Connecticut Yankee Atomic Power Company

Date of Distribution: 09-28-06

Notice of Receipt of **ISFSI Emergency Operating Procedures**

Change No.: 06-05

To: Document Control Desk (code Z)
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Washington, DC 20555

Copy No.: Copy #I-40
~~(EO-1, EO-5 and EO-6 only)~~ ALL EO

Please revise your controlled copy per instructions below:

INSERT: Index page 1 of 1, dated 09-28-06
EO-1, Rev. 3, effective 09-28-06

ATTACH:

REMOVE:

REPLACE

This acknowledges receipt of the revisions listed above. In addition, all superseded pages have been removed and destroyed.

Signature: _____ Date: _____ AX45

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ISFSI Master Document Index (MDI)

Emergency Operating Procedures (EO series) 09-28-06

No.	Rev.	Title	50.59	72.48	ISR	QA	RP	Review Date	Effective Date
EO-1	3	Emergency Planning Administration	No	No	Yes	Yes	Yes	09-25-06	09-28-06
EO-2	1	Response to Off-Normal Operations	Yes	Yes	Yes	No	Yes	08-10-05	08-11-05
EO-3	1	Response to Accidents	Yes	Yes	Yes	No	Yes	08-10-05	08-11-05
EO-4	1	Response to Natural Phenomena	Yes	Yes	Yes	No	Yes	06-15-05	06-16-05
EO-5	1	Emergency Plan Implementation	No	No	Yes	No	Yes	01-04-06	01-05-06
EO-6	6	Non-Emergency Event Assessment	No	No	Yes	No	No	08-22-06	09-19-06

ATTACHMENT B

CONNECTICUT YANKEE ATOMIC POWER COMPANY

ISFSI EMERGENCY OPERATING PROCEDURE

Emergency Planning Administration

EO-1

Rev. 3

Preparer: R. M. Mitchell Date: 9/20/06

10CFR50.59 / 10CFR72.48 ASSESSMENT		
10CFR50.59 SCREEN REQUIRED?	☐ YES	☒ NO
10CFR50.59 EVALUATION REQUIRED (NO._____)	☐ YES	☒ NO
10CFR72.48 SCREEN REQUIRED?	☐ YES	☒ NO
10CFR72.48 EVALUATION REQUIRED (NO._____)	☐ YES	☒ NO

REVIEWER SECTION

QUALITY ASSURANCE REVIEW: SIGNATURE [signature] DATE: 9/22/06

RADIATION PROTECTION REVIEW: SIGNATURE [signature] DATE: 9/20/06

TECHNICAL REVIEW: SIGNATURE [signature] DATE: 9/22/06

INDEPENDENT SAFETY REVIEW: (As Applicable)

SIGNATURE: [signature] DATE: 9/25/06

APPROVAL SECTION

ISFSI MANAGER/DESIGNEE SIGNATURE/DATE:

G. Van Noordennen 9/26/06

TFI #_____

Emergency Planning Administration

1.0 PURPOSE

This procedure provides the emergency planning policy, administrative guidance, and descriptive material related to responsibilities associated with support of the CY Emergency Plan.

2.0 SCOPE

The scope of this procedure is to provide for the infrastructure (personnel, process and equipment) to establish, maintain and implement the Emergency Plan. This procedure applies to all personnel with responsibilities for implementing the CY Emergency Plan in response to nuclear events, incidents, or accidents at the ISFSI, and at the plant for the remainder of the decommissioning.

3.0 DEFINITIONS

3.1 Drill - a supervised instruction period aimed at testing, developing and maintaining skills and abilities.

3.2 Emergency Response Organization (ERO) – consists of on-shift personnel at the CY ISFSI, personnel performing decommissioning work at the Power Plant area and other personnel who are called in as needed and respond to declared emergencies.

3.3 Exercise - an event that tests the integrated capability and a major portion of the basic elements existing within emergency preparedness plans and organization.

3.4 Incidents – the occurrence of a potentially serious event that requires timely assessment and an appropriate timely response. Based on the assessment, notification to state and NRC officials may be required, and a response by the Emergency Response Organization may be required.

