



James M. Smith
Manager, Nuclear Support Services
McGuire Nuclear Station

Duke Energy
MG01VP | 12700 Hagers Ferry Road
Huntersville, NC 28078

o: 980.875.5477
James-Junior.Smith@duke-energy.com

Date: August 20, 2020
Serial No. RA-20-0264

10 CFR 50.54(q)

U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, D. C. 20555-0001

Subject: Duke Energy Carolinas, LLC
McGuire Nuclear Station, Units 1 and 2
Docket Numbers. 50-369, 50-370
Renewed License Nos. NPF-9 and NPF-7
Emergency Plan Revised 10 CFR 50.54(q) Screens and Evaluations

REFERENCE: RA-20-0003, McGuire Nuclear Station, Unit 1 and 2, Emergency Plan Revision 19-2 and Revision 19-3, January 9, 2020

RA-20-0151, McGuire Nuclear Station, Unit 1 and 2, Emergency Plan Revision 20-1, May 13, 2020

On January 9, 2020 Duke Energy Carolinas, LLC (Duke Energy) submitted RA-20-0003, Emergency Plan (EPLAN) Revision 19-2 and Revision 19-3 and on May 13, 2020 Duke Energy submitted RA-20-0151, Emergency Plan Revision 20-1 in accordance with the requirements of 10 CFR 50.54(q). Following an internal assessment review of the Effectiveness Evaluation Forms submitted in support of EPLAN Revision 19-3 and Revision 20-1, revised Screening Evaluation Forms and Effectiveness Evaluation Forms were generated for EPLAN Revision 19-3 Section J and EPLAN Revision 20-1 Section F and Section J.

No changes were required to the previously submitted EPLAN Revision 19-3 and EPLAN Revision 20-1.

The revised Screening Evaluation Forms and Effectiveness Evaluation Forms are included as an Attachment.

U.S. Nuclear Regulatory Commission
RA-20-0264
Page 2

Questions regarding this submittal should be directed to Joseph Hussey, McGuire Regulatory Affairs, at (980) 875-5045.

Sincerely,

A handwritten signature in dark ink, appearing to read "James M. Smith". The signature is fluid and cursive, with the first name "James" being more prominent.

James M. Smith
Manager, Nuclear Support Services
McGuire Nuclear Station

Enclosed

Attachment, Updated Screening Evaluation Forms and Effectiveness Evaluation Forms for EPLAN Revision 19-3 Section J and EPLAN Revision 20-1 Section F and Section J.

cc:

(Two Copies)

Laura A. Dudes

Region II Administrator

U.S. Nuclear Regulatory Commission Marquis One Tower

245 Peachtree Center Avenue NE, Suite 1200

Atlanta, GA 30303-1257

(One Copy)

Director

Office of Nuclear Material Safety and Safeguards

Mail Stop 14 A12

Washington, D.C. 20555-0001

(w/o attachments)

G. Edward Miller

Project Manager (McGuire)

