U.S. NUCLEAR REGULATORY COMMISSION

STANDARD REVIEW PLAN

14.3.10 EMERGENCY PLANNING - INSPECTIONS, TESTS, ANALYSES, AND ACCEPTANCE CRITERIA

REVIEW RESPONSIBILITIES

Primary - Organization responsible for the review of Emergency Planning

Secondary - None

I. AREAS OF REVIEW

This standard review plan (SRP) section addresses the applicant's emergency planning, as described in the safety analysis report (SAR). The areas of review will depend on the specific application. For an application submitted under 10 CFR Part 50, this primary review responsibility involves evaluation of evidence of preliminary planning (in the Preliminary Safety Analysis Report, PSAR) or substantive evidence of planning (in the Final Safety Analysis Report, FSAR) for emergency preparedness directed at situations involving real or potential radiological hazards. For an application submitted under 10 CFR Part 52, the review involves evaluation of various aspects of emergency planning, which will depend on whether the application is for an early site permit (ESP), design certification, or combined license (COL).

This SRP section specifically addresses inspections, tests, analyses, and acceptance criteria (ITAAC) related to emergency planning (i.e., EP-ITAAC). EP-ITAAC information is included in an ESP application with complete and integrated emergency plans, a combined license (COL) application or Tier 1 information in a design certification (DC) application.

March 2007

The review covers plans for emergency response activities which may address such areas as, emergency planning zones (EPZs), emergency action levels (EALs), evacuation time estimates (ETEs), and emergency response facilities. The reviewer will evaluate proposed inspections, tests, and analyses applicable to emergency planning that the licensee shall perform, and the associated acceptance criteria (i.e., EP-ITAAC).

In general, EP- ITAAC are inappropriate for procedure-level details associated with the proposed emergency plans, in that procedure adequacy and implementation will be evaluated under the exercise ITAAC. EP-ITAAC, should be limited to those aspects of emergency planning and preparedness that can not reasonably be addressed prior to construction of the plant.

The specific areas of review are as follows:

1. 10 CFR 52.80(a) requires that an application must include the proposed ITAAC, including those applicable to emergency planning. The reviewer should examine the specific emergency planning ITAAC in the application, and confirm that they are consistent with the EP-ITAAC contained in Table 14.3.10-1, which provides an acceptable set of generic emergency planning ITAAC.

2. The reviewer should confirm that the proposed ITAAC have been tailored to the specific reactor design and emergency planning program requirements. A smaller set of COL ITAAC is acceptable if the application contains information that fully addresses emergency preparedness requirements associated with any of the generic ITAAC in Table 14.3.10-1 that are not used.

3. Table 14.3.10-1 is not all-inclusive, or exclusive of other ITAAC an applicant may propose. If the applicant proposes additional plant-specific emergency planning ITAAC (i.e., beyond those listed in Table 14.3.10-1), the reviewer should examine them and determine their acceptability on a case-by-case basis.

4. For a DC application:

    A. The staff reviews the proposed EP-ITAAC that are necessary and sufficient to provide reasonable assurance that, if the inspections, tests, and analyses are performed and the acceptance criteria met, a plant that incorporates the design certification is built and will operate in accordance with the design certification, the Act, and the regulations.

    B. The staff reviews the justification that compliance with the interface requirements is verifiable through ITAAC. The staff also reviews the method that is to be used for verification of the interface requirements.

5. For an ESP application with complete and integrated plans:

    A. The staff reviews the proposed EP-ITAAC that are necessary and sufficient to provide reasonable assurance that, if the inspections, tests, and analyses are performed and the acceptance criteria met, the facility that references the ESP will be constructed and will operate in conformity with the ESP and its associated combined license, the Act, and the regulations.

6. For a COL application:

   A. The staff reviews the proposed EP-ITAAC that are necessary and sufficient to provide reasonable assurance that, if the inspections, tests, and analyses are performed and the acceptance criteria met, the facility has been constructed and will operate in conformity with the combined license, the Act, and the regulations.

   B. If the application references an early site permit (ESP) with EP-ITAAC, the staff verifies that the early site permit ITAAC apply to those aspects of the combined license that are approved in the early site permit.

   C. If the application references a standard design certification, the staff verifies that the EP-ITAAC contained in the certified design apply to those portions of the facility design that are approved in the design certification.

7. COL Action Items and Certification Requirements and Restrictions. For a DC application, the review will also address COL action items and requirements and restrictions (e.g., interface requirements and site parameters).

   For a COL application referencing a DC, a COL applicant must address COL action items (referred to as COL license information in certain DCs) included in the referenced DC. Additionally, a COL applicant must address requirements and restrictions (e.g., interface requirements and site parameters) included in the referenced DC.

Review Interfaces

Other SRP sections interface with this section as follows:

1. SRP Section 14.3 provides general guidance on review interfaces.

2. SRP Section 13.3 describes the review interfaces for the acceptability of emergency planning. Specific EP-ITAAC information may require staff review to address plant specific design and site-specific emergency response plans and facilities when provided by an applicant.

