided in Attachment OI 13.03-03 of this letter.

ASSOCIATED ATTACHMENTS/ENCLOSURES:

Attachment OI 13.03-03

Enclosure
TVA letter dated October 20, 2009
RAI Responses

NRC Letter Dated: September 9, 2009

NRC Review of Final Safety Analysis Report

NRC SER OI NUMBER: Open Item 13.03-26 (eRAI 13.03-65)

The applicant provided an analysis of the time required to evacuate the plume exposure pathway EPZ and for taking other protective actions for various sectors and distances within the plume exposure pathway EPZ for transient, permanent, and special facility populations. The report titled "Bellefonte Nuclear Plant Development of Evacuation Time Estimates," dated September 2007, (the ETE Report) was provided as a separate document in Part 5, "Emergency Plan," of the COL application as supplemental information to the BLN Emergency Plan (ADAMS Accession ML090290438 through ML090290464).

In RAI 13.03-12, the applicant was requested to clarify assumptions related to the calculations for icy weather conditions. In response, the applicant stated that the assumption of 15 percent reduction in highway capacity during icy conditions was based on research findings on rain and snow. The applicant changed the 15 percent reduction during icy conditions to 20 percent. However, the applicant did not state whether this change had been used in Scenario 8, the only scenario with icy weather conditions.

The ETE Report was reviewed by the NRC staff. The results of the review of the ETE Report are contained in a draft Technical Evaluation Report dated April 13, 2009 (ADAMS Accession ML091530481). The staff created Open Item 13.3-26 to track the need for the applicant to clarify whether the revised traffic capacity factor was used in the ETE calculations for Scenario 8 and, if not, how using the revised traffic capacity factor would impact the ETE results.

BLN RAI/OI ID: 3745

BLN RESPONSE:

The input stream to the evacuation time estimate (ETE) simulation model was reviewed to determine the traffic capacity factor used for the ice scenario. This review revealed that a factor of 80% was applied to the capacity and free speed for all links during the ice scenario. The ETE Report incorrectly documented the traffic capacity factor used in the input stream to the simulation model as 85%. Supplement 1 to the Bellefonte ETE, which provides additional information and corrections to the ETE report, was included as Attachment 13.03-01A to the TVA response letter dated August 8, 2008. This supplement corrected the traffic capacity factor documented in the text of the ETE report from 85% to 80% to properly document the actual ETE simulation model input stream.

Because the change provided in the supplement correctly documents the methodology used in developing the ETE, and simply provides a correction to a documentation error in the ETE Report, the change has no affect on the ETE results.

This response is PLANT-SPECIFIC.

ASSOCIATED BLN COL APPLICATION REVISIONS:

No COLA revisions have been identified associated with this response.

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TVA letter dated October 20, 2009
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ASSOCIATED ATTACHMENTS/ENCLOSURES:

None

Enclosure
TVA letter dated October 20, 2009
RAI Responses

NRC Letter Dated: September 9, 2009

NRC Review of Final Safety Analysis Report

NRC SER OI NUMBER: Open Item 13.03-27 (eRAI 13.03-66)

In RAI 13.03-39, additional information was requested regarding the full-participation exercise. In RAI 13.03-39(D1), the applicant was requested to provide additional information regarding the need for ITAAC-related offsite exercise objectives associated with the full participation exercise as specified in Table 14.3.10-1, "Emergency Planning Generic Inspections, Tests, Analyses, and Acceptance Criteria," of NUREG-0800. In response, the applicant stated that an acceptance criterion related to offsite exercise objectives is inappropriate, since ITAAC are to be performed by the licensee. Open Item 13.3-27 was created to track the need for a proposed ITAAC regarding offsite exercise objectives being met following the full participation exercise.

BLN RAI/OI ID: 3746

BLN RESPONSE:

As discussed in response to RAI 13.03-39(D1), TVA recognizes that a full participation exercise must be conducted prior to initial fuel load and the offsite exercise objectives must be met or deficiencies addressed prior to operation above 5% power. TVA's reluctance to include the suggested ITAAC is based on NRC regulations (10 CFR 52.80) that require ITAAC to be "performed" by the licensee. By regulation (Section IV.F.2(a)(ii) of Appendix E to 10 CFR Part 50), the Federal Emergency Management Agency /Department of Homeland Security (FEMA/DHS) determines whether or not offsite exercise objectives have been met, not TVA. However, to satisfy the NRC's concern, an ITAAC will be added to Part 10 of the Combined License (COL) Application.

Part 10, Appendix B, Table 3.8-1 will be replaced in a future revision of the COL Application with Table 3.8-1 included in Attachment OI 13.03-27 of this letter, to reflect the requested ITAAC regarding offsite exercise objectives being met following the full participation exercise.

This response is PLANT-SPECIFIC.

ASSOCIATED BLN COL APPLICATION REVISIONS:

COLA Part 10, Appendix B, Table 3.8-1 will be replaced with Table 3.8-1 provided in Attachment OI 13.03-27 of this letter.

ASSOCIATED ATTACHMENTS/ENCLOSURES:

Attachment OI 13.03-27

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RAI Responses

NRC Letter Dated: September 9, 2009

NRC Review of Final Safety Analysis Report

NRC SER OI NUMBER: Open Item 13.03-28 (eRAI 13.03-67)

In RAI 13.03-39(D4), the staff requested that the applicant provide specific full participation exercise objectives and associated acceptance criteria. In response, the applicant stated, in part, that since it will be several years before the full participation exercise, the development of specific exercise objectives will be undertaken when the exercise planning effort is initiated with State and local agencies. Table 14.3.10-1 of NUREG-0800 specifies the need for specific, onsite, full participation exercise objectives and associated acceptance criteria. The staff identified this as Open Item 13.3-28.

BLN RAI/OI ID: 3747

BLN RESPONSE:

In the September 8, 2008 response to RAI 13.03-39(D4), TVA noted that exercise planning and conduct is a cooperative effort with State and local agencies. Integral to this planning effort is the development of specific exercise objectives and performance acceptance criteria. While TVA considers unilateral development of exercise objectives and performance acceptance criteria to be premature at this stage of licensing of the Bellefonte Nuclear Plant, onsite objectives and associated performance acceptance criteria will be added to Table 3.8-1.

Part 10, Appendix B, Table 3.8-1 will be replaced in a future revision of the Combined License (COL) Application with Table 3.8-1 included in Attachment OI 13.03-27 of this letter to reflect the requested Acceptance Criteria. These acceptance criteria will include specific, onsite, full participation exercise objectives, and associated performance acceptance criteria.

This response is PLANT-SPECIFIC.

ASSOCIATED BLN COL APPLICATION REVISIONS:

COLA Part 10, Appendix B, Table 3.8-1 will be replaced with Table 3.8-1 provided in Attachment OI 13.03-27 of this letter.

ASSOCIATED ATTACHMENTS/ENCLOSURES:

Attachment OI 13.03-27

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TVA letter dated October 20, 2009
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NRC Letter Dated: September 9, 2009

NRC Review of Final Safety Analysis Report

NRC SER OI NUMBER: Open Item 13.03-29 (eRAI 13.03-68)

EP Program Element 3.2 of Table 3.8.1, states that the means exists for communications from the control room, TSC, and EOF to NRC Headquarters and regional office EOCs (including establishment of the ERDS between the onsite computer system and the NRC Operations Center). The "Inspections, Tests, and Analyses" for this EP Program Element contains a note that states that the ITAAC for these communications systems are addressed in Table 3.1-1, "Inspections, Tests, Analyses, and Acceptance Criteria," in the AP1000 DCD, Revision 17. In RAI 13.03-39(E), the applicant was asked to provide information regarding the applicant's capability to establish communications with the regional NRC EOC and for ERDS between the onsite computer and the NRC Operations Center. In response to RAI 13.03-39(E), the applicant stated, in part, that the ERDS plant performance data is collected by the AP1000 Plant Monitoring System (PMS) and then provided to the NRC Operations Center. The applicant also stated that since the PMS is not finalized, the exact protocol for transmitting the data is not yet finalized. The staff identified the need for additional information regarding the applicant's capability to establish communications with the regional NRC EOC and for ERDS between the onsite computer and the NRC Operations Center as Open Item 13.3-29.

BLN RAI/OI ID: 3748

BLN RESPONSE:

Part 10, Appendix B, Table 3.8-1 will be replaced in a future revision of the Combined License (COL) Application with Table 3.8-1 included in Attachment OI 13.03-27 of this letter, to reflect an ITAAC regarding the establishment of communications from the Control Room, Technical Support Center (TSC), and Central Emergency Control Center (CECC) to NRC Headquarters and Region II EOC. ERDS is also verified to provide data from the plant computer system to the NRC Operations Center.

This response is PLANT-SPECIFIC.

ASSOCIATED BLN COL APPLICATION REVISIONS:

COLA Part 10, Appendix B, Table 3.8-1 will be replaced with Table 3.8-1 provided in Attachment OI 13.03-27 of this letter.

