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CNS-16-080

10CFR 50.54(q)

December 20, 2016

U.S. Nuclear Regulatory Commission  
Attention: Document Control Desk  
Washington, DC 20555-0001

Subject: Duke Energy Carolinas, LLC  
Catawba Nuclear Station Units 1 and 2  
Docket Nos. 50-413 and 50-414  
Emergency Plan Implementing Procedure

Please find enclosed for NRC Staff use the following 10CFR 50.54(q) Evaluation for Catawba Nuclear Station, Emergency Plan Implementing Procedure (EPIP) Revision:

RP/0/A/5000/020

Technical Support Center (TSC)  
Activation Procedure

Revision 042

This revision evaluation is being submitted in accordance with 10CFR 50.54(q) and does not cause a reduction in the effectiveness of the Emergency Plan Implementing Procedures or the Emergency Plan.

There are no new regulatory commitments in this document. By copy of this letter, two copies of this document are being provided to the NRC, Region II.

If there are any questions, please contact Tom Arlow at 803-701-4027.

Sincerely,

Tom Simril  
Vice President, Catawba Nuclear Station

Attachment

AX45  
NRR

xc (w/attachment):

Catherine Haney, Regional Administrator  
U. S. Nuclear Regulatory Commission - Region II  
Marquis One Tower  
245 Peachtree Center Ave., NE Suite 1200  
Atlanta, GA 30303-1257

(w/o attachment):

Michael Mahoney  
NRC Project Manager (CNS)  
U.S. Nuclear Regulatory Commission  
One White Flint North, Mail Stop 0-8H4A  
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Rockville, MD 20852-2738

Joseph D. Austin  
NRC Senior Resident Inspector (CNS)

EMERGENCY PLAN CHANGE SCREENING AND  
EFFECTIVENESS EVALUATIONS 10 CFR 50.54(Q)

AD-EP-ALL-0602

Rev. 1

ATTACHMENT 5

Page 1 of 7

<< 10 CFR 50.54(q) Effectiveness Evaluation Form >>

Screening and Evaluation Number		Applicable Sites	
EREG #: 02080800		BNP	<input type="checkbox"/>
		CNS	<input checked="" type="checkbox"/>
		CR3	<input type="checkbox"/>
		HNP	<input type="checkbox"/>
5AD #: 02080792		MNS	<input type="checkbox"/>
		ONS	<input type="checkbox"/>
		RNP	<input type="checkbox"/>
		GO	<input type="checkbox"/>
Document and Revision		RP/0/A/5000/020 Rev.042, Technical Support Center (TSC) Activation Procedure (PRR 02080710)	

Part I. Description of Proposed Change:

Subsequent Action 3.2.6; revised definition of an emergency release as those attributed to the emergency event only.

Enclosure 4.14, page 3 & 4 of 11;

- 1) When referencing a line item number on the Emergency Notification Form, the item number has been revised to match the ENF.
- 2) For Line Item 10, the previous revision of the ENF used an alphabetic selection for differentiating the types of Release Characterization and Units. The revised ENF no longer uses this alphabetic selection. 'Form, and start and/or stop time as appropriate' have been removed for Item 10. This information is no longer part of the ENF.
- 3) Revised the definition of an emergency release in the 'Note' as those attributed to the emergency event only. Added information to aid in basing determinations. This definition now mirrors the definition ion RP/0/A/5000/006 A Rev 35 (PRR02024211).
- 4) Deleted the evaluation of Emergency Release Significance for ENF Line 7. This information is no longer part of the ENF form.

Attachment 6, 10 CFR 50.54(q) Initiating Condition (IC) and Emergency Action Level (EAL) and EAL Bases Validation and Verification (V&V) Form , is attached (required for IC or EAL change)

Yes ☐  
No ☒

Part II. Description and Review of Licensing Basis Affected by the Proposed Change:

Three licensing basis documents were reviewed for applicability, 1) the Catawba Emergency Plan, Revision 2, as the original plan approved by the NRC, 2) the current Catawba Emergency Plan, Revision 148, and 3) "Duke Power Company Response to Supplement 1 to NUREG-0737, Emergency Response Capability for Catawba Nuclear Station, Volume 1."