The specific acceptance criteria and review procedures are contained in the referenced SRP sections.

II. ACCEPTANCE CRITERIA

Requirements

Acceptance criteria are based on meeting the relevant requirements of the following Commission regulations:

1. 10 CFR 52.17 and 10 CFR 52.18, as they relate to emergency planning information submitted in an ESP application. 10 CFR 52.17(b)(3) provides the requirement for ITAAC in an ESP application that includes major features of the emergency plans or complete and integrated emergency plans in accordance with 10 CFR 52.17(b)(2).

2. 10 CFR 52.47 and 10 CFR 52.48, as they relate to emergency planning information submitted in a standard design certification application. 10 CFR 52.47(b)(1) provides the requirement for ITAAC in a design certification application.

3. 10 CFR 52.77, 10 CFR 52.79, 10 CFR 52.80, 10 CFR 52.81, and 10 CFR 52.83, as they relate to emergency planning and preparedness associated with a COL application. 10 CFR 52.80(a) provides the requirement for ITAAC in a combined license.

4. 10 CFR 52.47(b)(1), which requires that a DC application contain the proposed inspections, tests, analyses, and acceptance criteria (ITAAC) that are necessary and sufficient to provide reasonable assurance that, if the inspections, tests, and analyses are performed and the acceptance criteria met, a plant that incorporates the design certification is built and will operate in accordance with the design certification, the provisions of the Atomic Energy Act, and the NRC's regulations.

5. 10 CFR 52.80(a), which requires that a COL application contain the proposed inspections, tests, and analyses, including those applicable to emergency planning, that the licensee shall perform, and the acceptance criteria that are necessary and sufficient to provide reasonable assurance that, if the inspections, tests, and analyses are performed and the acceptance criteria met, the facility has been constructed and will operate in conformity with the combined license, the provisions of the Atomic Energy Act, and the NRC's regulations.

SRP Acceptance Criteria

Specific SRP acceptance criteria acceptable to meet the relevant requirements of the NRC's regulations identified above are as follows for the review described in this SRP section. The SRP is not a substitute for the NRC's regulations, and compliance with it is not required. However, an applicant is required to identify differences between the design features, analytical techniques, and procedural measures proposed for its facility and the SRP acceptance criteria and evaluate how the proposed alternatives to the SRP acceptance criteria provide acceptable methods of compliance with the NRC regulations.

1. The reviewer should ensure that for a design certification where an applicant has chosen to address emergency response facilities that the information provided adequately discusses facilities for emergency response. These include a habitable technical support center (TSC) with space, data retrieval capabilities and dedicated communications equipment, and an operational support center (OSC) with adequate communications, consistent with the applicable criteria in Supplement 1 to NUREG-0737 and NUREG-0696.

2. A generic set of acceptable emergency planning EP-ITAAC was developed through coordination efforts between the NRC and the Nuclear Energy Institute (NEI) and resulted in the development of generic EP-ITAAC that are provided in Table 14.3.10-1(Table C.II.2-B1[1] of RG 1.206). These EP-ITAAC were established on a

[1]See SECY-05-0197, "Review of Operational Programs in a Combined License Application and Generic Emergency Planning Inspections, Tests, Analyses, and Acceptance Criteria,"

generic basis; they are not associated with any particular site or design. As such, several of the generic EP-ITAAC require the COL applicant to provide more specific acceptance criteria that reflect the plant-specific design and site-specific emergency response plans and facilities. This generic set is applicable to ESP applications that include ITAAC information.

The reviewer should consider this set of EP-ITAAC in the review of application-specific EP-ITAAC that is tailored to the specific reactor design and emergency planning program requirements for the proposed plant and site. A smaller set of EP-ITAAC is acceptable if the application contains information that fully addresses emergency preparedness requirements associated with any of the generic ITAAC contained in Table 14.3.10-1 which is not all-inclusive, or exclusive of other ITAAC an applicant may propose. Additional plant-specific EP-ITAAC (i.e., beyond those listed in Table 14.3.10-1) may be proposed, and they will be examined to determine their acceptability on an applicant-specific basis.

Table 14.3.10-1 also includes ITAAC associated with emergency response facilities that are within the scope of the design certification. COL applications referencing a certified design must include these design certification ITAAC on emergency response facilities. EP-ITAAC are proposed by the COL applicant and, except for EP-ITAAC from the referenced design certification or ESP, are subject to NRC review and a hearing with respect to whether they satisfy the "necessary and sufficient" requirement of 10 CFR 52.80(a). The complete set of EP-ITAAC will be incorporated into the COL as a license condition to be satisfied prior to fuel load. A COL holder may request a change in one or more of the EP-ITAAC, except those provided in the referenced certified design, via the license amendment process applicable to 10 CFR Part 52.

Technical Rationale

The technical rationale for application of these acceptance criteria to the areas of review addressed by this SRP section is discussed in the following paragraphs:

1. Application of 10 CFR 52.17(b)(3), as it relates to ITAAC (for early site permits) provides reasonable assurance that either major features of the emergency plans or the complete and integrated emergency plans (which include proposed ITAAC) are necessary and sufficient to provide reasonable assurance that, if the inspections, tests and analyses are performed and the acceptance criteria met, the facility has been constructed and will operate in conformity with the license, the provisions of the Atomic Energy Act, and the NRC's regulations.