U.S. Nuclear Regulatory Commission

Mail Stop O-9-E3

11555 Rockville Pike

Rockville, MD 20852

G.A. Hutto

NRC Senior Resident Inspector

McGuire Nuclear Station

andy.hutto@nrc.gov

Attachment

Updated Screening Evaluation Forms and Effectiveness Evaluation Forms for

MNS Emergency Plan Section J Rev 19-3 50.54 Revised Screen

MNS Emergency Plan Section J Rev 19-3 50.54 Revised Evaluation

Updated Screening Evaluation Forms and Effectiveness Evaluation Forms for

10CFR50.54q Revised Screen for Emergency Plan Rev 20-1 Section F

10CFR50.54q Revised Evaluation for Emergency Plan Rev 20-1 Section F

10CFR50.54q Revised Screen for Emergency Plan Rev 20-1 Section J

10CFR50.54q Revised Evaluation for Emergency Plan Rev 20-1 Section J

EMERGENCY PLAN CHANGE SCREENING AND EFFECTIVENESS EVALUATIONS 10 CFR 50.54(Q)	AD-EP-ALL-0602	
	Rev. 6	

ATTACHMENT 4
Page 1 of 5

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

Screening and Evaluation Number		Applicable Sites	
EREG #: <u>02304330 (Original) 02340829 (Revised)</u> No changes to Screening made.		BNP	<input type="checkbox"/>
		CNS	<input type="checkbox"/>
		CR3	<input type="checkbox"/>
		HNP	<input type="checkbox"/>
5AD #: <u>02304271</u>		MNS	<input checked="" type="checkbox"/>
		ONS	<input type="checkbox"/>
		RNP	<input type="checkbox"/>
		GO	<input type="checkbox"/>
Document and Revision	McGuire Emergency Plan Section J (PROTECTIVE RESPONSE) Revision 19-3		
Part I. Description of Activity Being Reviewed (event or action, or series of actions that may result in a change to the emergency plan or affect the implementation of the emergency plan):			
Change #	Section	Current	Proposed
1	Footer	Revision 19-1 July, 2019	Revision 19-3 December, 2019
2	J.5, First Paragraph, First Sentence, Page 2	Within thirty minutes of a Site Assembly, all persons within the Protected Area at the McGuire Nuclear Site can be accounted for and any person(s) determined to be missing, will be identified by name.	Within thirty minutes of declaration of a Site Area Emergency or, if not previously conducted, a General Emergency; all persons within the Protected Area at the McGuire Nuclear Site can be accounted for and any person(s) determined to be missing, will be identified by name.

EMERGENCY PLAN CHANGE SCREENING AND EFFECTIVENESS EVALUATIONS 10 CFR 50.54(Q)	AD-EP-ALL-0602			
	Rev. 6			

ATTACHMENT 4
Page 2 of 5

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

Part II. Activity Previously Reviewed? Is this activity Fully bounded by an NRC approved 10 CFR 50.90 submittal or Alert and Notification System Design Report? If yes, identify bounding source document number or approval reference and ensure the basis for concluding the source document fully bounds the proposed change is documented below: Justification:		Yes <input type="checkbox"/>	<input type="checkbox"/>	No <input type="checkbox"/>	<input checked="" type="checkbox"/>				
		10 CFR 50.54(q) Effectiveness Evaluation is not required. Enter justification below and complete Attachment 4, Part V.		Continue to Attachment 4, 10 CFR 50.54(q) Screening Evaluation Form, Part III					
Bounding document attached (optional)					<input type="checkbox"/>				
Part III. Editorial Change Is this activity an editorial or typographical change only, such as formatting, paragraph numbering, spelling, or punctuation that does not change intent? Justification: Change 1 is editorial in accordance with AD-EP-ALL-0602 and, therefore, requires no evaluation.		Yes <input type="checkbox"/>	<input type="checkbox"/>	No or Partially <input type="checkbox"/>	<input checked="" type="checkbox"/>				
		10 CFR 50.54(q) Effectiveness Evaluation is not required. Enter justification and complete Attachment 4, Part V.		Continue to Attachment 4, Part IV and address non editorial changes					
Part IV. Emergency Planning Element and Function Screen (Reference Attachment 1, Considerations for Addressing Screening Criteria) Does this activity involve any of the following, including program elements from NUREG-0654/FEMA REP-1 Section II? If answer is yes, then check box.									
1	10 CFR 50.47(b)(1) Assignment of Responsibility (Organization Control)								
1a	Responsibility for emergency response is assigned.				<input type="checkbox"/>				
1b	The response organization has the staff to respond and to augment staff on a continuing basis (24-7 staffing) in accordance with the emergency plan.				<input type="checkbox"/>				
2	10 CFR 50.47(b)(2) Onsite Emergency Organization								
2a	Process ensures that onshift emergency response responsibilities are staffed and assigned				<input type="checkbox"/>				
2b	The process for timely augmentation of onshift staff is established and maintained.				<input type="checkbox"/>				
3	10 CFR 50.47(b)(3) Emergency Response Support and Resources								
3a	Arrangements for requesting and using off site assistance have been made.				<input type="checkbox"/>				
3b	State and local staff can be accommodated at the EOF in accordance with the emergency plan. (NA for CR3)				<input type="checkbox"/>				
4	10 CFR 50.47(b)(4) Emergency Classification System								
4a	A standard scheme of emergency classification and action levels is in use. (Requires final approval of Screen and Evaluation by EP CFAM.)				<input type="checkbox"/>				