ASSOCIATED ATTACHMENTS/ENCLOSURES:

Attachment OI 13.03-27

Enclosure
TVA letter dated October 20, 2009
RAI Responses

NRC Letter Dated: September 9, 2009

NRC Review of Final Safety Analysis Report

NRC SER OI NUMBER: Open Item 13.03-30 (eRAI 13.03-69)

In RAI 13.03-39(F), the applicant was asked to discuss why EP-ITAAC were not developed for 8 of the 17 Planning Standards described in Table 14.3.10-1 of NUREG-0800. In response, the applicant stated that the additional ITAAC were addressed in the proposed set of EP-ITAAC in the COL application. The staff finds this response unacceptable because the applicant has not addressed the following acceptance criteria from Table 14.3.10-1 of NUREG-0800, specifically:

- Acceptance criteria 1.1, "Assignment of Responsibility" identifies the need for either an emergency plan implementing procedure or a staffing roster that demonstrates that staff exists to provide a 24-hour per day emergency response capability. This is Open Item 13.3-30.

BLN RAI/OI ID: 3749

BLN RESPONSE:

TVA recognizes that a number of Emergency Plan Implementing Procedures (EPIPs) must be developed in order to effectively implement the Emergency Plan and to satisfy the 17 Planning Standards provided in 10 CFR 50.47(b). TVA identified the need for an EPIP to address activation of the emergency response organization as a topical area in Appendix 5 of the Emergency Plan. As discussed in response to Open Item 13.03-03, TVA revised Appendix 5 to identify specific procedure titles including, "Activation of the Emergency Response Organization." Under Appendix E to 10 CFR Part 50, these procedures must be submitted to the NRC 180 days prior to initial fuel load. However, TVA will propose a revision to Table 3.8-1 in Appendix B of Part 10 of the Combined License (COL) Application to include the suggested Acceptance Criteria.

Part 10, Appendix B, Table 3.8-1 will be replaced in a future revision of the COL Application with Table 3.8-1 included in Attachment OI 13.03-27 of this letter to reflect the requested ITAAC.

This response is PLANT-SPECIFIC.

ASSOCIATED BLN COL APPLICATION REVISIONS:

COLA Part 10, Appendix B, Table 3.8-1 will be replaced with Table 3.8-1 provided in Attachment OI 13.03-27 of this letter.

ASSOCIATED ATTACHMENTS/ENCLOSURES:

Attachment OI 13.03-27

Enclosure
TVA letter dated October 20, 2009
RAI Responses

NRC Letter Dated: September 9, 2009

NRC Review of Final Safety Analysis Report

NRC SER OI NUMBER: Open Item 13.03-31 (eRAI 13.03-70)

In RAI 13.03-39(F), the applicant was asked to discuss why EP-ITAAC were not developed for 8 of the 17 Planning Standards described in Table 14.3.10-1 of NUREG-0800. In response, the applicant stated that the additional ITAAC were addressed in the proposed set of EP-ITAAC in the COL application. The staff finds this response unacceptable because the applicant has not addressed the following acceptance criteria from Table 14.3.10-1 of NUREG-0800, specifically:

- Acceptance criteria 2.1, "Onsite Emergency Organization," identifies the need for either an emergency plan implementing procedure or a staffing roster that demonstrates that staff exists to provide minimum and augmented on-shift staffing levels. This is Open Item 13.3-31.

BLN RAI/OI ID: 3750

BLN RESPONSE:

TVA recognizes that a number of Emergency Plan Implementing Procedures (EPIPs) must be developed in order to effectively implement the Emergency Plan and to satisfy the 17 Planning Standards provided in 10 CFR 50.47(b). TVA identified the need for an EPIP to address activation of the emergency response organization as a topical area in Appendix 5 of the Emergency Plan. As discussed in response to Open Item 13.03-03, TVA revised Appendix 5 to identify specific procedure titles including, "Activation of the Emergency Response Organization." Under Appendix E to 10 CFR Part 50, these procedures must be submitted to the NRC 180 days prior to initial fuel load. However, TVA will propose a revision to Table 3.8-1 in Appendix B of Part 10 of the Combined License (COL) Application to include the suggested Acceptance Criteria.

Part 10, Appendix B, Table 3.8-1 in will be replaced in a future revision of the COL Application with Table 3.8-1 included in Attachment OI 13.03-27 of this letter to reflect the requested ITAAC.

This response is PLANT-SPECIFIC.

ASSOCIATED BLN COL APPLICATION REVISIONS:

COLA Part 10, Appendix B, Table 3.8-1 will be replaced with Table 3.8-1 provided in Attachment OI 13.03-27 of this letter.

ASSOCIATED ATTACHMENTS/ENCLOSURES:

Attachment OI 13.03-27

Enclosure
TVA letter dated October 20, 2009
RAI Responses

NRC Letter Dated: September 9, 2009

NRC Review of Final Safety Analysis Report

NRC SER OI NUMBER: Open Item 13.03-32 (eRAI 13.03-71)

In RAI 13.03-39(F), the applicant was asked to discuss why EP-ITAAC were not developed for 8 of the 17 Planning Standards described in Table 14.3.10-1 of NUREG-0800. In response, the applicant stated that the additional ITAAC were addressed in the proposed set of EP-ITAAC in the COL application. The staff finds this response unacceptable because the applicant has not addressed the following acceptance criteria from Table 14.3.10-1 of NUREG-0800, specifically:

- Acceptance criteria 11.1 through 11.4, "Radiological Exposure Control," identifies that a means exists to provide onsite radiation protection; a 24-hour per day capability to determine the doses received by emergency personnel and maintain dose records; to decontaminate relocated onsite and emergency personnel, including waste disposal; and to provide onsite contamination control measures. This is Open Item 13.3-32.

BLN RAI/OI ID: 3751

BLN RESPONSE:

TVA recognizes that a number of Emergency Plan Implementing Procedures (EPIPs) must be developed in order to effectively implement the Emergency Plan and to satisfy the 17 Planning Standards provided in 10 CFR 50.47(b). TVA identified the need for EPIPs to address dose received by emergency personnel and maintain dose records; to decontaminate relocated onsite and emergency personnel, including waste disposal; and to provide onsite contamination control measures as topical areas in Appendix 5 of the Emergency Plan. As discussed in response to Open Item 13.03-03, TVA revised Appendix 5 to identify specific procedure titles including, "Personnel Monitoring," "Decontamination," and "Radiation Protection Under Emergency Conditions." Under Appendix E to 10 CFR Part 50, these procedures must be submitted to the NRC 180 days prior to initial fuel load. However, TVA will propose a revision to Table 3.8-1 in Appendix B of Part 10 of the Combined License (COL) Application to include the suggested Acceptance Criteria.

Part 10, Appendix B, Table 3.8-1 will be replaced in a future revision of the COL Application with Table 3.8-1 included in Attachment OI 13.03-27 of this letter to reflect the requested ITAAC.

This response is PLANT-SPECIFIC.

ASSOCIATED BLN COL APPLICATION REVISIONS:

COLA Part 10, Appendix B, Table 3.8-1 will be replaced with Table 3.8-1 provided in Attachment OI 13.03-27 of this letter.

ASSOCIATED ATTACHMENTS/ENCLOSURES:

Attachment OI 13.03-27

Enclosure
TVA letter dated October 20, 2009
RAI Responses

NRC Letter Dated: September 9, 2009

NRC Review of Final Safety Analysis Report

NRC SER OI NUMBER: Open Item 13.03-33 (eRAI 13.03-72)

In RAI 13.03-39(F), the applicant was asked to discuss why EP-ITAAC were not developed for 8 of the 17 Planning Standards described in Table 14.3.10-1 of NUREG-0800. In response, the applicant stated that the additional ITAAC were addressed in the proposed set of EP-ITAAC in the COL application. The staff finds this response unacceptable because the applicant has not addressed the following acceptance criteria from Table 14.3.10-1 of NUREG-0800, specifically:

- Acceptance criteria 16.1, "Responsibility for the Planning Effort; Development, Periodic Review, and Distribution of Emergency Plans," identifies the need to confirm that emergency plans have been distributed to all organizations and appropriate individuals with responsibility for implementation of the plans. This is Open Item 13.3-33.

BLN RAI/OI ID: 3752

BLN RESPONSE:

TVA recognizes the importance of distributing emergency plans to all organizations with emergency preparedness responsibilities and to satisfy the 17 Planning Standards provided in 10 CFR 50.47(b). TVA identified the need for supporting procedures that must be developed in order to ensure administrative aspects of the Bellefonte emergency preparedness program is properly conducted. TVA identified the need for these supporting procedures to address distribution of emergency plans as a topical area in Appendix 5 of the Emergency Plan. As discussed in response to Open Item 13.03-03, TVA revised Appendix 5 to identify specific procedure titles including, "Maintaining Emergency Preparedness." However, TVA will propose a revision to Table 3.8-1 in Appendix B of Part 10 of the Combined License (COL) Application to include the suggested Acceptance Criteria.

Part 10, Appendix B, Table 3.8-1 will be replaced in a future revision of the COL Application with Table 3.8-1 included in Attachment OI 13.03-27 of this letter to reflect the requested ITAAC.

This response is PLANT-SPECIFIC.

ASSOCIATED BLN COL APPLICATION REVISIONS:

COLA Part 10, Appendix B, Table 3.8-1 will be replaced with Table 3.8-1 provided in Attachment OI 13.03-27 of this letter.