2. Application of 10 CFR 52.47(b)(1), as it relates to ITAAC (for design certification) provides reasonable assurance that an applicant includes proposed ITAAC, including those applicable to emergency planning, which are necessary and sufficient to provide reasonable assurance that, if the inspections, tests, and analyses are performed and the

---

October 28, 2005; and SRM SECY-05-0197, February 22, 2006. The generic emergency planning ITAAC in SECY-05-0197 formed the basis for Table C.II.2-B1 of RG 1.206.

acceptance criteria met, a plant that incorporates the design certification is built and will operate in accordance with the design certification, the provisions of the Atomic Energy Act, and the NRC's regulations.

3. Application of 10 CFR 52.80(a), as it relates to ITAAC (for combined licenses) provides reasonable assurance that the an application includes proposed emergency planning ITAAC which are necessary and sufficient to provide reasonable assurance that, if the inspections, tests, and analyses are performed and the acceptance criteria met, the facility has been constructed and will operate in conformity with the combined license, the provisions of the Atomic Energy Act, and the NRC's regulations.

III. REVIEW PROCEDURES

The reviewer will select material from the procedures described below, as may be appropriate for a particular case.

These review procedures are based on the identified SRP acceptance criteria. For deviations from these acceptance criteria, the staff should review the applicant's evaluation of how the proposed alternatives provide an acceptable method of complying with the relevant NRC requirements identified in Subsection II.

Follow the applicable general procedures for review of the application contained in the Review Procedures section of SRP Section 14.3. Verify that each EP-ITAAC submitted provides objective acceptance criteria.

If applicable, ensure that all Tier 1 information is consistent with Tier 2 information. Figures and diagrams should be reviewed to ensure that they accurately depict the functional arrangement and requirements of the systems. Reviewers should use the Review Checklists in Appendix C, "Detailed Review Guidance" to SRP Section 14.3 as an aid in establishing consistent and comprehensive treatment of issues.

Early Site Permit

1. As indicated in 10 CFR 52.17(b)(2)(ii), an ESP application may propose complete and integrated emergency plans for review and approval by NRC, in consultation with FEMA, in accordance with the applicable provisions of 10 CFR 50.47. The review will use the guidance provided in the planning standards and evaluation criteria of NUREG-0654/FEMA-REP-1, Rev. 1, as clarified, interpreted, and modified by FEMA, to determine whether the plans meet the applicable regulatory requirements.

2. The reviewer should examine the specific emergency planning ITAAC in the application, and confirm that they are consistent with the ITAAC contained in Table 14.3.10-1, which provides an acceptable set of generic emergency planning ITAAC. The reviewer should confirm that the proposed ITAAC have been tailored to the specific reactor design and emergency planning program requirements. A smaller set of COL ITAAC is acceptable if the application contains information that fully addresses emergency preparedness requirements associated with any of the generic ITAAC in Table 14.3.10-1 that are not

used. Table 14.3.10-1 is not all-inclusive, or exclusive of other ITAAC an applicant may propose. If the applicant proposes additional plant-specific emergency planning ITAAC (i.e., beyond those listed in Table 14.3.10-1), the reviewer should examine them and determine their acceptability on a case-by-case basis.

Standard Design Certification

1. The reviewer should examine the proposed ITAAC, and should determine whether the ITAAC are necessary and sufficient to provide reasonable assurance that, if the tests, inspections and analyses are performed and the acceptance criteria met, a plant which references the design will be built, and will operate, in accordance with the design certification.

2. The procedures above should be followed, as modified by the procedures in SRP Section 14.3, to verify that the design set forth in the standard SAR (including ITAAC), site interface requirements and COL action or information items, meet the acceptance criteria given in Subsection II. SRP Section 14.3 contains procedures for the review of certified design material for the standard design, including the site parameters, interface criteria, and ITAAC.

3. For review of a DC application, the reviewer should follow the above procedures to verify that the design, including requirements and restrictions (e.g., interface requirements and site parameters), set forth in the final safety analysis report (FSAR) meets the acceptance criteria. DCs have referred to the FSAR as the design control document (DCD). The reviewer should also consider the appropriateness of identified COL action items. The reviewer may identify additional COL action items; however, to ensure these COL action items are addressed during a COL application, they should be added to the DC FSAR.

Combined License

1. The reviewer should confirm that the emergency planning ITAAC contained in a referenced standard design certification apply to those portions of the facility design that are approved in the design certification, as required by 10 CFR 52.80(a)(2). Further, pursuant to 10 CFR 52.80(a)(3), if the application references an ESP with ITAAC or a standard design certification, or both, the application may include a notification that a required inspection, test, or analysis in the ITAAC has been successfully completed, and that the corresponding acceptance criterion has been met. The *Federal Register* notification required by 10 CFR 52.85 must indicate that the application includes this notification.