EMERGENCY PLAN CHANGE SCREENING AND EFFECTIVENESS EVALUATIONS 10 CFR 50.54(Q)	AD-EP-ALL-0602
	Rev. 6

ATTACHMENT 4
Page 3 of 5

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

5	10 CFR 50.47(b)(5) Notification Methods and Procedures	
5a	Procedures for notification of State and local governmental agencies are capable of alerting them of the declared emergency within 15 minutes (60 minutes for CR3) after declaration of an emergency and providing follow-up notification.	<input type="checkbox"/>
5b	Administrative and physical means have been established for alerting and providing prompt instructions to the public within the plume exposure pathway. (NA for CR3)	<input type="checkbox"/>
5c	The public ANS meets the design requirements of FEMA-REP-10, Guide for Evaluation of Alert and Notification Systems for Nuclear Power Plants, or complies with the licensee's FEMA-approved ANS design report and supporting FEMA approval letter. (NA for CR3)	<input type="checkbox"/>

EMERGENCY PLAN CHANGE SCREENING AND EFFECTIVENESS EVALUATIONS 10 CFR 50.54(Q)	AD-EP-ALL-0602
	Rev. 6

ATTACHMENT 4
Page 4 of 5

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

Part IV. Emergency Planning Element and Function Screen (cont.)		
6	10 CFR 50.47(b)(6) Emergency Communications	
6a	Systems are established for prompt communication among principal emergency response organizations.	<input type="checkbox"/>
6b	Systems are established for prompt communication to emergency response personnel.	<input type="checkbox"/>
7	10 CFR 50.47(b)(7) Public Education and Information	
7a	Emergency preparedness information is made available to the public on a periodic basis within the plume exposure pathway emergency planning zone (EPZ). (NA for CR3)	<input type="checkbox"/>
7b	Coordinated dissemination of public information during emergencies is established.	<input type="checkbox"/>
8	10 CFR 50.47(b)(8) Emergency Facilities and Equipment	
8a	Adequate facilities are maintained to support emergency response.	<input type="checkbox"/>
8b	Adequate equipment is maintained to support emergency response.	<input type="checkbox"/>
9	10 CFR 50.47(b)(9) Accident Assessment	
9a	Methods, systems, and equipment for assessment of radioactive releases are in use.	<input type="checkbox"/>
10	10 CFR 50.47(b)(10) Protective Response	
10a	A range of public PARs is available for implementation during emergencies. (NA for CR3)	<input type="checkbox"/>
10b	Evacuation time estimates for the population located in the plume exposure pathway EPZ are available to support the formulation of PARs and have been provided to State and local governmental authorities. (NA for CR3)	<input type="checkbox"/>
10c	A range of protective actions is available for plant emergency workers during emergencies, including those for hostile action events.	<input checked="" type="checkbox"/>
10d	KI is available for implementation as a protective action recommendation in those jurisdictions that chose to provide KI to the public.	<input type="checkbox"/>
11	10 CFR 50.47(b)(11) Radiological Exposure Control	
11a	The resources for controlling radiological exposures for emergency workers are established.	<input type="checkbox"/>
12	10 CFR 50.47(b)(12) Medical and Public Health Support	
12a	Arrangements are made for medical services for contaminated, injured individuals.	<input type="checkbox"/>
13	10 CFR 50.47(b)(13) Recovery Planning and Post-accident Operations	
13a	Plans for recovery and reentry are developed.	<input type="checkbox"/>
14	10 CFR 50.47(b)(14) Drills and Exercises	
14a	A drill and exercise program (including radiological, medical, health physics and other program areas) is established.	<input type="checkbox"/>
14b	Drills, exercises, and training evolutions that provide performance opportunities to develop, maintain, and demonstrate key skills are assessed via a formal critique process in order to identify weaknesses.	<input type="checkbox"/>
14c	Identified weaknesses are corrected.	<input type="checkbox"/>
15	10 CFR 50.47(b)(15) Emergency Response Training	
15a	Training is provided to emergency responders.	<input type="checkbox"/>