ASSOCIATED ATTACHMENTS/ENCLOSURES:

Attachment OI 13.03-27

Enclosure
TVA letter dated October 20, 2009
RAI Responses

NRC Letter Dated: September 9, 2009

NRC Review of Final Safety Analysis Report

NRC SER OI NUMBER: Open Item 13.03-34 (eRAI 13.03-73)

In RAI 13.03-39(F), the applicant was asked to discuss why EP-ITAAC were not developed for 8 of the 17 Planning Standards described in Table 14.3.10-1 of NUREG-0800. In response, the applicant stated that the additional ITAAC were addressed in the proposed set of EP-ITAAC in the COL application. The staff finds this response unacceptable because the applicant has not addressed the following acceptance criteria from Table 14.3.10-1 of NUREG-0800, specifically:

- Acceptance criteria 17.1, "Implementing Procedures," identifies the need to provide detailed implementing procedures for the onsite emergency plan no less than 180 days prior to fuel load. This is Open Item 13.3-34.

BLN RAI/OI ID: 3753

BLN RESPONSE:

As previously stated in TVA's September 23, 2008 response to RAI 13.03-39(F9), Emergency Plan Implementing Procedures (EPIPs) are required to be submitted to the NRC at least 180 days prior to the scheduled date for initial fuel load as required by Section V of Appendix E to 10 CFR Part 50. This section states "No less than 180 days before... the scheduled date for initial loading of fuel for a combined license under part 52 of this chapter, the applicant's or licensee's detailed implementing procedures for its emergency plan shall be submitted to the Commission as specified in § 50.4." TVA will comply with the regulation. However, to satisfy the NRC's concern, the suggested ITAAC will be added to Table 3.8-1 of Appendix B in Part 10 of the Combined License (COL) Application.

Part 10, Appendix B, Table 3.8-1 will be replaced in a future revision of the COL Application with Table 3.8-1 included in Attachment OI 13.03-27 of this letter to reflect the requested ITAAC.

This response is PLANT-SPECIFIC.

ASSOCIATED BLN COL APPLICATION REVISIONS:

COLA Part 10, Appendix B, Table 3.8-1 will be replaced with Table 3.8-1 provided in Attachment OI 13.03-27 of this letter.

ASSOCIATED ATTACHMENTS/ENCLOSURES:

Attachment OI 13.03-27

Enclosure
TVA letter dated October 20, 2009
RAI Responses

NRC Letter Dated: September 9, 2009

NRC Review of Final Safety Analysis Report

NRC SER OI NUMBER: Open Item 13.03-35 (eRAI 13.03-74)

In RAI 13.03-39(F), the applicant was asked to discuss why EP-ITAAC were not developed for 8 of the 17 Planning Standards described in Table 14.3.10-1 of NUREG-0800. In response, the applicant stated that the additional ITAAC were addressed in the proposed set of EP-ITAAC in the COL application. The staff finds this response unacceptable because the applicant has not addressed the following acceptance criteria from Table 14.3.10-1 of NUREG-0800, specifically:

- Acceptance criteria 9.2, "Accident Assessment," identifies that a means exists to determine the source term of releases of radioactive material within plant systems, and the magnitude of the release of radioactive materials based on plant system parameters and effluent monitors. This is Open Item 13.3-35.

BLN RAI/OI ID: 3754

BLN RESPONSE:

Acceptance Criteria 9.2, "Accident Assessment," was included in the proposed set of Emergency Planning ITAAC in the Combined License (COL) Application. However, the acceptance criterion was not provided consistent with the guidance offered in Regulatory Guide 1.206.

Part 10, Appendix B, Table 3.8-1 will be replaced in a future revision of the COL Application with Table 3.8-1 included in Attachment OI 13.03-27 of this letter to reflect the requested the change to the referenced Acceptance Criterion.

This response is PLANT-SPECIFIC.

ASSOCIATED BLN COL APPLICATION REVISIONS:

COLA Part 10, Appendix B, Table 3.8-1 will be replaced with Table 3.8-1 provided in Attachment OI 13.03-27 of this letter.

ASSOCIATED ATTACHMENTS/ENCLOSURES:

Attachment OI 13.03-27

Enclosure
TVA letter dated October 20, 2009
RAI Responses

NRC Letter Dated: September 9, 2009

NRC Review of Final Safety Analysis Report

NRC SER OI NUMBER: Open Item 13.03-36 (eRAI 13.03-75)

In RAI 13.03-39(F), the applicant was asked to discuss why EP-ITAAC were not developed for 8 of the 17 Planning Standards described in Table 14.3.10-1 of NUREG-0800. In response, the applicant stated that the additional ITAAC were addressed in the proposed set of EP-ITAAC in the COL application. The staff finds this response unacceptable because the applicant has not addressed the following acceptance criteria from Table 14.3.10-1 of NUREG-0800, specifically:

- Acceptance criteria 9.3, "Accident Assessment," identifies that a means exists to continuously assess the impact of the release of radioactive materials to the environment, accounting for the relationship between effluent monitor readings, and onsite and offsite exposures and contamination for various meteorological conditions. This is Open Item 13.3-36.

BLN RAI/OI ID: 3755

BLN RESPONSE:

Acceptance Criteria 9.3, "Accident Assessment," was included in the proposed set of Emergency Planning ITAAC in the Combined License (COL) Application. However, the acceptance criterion was not provided consistent with the guidance offered in Regulatory Guide 1.206.

Part 10, Appendix B, Table 3.8-1 will be replaced in a future revision of the COL Application with Table 3.8-1 included in Attachment OI 13.03-27 of this letter to reflect the requested the change to the referenced Acceptance Criterion.

This response is PLANT-SPECIFIC.

ASSOCIATED BLN COL APPLICATION REVISIONS:

COLA Part 10, Appendix B, Table 3.8-1 will be replaced with Table 3.8-1 provided in Attachment OI 13.03-27 of this letter.

ASSOCIATED ATTACHMENTS/ENCLOSURES:

Attachment OI 13.03-27

Enclosure
TVA letter dated October 20, 2009
RAI Responses

NRC Letter Dated: September 9, 2009

NRC Review of Final Safety Analysis Report

NRC SER OI NUMBER: Open Item 13.03-37 (eRAI 13.03-76)

In RAI 13.03-39(F), the applicant was asked to discuss why EP-ITAAC were not developed for 8 of the 17 Planning Standards described in Table 14.3.10-1 of NUREG-0800. In response, the applicant stated that the additional ITAAC were addressed in the proposed set of EP-ITAAC in the COL application. The staff finds this response unacceptable because the applicant has not addressed the following acceptance criteria from Table 14.3.10-1 of NUREG-0800, specifically:

- Acceptance criteria 9.7, "Accident Assessment," identifies that a means exists to make rapid assessment of actual or potential magnitude and locations of any radiological hazards through liquid or gaseous release pathways. This is Open Item 13.3-37.

BLN RAI/OI ID: 3756

BLN RESPONSE:

Acceptance Criteria 9.7, "Accident Assessment," was included in the proposed set of Emergency Planning ITAAC in the Combined License (COL) Application. However, the acceptance criterion was not provided consistent with the guidance offered in Regulatory Guide 1.206.

Part 10, Appendix B, Table 3.8-1 will be replaced in a future revision of the COL Application with Table 3.8-1 included in Attachment OI 13.03-27 of this letter to reflect the requested the change to the referenced Acceptance Criterion.

This response is PLANT-SPECIFIC.

ASSOCIATED BLN COL APPLICATION REVISIONS:

COLA Part 10, Appendix B, Table 3.8-1 will be replaced with Table 3.8-1 provided in Attachment OI 13.03-27 of this letter.

ASSOCIATED ATTACHMENTS/ENCLOSURES:

Attachment OI 13.03-27

Enclosure
TVA letter dated October 20, 2009
RAI Responses

NRC Letter Dated: September 9, 2009

NRC Review of Final Safety Analysis Report

NRC SER OI NUMBER: Confirmatory Item 13.03-08 (eRAI 13.03-84)

Appendix 10 of the BLN Emergency Plan states that portable radiation monitors are available to personnel in the TSC. RAI 13.03-25(D) requested that the applicant clarify whether the TSC has continuous monitoring with alarms to notify staff of inhabitable conditions. In response, the applicant stated that the TSC is equipped with a continuous air monitor or similar monitoring device capable of providing an alarm function if airborne particulate radioactivity levels exceed a pre-established alarm level. Confirmatory Item 13.3-8 was created to track the incorporation of the information provided in the RAI response regarding continuous monitoring with alarms information into the BLN Emergency Plan. In addition, ITAAC Acceptance Criterion 5.1.2 will confirm that the TSC includes radiation monitors and a ventilation system with a HEPA and charcoal filter.

BLN RAI/OI ID: 3759

BLN RESPONSE:

In the October 2, 2008 response to RAI 13.03-25(D) TVA provided a summary of radiation monitoring systems available to personnel in the Technical Support Center (TSC). This response summarized information presented in the TSC Design Description, included as Attachment 13.03-25A to the TVA letter dated September 23, 2008.

Appendix 10 of the Emergency Plan will be revised as indicated below to reflect the addition of the summary of radiation monitoring systems.