2. 10 CFR 52.80(a) requires that an application must include the proposed ITAAC, including those applicable to emergency planning. The reviewer should examine the specific emergency planning ITAAC in the application, and confirm that they are consistent with the ITAAC contained in Table 14.3.10-1, which provides an acceptable set of generic emergency planning ITAAC. The reviewer should confirm that the proposed ITAAC have been tailored to the specific reactor design and emergency

planning program requirements. A smaller set of COL ITAAC is acceptable if the application contains information that fully addresses emergency preparedness requirements associated with any of the generic ITAAC in Table 14.3.10-1 that are not used.

Table 14.3.10-1 is not all-inclusive, or exclusive of other ITAAC an applicant may propose. If the applicant proposes additional plant-specific emergency planning ITAAC (i.e., beyond those listed in Table 14.3.10-1), the reviewer should examine them and determine their acceptability on a case-by-case basis.

3. For review of a COL application, the scope of the review is dependent on whether the COL applicant references a DC, an early site permit (ESP) or other NRC approvals (e.g., manufacturing license, site suitability report or topical report).

Implementation

1. Implementation of ITAAC will be inspected in accordance with NRC Inspection Manual Chapter IMC-2503, "Construction Inspection Program - ITAAC Inspections," and/or

2. Implementation of EP-ITAAC will be inspected in accordance with NRC Inspection Procedure Attachment 65001.18, "Inspection of Emergency Planning ITAAC."

IV. EVALUATION FINDINGS

The reviewer verifies that the applicant has provided sufficient information and that the review and calculations (if applicable) support conclusions of the following type to be included in the staff's safety evaluation report. The reviewer also states the bases for those conclusions.

1. The reviewer verifies that sufficient information has been provided to satisfy the requirements of SRP Section 14.3 and this SRP section, and concludes that the ITAAC is acceptable. A finding similar to that in the Evaluation Findings section of SRP Section 14.3 should be provided in a separate section of the SER.

2. For DC, ESP, and COL reviews, the findings will also summarize the staff's evaluation of requirements and restrictions (e.g., interface requirements and site parameters) and COL action items relevant to this SRP section.

V. IMPLEMENTATION

The staff will use this SRP section in performing safety evaluations of DC, ESP applications and license applications submitted by applicants pursuant to 10 CFR Part 50 or 10 CFR Part 52. Except when the applicant proposes an acceptable alternative method for complying with specified portions of the Commission's regulations, the staff will use the method described herein to evaluate conformance with Commission regulations.

The provisions of this SRP section apply to reviews of applications submitted six months or more after the date of issuance of this SRP section, unless superseded by a later revision.

VI. REFERENCES

1. 10 CFR 50.47, “Emergency plans”

2. 10 CFR 50.54, “Conditions of licenses”

3. 10 CFR 52.79, “Contents of application; technical information”

4. 10 CFR 52.80, “Contents of application; additional technical information”

5. 10 CFR 52.81, “Standards for review of applications”

6. 10 CFR 52.83, “Applicability of part 50 provisions”

7. 10 CFR 52.97, “Issuance of combined licenses”

8. Regulatory Guide 1.101, Rev. 2, “Emergency Planning and Preparedness for Nuclear Power Reactors,” October 1981.

9. Regulatory Guide 1.101, Rev. 3, “Emergency Planning and Preparedness for Nuclear Power Reactors,” August 1992.

10. Regulatory Guide 1.101, Rev. 4, “Emergency Planning and Preparedness for Nuclear Power Reactors, “July 2003.

11. Regulatory Guide 1.101, Rev. 5, “Emergency Planning and Preparedness for Nuclear Power Reactors,” September 2004 (ADAMS Accession No. ML050730286).

12. Regulatory Guide RG-1.206, “Combined License Applications for Nuclear Power Plants (LWR Edition).”

13. Supplement 2 to NUREG-0654/FEMA-REP-1, Rev. 1, “Criteria for Emergency Planning in an Early Site Permit Application–Draft Report for Comment,” April 1996 (ADAMS Accession No. ML050130188).

14. NUREG-0696, “Functional Criteria for Emergency Response Facilities,” February 1981.

15. NUREG-0737, “Clarification of TMI Action Plan Requirements,” October 30, 1980.

16. Supplement 1 to NUREG-0737, “Requirements for Emergency Response Capability,” January 1983.

17. NUREG-1394, Rev. 1, “Emergency Response Data System (ERDS) Implementation,” June 1991.

18. NUREG-1793, Vol. 2, “Final Safety Evaluation Report Related to Certification of the AP1000 Standard Design,” Section 13.3, “Emergency Planning,” September 2004.

19. SECY-91-041, “Early Site Permit Review Readiness,” February 13, 1991 (ADAMS Accession No. ML003781623).

20. SECY-05-0197, “Review of Operational Programs in a Combined License Application and Generic Emergency Planning Inspections, Tests, Analyses, and Acceptance Criteria,” October 28, 2005 (ADAMS Accession No. ML052770225).