EMERGENCY PLAN CHANGE SCREENING AND EFFECTIVENESS EVALUATIONS 10 CFR 50.54(Q)	AD-EP-ALL-0602
	Rev. 6

ATTACHMENT 4
Page 5 of 5

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

Part IV. Emergency Planning Element and Function Screen (cont.)		
16	10 CFR 50.47(b)(16) Emergency Plan Maintenance	
16a	Responsibility for emergency plan development and review is established.	<input type="checkbox"/>
16b	Planners responsible for emergency plan development and maintenance are properly trained.	<input type="checkbox"/>
PART IV. Conclusion		
If no Part IV criteria are checked, then provide Justification and complete Part V below. Justification: Change 2 to be evaluated.		<input type="checkbox"/>
If any Attachment 4, 10 CFR 50.54(q) Screening Evaluation Form, Part IV criteria are checked, then complete Attachment 4, 10 CFR 50.54(q) Screening Evaluation Form, Part V and perform a 10 CFR 50.54(q) Effectiveness Evaluation. Program Element 4a requires final approval of Screen and Evaluation by EP CFAM.		<input checked="" type="checkbox"/>
Part V. Signatures:		
EP CFAM Final Approval is required for changes affecting Program Element 4a. If CFAM approval is NOT required, then mark the EP CFAM signature block as not applicable (N/A) to indicate that signature is not required.		
Preparer Name (Print): Barry Kimray	Preparer Signature: See CAS	Date: See CAS
Reviewer Name (Print): See CAS	Reviewer Signature: See CAS	Date: See CAS
Approver (Manager, Nuclear Support Services) Name (Print): See CAS	Approver Signature: See CAS	Date: See CAS
Approver (EP CFAM, as required) Name (Print) See CAS	Approver Signature: See CAS	Date: See CAS
If the proposed activity is a change to the E-Plan, then initiate PRRs. If the proposed activity is a change to the E-Plan, then create two EREG General assignments		
If required by Section 5.6, Submitting Reports of Changes to the NRC, then create two EREG General Assignments.		<input type="checkbox"/>
<ul style="list-style-type: none"> 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. 		<input checked="" type="checkbox"/>

QA RECORD

EMERGENCY PLAN CHANGE SCREENING AND EFFECTIVENESS EVALUATIONS 10 CFR 50.54(Q)	AD-EP-ALL-0602	
	Rev. 6	

ATTACHMENT 5

Page 1 of 5

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

Screening and Evaluation Number		Applicable Sites	
EREG #: <u>02304330 (Original) 02340829 (Revised)</u> Revisions are noted with change bars in right margin.		BNP	<input type="checkbox"/>
		CNS	<input type="checkbox"/>
		CR3	<input type="checkbox"/>
		HNP	<input type="checkbox"/>
5AD #: <u>02304271</u>		MNS	<input checked="" type="checkbox"/>
		ONS	<input type="checkbox"/>
		RNP	<input type="checkbox"/>
		GO	<input type="checkbox"/>
Document and Revision		McGuire Emergency Plan Section J (PROTECTIVE RESPONSE) Revision 19-3	
Part I. Description of Proposed Change:			
Change #	Section	Current	Proposed
2	J.5, First Paragraph, First Sentence, Page 2	Within thirty minutes of a Site Assembly, all persons within the Protected Area at the McGuire Nuclear Site can be accounted for and any person(s) determined to be missing, will be identified by name.	Within thirty minutes of declaration of a Site Area Emergency or, if not previously conducted, a General Emergency; all persons within the Protected Area at the McGuire Nuclear Site can be accounted for and any person(s) determined to be missing, will be identified by name.
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 <input type="checkbox"/> No <input checked="" type="checkbox"/>	