This response is PLANT-SPECIFIC.

ASSOCIATED BLN COL APPLICATION REVISIONS:

COLA Part 5, Emergency Plan, Appendix 10 will be revised from:

Habitability

The ventilation system is operated in accordance with approved procedures and is manually controlled from the TSC. In addition, portable radiation monitors are available to personnel in the TSC. Equipment and supplies are provided in accordance with Appendix 6 of the Emergency Plan.

The ventilation system includes high efficiency particulate air (HEPA) filters and charcoal filters. The ventilation system is designed to maintain exposures at or below 0.05 Sv (5 rem) total effective dose equivalent (TEDE) as defined in 10 CFR 50.2 for the duration of an accident.

The TSC structure, shielding, and ventilation system are designed to protect the TSC personnel from radiological hazards.

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To read:

Habitability

The ventilation system is operated in accordance with approved procedures and is manually controlled from the TSC. Equipment and supplies are provided in accordance with Appendix 6 of the Emergency Plan.

Permanent and portable radiation monitoring systems are available to personnel in the TSC to provide radiological protection of TSC personnel. These systems continuously indicate radiation dose rates and airborne radioactivity concentrations inside the TSC while in use during an emergency. These monitoring systems include local alarms with trip levels set low enough to provide early warning to TSC personnel of adverse conditions that may affect the habitability of the TSC. Detectors are able to distinguish the presence of radioiodine at concentrations as low as 10^{-7} microcuries/cc.

The ventilation system includes high efficiency particulate air (HEPA) filters and charcoal filters. The ventilation system is designed to maintain exposures at or below 0.05 Sv (5 rem) total effective dose equivalent (TEDE) as defined in 10 CFR 50.2 for the duration of an accident.

In conclusion, the TSC structure, shielding, and ventilation system are designed to protect the TSC personnel from radiological hazards.

ASSOCIATED ATTACHMENTS/ENCLOSURES:

None

Enclosure
TVA letter dated October 20, 2009
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NRC Letter Dated: September 9, 2009

NRC Review of Final Safety Analysis Report

NRC SER OI NUMBER: Confirmatory Item 13.03-09 (eRAI 13.03-85)

Equipment and supplies are provided in accordance with Appendix 6, "Emergency Equipment and Supplies," of the BLN Emergency Plan. Appendix 6, "Emergency Equipment and Supplies," of the BLN Emergency Plan provides a general list of equipment located in the ERFs, including the TSC. Because the list was not specific enough to determine whether the supplies were adequate, RAI 13.03-25(B) requested information regarding protective equipment located in the TSC. The applicant responded that inventories of protective equipment in the TSC are consistent with those identified in Browns Ferry's EPIP-12, "Emergency Equipment and Supplies," which provides listings of emergency equipment and supplies typically provided to support ERO activities. Browns Ferry's EPIP-12 was provided for information as an attachment to the response. The staff finds the applicant's proposal to provide the specific list of equipment in an EPIP consistent with those identified in Browns Ferry's EPIP-12 to be acceptable because it meets the guidance in NUREG-0654/FEMA-REP-1. The staff created Confirmatory Item 13.3-9 to track the addition of the title of a procedure similar to Browns Ferry's EPIP-12, "Emergency Equipment and Supplies," to the BLN Emergency Plan.

BLN RAI/OI ID: 3760

BLN RESPONSE:

In the September 8, 2008 response to RAI 13.03-25(B), TVA stated that inventories of protective equipment in the Technical Support Center (TSC) are consistent with those identified in Browns Ferry EPIP-12, "Emergency Equipment and Supplies." This procedure provides listings of emergency equipment and supplies typically provided to support emergency response organization activities. Browns Ferry EPIP-12 was provided as an attachment to the September 8, 2008 response (Attachment 13.03-25C).

As stated in the response to Open Item 13.03-03 (this letter), TVA will revise Appendix 5 of the Emergency Plan to include the titles of Emergency Plan Implementing Procedures (EPIPs) and the supporting procedures required to support the ongoing maintenance of emergency preparedness. The supporting procedure describing inventories of protective equipment in the TSC will be included in Appendix 5 as the supporting procedure titled, "Emergency Equipment Inventory and Operational Tests."

Appendix 5 of the Bellefonte Emergency Plan will be replaced in a future revision of the BLN Combined License (COL) Application, as shown in Attachment OI 13.03-03, this letter, and will reflect the titles of the procedures required to implement the Emergency Plan and support emergency preparedness.

This response is PLANT-SPECIFIC.

ASSOCIATED BLN COL APPLICATION REVISIONS:

COLA Part 5, Emergency Plan, Appendix 5 will be replaced with Appendix 5 provided in Attachment OI 13.03-03 of this letter.

Enclosure
TVA letter dated October 20, 2009
RAI Responses

ASSOCIATED ATTACHMENTS/ENCLOSURES:

Attachment OI 13.03-03

Enclosure
TVA letter dated October 20, 2009
RAI Responses

NRC Letter Dated: September 9, 2009

NRC Review of Final Safety Analysis Report

NRC SER OI NUMBER: Confirmatory Item 13.03-10 (eRAI 13.03-86)

Technical Information in the Emergency Plan: Appendix 6, "Emergency Equipment and Supplies," of the BLN Emergency Plan states that TVA establishes and maintains inventories of emergency equipment and supplies for use by emergency response personnel. In addition, Appendix 6 states that actual inventories are established in inventory lists in accordance with implementing procedures. In RAI 13.03-11(C) [*TVA believes this reference should be RAI 13.03-27(C)*], the applicant was requested to provide additional detail regarding decontamination equipment and supplies that would be available for decontaminating onsite individuals. In response, the applicant stated that a procedure similar to Browns Ferry's EPIP-14, "Radiological Control Procedures," would be provided for the BLN site. The staff finds the applicant's proposal to provide a procedure similar to the specific list of equipment in an EPIP consistent with those identified in Browns Ferry's EPIP-14 to be acceptable because it meets the guidance in NUREG-0654/FEMA-REP-1. The staff created Confirmatory Item 13.3-10 to track the addition of the title of a procedure similar to Browns Ferry's EPIP-14 to the BLN Emergency Plan.

BLN RAI/OI ID: 3761

BLN RESPONSE:

In the September 8, 2008 response to RAI 13.03-33(A), TVA provided a table indicating that the procedures regarding decontamination equipment and supplies that would be available for decontaminating onsite individuals are within the scope of the topical area, "Decontamination" as listed in Appendix 5 of the Emergency Plan. As indicated in the response to Open Item 13.03-03 (this letter), TVA will revise Appendix 5 of the Emergency Plan to include Emergency Plan Implementing Procedure (EPIP) titles, the associated subject matter for each EPIP, and corresponding Emergency Plan section(s) implemented by that EPIP in a future revision of the Combined License (COL) Application. The EPIP describing this topical area is included in Appendix 5 as EPIP procedure titled, "Decontamination."

As stated in the response to Open Item 13.03-03 (this letter), Appendix 5 of the Emergency Plan will be replaced in a future revision of the BLN COL Application with Appendix 5 provided as Attachment OI 13.03-03 of this letter. Appendix 5 will reflect the titles of the procedures required to implement the Emergency Plan and provide the subject matter and the corresponding Emergency Plan section(s) for each procedure.

This response is PLANT-SPECIFIC.

ASSOCIATED BLN COL APPLICATION REVISIONS:

COLA Part 5, Emergency Plan, Appendix 5 will be replaced with Appendix 5 provided in Attachment OI 13.03-03 of this letter.

ASSOCIATED ATTACHMENTS/ENCLOSURES:

Attachment OI 13.03-03

Enclosure
TVA letter dated October 20, 2009
RAI Responses

NRC Letter Dated: September 9, 2009

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NRC SER OI NUMBER: Confirmatory Item 13.03-12 (eRAI 13.03-88)

Technical Information in the Emergency Plan: [J.2] Section J.2, "Evacuation Routes and Transportation," of the BLN Emergency Plan states that evacuation routes are determined by the Shift Manager/SED, using available information regarding conditions. Provisions for evacuation of onsite individuals include evacuation by private automobile. RAI 13.03-27(B) requested an explanation regarding why provisions for evacuation routes for onsite individuals were not identified. In the supplemental response dated February 10, 2009, the applicant addressed two access/egress routes at the BLN site. Because the applicant did not provide a proposed revision to the BLN Emergency Plan that addresses the two access/egress routes at the BLN site, the staff created Open Item 13.3-12. Confirmatory Item 13.3-12 was created to track the inclusion of the two access/egress routes in the BLN Emergency Plan as required by the open item.

BLN RAI/OI ID: 3762

BLN RESPONSE:

As stated in the response to Open Item 13.03-19 (this letter) in the February 10, 2009 response to RAI 13.03-27(B), TVA provided a description of the current access/egress roads at the Bellefonte Nuclear Plant site. To satisfy the NRC's concern documented in the open item, Section II.J.2 of the Emergency Plan will be revised in a future revision of the BLN Combined License (COL) Application to include the two access/egress routes at the BLN site.

This response is PLANT-SPECIFIC.