4.0 REFERENCES

4.1 Connecticut Yankee Emergency Plan

4.2 Code of Federal Regulations, 10CFR50, Appendix E

4.3 Code of Federal Regulations, 10CFR50.47(b)(8)

4.4 CY Quality Assurance Program (QAP)

4.5 ISFSI Procedure AD-16, "ISFSI Personnel Training and Qualification."

4.6 ISFSI Procedure EO-2, "Response to Off-Normal Operations."

4.7 ISFSI Procedure EO-3, "Response to Accidents."

4.8 ISFSI Procedure EO-4, "Responses to Natural Phenomena."

4.9 ISFSI Procedure EO-5, "Emergency Plan Implementation."

4.10 USNRC Letter from T.L. Fredrichs, to R.A. Mellor, "Exemption From a Portion of 10CFRSection 50.54(q) and Approval of Defueled Emergency Plan at Haddam Neck Plant (TAC NO. 99015)," dated August 28, 1998.

4.11 CYAPCO Letter CY-98-052, from R.A. Mellor, to USNRC, "Additional Information for the Proposed Defueled Emergency Plan", dated March 25, 1998.

4.12 ISFSI DP-01, "Emergency Communications System Tests."

5.0 RESPONSIBILITIES

5.1 The ISFSI Manager (or designee) has the overall responsibility to ensure that the following requirements for emergency planning are completed:

5.1.1 Ensure the station is prepared to activate the CY Emergency Plan.

5.1.2 Ensure periodic (minimum 12 months) Audits of the CY Emergency Plan are conducted.

5.1.3 Ensure that the CY Emergency Plan is current and that a decrease in effectiveness determination recommendation is performed per 10CFR50.54(q) for applicable intent changes to the Emergency Plan.

5.1.4 Ensure the CY Emergency Plan is reviewed on at least an annual basis. Review and approve any changes.

5.1.5 Review audits and critiques of the CY Emergency Plan emergency drills and exercises, and implement appropriate changes as necessary.

5.1.6 Maintain interface with the state and local agencies. Respond to questions concerning the CY Emergency Plan, notification, and response actions.

5.1.7 Ensure that a personnel decontamination process remains operational or an alternative has been provided, as needed.

5.2 The designated CY Emergency Preparedness Coordinator (EPC) is responsible for the following actions:

5.2.1 Prepare CY Emergency Plan related responses to NRC and company audits, appraisals, reviews, evaluations, and inquiries.

5.2.2 Prepare and process changes to the CY Emergency Plan and related procedures.

5.2.3 Establish and maintain a list of on shift ERO personnel that indicates the status of training and qualifications to assure staffing requirements are maintained.

5.2.4 Ensure the procurement and maintenance of the equipment needed for on-site emergency response.

5.2.5 Coordinate drills and exercises (prepare, conduct, and evaluate).

5.2.6 Monitor performance of the CY Emergency Plan to ensure acceptable performance is maintained.

5.3 Quality Assurance personnel are responsible for conducting an audit of the CY Emergency Planning Program every 12 months.

5.4 The Radiation Protection Manager (or designee) shall perform the following actions:

5.4.1 Ensure that adequate inventories of radiological monitoring equipment are available to support implementation of the Emergency Plan.

5.4.2 Ensure the availability of trained and qualified Technical support as required, to respond to radiological incidents.

5.4.3 Ensure that all aspects of radiological safety are adequately provided for in all phases of the Emergency Plan implementation, including program and procedure development, drill participation and assessment, and performance.

5.5 The ISFSI Shift Supervisor (ISS) shall perform the following actions:

5.5.1 Perform the initial assessment of ISFSI and Power Plant area incidents, and based on the nature of the incident proceed to ISFSI procedure EO-2, EO-3 or EO-4, and follow the instructions therein. If the incident is determined to be an Unusual Event that requires entry into the Emergency Plan, continue into those actions in ISFSI procedure EO-5.

5.5.2 For all incidents, responsibilities include acting as the Emergency Director and contacting additional personnel as needed.