Applicable sections of the Emergency Plan titled, "Catawba Nuclear Station Emergency Plan", Revision 2 - January 1983:

**Section E, Notification Methodology**

Section E.2.a., Notification of Unusual Event, states,

"The Emergency Coordinator will assure prompt notification of State and Local offsite authorities (State and all County Warning Points, or Emergency Operations Centers if established), the NRC Operations Center via the

**10 CFR 50.54 (q) Effectiveness Evaluation Form**

Emergency Notification System, the Senior Station NRC representative and the Construction Project Manager of the Unusual Event and the reason for the emergency for any initiating condition or implementation of any emergency procedure listed in Figure D-1.

NOTE: Notification format and message authentication technique to offsite authorities shall be in accordance with the appropriate emergency procedure (See Figure E-1)"

Section E.2.b., Alert, states,

"The Emergency Coordinator will assure prompt notification of State and Local offsite authorities (State and all County Warning Points, or Emergency Operations Centers if established), the NRC Operations Center via the Emergency Notification System, the Senior Station NRC representative and the Construction Project Manager of the Alert and the reason for the emergency for any initiating condition or implementation of any emergency procedure listed in Figure D-2.

NOTE: Notification format and message authentication technique to offsite authorities shall be in accordance with the appropriate emergency procedure (See Figure E-1)"

Section E.2.c., Site Area Emergency, states,

"The Emergency Coordinator will assure prompt notification of State and Local offsite authorities (State and all County Warning Points, or Emergency Operations Centers if established), the NRC Operations Center via the Emergency Notification System, the Senior Station NRC representative and the Construction Project Manager of the Site Area Emergency and the reason for the emergency for any initiating condition or implementation of any emergency procedure listed in Figure D-3.

NOTE: Notification format and message authentication technique to offsite authorities shall be in accordance with the appropriate emergency procedure (See Figure E-1)"

Section E.2.d., General Emergency, states,

"The Emergency Coordinator will assure prompt notification of State and Local offsite authorities (State and all County Warning Points, or Emergency Operations Centers if established), the NRC Operations Center via the Emergency Notification System, the Senior Station NRC representative and the Construction Project Manager of the General Emergency and the reason for the emergency for any initiating condition or implementation of any emergency procedure listed in Figure D-4.

NOTE: Notification format and message authentication technique to offsite authorities shall be in accordance with the appropriate emergency procedure (See Figure E-1)"

Section E.3, Emergency Message Format (Initial), states,

"Figure E-1, Warning Message: Nuclear Facility to State/Local Government contains information about the class of emergency, whether a release is taking place, the potentially affected areas and whether protective actions may be necessary."

Section E.4, Emergency message Format (Follow- Up), states,

"Figure E-1, Warning Message: Nuclear Facility to State/Local Government contains provisions for follow-up information if it is known and appropriate."

Figure E-1 is the initial and follow-up warning message form.

The current revision of the Catawba Emergency Plan is Revision 148. The following sections were reviewed:

**Section E, Notification Methodology**

Section E.2.a, Notification of Unusual Event,

Section E.2.b, Alert,

Section E.2.c, Site Area Emergency, and

**10 CFR 50.54 (q) Effectiveness Evaluation Form**

Section E.2.d, General Emergency,

Above Sections Contain the following information:

"The Operations Shift Manager shall assure prompt notification of Federal, State and Local off-site authorities:

1. North Carolina Warning Point (Raleigh, NC)
2. South Carolina Warning Point (Columbia, SC)
3. York County Warning Point (Rock Hill, SC)
4. Gaston County Warning Point (Gastonia, NC)
5. Mecklenburg County Warning Point (Charlotte, NC)
6. NRC Operations Center (Rockville, MD)

Notification format and message authentication technique to off-site authorities shall be in accordance with applicable Catawba Nuclear Station Emergency Response Procedures."

Section E.3 Emergency Message Format (Initial)

Figure E-1, Emergency Notification contains information about the class of emergency, whether a release is taking place, the potentially affected areas and whether protective actions may be necessary.

Section E.4 Emergency Message Format (Follow-Up)

Figure E-1, Emergency Notification contains provisions for follow-up information if it is known and appropriate.

Figure E-1 is the Nuclear Power Plant Emergency Notification Form.

"Duke Power Company Response to Supplement 1 to NUREG-0737, Emergency Response Capability for Catawba Nuclear Station, Volume 1," does not contain applicable sections related to the format of the emergency notification.