ASSOCIATED BLN COL APPLICATION REVISIONS:

COLA Part 5, Emergency Plan, Section II.J.2 of the Emergency Plan will be revised as provided in Open Item 13.03-19 of this letter.

ASSOCIATED ATTACHMENTS/ENCLOSURES:

None

Enclosure
TVA letter dated October 20, 2009
RAI Responses

NRC Letter Dated: September 9, 2009

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NRC SER OI Number: 13.06-01

In 2009, the NRC codified several security orders, including EA-03-086, "Design Basis Threat Order" dated April 29, 2003 (DBT Order); Order EA-02-261, "Access Authorization Order" dated January 7, 2003 (Access Authorization Order); and Order EA-03-039, "Security Personnel Training and Qualification Requirements Order" dated April 29, 2003 (Training Order). Because the codification of these security orders was scheduled to occur during the NRC staff's review of the Bellefonte Units 3 and 4 COLA, the review of the Security Plan was deferred until after this security order codification was complete. As such, the NRC staff does not intend to issue Section 13.6 with the SER with open items for Bellefonte Units 3 and 4. Instead, the staff intends to provide this section of the SER at a later time. The staff's review of the Security Plan is currently in progress, and its completion is being tracked as **Open Item 13.6-1**.

BLN RAI ID: 3757

BLN Response:

The NRC staff has indicated that their review of the Security Plan was deferred until after the security order codification is complete, and that they do not intend to issue Section 13.6 with the SER with open items. Because the staff's review of the Security Plan is on-going, any questions raised by the staff are expected to be addressed in accordance with the established Request for Additional Information (RAI) process. It is expected that the staff will close Open Item 13.6-1 upon completion of the Security Plan review; as such, no Applicant action is required in response to Open Item 13.6-1.

This response is PLANT-SPECIFIC

ASSOCIATED BLN COL APPLICATION REVISIONS:

To be provided in a future supplemental response, if required based on responses to the Section 13.6 RAIs.

ASSOCIATED ATTACHMENTS/ENCLOSURES:

None

Enclosure
TVA letter dated October 20, 2009
RAI Responses

NRC Letter Dated: September 9, 2009

NRC Review of Final Safety Analysis Report

NRC SER OI Number: 13.07-01

In 2009, the NRC codified Order EA-03-038, "Fitness-for-Duty Requirements Order" dated April 29, 2003 (FFD Order), which revised 10 CFR Part 26, "Fitness for Duty Programs." Because the codification of this security order, and subsequent revision to 10 CFR Part 26 were scheduled to occur during the NRC staff's review of the Bellefonte Units 3 and 4 COLA, the review of the FFD Program was deferred until after this rulemaking activity was complete. As such, the NRC staff does not intend to issue Section 13.7 with the SER with open items for Bellefonte Units 3 and 4. Instead, the staff intends to provide this section of the SER at a later time. The staff's review of the FFD Program is currently in progress, and its completion is being tracked as **Open Item 13.7-1**.

BLN RAI ID: 3758

BLN Response:

The NRC staff has indicated that their review of the FFD Program was deferred until after the FFD rulemaking activity is complete, and that they do not intend to issue Section 13.7 with the SER with open items. Because the staff's review of the FFD Program is on-going, any questions raised by the staff are expected to be addressed in accordance with the established Request for Additional Information (RAI) process. It is expected that the staff will close Open Item 13.7-1 upon completion of the FFD Program review; as such, no Applicant action is required in response to Open Item 13.7-1.

This response is PLANT SPECIFIC.

ASSOCIATED BLN COL APPLICATION REVISIONS:

To be provided in a future supplemental response, if required based on responses to the Section 13.7 RAIs.

ASSOCIATED ATTACHMENTS/ENCLOSURES:

None

Attachment OI 13.03-03
TVA letter dated October 20, 2009
RAI Responses

Attachment OI 13.03-03
Emergency Plan, Appendix 5
Emergency Plan Implementing Procedures

Emergency Plan Implementing Procedures (EPIPs) address a range of actions needed to implement the contents of this emergency plan. The following table lists the EPIPs by title, subject matter, and identifies a corresponding Emergency Plan section.

EPIP Title	Subject Matter	Corresponding Emergency Plan Section(s)
Emergency Classification	Emergency Action Levels and their bases, classification of emergencies; immediate action for each emergency classification	II.D
Notifications Associated with Emergency Conditions	Notification of local, State, and Federal authorities, offsite support organizations, licensee emergency response organization, and on-site personnel, including initial notifications, updates, escalations and de-escalations, and termination; use of pre-planned messages, message verification	II.E, II.L.1
Emergency Communications	Operation of emergency communications systems; personnel responsibilities for use of communications systems	II.F
Protective Action Recommendations	Development, approval, and communication of PARs	II.J.7, II.J.10
Activation of the Emergency Response Organization	ERO positions, titles, position functions, and major tasks; measures to staff, prepare and operate the emergency response facilities; structure of the emergency response organization; provisions for relocation of facilities as needed	II.B
Site Assembly, Accountability, and Evacuation	Notification of site personnel of required protective actions; measures to account for and evacuate site personnel; determination of evacuation routes	II.J.4, II.J.5
Core Damage Assessment	Assessment of core damage based on specified plant parameters	II.I

Attachment OI 13.03-03
TVA letter dated October 20, 2009
RAI Responses

EPIP Title	Subject Matter	Corresponding Emergency Plan Section(s)
Radiation Protection Under Emergency Conditions	Implementation of the radiation protection program under emergency conditions, including access control, contamination control, and exposure authorizations	II.K
Plume Tracking and Assessment of Off-site Radiological Conditions	Performance of field monitoring activities and plume tracking based on meteorological and radiological conditions; radiological assessment of consequences; estimation of release rates and doses; coordination with affected offsite authorities; locations of monitoring points	II.I, II.J
Respiratory Protection and Distribution of Radioprotective Drugs	Use of respiratory protective devices under emergency conditions; authorization for and issuance of potassium iodide	II.J.6
Personnel Monitoring	Monitoring and assessment of personnel doses under emergency conditions; maintenance of emergency dose records	II.K.2, II.K.3
Decontamination	Performance of personnel, equipment, and area decontamination activities under emergency conditions	II.K.5, II.K.7
Obtaining and Analyzing High Activity Samples Under Emergency Conditions	Processes for safely obtaining required samples	II.I
Emergency Media Relations	Joint Information Center activation; Corporate Communications organization and operations under emergency conditions; coordination with emergency management personnel and media organizations for development and distribution of emergency information	II.B.7, II.G

EPIP Title	Subject Matter	Corresponding Emergency Plan Section(s)
Recovery and Reentry	Establishment of the Recovery organization; actions to ensure controlled re-entry into previously evacuated areas following plant stabilization	II.M
Hostile Action Events	Procedure to accomplish actions necessary in response to a security event	II.E.1

Supporting Procedures

Additional plant procedures address various activities that are required to support the ongoing maintenance of emergency preparedness. These supporting procedures are not included within the body of the emergency plan implementing procedures. These supporting procedures address, at a minimum, the topics indicated by their titles. Parenthetical references to the affected sections of this plan are provided:

Supporting Procedure Title	Corresponding Emergency Plan Section(s)
Emergency Equipment and Inventory	II.H.10
Conduct of Emergency Drills and Exercises	II.N
Testing of Emergency Communications Systems	II.F, II.N
Emergency Plan Training	II.G.5, II.O, II.P
Maintaining Emergency Preparedness	II.P

Attachment OI 13.03-04
TVA letter dated October 20, 2009
RAI Responses

Attachment OI 13.03-04
Emergency Plan, Table II-2
Plant Staff Emergency Functions

Table II-2 - Plant Staff Emergency Functions

Major Functional Area	Major Tasks	Position, Title, or Expertise	On Shift ¹	Targeted Capability for Additions	
				60 min.	90 min
Plant Operations and Assessment of Operational Aspects	Supervision of Station Operations and Assessment of Operational Aspects of Plant Operations	Shift Manager (SRO)	1 ²		
		Control Room Supervisor (SRO)	1 ³		
		Reactor Operator (RO)	2 ³		
		Non-licensed Operator	2 ³		
Emergency Direction and Control (Site Emergency Director)	Direction and Control of On-Site Emergency Activities	Shift Manager	1 ²	1	
Notification and Communication ⁴	Notify licensee, State, local, and Federal personnel and maintain communication	Communicator	1 ⁵	1 ⁵	2 ⁵
Radiological Accident Assessment and Support of Operational Accident Assessment	CECC Director	Senior Manager		1	
	Dose Assessment	Senior Radiation Protection	1 ⁶	1	
	Off-site surveys	Health Physics/Chemistry Technicians		2	2
	On-site (out of plant) surveys			1	1
	In-plant surveys			1	
Chemistry/ Radiochemistry	Health Physics/Chemistry Technician	1		1	
Plant System Engineering, Repair and Corrective Actions	Technical Support	Shift Technical Advisor	1		
		Core/Thermal Hydraulics		1	
		Electrical			1
		Mechanical			1
Plant System Engineering, Repair and Corrective Actions	Repair and Corrective Actions	Mechanical Maintenance	1		1
		Electrical Maintenance	1	1	1
		Instrumentation and Control		1	1
		Radwaste Operator	1		1