5.5.3 Ensure that communication tests (Ref. 4.12) are performed.

5.5.4 Maintain and inspect the first aid equipment and supplies.

5.5.5 Ensure all aspects of security are adequately accounted for in all phases Emergency Plan implementation, including program and procedure development, drill participation and assessment, and performance.

5.6 ERO staff shall be responsible for the following actions:

5.6.1 Meet the fitness for duty requirements if responding to the site.

5.6.2 Maintain unescorted access, radiation worker training, and all other required training and qualifications current.

5.6.3 Notify the cognizant Manager if declaring pregnancy in accordance with the Radiation Protection Program for a position evaluation.

6.0 PROCEDURE

6.1 Organization – the ERO organization flow charts are shown on Attachment 1.

6.2 Facilities

6.2.1 Actions taken in response to Emergency Plan events are controlled from the ISFSI Monitoring Station Building. This location also functions as a Technical Support Center as needed. The operations support trailer provides additional space when needed.

6.3 Communication

6.3.1 The following general communications policies and practices shall be employed by all personnel in the ERO:

a. Clarity: The message should be free from ambiguity. Be direct. Use simple, straightforward language.

b. Specificity: The message should be specific to ensure the correct unit or component is identified.

c. Acknowledgment: All operational communications should be acknowledged by the receiver. As a minimum, two-way communication shall be used at all times and three-way communications should be used for directed actions.

d. Understanding: If the recipient does not understand the message, he should ask the originator to repeat or rephrase the message.

e. Instructions which are unusual or complex shall be written down to eliminate confusion.

6.3.2 Telecommuniation and portable radio equipment used in emergency planning shall be approved by ISFSI Manager (or designee). These devices are tested periodically in accordance with Reference 4.12.

6.3.3 To report an emergency at site call the ISS. The contact information for the ISS shall be posted at various locations to assure personnel have the information available. If conditions warrant immediate evacuation, the individual should call after evacuating the area. Communicate the situation as follows:

a. Speak deliberately and distinctly.

b. Identify yourself and location.

c. Describe the nature and severity of the problem.

d. State the location of the problem.

e. Keep the communication line open between the ISS and the remote location, i.e., stay on the line, unless directed otherwise or where environmental conditions require evacuation for personnel safety.

6.3.4 The ISS notifies the ERO members. The ERO member(s) report to the ISS immediately and perform the actions as directed by the ISS.

6.3.5 Communications with offsite Regulatory Agencies and emergency response organizations is conducted in accordance with the following policies:

a. All written correspondence with regulatory agencies and emergency response organizations is controlled through the ISFSI Manager (or designee).

b. The EPC is the point of contact for the required interactions with the ERO for coordination of drills.

c. The required interactions/notifications to the regulatory agencies and emergency response organizations during the responses to incidents are performed by the ISS in accordance with the applicable procedures.

6.3.6 The following periodic tests of the emergency response communication infrastructure shall be performed and documented in the Shift Log:

a. Cell phones and normal use phones shall be tested quarterly.

b. The phone contact information for offsite Sate and Federal regulatory agencies, emergency response organizations, vendors and others involved in the implementation of the Emergency Plan shall be verified quarterly.

6.4 Emergency Equipment

6.4.1 Semi-annually and after a drill or exercise that impacted the specific inventory, EPC shall perform the following:

a. Perform an inspection, inventory and functional check as applicable of the emergency equipment using Attachment 2.

b. Indicate the equipment inspected and inventoried, and whether or not it is in good working condition or in sufficient quantity by placing a checkmark next to each item.

c. Ensure all instrumentation has a current calibration date, for the next six month period, as applicable.

d. Replace any item that fails a functional check or is defective and then replenish supplies as required.

6.4.2 The ISFSI Manager shall review and sign Attachment 2 when all inventories and inspections are complete and forward it to Nuclear Plant Records.