EMERGENCY PLAN CHANGE SCREENING AND EFFECTIVENESS EVALUATIONS 10 CFR 50.54(Q)	AD-EP-ALL-0602
	Rev. 6

ATTACHMENT 5

Page 2 of 5

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

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

Licensing Basis

McGuire Emergency Plan Change 2 (dated February 1981), additional information submitted April 3, 1981 and July 1, 1981, Revision 97-1 (dated April 1997), and Revision 11-3 (dated October, 2011)

Current Emergency Plan Revision 19-01

Section J, Protective Response, Paragraph J.5

The differences in approved revisions and the current revisions of the Emergency Plans have been reviewed, and they have been determined to meet the regulatory requirements required during the course of 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 proposed change is being made to revised the Emergency Level that McGuire conducts a Site Assembly. MNS Emergency Plan guidance for conducting a site assembly is being revised to remove requirement to conduct a site assembly when an Alert is declared. This change aligns McGuire with the Duke Energy fleet on when Site Assembly is required.

This change can be made as on-site workers will continue to be protected from on-site hazards during Alert conditions as directed by MNS Emergency and Abnormal Operating Procedures. McGuire also maintains the ability to initiate a site assembly anytime an Operations Shift Manager (Emergency Coordinator) determines a site assembly is warranted. This change maintains a range of protective actions for plant emergency workers during emergencies, including those for hostile action events.

This change continues to meet NRC requirements as described in 10 CFR 50.47(b)(10) because a range of protective actions is available for plant emergency workers during emergencies, including those for hostile action events, is maintained.

The differences in approved revisions and the current revisions of the Emergency Plans have been reviewed, and they have been determined to continue to meet NRC requirements as described in 10 CFR 50.47(b) and 10 CFR 50, Appendix E during the course of revisions.

EMERGENCY PLAN CHANGE SCREENING AND EFFECTIVENESS EVALUATIONS 10 CFR 50.54(Q)	AD-EP-ALL-0602
	Rev. 6

ATTACHMENT 5

Page 3 of 5

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

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):

10 CFR 50.47(b)(10) - Protective Response

A range of protective actions has been developed for the plume exposure pathway 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. Evacuation time estimates have been developed by applicants and licensees. Licensees shall update the evacuation time estimates on a periodic basis. 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 pathway EPZ appropriate to the locale have been developed.

Emergency Plan Planning Function 10c - A range of protective actions is available for plant emergency workers during emergencies, including those for hostile action events.

Program Elements from NUREG-0654 II.J

1. Each licensee shall establish the means and time required to warn or advise onsite individuals and individuals who may be in areas controlled by the operator, including:

- 1.a. Employees not having emergency assignments;
- 1.b. Visitors;

1.c. Contractor and construction personnel; and

1.d. Other persons who may be in the public access areas on or passing through the site or within the owner controlled area.

4. Each licensee shall provide for the evacuation of onsite non-essential personnel in the event of a Site or General Emergency and shall provide a decontamination capability at or near the monitoring point specified in J.3.

5. Each licensee shall provide for a capability to account for all individuals onsite at the time of the emergency and ascertain the names of missing individuals within 30 minutes of the start of an emergency and account for all onsite individuals continuously thereafter.

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

The proposed change is being made to revised the Emergency Level that McGuire conducts a Site Assembly. MNS Emergency Plan guidance for conducting a site assembly is being revised to remove requirement to conduct a site assembly when an Alert is declared. This change aligns McGuire with the Duke Energy fleet on when Site Assembly is required.