Major Functional Area	Major Tasks	Position, Title, or Expertise	On Shift ¹	Targeted Capability for Additions	
				60 min.	90 min
Protective Actions (In-Plant)	Radiation Protection a. Access Control b. Radiological control coverage for repair, corrective actions, search and rescue, first aid, and fire-fighting c. Personnel monitoring d. Dosimetry	Health Physics Technicians	2 ⁶	2	2
Fire-fighting	Fire-fighting	Fire Team Members	Per FSAR	Local Support	
Rescue Operations and First Aid		Medical Emergency Response Team (MERT)	2	Local Support	
Site Access Control and Personnel Accountability	Security, communications, personnel accountability	Security Personnel	Staffing levels for the on-shift, initial additions and supplemental additions are provided in the Security Plan.		
Totals			16	11	15

Footnotes:

1. The On-Shift staffing is cited as individuals per operating unit. Shift staffing may vary with one or more units in cold shutdown or refueling mode as provided in FSAR Table 13.1-202.
2. Prior to staff augmentation, the Shift Manager is responsible for acting as Site Emergency Director and for supervising station operations, with support from the remainder of the on-shift complement.
3. For each unaffected unit in operation, maintain at least one Control Room Supervisor, one Reactor Operator, and one Non-licensed Operator. Staffing will be maintained consistent with Technical Specification 5.2.2.a. Technical Specification 5.2.2 provides compensatory measures to replace unanticipated vacancies. In the event both units are in cold shutdown or refueling mode, at least three NLOs will be maintained on shift consistent with FSAR Table 13.1-202. If an emergency is declared, two of the three on shift NLOs will be assigned to the affected unit.
4. The CECC Director may assume designated responsibilities consistent with Section II.B.4 of this plan.
5. May be performed by aide to the SED.
6. Prior to staff augmentation, three qualified personnel are maintained on shift to fulfill the dose assessment, chemistry/radiochemistry, and radiation protection functions.

Attachment OI 13.03-27
TVA letter dated October 20, 2009
RAI Responses

Attachment OI 13.03-27
TABLE 3.8-1
INSPECTIONS, TESTS, ANALYSES, AND ACCEPTANCE CRITERIA

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
1.0 Assignment of Responsibility – Organizational Control			
<p>10 CFR 50.47(b)(1) – Primary responsibilities for emergency response by the nuclear facility licensee, and by State and local organizations within the EPZs have been assigned, the emergency responsibilities of the various supporting organizations have been specifically established, and each principle response organization has staff to respond and to augment its initial response on a continuous basis.</p>	<p>1.1 The staff exists to provide 24-hour per day emergency response and manning of communications links, including continuous operations for a protracted period. [A.1.e, A.4**]</p> <p>[**References in brackets throughout this table correspond to with NUREG-0654/FEMA-REP-1 Evaluation Criteria]</p>	<p>1.1 An inspection of the emergency plan implementing procedures will be performed.</p>	<p>1.1 Emergency plan implementing procedures provide for 24-hour per day emergency response staffing and manning of communications links, including continuous operations for a protracted period.</p>
2.0 Onsite Emergency Organization			
<p>10 CFR 50.47(b)(2) – On-shift facility licensee responsibilities for emergency response are unambiguously defined, adequate staffing to provide initial facility accident response in key functional areas is maintained at all times,</p>	<p>2.1 The staff exists to provide minimum and augmented on-shift staffing levels, consistent with Table B-1 of NUREG-0654/FEMA-REP-1, Rev. 1. [B.5, B.7]</p>	<p>2.1 An inspection of the emergency plan implementing procedures will be performed.</p>	<p>2.1 Emergency plan implementing procedures provide minimum and augmented on-shift staffing levels, consistent with Table II-2 of the Bellefonte Units 3 & 4 Combined License (COL) Application Emergency Plan.</p>

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
<p>timely augmentation of response capabilities is available, and the interfaces among various onsite response activities and offsite support and response activities are specified.</p>			
3.0 Emergency Classification System			
<p>10 CFR 50.47(b)(4) – A standard emergency classification and action level scheme, the bases of which include facility system and effluent parameters, is in use by the nuclear facility licensee, and State and local response plans call for reliance on information provided by facility licensees for determinations of minimum initial offsite response measures.</p>	<p>3.1 A standard emergency classification and emergency action level (EAL) scheme exists, and identifies facility system and effluent parameters constituting the bases for the classification scheme. [D.1**]</p>	<p>3.1 An inspection of the control room, technical support center (TSC), and Central Emergency Control Center (CECC) will be performed to verify that they have displays for retrieving facility system and effluent parameters that constitute the bases for the classification scheme in Emergency Plan Implementing Procedure, “Emergency Classification.”</p>	<p>3.1.1 The specific parameters identified in the Emergency Action Level Thresholds in Emergency Plan Implementing Procedure, “Emergency Classification,” have been retrieved and displayed in the control room, TSC, and CECC.</p> <p>3.1.2 The ranges available in the control room, TSC, and CECC encompassed the values for the specific parameters identified in the Emergency Action Level Thresholds in Emergency Plan Implementing Procedure, “Emergency Classification.”</p>

4.0 Notification Methods and Procedures			
<p>10 CFR 50.47(b)(5) – Procedures have been established for notification, by the licensee, of State and local response organizations and for notification of emergency personnel by all organizations; the content of initial and follow-up messages to response organizations and the public has been established; and means to provide early notification and clear instruction to the populace within the plume exposure pathway Emergency Planning Zone have been established.</p>	<p>4.1 The means exist to notify responsible State and local organizations within 15 minutes after the licensee declares an emergency. [E.1]</p>	<p>4.1 A test will be performed of the capabilities.</p>	<p>4.1.1 A report exists that confirms communications have been established between the control room and the TVA ODS.</p> <p>4.1.2 A report exists that confirms communications have been established between the ODS and the State of Alabama.</p> <p>4.1.3 A report exists that confirms communications have been established between the ODS and Jackson County.</p> <p>4.1.4 A report exists that confirms communications have been established between the ODS and DeKalb County.</p>
	<p>4.2 The means exist to notify emergency response personnel. [E.2]</p>	<p>4.2 A test will be performed of the capabilities.</p>	<p>4.2 A report exists that confirms notification to the Bellefonte emergency response organization have been performed through the Emergency Preparedness Paging System.</p>
	<p>4.3 The means exist to notify and provide instructions to the populace within the plume exposure EPZ. [E.6]</p>	<p>NOTE: The means to notify and provide instructions to the populace within the plume exposure EPZ is addressed by Acceptance Criteria 11.1.1.2.</p>	

5.0 Emergency Communications			
<p>10 CFR 50.47(b)(6) – Provisions exist for prompt communications among principal response organizations to emergency personnel and to the public.</p>	<p>5.1 The means exist for communications among the control room, TSC, EOF, principal State and local emergency operations centers (EOCs), and radiological field assessment teams. [F.1.d]</p>	<p>5.1 A test will be performed of the capabilities.</p> <p>NOTE: Additional ITAAC for the as-built TSC and OSC are addressed in Table 3.1-1 of Tier 1 of the AP1000 Design Control Document.</p>	<p>5.1.1 A report exists that confirms the following communications have been established :</p> <p>between the following facilities:</p> <ul style="list-style-type: none"> · Control room and ODS; · TSC and ODS. <p>5.1.2 A report exists that confirms communications have been established between the TSC and radiological monitoring teams.</p>
	<p>5.2 The means exist for communications from the control room, TSC, and EOF to the NRC headquarters and regional office EOCs (including establishment of the Emergency Response Data System (ERDS) between the onsite computer system and the NRC Operations Center.) [F.1.f]</p>	<p>5.2 A test will be performed of the capabilities.</p> <p>NOTE: ITAAC for these communications systems are addressed in Table 3.1-1 of Tier 1 of the AP1000 Design Control Document.</p>	<p>5.2.1 A report exists that confirms communications have been established from the control room, TSC, and CECC to NRC Headquarters and Region II EOC.</p> <p>5.2.2 A report exists that confirms ERDS data was provided from the plant computer system to the NRC Operations Center.</p>

6.0 Public Education and Information			
<p>10 CFR 50.47(b)(7) – Information is made available to the public on a periodic basis on how they will be notified and what their initial actions should be in an emergency (e.g., listening to a local broadcast station and remaining indoors), the principal points of contact with the news media for dissemination of information during an emergency (including the physical location or locations) are established in advance, and procedures for coordinated dissemination of information to the public are established.</p>	<p>6.1 The licensee has provided space which may be used for a limited number of the news media at the EOF. [G.3.b]</p>	<p>6.1 An inspection of the Joint Information Center will be performed to verify that space is provided for a limited number of the news media.</p>	<p>6.1 The Joint Information Center has been located in the TVA Chattanooga Complex.</p>