21. SRM on SECY-05-0197, “Review of Operational Programs in a Combined License Application and Generic Emergency Planning Inspections, Tests, Analyses, and Acceptance Criteria,” February 22, 2006 (ADAMS Accession No. ML060530316).

22. SECY-06-0098, “Licensee Response to Demand for Information Regarding Mitigation Strategies Required Under Section B.5.b of the Orders Dated February 15, 2002, and Staff Recommendations for Follow-up Action,” May 2, 2005 (Safeguards document).

23. NRR Review Standard, RS-002, “Processing Applications for Early Site Permits,” May 3, 2004 (ADAMS Accession No. ML040700236).

24. NRC Office Procedure LIC-200, Rev. 1, “Standard Review Plan (SRP) Process,” May 8, 2006 (ADAMS Accession No. ML060300069).

25. NRC Commission Orders of February 25, 2002, to all operating commercial nuclear power plants, related to terrorist threats.

26. NRC Inspection Manual Chapter IMC-2503, “Construction Inspection Program - ITAAC Inspections,” issued April 26, 2006.

PAPERWORK REDUCTION ACT STATEMENT

The information collections contained in the Standard Review Plan are covered by the requirements of 10 CFR Part 50 and 10 CFR Part 52, and were approved by the Office of Management and Budget, approval number 3150-0011 and 3150-0151.

PUBLIC PROTECTION NOTIFICATION

The NRC may not conduct or sponsor, and a person is not required to respond to, a request for information or an information collection requirement unless the requesting document displays a currently valid OMB control number.

Table 14.3.10 - 1

EMERGENCY PLANNING

Generic Inspections, Tests, Analyses, & Acceptance Criteria (EP ITAAC) [1,2,]

Planning Standard	EP Program Elements[3]	Inspections, Tests, Analyses	Acceptance Criteria[4]
1.0 Assignment of Responsibility – Organization Control			
10 CFR 50.47(b)(1) – Primary responsibilities for emergency response by the nuclear facility licensee, and by State and local organizations within the emergency planning zones (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.	**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]	**1.1** An inspection of the implementing procedures or staffing rosters will be performed.	**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. [The COL applicant will identify specific capabilities.]
2.0 Onsite Emergency Organization			
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, timely augmentation of response capabilities is available, and the interfaces among various onsite response activities and offsite support and response activities are specified.	**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]	**2.1** An inspection of the implementing procedures or staffing rosters will be performed.	**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. [The COL applicant will identify responsibilities and specific capabilities.]

1. Standard design certification criteria or COL ITAAC may replace specific (generic) ITAAC in this table.

2. See also SRM SECY-05-0197, "Review of Operational Programs in a Combined License Application and Generic Emergency Planning Inspections, Tests, Analyses, and Acceptance Criteria," October 28, 2005 (ADAMS Accession No. ML052770225), and associated February 22, 2006, Staff Requirements Memorandum (SRM) (ML060530316). These COL EP ITAAC are identified as asterisked "*" & **bolded** text.

3. The alphanumeric designations correspond to NUREG-0654/FEMA-REP-1, Rev. 1, evaluation criteria.

4. A license condition may be used, if required, to address those aspects of emergency planning and preparedness that reflect offsite (i.e., non-licensee) responsibilities.

Table 14.3.10 - 1

EMERGENCY PLANNING

Generic Inspections, Tests, Analyses, & Acceptance Criteria (EP ITAAC) [1,2,]

Planning Standard	EP Program Elements[3]	Inspections, Tests, Analyses	Acceptance Criteria[4]
3.0 Emergency Response Support and Resources			
10 CFR 50.47(3) - Arrangements for requesting and effectively using assistance resources have been made, arrangements to accommodate State and local staff at the licensee's near-site Emergency Operations Facility have been made, and other organizations capable of augmenting the planned response have been identified.			
4.0 Emergency Classification System			
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.	***4.1 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]**	***4.1 An inspection of the control room, technical support center (TSC), and emergency operations facility (EOF) will be performed to verify that they have displays for retrieving facility system and effluent parameters specified in the emergency classification and EAL scheme.**	***4.1 The specified parameters are retrievable in the control room, TSC and EOF, and the ranges of the displays encompass the values specified in the emergency classification and EAL scheme. [The COL applicant will adopt design certification criteria, if applicable, or otherwise identify specific capabilities.]**
5.0 Notification Methods and Procedures			
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.	***5.1 The means exists to notify responsible State and local organizations within 15 minutes after the licensee declares an emergency. [E.1]** ***5.2 The means exists to notify emergency response personnel. [E.2]**	***5.1 - 5.3 A test will be performed of the capabilities.**	***5.1 The responsible State and local agencies receive notification within 15 minutes after the licensee declares an emergency.** ***5.2 Emergency response personnel receive the notification and mobilization communication. [The COL applicant will provide specific acceptance criteria.]**

Table 14.3.10 - 1

EMERGENCY PLANNING

Generic Inspections, Tests, Analyses, & Acceptance Criteria (EP ITAAC) [1,2,]