This change can be made as on-site workers will continue to be protected from on-site hazards during Alert conditions as directed by MNS Emergency and Abnormal Operating Procedures. McGuire also maintains the ability to initiate a site assembly anytime an Operations Shift Manager (Emergency Coordinator) determines a site assembly is warranted.

This change maintains a range of protective actions for plant emergency workers during emergencies, including those for hostile action events. Thus, the change does not result in a reduction in effectiveness of the McGuire Nuclear Station Emergency Plan

EMERGENCY PLAN CHANGE SCREENING AND EFFECTIVENESS EVALUATIONS 10 CFR 50.54(Q)	AD-EP-ALL-0602
	Rev. 6

ATTACHMENT 5

Page 4 of 5

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

<p>These changes continue to provide assurance that the Emergency Response Organization has the ability and capability to:</p> <ul style="list-style-type: none"> • respond to an emergency; • perform functions in a timely manner; • effectively identify and take measures to ensure protection of the public health and safety; and • effectively use response equipment and emergency response procedures. <p>The proposed change does not reduce the effectiveness of the McGuire Nuclear Station Emergency Plan.</p>			
<p>Part VI. Evaluation Conclusion.</p> <p>Answer the following questions about the proposed change.</p>			
1	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"/>
2	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"/>
3	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:		
a	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"/>	
b	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"/>
<p>If No, then initiate a License Amendment Request in accordance 10 CFR 50.90, AD-LS-ALL-0002, Regulatory Correspondence, and AD-LS-ALL-0015, License Amendment Request and Changes to SLC, TRM, and TS Bases, and include the tracking number:_____.</p>			
<p>Part VIII. Signatures: EP CFAM Final Approval is required for changes affecting risk significant planning standard 10 CFR 50.47(b)(4) (i.e., Emergency Action Levels and Emergency Action Level Bases). If CFAM approval is <u>NOT</u> required, then mark the CFAM signature block as not applicable (N/A) to indicate that signature is not required.</p>			

EMERGENCY PLAN CHANGE SCREENING AND EFFECTIVENESS EVALUATIONS 10 CFR 50.54(Q)	AD-EP-ALL-0602	
	Rev. 7	

ATTACHMENT 4
Page 1 of 4

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

Screening and Evaluation Number		Applicable Sites	
EREG #: <u>02325191</u> (Original) <u>02340830</u> (Revised) No changes to Screening made.	BNP	<input type="checkbox"/>	
	CNS	<input type="checkbox"/>	
	HNP	<input type="checkbox"/>	
5AD #: <u>02325182</u>	MNS	<input checked="" type="checkbox"/>	
	ONS	<input type="checkbox"/>	
	RNP	<input type="checkbox"/>	
	GO	<input type="checkbox"/>	
Document and Revision	EMERGENCY PLAN - Section F - Revision 20-1		
Part I. Description of Activity Being Reviewed (event or action, or series of actions that may result in a change to the emergency plan or affect the implementation of the emergency plan): Change 1 – Revised Section F.1.b second paragraph to delete paragraph reading ‘Communications by radio with the state headquarters (i.e. SERT) can be achieved by using the state’s Radio Network.’ This change removes the state’s Radio Network from use in communicating and notifying. The state’s Radio Network and the communication path is obsolete and not regularly monitored or maintained by states, counties or Duke Energy. There are multiple communication paths available to communicate and make notifications to the state and counties (DEMNET, Commercial phone lines, Cell phones, Satellite phones, etc.).			
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 <input type="checkbox"/> No <input checked="" type="checkbox"/>
Part II. Activity Previously Reviewed? Is this activity Fully bounded by an NRC approved 10 CFR 50.90 submittal or Alert and Notification System Design Report? If yes, identify bounding source document number or approval reference and ensure the basis for concluding the source document fully bounds the proposed change is documented below: Justification:		Yes <input type="checkbox"/> 10 CFR 50.54(q) Effectiveness Evaluation is not required. Enter justification below and complete Attachment 4, Part V.	No <input checked="" type="checkbox"/> Continue to Attachment 4, 10 CFR 50.54(q) Screening Evaluation Form, Part III
Bounding document attached (optional)			<input type="checkbox"/>