6.5 Response to Off-Normal Operations is in accordance with ISFSI Procedure EO-2.

6.6 Response to Accidents is in accordance with ISFSI Procedure EO-3.

6.7 Response to Natural Phenomena is in accordance with ISFSI Procedure EO-4.

6.8 Implementation of the Emergency Plan in response to Unusual Events is in accordance with ISFSI Procedure EO-5.

6.9 Training of ERO personnel is in accordance with ISFSI Procedure AD-16.

6.10 Drills and Exercises:

6.10.1 The EPC shall develop, conduct and evaluate the following drills in accordance with the CY-Emergency Plan:

a. Support Staff Drill

b. Radiological Monitoring Drill

c. Medical Emergency Drill

d. Fire Drill

6.10.2 Annually the EPC shall develop, conduct and evaluate an Exercise in accordance with the CY-Emergency Plan.

6.11 Effectiveness Reviews:

6.11.1 Drills: Drills shall be performed annually in accordance with ISFSI Procedure TR-1 to demonstrate emergency response capabilities.

6.12.2 Critiques: Drills shall be critiqued in accordance with ISFSI Procedure TR-1 when performed. Any issues arising in the critique of a drill should be addressed.

6.11.3 10CFR50.54(q) Effectiveness Reviews: The ISFSI Manager (or designee) shall appoint a Technical Reviewer to review changes to the Emergency Plan per 10CFR50.54(q) using Attachment 3, and shall review and approve the resulting reports.

7.0 SUMMARY OF CHANGES

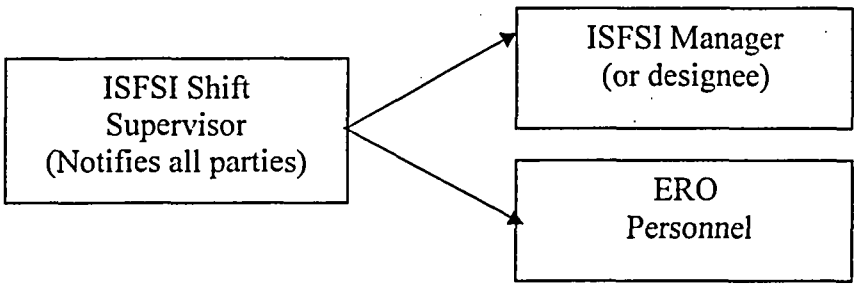
7.1 Revised Attachment 2, "ERO Equipment Inspection and Inventory Checklists".

8.0 ATTACHMENTS

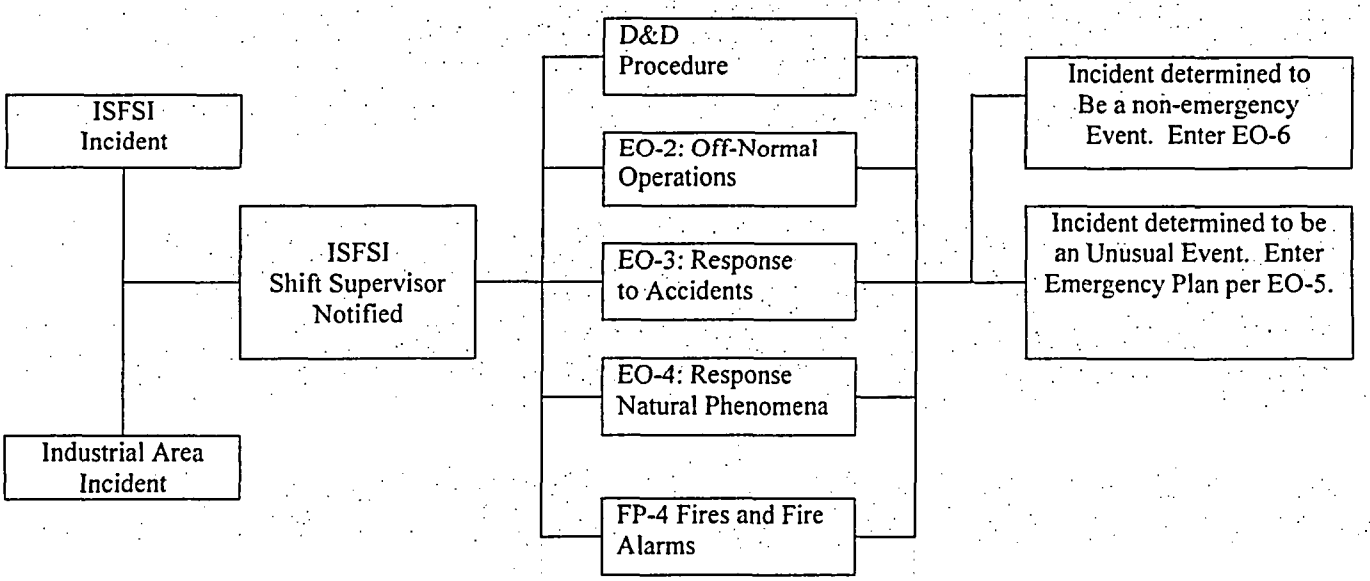
8.1 Attachment 1 - ERO and Flow Charts of Incident Assessment and Communications
8.2 Attachment 2 - ERO Equipment Inspection and Inventory Checklists
8.3 Attachment 3 - Emergency Plan 10CFR50.54(q) Review