Planning Standard	EP Program Elements[3]	Inspections, Tests, Analyses	Acceptance Criteria[4]
	***5.3 The means exists to notify and provide instructions to the populace within the plume exposure EPZ. [E.6]**		***5.3 The means for notifying and providing instructions to the public are demonstrated to meet the design objectives, as stated in the emergency plan. [The COL applicant will identify specific capabilities.]**
6.0 Emergency Communications			
10 CFR 50.47(b)(6) – Provisions exist for prompt communications among principal response organizations to emergency personnel and to the public.	***6.1 The means exists for communications among the control room, TSC, EOF, principal State and local emergency operations centers (EOCs), and radiological field assessment teams. [F.1.d]** ***6.2 The means exists 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) [or its successor system] between the onsite computer system and the NRC Operations Center.) [F.1.f]**	***6.1 & 6.2 A test will be performed of the capabilities.**	***6.1 Communications are established among the control room, TSC, EOF, principal State and local EOCs, and radiological field assessment teams.** ***6.2 Communications are established from the control room, TSC and EOF to the NRC headquarters and regional office EOCs, and an access port for ERDS [or its successor system] is provided.**
7.0 Public Education and Information			
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.	***7.1 The licensee has provided space which may be used for a limited number of the news media. [G.3.b]**	***7.1 An inspection of the as-built facility/area provided for the news media will be performed.**	***7.1 The licensee has provided space, which may be used for a limited number of the news media. [The COL applicant will specify the number of news media to be accommodated.]**

Table 14.3.10 - 1

EMERGENCY PLANNING

Generic Inspections, Tests, Analyses, & Acceptance Criteria (EP ITAAC) [1,2,]

Planning Standard	EP Program Elements[3]	Inspections, Tests, Analyses	Acceptance Criteria[4]
8.0 Emergency Facilities and Equipment			
10 CFR 50.47(b)(8) – Adequate emergency facilities and equipment to support the emergency response are provided and maintained.	***8.1 The licensee has established a TSC and onsite OSC. [The TSC and OSC may be combined at a single location.] [H.1, H.9]**	***8.1 An inspection of the as-built TSC and OSC will be performed, including a test of the capabilities.**	***8.1.1 The TSC size is consistent with NUREG-0696.** ***8.1.2 The TSC is close to the control room, and the walking distance from the TSC to the control room does not exceed two minutes. [Advanced communication capabilities may be used to satisfy the two minute travel time.] [The COL applicant will adopt design certification criteria, if applicable, or otherwise specify TSC location.]** ***8.1.3 The TSC has comparable habitability with the control room under accident conditions. [The COL applicant will adopt design certification criteria, if applicable, or otherwise identify specific capabilities.]** ***8.1.4 TSC communications equipment is installed, and voice transmission and reception are accomplished. [The COL applicant will adopt design certification criteria, if applicable, or otherwise identify specific capabilities.]** ***8.1.5 The TSC has the means to receive, store, process, and display plant and environmental information, and to initiate emergency measures and conduct emergency assessment. [The COL applicant will adopt design certification criteria, if applicable, or otherwise identify specific capabilities.]**

Table 14.3.10 - 1

EMERGENCY PLANNING

Generic Inspections, Tests, Analyses, & Acceptance Criteria (EP ITAAC) [1,2,]

Planning Standard	EP Program Elements[3]	Inspections, Tests, Analyses	Acceptance Criteria[4]
			***8.1.6 The OSC is located onsite, separate from the control room and TSC. [The TSC and OSC may be combined at a single location.] [The COL applicant will adopt design certification criteria, if applicable, or otherwise specify OSC location and identify specific capabilities.]** ***8.1.7 OSC communications equipment is installed, and voice transmission and reception are accomplished. [The COL applicant will adopt design certification criteria, if applicable, or otherwise identify specific capabilities.]**
	***8.2 The licensee has established an EOF. [H.2]**	***8.2 An inspection of the as-built EOF will be performed, including a test of the capabilities.**	***8.2.1 The EOF working space size is consistent with NUREG-0696, and is large enough for required systems, equipment, records and storage. [The COL applicant will identify EOF size characteristics.]** ***8.2.2 The EOF habitability is consistent with Table 2 of NUREG-0696. [The COL applicant will specify the acceptance criteria for EOF habitability.]** ***8.2.3 EOF communications equipment is installed, and voice transmission and reception are accomplished with the control room, TSC, NRC, and State and local agencies. [The COL applicant will identify specific capabilities.]**

Table 14.3.10 - 1
EMERGENCY PLANNING
Generic Inspections, Tests, Analyses, & Acceptance Criteria (EP ITAAC) [1,2,]