EMERGENCY PLAN CHANGE SCREENING AND EFFECTIVENESS EVALUATIONS 10 CFR 50.54(Q)	AD-EP-ALL-0602
	Rev. 7

ATTACHMENT 4
Page 2 of 4

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

Part III. Editorial Change Is this activity an editorial or typographical change only, such as formatting, paragraph numbering, spelling, or punctuation that does not change intent? Justification:		Yes	<input type="checkbox"/>	No or Partially	<input checked="" type="checkbox"/>
		10 CFR 50.54(q) Effectiveness Evaluation is not required. Enter justification and complete Attachment 4, Part V.		Continue to Attachment 4, Part IV and address non editorial changes	
Part IV. Emergency Planning Element and Function Screen (Reference Attachment 1, Considerations for Addressing Screening Criteria) Does this activity involve any of the following, including program elements from NUREG-0654/FEMA REP-1 Section II? If answer is yes, then check box.					
1	10 CFR 50.47(b)(1) Assignment of Responsibility (Organization Control)				
1a	Responsibility for emergency response is assigned.				<input type="checkbox"/>
1b	The response organization has the staff to respond and to augment staff on a continuing basis (24-7 staffing) in accordance with the emergency plan.				<input type="checkbox"/>
2	10 CFR 50.47(b)(2) Onsite Emergency Organization				
2a	Process ensures that onshift emergency response responsibilities are staffed and assigned				<input type="checkbox"/>
2b	The process for timely augmentation of onshift staff is established and maintained.				<input type="checkbox"/>
3	10 CFR 50.47(b)(3) Emergency Response Support and Resources				
3a	Arrangements for requesting and using off site assistance have been made.				<input type="checkbox"/>
3b	State and local staff can be accommodated at the EOF in accordance with the emergency plan.				<input type="checkbox"/>
4	10 CFR 50.47(b)(4) Emergency Classification System				
4a	A standard scheme of emergency classification and action levels is in use. (Requires final approval of Screen and Evaluation by EP CFAM.)				<input type="checkbox"/>
5	10 CFR 50.47(b)(5) Notification Methods and Procedures				
5a	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 notification.				<input type="checkbox"/>
5b	Administrative and physical means have been established for alerting and providing prompt instructions to the public within the plume exposure pathway.				<input type="checkbox"/>
5c	The public ANS meets the design requirements of FEMA-REP-10, Guide for Evaluation of Alert and Notification Systems for Nuclear Power Plants, or complies with the licensee's FEMA-approved ANS design report and supporting FEMA approval letter.				<input type="checkbox"/>