Attachment 1
ERO Communiations and Assessment Flow Charts
(Page 1 of 1)

Flow chart for Communications



Flow Chart for Incident Assessment



Attachment 2
ERO Equipment Inspection and Inventory Checklists
(Page 1 of 1)

A "✓"indicates equipment is in ready to use condition, instruments are within calibration.

ISFSI Emergency Equipment Locker

	Qty.	Item
☐	2	Low Range gamma Survey Instruments
☐	2	High Range gamma Survey Instruments
☐	10	TLDs
☐	1	Control TLD
☐	10	Low Range pocket ion chambers (0-200 mr or 0-500 mr)
☐	1	Dosimeter Charger (Check batteries for leakage)
☐	1	Cs-137 Exempt Check Source
☐	1	Air Sampler
☐	1	Radioactive Contamination Survey Instrument

Guidance for Emergency Equipment Functional Tests

USE the following guidelines for performing functional tests of radiation monitoring equipment:

- IF applicable, with AC supply unplugged, turn selector switch to the "BATT" position.
- Verify that the needle indicates that the batteries are satisfactory, or replace them.
- Expose detector to a source and verify meter response. Replace meter if it does not respond.
- If equipment has audible capabilities, verify audible response functions.

Comments/Corrective Actions:_____

_____

_____

_____ _____
(1)Equipment Inspected By: (Print and Sign Name) Date

_____ _____
(1)Equipment Inspected By: (Print and Sign Name) Date

_____ _____
ISFSI Shift Supervisor: (Print and Sign Name) Date

_____ _____
ISFSI Manager: (Print and Sign Name) Date

(1) If more than one inspector, each inspector shall sign, with annotation as to the sections they inspected.

Attachment 3
Emergency Plan 10CFR50.54(q) Review
(Page 1 of 5)

Section I: Guidance

1.0 Initiate an Emergency Plan 10CFR50.54(q) Review, using this guidance and the format shown herein.

2.0 Provide description of, the reason for and scope of changes under Background and Scope.

3.0 Enter the section number of the plan and a description of each of the proposed changes.

4.0 Indicate, for each change, whether or not the change decreases the plan effectiveness.

5.0 A decrease in effectiveness in the plan is determined to have occurred if there has been a change or reduction in a commitment without a commensurate change or reduction in the bases for that commitment. For this purpose a commitment is defined as a statement made in the Emergency Plan that affects the capability or resources (e.g., personnel, equipment) for responding to an emergency (see Reference 4.10).

6.0 Based on guidance in Reference 4.10, it is improper to assume that every reduction in commitment constitutes a decrease in effectiveness of the plan.

7.0 Attach any analysis or other supporting material as appropriate to explain the basis for judgment. Provide sufficient detail to support the evaluation.

8.0 Perform a review of the proposed changes against the specific elements of 10CFR50.47(b) and Appendix E, Section IV to 10CFR50 that are germane to this change. These requirements are included in this Attachment, and have been edited to include the authorized exemptions. Indicate, for each change, which requirements apply to the change and describe how they continue to be met. Provide sufficient detail to support the conclusion.

9.0 State the conclusion of the review, either that the proposed change DOES OR DOES NOT decrease the effectiveness of the emergency plan, and that the plan, as changed, CONTINUES OR DOES NOT CONTINUE to meet 10CFR50.47(b) Standards and Appendix E requirements, with exemptions.