7.0 Emergency Facilities and Equipment			
<p>10 CFR 50.47(b)(8) – Adequate emergency facilities and equipment to support the emergency response are provided and maintained.</p>	<p>7.1 The licensee has established a technical support center (TSC) and onsite operations support center (OSC). [H.1]</p>	<p>7.1 An inspection of the as-built TSC and OSC will be performed.</p> <p>NOTE: Additional ITAAC for the as-built TSC and OSC are addressed in Table 3.1-1 of Tier 1 of the AP1000 Design Control Document.</p>	<p>7.1.1 The TSC has been located in the Maintenance Building.</p> <p>7.1.2 The TSC includes radiation monitors and a ventilation system with a high efficiency particulate air (HEPA) and charcoal filter.</p> <p>7.1.3 Back-up electrical power supply was available for the TSC.</p> <p>7.1.4 The OSC is in a location separate from the control room.</p>
	<p>7.2 The licensee has established an emergency operations facility (EOF). [H.2]</p>	<p>7.2 An inspection of the CECC will be performed.</p>	<p>7.2.1 The CECC had at least 243 square meters (2,625 square feet).</p> <p>7.2.2 Voice transmission and reception have been accomplished between the CECC and the following organizations: NRC, Jackson County, DeKalb County, and State of Alabama.</p>

8.0 Accident Assessment			
<p>10 CFR 50.47(b)(9) – Adequate methods, systems, and equipment for assessing and monitoring actual or potential offsite consequences of a radiological emergency condition are in use.</p>	<p>8.1 The means exist to provide initial and continuing radiological assessment throughout the course of an accident. [1.2]</p>	<p>8.1 A test of the emergency plan will be conducted by performing an exercise or drill to verify the capability to perform accident assessment.</p>	<p>8.1 A report exists that confirms an exercise or drill has been accomplished including use of selected monitoring parameters identified in the EAL Thresholds in Emergency Plan Implementing Procedure, "Emergency Classification," to assess simulated degraded plant and initiate protective actions in accordance with the following criteria:</p> <ul style="list-style-type: none"> A. Accident Assessment and Classification <ul style="list-style-type: none"> 1. Initiating conditions identified. 2. EALs parameters determined. 3. Emergency correctly classified throughout the drill. B. Radiological Assessment and Control <ul style="list-style-type: none"> 1. Onsite radiological surveys performed and samples collected. 2. Radiation exposure to emergency workers monitored and controlled. 3. Field monitoring teams assembled and deployed. 4. Field team data collected and disseminated. 5. Dose projections developed. 6. Decision whether to issue radioprotective drugs to TVA emergency workers made. 7. Protective action recommendations developed and communicated to appropriate authorities.

	<p>8.2 The means exist to determine the source term of releases of radioactive material within plant systems, and the magnitude of the release of radioactive materials based on plant system parameters and effluent monitors. [I.3]</p>	<p>8.2 An analysis of emergency plan implementing procedures will be performed.</p>	<p>8.2 The means has been established to determine the source term of releases of radioactive materials within plant systems and the magnitude of the release of radioactive materials based on plant system parameters and effluent monitors.</p>
	<p>8.3 The means exist to continuously assess the impact of the release of radioactive materials to the environment, accounting for the relationship between effluent monitor readings, and onsite and offsite exposures and contamination for various meteorological conditions. [I.4]</p>	<p>8.3 An analysis of emergency plan implementing procedures will be performed.</p>	<p>8.3 The means has been provided to assess the impact of the release of radioactive materials to the environment, accounting for the relationship between effluent monitor readings and onsite and offsite exposures and contamination for various meteorological conditions.</p>
	<p>8.4 The means exist to acquire and evaluate meteorological information. [I.5]</p>	<p>8.4 An inspection of the control room, TSC, and CECC will be performed to verify the availability of the following meteorological data is available:</p> <ul style="list-style-type: none"> · Wind speed (at 10 m and 55 m) · Wind direction (at 10 m and 55 m) · Ambient air temperature (at 10 m and 55 m) 	<p>8.4 The specified meteorological data was available at the control room, TSC, and CECC.</p>

	<p>8.5 The means exist to make rapid assessments of actual or potential magnitude and locations of any radiological hazards through liquid or gaseous release pathways, including activation, notification means, field team composition, transportation, communication, monitoring equipment, and estimated deployment times. [I.8]</p>	<p>8.5 An analysis of emergency plan implementing procedures will be performed.</p>	<p>8.5 A methodology has been established to provide rapid assessment of the actual or potential magnitude and locations of any radiological hazards through liquid or gaseous release pathways.</p>
	<p>8.6 The capability exists to detect and measure radioiodine concentrations in air in the plume exposure EPZ, as low as 10⁻⁷ µCi/cc (microcuries per cubic centimeter) under field conditions. [I.9]</p>	<p>8.6 A test of TVA field survey instrumentation will be performed to verify the capability to detect airborne concentrations as low as 1E-07 microcuries per cubic centimeters.</p>	<p>8.6 A report exists that confirms instrumentation used for monitoring I-131 to detect airborne concentrations as low as 1E-07 microcuries per cubic centimeters has been provided.</p>
	<p>8.7 The means exist to estimate integrated dose from the projected and actual dose rates, and for comparing these estimates with the EPA protective action guides (PAGs). [I.10]</p>	<p>8.7 An analysis of emergency plan implementing procedures will be performed to verify that a methodology is provided to make rapid assessments of actual or potential magnitude and locations of any radiological hazards through liquid or gaseous release pathways, including activation, notification means, field team composition, transportation, communication, monitoring equipment and estimated deployment times.</p>	<p>8.7 The means has been established to make rapid assessments of actual or potential magnitude and locations of any radiological hazards through liquid or gaseous release pathways.</p>

9.0 Protective Response			
<p>10 CFR 50.47(b)(10) – A range of protective actions has been developed for the plume exposure EPZ for emergency workers and the public. In developing this range of actions, consideration has been given to evacuation, sheltering, and, as a supplement to these, the prophylactic use of potassium iodide (KI), as appropriate. Guidelines for the choice of protective actions during an emergency, consistent with Federal guidance, are developed and in place, and protective actions for the ingestion exposure EPZ appropriate to the locale have been developed.</p>	<p>9.1 The means exist to warn and advise onsite individuals of an emergency, including those in areas controlled by the operator; including:[J.1] a. employees not having emergency assignments; b. visitors; c. contractor and construction personnel; and d. other persons who may be in the public access areas, on or passing through the site, or within the owner controlled area.</p>	<p>9.1 A test of the onsite warning and communications capability will be performed during a drill or exercise.</p>	<p>9.1.1 A report exists that confirms that, during a drill or exercise, notification and instructions were provided to onsite workers and visitors, within the Protected Area, over the plant public announcement system.</p> <p>9.1.2 A report exists that confirms that, during a drill or exercise, audible warnings were provided to individuals outside the Protected Area, but within the Owner Controlled Area.</p>

10.0 Radiological Exposure Control			
<p>10 CFR 50.47(b)(11) – Means for controlling radiological exposures, in an emergency, are established for emergency workers. The means for controlling radiological exposures shall include exposure guidelines consistent with EPA Emergency Worker and Lifesaving Activity PAGs.</p>	<p>10.1 The means exists to provide onsite radiation protection. [K.2]</p>	<p>10.1 An analysis of site procedures will be performed.</p>	<p>10.1 Site procedures provide the means for onsite radiation protection.</p>
	<p>10.2 The means exists to provide 24-hour-per-day capability to determine the doses received by emergency personnel and maintain dose records. [K.3]</p>	<p>10.2 An analysis of emergency plan implementing procedures will be performed.</p>	<p>10.2 Emergency plan implementing procedures provide the means for 24- hour-per-day capability to determine the doses received by emergency personnel and maintain dose records.</p>
	<p>10.3 The means exists to decontaminate relocated onsite and emergency personnel, including waste disposal. [K.5.b, K.7]</p>	<p>10.3 An analysis of emergency plan implementing procedures will be performed.</p>	<p>10.3 Emergency plan implementing procedures provide a means to decontaminate relocated onsite and emergency personnel, including waste disposal.</p>

	10.4 The means exists to provide onsite and contamination control measures. [K.6]	10.4 An analysis of site procedures will be performed.	10.4 Site procedures provide the means for onsite contamination control measures.
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11.0 Exercises and Drills			
<p>10 CFR 50.47(b)(14) – Periodic exercises are (will be) conducted to evaluate major portions of emergency response capabilities, periodic drills are (will be) conducted to develop and maintain key skills, and deficiencies identified as a result of exercises or drills are (will be) corrected.</p>	<p>11.1 Licensee conducts a full-participation exercise to evaluate major portions of emergency response capabilities, which includes participation by each State and local agency within the plume exposure EPZ, and each State within the ingestion control EPZ. [N.1]</p>	<p>11.1 A full-participation exercise (test) will be conducted within the specified time periods of Appendix E to 10 CFR Part 50.</p>	<p>11.1.1.1 A report exists that confirms an exercise was conducted within the specified time periods of Appendix E to 10 CFR Part 50, onsite exercise objectives were met, and there were no uncorrected onsite exercise deficiencies.</p> <p>11.1.1.2 A report exists that confirms the following exercise objectives were satisfied by meeting the specified performance criteria:</p> <p>1. Demonstrate the ability to identify initiating conditions, determine emergency action level (EAL) parameters, and correctly classify the emergency throughout the exercise.</p> <p>Performance Criteria:</p> <p>a. Determine the correct emergency classification level based on events which were in progress, considering past events and their impact on the current conditions, within 15 minutes from the time the initiating condition(s) or EAL is identified.</p> <p><i>B. Notifications</i></p>