Planning Standard	EP Program Elements[3]	Inspections, Tests, Analyses	Acceptance Criteria[4]
			***8.2.4 The EOF has the means to acquire, display and evaluate radiological, meteorological, and plant system data pertinent to determining offsite protective measures. [The COL applicant will identify specific capabilities.]**
	8.3 The means exists to initiate emergency measures, consistent with Appendix 1 of NUREG-0654/FEMA-REP-1, Rev. 1. [H.5]	**8.3 - 8.6** A test will be performed of the capabilities	**8.3** The means exists to initiate emergency measures, consistent with Appendix 1 of NUREG-0654/FEMA-REP-1, Rev. 1. [The COL applicant will identify specific capabilities.]
	8.4 The means exists to acquire data from, or for emergency access to, offsite monitoring and analysis equipment. [H.6]		**8.4** The means exists to acquire data from, or for emergency access to, offsite monitoring and analysis equipment. [The COL applicant will identify specific capabilities.]
	8.5 The means exists to provide offsite radiological monitoring equipment in the vicinity of the nuclear facility. [H.7]		**8.5** The means exists to provide offsite radiological monitoring equipment in the vicinity of the nuclear facility. [The COL applicant will identify specific capabilities.]
	8.6 The means exists to provide meteorological information, consistent with Appendix 2 of NUREG-0654/FEMA-REP-1, Rev. 1. [H.8]		**8.6** The means exists to provide meteorological information, consistent with Appendix 2 of NUREG-0654/FEMA-REP-1, Rev. 1. [The COL applicant will identify specific capabilities.]

Table 14.3.10 - 1

EMERGENCY PLANNING

Generic Inspections, Tests, Analyses, & Acceptance Criteria (EP ITAAC) [1,2,]

Planning Standard	EP Program Elements[3]	Inspections, Tests, Analyses	Acceptance Criteria[4]
9.0 Accident Assessment			
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.	***9.1 The means exists to provide initial and continuing radiological assessment throughout the course of an accident. [I.2]** ***9.2 The 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. [I.3]** ***9.3 The 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. [I.4]** ***9.4 The means exists to acquire and evaluate meteorological information. [I.5]**	***9.1 - 9.9 A test will be performed of the capabilities.**	***9.1 The means exists to provide initial and continuing radiological assessment throughout the course of an accident. [The COL applicant will identify specific capabilities.]** ***9.2 The 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. [The COL applicant will identify specific capabilities.]** ***9.3 The 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. [The COL applicant will identify specific capabilities.]** ***9.4 Meteorological data is available at the EOF, TSC, control room, offsite NRC center, and to the State. [The COL applicant will identify specific capabilities].**

Table 14.3.10 - 1

EMERGENCY PLANNING

Generic Inspections, Tests, Analyses, & Acceptance Criteria (EP ITAAC) [1,2,]

Planning Standard	EP Program Elements[3]	Inspections, Tests, Analyses	Acceptance Criteria[4]
	9.5 The means exists to determine the release rate and projected doses if the instrumentation used for assessment is off-scale or inoperable. [I.6]		**9.5** The means exists to determine the release rate and projected doses if the instrumentation used for assessment is off-scale or inoperable. [The COL applicant will identify spe cific capabilities.]
	9.6 The means exist for field monitoring within the plume exposure EPZ. [I.7]		**9.6** The means exists for field monitoring within the plume exposure EPZ. [The COL applicant will identify specific capabilities.]
	***9.7 The means exists 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]**		***9.7 The means exists to make rapid assessment of actual or potential magnitude and locations of any radiological hazards through liquid or gaseous release pathways. [The COL applicant will identify specific capabilities.]**
	***9.8 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]**		***9.8 Radioiodine can be detected in the plume exposure EPZ, as low as 10^{-7} µCi/cc. [The COL applicant will identify specific capabilities.]**
	***9.9 The means exists 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]**		***9.9 The means exists to estimate integrated dose from the projected and actual dose rates, and for comparing these estimates with the EPA protective action guides (PAGs). [The COL applicant will identify specific capabilities.]**

Table 14.3.10 - 1

EMERGENCY PLANNING

Generic Inspections, Tests, Analyses, & Acceptance Criteria (EP ITAAC) [1,2,]

Planning Standard	EP Program Elements[3]	Inspections, Tests, Analyses	Acceptance Criteria[4]
10.0 Protective Response			
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.	***10.1 The means exists to warn and advise onsite individuals of an emergency, including those in areas controlled by the operator, including: [J.1]** **1. employees not having emergency assignments;** **2. visitors;** **3. contractor and construction personnel; and** **4. other persons who may be in the public access areas, on or passing through the site, or within the owner controlled area.**	***10.1 - 10.4 A test will be performed of the capabilities.**	***10.1 The means exists to warn and advise onsite individuals. [The COL applicant will identify specific capabilities.]**
	10.2 The means exist to radiological monitor people evacuated from the site. [J.3] **10.3** The means exists to notify and protect all segments of the transient and resident populations. [J.10] **10.4** The means exists to register and monitor evacuees at relocation centers. [J.12]		**10.2** The means exist to radiological monitor people evacuated from the site. [The COL applicant will identify specific capabilities.] **10.3** The means exists to notify and protect all segments of the transient and resident populations. [The COL applicant will identify specific capabilities.] **10.4** The means exists to register and monitor evacuees at relocation centers. [The COL applicant will identify specific capabilities.]