10.0 If the review concludes that the proposed change does not decrease the effectiveness of the emergency plan, then the change may be implemented and a report of the change shall be submitted by letter to the NRC within 30 days of the effective date of the change.

11.0 If the review concludes that the proposed change decreases the effectiveness of the emergency plan, then determine if it does so with acceptable consequences.

12.0 If the decrease in effectiveness has acceptable consequences then submit the change to the NRC for their approval prior to implementation.

13.0 If the decrease in effectiveness has unacceptable consequences, then the proposed change should be cancelled.

Attachment 3
Emergency Plan 10CFR50.54(q) Review
(Page 2 of 5)

Section II: Requirements

Regulation	Text of Requirement w/Exemption Included
10CFR50.47(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.
10CFR50.47(b)(5)	Procedures have been established for notification, by the licensee, of State and local response organizations [(normal emergency services)] and for notification of emergency personnel by all organizations; the content of initial and follow up messages to response organizations has been established.
10CFR50.47(b)(6)	Provisions exist for prompt communications among principal response organizations to emergency personnel.
10CFR50.47(b)(7)	The principal points of contact with the news media for dissemination of information during an emergency are established in advance, and procedures for coordinated dissemination of information to the public are established.
10CFR50.47(b)(9)	Adequate methods, systems, and equipment for assessing and monitoring actual or potential consequences of a radiological emergency condition are in use.
10CFR50.47(b)(10)	Deleted.
10CFR50, Appendix E, (IV) Preamble	The applicant's emergency plans shall contain, but not necessarily be limited to, information needed to demonstrate compliance with the elements set forth below, i.e., organization for coping with radiation emergencies, assessment action, activation of emergency organization, notification procedures, emergency facilities and equipment, training, maintaining emergency preparedness, and recovery. In addition, the emergency response plans submitted by an applicant for a nuclear power reactor operating license shall contain information needed to demonstrate compliance with the standards described in § 50.47(b), and they will be evaluated against those standards.
10CFR50, Appendix E, (IV)(A)(2)(c)	Authorities, responsibilities, and duties of an onsite emergency coordinator who shall be in charge of the exchange of information with offsite authorities responsible for coordinating and implementing offsite emergency measures [(normal emergency services)].
10CFR50, Appendix E, (IV)(A)(4)	Identification, by position and function to be performed, of persons within the licensee organization who will be responsible for making dose projections, and a description of how these projections will be made and the results transmitted to State and local [(normal emergency services)] authorities, NRC, and other appropriate governmental entities.
10CFR50, Appendix E, (IV)(A)(8)	Deleted.

Attachment 3
Emergency Plan 10CFR50.54(q) Review
(Page 3 of 5)

Regulation	Text of Requirement w/Exemption Included
10CFR50, Appendix E, (IV)(B)	The means to be used for determining the magnitude of and for continually assessing the impact of the release of radioactive materials shall be described, including emergency action levels that are to be used as criteria for determining the need for notification and participation of local [(normal emergency services)] and State agencies, the Commission, and other Federal agencies, and the emergency action levels that are to be used for determining when and what type of protective measures should be considered within the site boundary to protect health and safety. The emergency action levels shall be based on in-plant conditions and instrumentation in addition to onsite monitoring. These emergency action levels shall be discussed [with the State (Connecticut) and local (Town of Haddam) governmental authorities] and agreed on by the applicant and State [(Connecticut)] and local [(Town of Haddam)] governmental authorities and approved by NRC. They shall also be reviewed with the State and local governmental authorities on an annual basis.
10CFR50, Appendix E, (IV)(C)	The entire spectrum of emergency conditions that involve the alerting or activating of progressively larger segments of the total emergency organization shall be described. The communication steps to be taken to alert or activate emergency personnel under each class of emergency shall be described. Emergency action levels (based not only on onsite radiation monitoring information but also on readings from a number of sensors that indicate a potential emergency for notification of offsite agencies shall be described. The existence, but not the details, of a message authentication scheme shall be noted for such agencies. The emergency classes defined shall include: (1) notification of unusual events, [and] (2) alert. These classes are further discussed in NUREG-0654; FEMA-REP-1.
10CFR50, Appendix E, (IV)(D)(1)	Administrative and physical means for notifying local [(normal emergency services)], State, and Federal officials and agencies and agreements reached with these officials and agencies shall be described. This description shall include identification of the appropriate officials, by title and agency, of the State and local [(normal emergency services)] government agencies.
10CFR50, Appendix E, (IV)(D)(2)	Deleted.
10CFR50, Appendix E, (IV)(D)(3)	A licensee shall have the capability to notify responsible State and local [(normal emergency services)] governmental agencies within [1 hour] after declaring an emergency