			<p>1. Demonstrate the ability to alert, notify and mobilize site emergency response personnel.</p> <p>Performance Criteria:</p> <ul style="list-style-type: none"> a. Complete the designated actions in accordance with emergency plan implementing procedures and perform the announcement within 15 minutes of the initial event classification for an Alert or higher. b. Mobilize site emergency responders in accordance with emergency plan implementing procedures within 15 minutes of the initial event classification for an Alert or higher. <p>2. Demonstrate the ability to notify responsible State, local government agencies within 15 minutes and the NRC within 60 minutes after declaring an emergency.</p> <p>Performance Criteria:</p> <ul style="list-style-type: none"> a. Transmit information in accordance with approved emergency plan implementing procedures within 15 minutes of event classification. b. Transmit information in accordance with approved emergency plan implementing procedures, within 60 minutes of last transmittal for a follow-up notification to State and
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			<p>local authorities.</p> <p>c. Transmit information in accordance with emergency plan implementing procedures within 60 minutes of event classification for an initial notification of the NRC.</p> <p>3. Demonstrate the ability to warn or advise onsite individuals of emergency conditions.</p> <p>Performance Criteria:</p> <p>a. Initiate notification of onsite individuals within 15 minutes of notification.</p> <p><i>C. Emergency Response</i></p> <p>1. Demonstrate the capability to direct and control emergency operations.</p> <p>Performance Criteria:</p> <p>a. Command and control is demonstrated by the Control Room in the early phase of the emergency, and the technical support center (TSC) within 60 minutes from TSC activation.</p> <p>2. Demonstrate the ability to transfer emergency direction from the control room (simulator) to the TSC within 30 minutes from activation.</p>
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			<p>Performance Criteria:</p> <ul style="list-style-type: none"> a. Turnover briefings are conducted in accordance with emergency plan implementing procedures. b. Documentation of transfer of duties is completed in accordance with emergency plan implementing procedures. <p>4. Demonstrate the ability to perform assembly and accountability for all onsite individuals within 30 minutes of an emergency requiring protected area assembly and accountability.</p> <p>Performance Criteria:</p> <ul style="list-style-type: none"> a. Protected area (PA) personnel assembly and accountability completed within 30 minutes of an emergency requiring protected area assembly and accountability. <p><i>D. Emergency Response Facilities</i></p> <p>1. Demonstrate activation of the operational support center (OSC), and full functional operation of the TSC and CECC within 60 minutes of activation.</p> <p>Performance Criteria:</p> <ul style="list-style-type: none"> a. The TSC, CECC and OSC are activated within about 60 minutes of
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			<p>the initial notification.</p> <p>2. Demonstrate the adequacy of equipment, security provisions, and habitability precautions for the TSC, OSC and CECC as appropriate.</p> <p>Performance Criteria:</p> <ul style="list-style-type: none"> a. Emergency equipment in the emergency response facilities as specified in emergency plan implementing procedures was available to emergency responders. b. The Security Shift Supervisor implements and follows applicable emergency implementing procedures. c. The Radiation Protection Manager (TSC) implements designated responsibilities in accordance with emergency plan implementing procedures if an onsite/offsite release has occurred. <p>3. Demonstrate the adequacy of communications for all emergency support resources.</p> <p>Performance Criteria:</p> <ul style="list-style-type: none"> a. Emergency response facility personnel are able to operate communication systems in accordance with emergency plan
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			<p>implementing procedures.</p> <p>b. Clear primary and backup communications links are established and maintained for the duration of the exercise.</p> <p><i>E. Radiological Assessment and Control</i></p> <p>1. Demonstrate the ability to obtain onsite radiological surveys and samples.</p> <p>Performance Criteria:</p> <p>a. HP Technicians demonstrate the ability to obtain appropriate instruments (range and type) and perform surveys.</p> <p>b. Airborne samples are taken in accordance with emergency plan implementing procedures.</p> <p>2. Demonstrate the ability to continuously monitor and control radiation exposure to emergency workers.</p> <p>Performance Criteria:</p> <p>a. Emergency workers are issued self reading dosimeters when radiation levels require, and exposures are controlled to 10 CFR Part 20 limits (unless the Site Emergency Director authorizes emergency limits).</p> <p>b. Exposure records are available.</p>
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			<p>c. Emergency workers include Security and personnel within all emergency facilities.</p> <p>3. Demonstrate the ability to assemble and deploy field monitoring teams within 60 minutes from the decision to do so.</p> <p>Performance Criteria:</p> <p>a. One Field Monitoring team is ready to be deployed within 60 minutes of being requested from the OSC, and no later than 90 minutes from the declaration of an Alert or higher emergency.</p> <p>4. Demonstrate the ability to collect and disseminate field team data.</p> <p>Performance Criteria:</p> <p>a. Field team collects data for dose rate and airborne radioactivity levels in accordance with emergency plan implementing procedures..</p> <p>b. Field team communicates data to the TSC and/or CECC in accordance with emergency plan implementing procedures.</p> <p>5. Demonstrate the ability to develop dose projections.</p>
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			<p>Performance Criteria:</p> <p>a. Timely and accurate dose projections are performed in accordance with emergency plan implementing procedures.</p> <p>6. Demonstrate the ability to make the decision whether to issue radioprotective drugs (KI) to onsite emergency workers.</p> <p>Performance Criteria:</p> <p>a. KI is taken (simulated) if the estimated dose to the thyroid will exceed 25 rem committed dose equivalent (CDE).</p> <p>7. Demonstrate the ability to develop appropriate protective action recommendations (PARs) and notify appropriate authorities within 15 minutes of development.</p> <p>Performance Criteria:</p> <p>a. Total effective dose equivalent (TEDE) and CDE dose projections from the dose assessment computer code are compared in accordance with emergency plan implementing procedures.</p> <p>b. PARs are developed within 15 minutes of data availability.</p> <p>c. PAR's are transmitted via voice or</p>
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			<p>fax within 15 minutes of event classification and/or PAR development.</p> <p><i>F. Public Information</i></p> <p>1. Demonstrate the capability to develop and disseminate clear, accurate, and timely information to the news media in accordance with EIPs.</p> <p>Performance Criteria:</p> <ul style="list-style-type: none"> a. Media information (e.g., press releases, press briefings, electronic media) are made available within 60 minutes of notification of the TVA Chief Spokesperson. b. Follow-up information is provided to the news media, at a minimum, within 60 minutes of an emergency classification or PAR change. <p>2. Demonstrate the capability to establish and effectively operate rumor control in a coordinated fashion.</p> <p>Performance Criteria:</p> <ul style="list-style-type: none"> a. Calls are answered in a timely manner with the correct information, in accordance with EIPs. b. Calls are returned or forwarded, as appropriate, to demonstrate
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			<p>responsiveness.</p> <p>c. Rumors are identified and addressed in accordance with emergency plan implementing procedures.</p> <p><i>G. Evaluation</i></p> <p>1. Demonstrate the ability to conduct a post-exercise critique, to determine areas requiring improvement and corrective action.</p> <p>Performance Criteria:</p> <p>a. An exercise time line is developed, followed by an evaluation of the objectives.</p> <p>b. Significant problems in achieving the objectives are discussed to ensure understanding of why objectives were not fully achieved.</p> <p>c. Recommendations for improvement in non-objective areas are discussed.</p>
			<p>11.1.2.1 A report exists that confirms onsite emergency response personnel were mobilized to fill emergency response positions and there were no uncorrected onsite exercise deficiencies.</p> <p>11.1.2.2 A report exists that confirms onsite emergency response personnel</p>

			<p>performed their assigned responsibilities and there were no uncorrected onsite exercise deficiencies.</p> <p>11.1.3 A report exists that confirms the exercise was completed within the specified time periods of Appendix E to 10 CFR Part 50, offsite exercise objectives were met.</p>
12:0 Responsibility for the Planning Effort: Development , Periodic Review, and Distribution of Emergency Plans			
<p>10 CFR 50.47(b)(16) – Responsibilities for plan development and review and for distribution of emergency plans are established, and planners are properly trained.</p>	<p>12.1 The emergency response plans have been forwarded to all organizations and appropriate individuals with responsibility for implementation of the plans. [P.5]</p>	<p>12.1 An inspection of the distribution letter will be performed.</p>	<p>12.1 The Bellefonte Unit 3 & 4 COL Application Emergency Plan was forwarded to the Alabama Emergency Management Agency, the Alabama Department of Public Health Jackson County Emergency Management, and DeKalb County Emergency Management.</p>

13.0 Implementing Procedures			
<p>10 CFR Part 50, App. E.V – No less than 180 days prior to the scheduled issuance of an operating license for a nuclear power reactor or a license to possess nuclear material, the applicant's detailed implementing procedures for its emergency plan shall be submitted to the Commission.</p>	<p>13.1 The licensee has submitted detailed implementing procedures for its emergency plan no less than 180 days prior to fuel load.</p>	<p>13.1 An inspection of the submittal letter will be performed.</p>	<p>13.1 TVA has submitted detailed implementing procedures for the onsite emergency plan, to the NRC, no less than 180 days prior to fuel load.</p>