Table 14.3.10 - 1

EMERGENCY PLANNING

Generic Inspections, Tests, Analyses, & Acceptance Criteria (EP ITAAC) [1,2,]

Planning Standard	EP Program Elements[3]	Inspections, Tests, Analyses	Acceptance Criteria[4]
11.0 Radiological Exposure Control			
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.	**11.1** The means exists to provide onsite radiation protection. [K.2] **11.2** The means exists to provide 24-hour-per-day capability to determine the doses received by emergency personnel and maintain does records. [K.3] **11.3** The means exists to decontaminate relocated onsite and emergency personnel, including waste disposal. [K.5.b, K.7] **11.4** The means exists to provide onsite contamination control measures. [K.6]	**11.1 - 11.4** A test will be performed of the capabilities.	**11.1** The means exists to provide onsite radiation protection. [The COL applicant will identify specific provisions.] **11.2** The means exists to provide 24-hour-per-day capability to determine the doses received by emergency personnel and maintain dose records. [The COL applicant will identify specific provisions.] **11.3** The means exists to decontaminate relocated onsite and emergency personnel, including waste disposal. [The COL applicant will identify specific provisions.] **11.4** The means exists to provide onsite contamination control measures. [The COL applicant will identify specific provisions.]
12.0 Medical and Public Health Support			
10 CFR 50.47(b)(12) – Arrangements are made for medical services for contaminated, injured individuals.	**12.1** Arrangements have been implemented for local and backup hospital and medical services having the capability for evaluation of radiation exposure and uptake [L.1] **12.2** The means exists for onsite first aid capability. [L.2]	**12.1 - 12.3** A test will be performed of the capabilities.	**12.1** Arrangements have been implemented for local and backup hospital and medical services having the capability for evaluation of radiation exposure and uptake. [The COL applicant will identify specific provisions.] **12.2** The means exists for onsite first aid capability. [The COL applicant will identify specific provisions.]

Table 14.3.10 - 1

EMERGENCY PLANNING

Generic Inspections, Tests, Analyses, & Acceptance Criteria (EP ITAAC) [1,2,]

Planning Standard	EP Program Elements[3]	Inspections, Tests, Analyses	Acceptance Criteria[4]
	12.3 Arrangements have been implemented for transporting victims of radiological accidents, including contaminated injured individuals, from the site to offsite medical support facilities. [L.4]		**12.3** Arrangements have been implemented for transporting victims of radiological accidents, including contaminated injured individuals, from the site to offsite medical support facilities. [The COL applicant will identify specific provisions.]
13.0 Recovery and Reentry Planning and Post-Accident Operations			
10 CFR 50.47(b)(13) - General plans for recovery and reentry are developed.			
14.0 Exercises and Drills			
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.	***14.1 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]**	***14.1 A full participation exercise (test) will be conducted within the specified time periods of Appendix E to 10 CFR Part 50.**	***14.1.1 The exercise is completed within the specified time periods of Appendix E to 10 CFR Part 50, onsite exercise objectives have been met, and there are no uncorrected onsite exercise deficiencies. [The COL applicant will identify exercise objectives and associated acceptance criteria.]** ***14.1.2 Onsite emergency response personnel were mobilized in sufficient numbers to fill emergency response positions, and they successfully performed their assigned responsibilities. [The COL applicant will identify responsibilities and associated acceptance criteria.]** ***14.1.3 The exercise is completed within the specified time periods of Appendix E to 10 CFR Part 50, offsite exercise objectives have been met, and there are either no uncorrected offsite exercise deficiencies or a license condition requires offsite deficiencies to be addressed prior to operation above 5% of rated power.**

Table 14.3.10 - 1

EMERGENCY PLANNING

Generic Inspections, Tests, Analyses, & Acceptance Criteria (EP ITAAC) [1,2,]

Planning Standard	EP Program Elements[3]	Inspections, Tests, Analyses	Acceptance Criteria[4]
15.0 Radiological Emergency Response Training			
10 CFR 50.47(b)(15) – Radiological emergency response training is provided to those who may be called on to assist in an emergency.	**15.1** Site-specific emergency response training has been provided for those who may be called upon to provide assistance in the event of an emergency. [O.1]	**15.1** An inspection ~~test~~ will be performed of the capabilities.	**15.1** Site-specific emergency response training has been provided for those who may be called upon to provide assistance in the event of an emergency . [The COL applicant will identify the specific training program.]
16.0 Responsibility for the Planning Effort: Development, Periodic Review, and Distribution of Emergency Plans			
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.	**16.1** The emergency response plans have been forwarded to all organizations and appropriate individuals with responsibility for implementation of the plans. [P.5]	**16.1** An inspection of the distribution list will be performed.	**16.1** The emergency response plans have been forwarded to all organizations and appropriate individuals with responsibility for implementation of the plans. [The COL applicant will identify specific distribution requirements.]
17.0 Implementing Procedures			
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.	***17.1 The licensee has submitted detailed implementing procedures for its emergency plan no less than 180 days prior to fuel load.**	***17.1 An inspection of the submittal letter will be performed.**	***17.1 The Licensee has submitted detailed implementing procedures for the onsite emergency plan no less than 180 days prior to fuel load. [The COL applicant will develop the implementing procedures.]**