Attachment 3
Emergency Plan 10CFR50.54(q) Review
(Page 4 of 5)

Regulation	Text of Requirement w/Exemption Included
10CFR50, Appendix E, (IV)(F)(1) Last Paragraph	In addition, a radiological orientation training program shall be made available to local services personnel; e.g., local emergency services/Civil Defense, local law enforcement personnel.
10CFR50, Appendix E, (IV)(F)(2)	The plan shall describe provisions for the conduct of emergency preparedness exercises as follows: Exercises shall test the adequacy of timing and content of implementing procedures and methods, test emergency equipment and communications networks and ensure that emergency organization personnel are familiar with their duties.
10CFR50, Appendix E, (IV)(F)(2)(a)	Deleted.
10CFR50, Appendix E, (IV)(F)(2)(c)	Deleted.
10CFR50, Appendix E, (IV)(F)(2)(e)	Licensees shall enable any State or local [(normal emergency services)] to participate in the licensee's drills when requested by such State or local [(normal emergency services)] government.
10CFR50, Appendix E, (IV)(F)(2)(f)	Deleted.
10CFR50.47(b)(3)	Arrangements for requesting and effectively using assistance resources have been made, and other organizations capable of augmenting the planned response have been identified.
10CFR50, App. E, IV)(A)(3)	Deleted.
10CFR50, App. E, (IV)(A)(5)	Deleted.
10CFR50, App. E, (IV)(E)(8)	A licensee onsite technical support center from which effective direction can be given and effective control can be exercised during an emergency;
10CFR50, Appendix E, (IV)(E)(9)(c)	Provision for communications among the nuclear power reactor control room, [and] the onsite technical support center, and the principal-State emergency operations center. Such communications systems shall be tested annually.
10CFR50, Appendix E, (IV)(E)(9)(d)	Provisions for communications by the licensee with NRC Headquarters and the appropriate NRC Regional Office Operations Center from the nuclear power reactor control room, [and] the onsite technical support center. Such communications shall be tested monthly.
10CFR50, Appendix E, (IV)(F)(2)(b)	Each licensee at each site shall conduct an exercise of its onsite emergency plan every year. In addition, the licensee shall take actions necessary to ensure that adequate emergency response capabilities are maintained[.]

Attachment 3
Emergency Plan 10CFR50.54(q) Review
(Page 5 of 5)

(sample format)

Review Title : _____

Background and Scope

Provide a description of the reason for and scope of the changes

Description of Changes

For each change:

Reference affected Section number.

Describe proposed change.

Does the change decrease the effectiveness of the Emergency Plan?

Describe in detail the thought process used to arrive at the conclusion. Refer to applicable NRC criteria/standards. Provide attachments if necessary.

Does the plan, as changed, continue to meet 10CFR50.47(b) standards and Appendix E requirements, taking into account the authorized exemptions in this Attachment? Indicate which standard/requirement is germane to this change and describe how legal requirement continues to be met. Provide attachments if necessary.

Conclusion

Based on this evaluation the proposed change (Circle One) DOES / DOES NOT decrease the effectiveness of the Emergency Plan.

The Plan, as changed, (Circle One) CONTINUES / DOES NOT CONTINUE to meet the standards of 10CFR50.47(b) and the requirements of 10CFR50, Appendix E, (taking into account the authorized exemptions in this Attachment).

Prepared By: _____ Date: _____
Designated Technical Reviewer

Approved By: _____ Date: _____
ISFSI Manager (or designee)