RIS 2005-02, Revision 1, states that for the purposes of determining whether a change to a licensee's emergency plan constitutes a decrease in effectiveness, the licensee should use the last emergency plan reviewed and approved by the NRC. If the emergency plan change process has been properly implemented over the years, comparing a proposed emergency plan change to either the latest emergency plan reviewed and approved by the NRC or the emergency plan as changed by the licensee should result in the same decrease in effectiveness determination. The original Emergency Plan citations are listed to illustrate the differences between the last emergency plan reviewed and approved by NRC, Revision 2, and the emergency plan as changed by the licensee, Revision 148. No significant changes that alter the intent of these sections have been made over the course of the revisions.

**Part III. Description of How the Proposed Change Complies with Regulation and Commitments.**

If the emergency plan, modified as proposed, no longer complies with planning standards in 10 CFR 50.47(b) and the requirements in Appendix E to 10 CFR Part 50, then ensure the change is rejected, modified, or processed as an exemption request under 10 CFR 50.12, Specific Exemptions, rather than under 10 CFR 50.54(q):

The change to the notification methodology affects **10 CFR 50.47(b)(5)**

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."

**10 CFR 50.54 (q) Effectiveness Evaluation Form**

IV.D.1. of Appendix E to 10 CFR Part 50 provides supporting requirements (applicable excerpts only):

**D. Notification Procedures**

1. Administrative and physical means for notifying local, State, and Federal officials and agencies and agreements reached with these officials and agencies for the prompt notification of the public and for public evacuation or other protective measures, should they become necessary, shall be described. This description shall include identification of the appropriate officials, by title and agency, of the State and local government agencies within the EPZs.

**Conclusion:**

RP/0/A/5000/020, as revised, continues to comply with 10 CFR 50.47(b)(5), as the content of the initial and follow-up notification forms remain established, and continues to comply with 10 CFR 50 Appendix E, as administrative means for notifying local, State, and Federal officials and agencies remain described.

Part IV. Description of Emergency Plan Planning Standards, Functions and Program Elements Affected by the Proposed Change (Address each function identified in Attachment 4, 10 CFR 50.54(q) Screening Evaluation Form, Part IV of associated Screen):

The changes related to the responsibility for classification affect **10 CFR 50.47(b)(5)**

**PLANNING STANDARDS**

The regulation at 10 CFR 50.47(b)(5) states the following:

"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."

Appendix E to 10 CFR Part 50 Section IV.D provides supporting requirements (applicable excerpts only):

**D. Notification Procedures**

1. Administrative and physical means for notifying local, State, and Federal officials and agencies and agreements reached with these officials and agencies for the prompt notification of the public and for public evacuation or other protective measures, should they become necessary, shall be described. This description shall include identification of the appropriate officials, by title and agency, of the State and local government agencies within the EPZs.

**FUNCTIONS**

Three emergency planning functions have been defined for 10 CFR 50.47(b)(5):

- (1) Procedures for notification of State and local governmental agencies are capable of alerting them of the declared emergency within 15 minutes after declaration of an emergency and providing follow-up notifications.
- (2) Administrative and physical means have been established for alerting and providing prompt instructions to the public within the plume exposure pathway.
- (3) The public ANS meets the design requirements of FEMA-REP-10, "Guide for Evaluation of Alert and Notification Systems for Nuclear Power Plants" (Ref. 12), or is compliant with the licensee's FEMA-approved ANS design report and supporting FEMA approval letter.

**10 CFR 50.54 (q) Effectiveness Evaluation Form**

**PROGRAM ELEMENTS**

Section II.E of NUREG-0654/FEMA-REP-1, Rev 1, contains the following informing criteria:

**II. E. Notification Methods and Procedures**

3. The licensee in conjunction with State and local organizations shall establish the contents of the initial emergency messages to be sent from the plant. These measures shall contain information about the class of emergency, whether a release is taking place, potentially affected population and areas, and whether protective measures may be necessary.
4. Each licensee shall make provisions for follow-up messages from the facility to offsite authorities which shall contain the following information if it is known and appropriate:
  - 4.a. location of incident and name and telephone number (or communications channel identification) of caller;
  - 4.b. date/time of incident;
  - 4.c. class of emergency;
  - 4.d. type of actual or projected release (airborne, waterborne, surface spill), and estimated duration/impact times;
  - 4.e. estimate of quantity of radioactive material released or being released and the points and height of releases;
  - 4.f. chemical and physical form of released material, including estimates of the relative quantities and concentration of noble gases, iodines and particulates;
  4. g. meteorological conditions at appropriate levels (wind speed, direction (to and from), indicator of stability, precipitation, if any);
  4. h. actual or projected dose rates at site boundary; projected integrated dose at site boundary;
  - 4.i. projected dose rates and integrated dose at the projected peak and at 2, 5 and 10 miles, including sector(s) affected;
  4. j. estimate of any surface radioactive contamination in-plant, onsite or offsite;
  4. k. licensee emergency response actions underway;
  4. l. recommended emergency actions, including protective measures;
  - 4.m. request for any needed onsite support by offsite organizations; and
  4. n. prognosis for worsening or termination of event based on plant information.

**Part V. Description of Impact of the Proposed Change on the Effectiveness of Emergency Plan Functions:**

Three emergency planning functions have been defined for 10 CFR 50.47(b)(5):

- (1) Procedures for notification of State and local governmental agencies are capable of alerting them of the declared emergency within 15 minutes after declaration of an emergency and providing follow-up notifications.
- (2) Administrative and physical means have been established for alerting and providing prompt instructions to the public within the plume exposure pathway.
- (3) The public ANS meets the design requirements of FEMA-REP-10, "Guide for Evaluation of Alert and Notification Systems for Nuclear Power Plants" (Ref. 12), or is compliant with the licensee's FEMA-approved ANS design report and supporting FEMA approval letter.

Only the first emergency plan function listed is affected by changing RP/0/A/5000/020. This procedure continues to comply with the first 10 CFR 50.47(b)(5) Emergency Planning Function listed above, as the procedures for

## 10 CFR 50.54 (q) Effectiveness Evaluation Form

notification of State and local governmental agencies remain capable of alerting them of the declared emergency within 15 minutes after declaration of an emergency and providing follow-up notifications.

## Part VI. Evaluation Conclusion.

Answer the following questions about the proposed change.

• Does the proposed change comply with 10 CFR 50.47(b) and 10 CFR 50 Appendix E?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
• Does the proposed change maintain the effectiveness of the emergency plan (i.e., no reduction in effectiveness)?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
• Does the proposed change maintain the current Emergency Action Level (EAL) scheme?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
4 Choose one of the following conclusions:		
• The activity does continue to comply with the requirements of 10 CFR 50.47(b) and 10 CFR 50, Appendix E, and the activity does not constitute a reduction in effectiveness or change in the current Emergency Action Level (EAL) scheme. Therefore, the activity can be implemented without prior NRC approval.	<input checked="" type="checkbox"/>	
• The activity does not continue to comply with the requirements of 10 CFR 50.47(b) or 10 CFR 50 Appendix E or the activity does constitute a reduction in effectiveness or EAL scheme change. Therefore, the activity cannot be implemented without prior NRC approval.	<input type="checkbox"/>	

## Part VII. Disposition of Proposed Change Requiring Prior NRC Approval

Will the proposed change determined to require prior NRC approval be either revised or rejected?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
If No, then initiate a License Amendment Request in accordance 10 CFR 50.90 and AD-LS-ALL-0002, Regulatory Correspondence, and include the tracking number: _____		

## Part VIII. Signatures: EP CFAM Final Approval is required for changes affecting risk significant planning standard 10 CFR 50.47(b)(4).

Preparer Name (Print): Mandy Hare	Preparer Signature:	Date: 11/21/2016
Reviewer Name (Print): Eric White	Reviewer Signature:	Date: 11/21/2016
Approver (EP Manager Name (Print): Cecil Fletcher	Approver Signature:	Date:
Approver (CFAM, as required) Name (Print): N/A	Approver Signature: N/A	Date N/A:



**10 CFR 50.54 (q) Effectiveness Evaluation Form**

If the proposed activity is a change to the E-Plan or implementing procedures, then create two EREG General Assignments.

One for EP to provide the 10 CFR 50.54(q) summary of the analysis, or the completed 10 CFR 50.54(q), to Licensing.

One for Licensing to submit the 10 CFR 50.54(q) information to the NRC within 30 days after the change is put in effect.

QA RECORD