EMERGENCY PLAN CHANGE SCREENING AND EFFECTIVENESS EVALUATIONS 10 CFR 50.54(Q)	AD-EP-ALL-0602
	Rev. 7

ATTACHMENT 4
Page 3 of 4

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

Part IV. Emergency Planning Element and Function Screen (cont.)		
6	10 CFR 50.47(b)(6) Emergency Communications	
6a	Systems are established for prompt communication among principal emergency response organizations.	<input checked="" type="checkbox"/>
6b	Systems are established for prompt communication to emergency response personnel.	<input checked="" type="checkbox"/>
7	10 CFR 50.47(b)(7) Public Education and Information	
7a	Emergency preparedness information is made available to the public on a periodic basis within the plume exposure pathway emergency planning zone (EPZ).	<input type="checkbox"/>
7b	Coordinated dissemination of public information during emergencies is established.	<input type="checkbox"/>
8	10 CFR 50.47(b)(8) Emergency Facilities and Equipment	
8a	Adequate facilities are maintained to support emergency response.	<input type="checkbox"/>
8b	Adequate equipment is maintained to support emergency response.	<input checked="" type="checkbox"/>
9	10 CFR 50.47(b)(9) Accident Assessment	
9a	Methods, systems, and equipment for assessment of radioactive releases are in use.	<input type="checkbox"/>
10	10 CFR 50.47(b)(10) Protective Response	
10a	A range of public PARs is available for implementation during emergencies.	<input type="checkbox"/>
10b	Evacuation time estimates for the population located in the plume exposure pathway EPZ are available to support the formulation of PARs and have been provided to State and local governmental authorities.	<input type="checkbox"/>
10c	A range of protective actions is available for plant emergency workers during emergencies, including those for hostile action events.	<input type="checkbox"/>
10d	KI is available for implementation as a protective action recommendation in those jurisdictions that chose to provide KI to the public.	<input type="checkbox"/>
11	10 CFR 50.47(b)(11) Radiological Exposure Control	
11a	The resources for controlling radiological exposures for emergency workers are established.	<input type="checkbox"/>
12	10 CFR 50.47(b)(12) Medical and Public Health Support	
12a	Arrangements are made for medical services for contaminated, injured individuals.	<input type="checkbox"/>
13	10 CFR 50.47(b)(13) Recovery Planning and Post-accident Operations	
13a	Plans for recovery and reentry are developed.	<input type="checkbox"/>
14	10 CFR 50.47(b)(14) Drills and Exercises	
14a	A drill and exercise program (including radiological, medical, health physics and other program areas) is established.	<input type="checkbox"/>
14b	Drills, exercises, and training evolutions that provide performance opportunities to develop, maintain, and demonstrate key skills are assessed via a formal critique process in order to identify weaknesses.	<input type="checkbox"/>
14c	Identified weaknesses are corrected.	<input type="checkbox"/>
15	10 CFR 50.47(b)(15) Emergency Response Training	
15a	Training is provided to emergency responders.	<input type="checkbox"/>

EMERGENCY PLAN CHANGE SCREENING AND EFFECTIVENESS EVALUATIONS 10 CFR 50.54(Q)	AD-EP-ALL-0602
	Rev. 7

ATTACHMENT 4
Page 4 of 4

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

Part IV. Emergency Planning Element and Function Screen (cont.)		
16	10 CFR 50.47(b)(16) Emergency Plan Maintenance	
16a	Responsibility for emergency plan development and review is established.	<input type="checkbox"/>
16b	Planners responsible for emergency plan development and maintenance are properly trained.	<input type="checkbox"/>
PART IV. Conclusion If no Part IV criteria are checked, then provide Justification and complete Part V below. Justification: The change will be evaluated.		<input type="checkbox"/>
If any Attachment 4, 10 CFR 50.54(q) Screening Evaluation Form, Part IV criteria are checked, then complete Attachment 4, 10 CFR 50.54(q) Screening Evaluation Form, Part V and perform a 10 CFR 50.54(q) Effectiveness Evaluation. Program Element 4a requires final approval of Screen and Evaluation by EP CFAM.		<input checked="" type="checkbox"/>
Part V. Signatures: EP CFAM Final Approval is required for changes affecting Program Element 4a. If CFAM approval is NOT required, then mark the EP CFAM signature block as not applicable (N/A) to indicate that signature is not required.		
Preparer Name (Print): Barry Kimray	Preparer Signature: See CAS	Date: See CAS
Reviewer Name (Print): Renard Burris	Reviewer Signature: See CAS	Date: See CAS
Approver Name (Print): James Smith	Approver Signature: See CAS	Date: See CAS
Approver (EP CFAM, as required) Name (Print) N/A	Approver Signature: N/A	Date: N/A
If the proposed activity is a change to the E-Plan, then initiate PRRs.		PRR Number(s): DRR 02322036
If required by Section 5.6, Submitting Reports of Changes to the NRC, then create two EREG General Assignments.		EREG Due Date: EREG 02325191-04 5/14/20
<ul style="list-style-type: none"> 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. 		
<ul style="list-style-type: none"> One for Licensing to submit the 10 CFR 50.54(q) information to the NRC in accordance with 10 CFR 50.4(b)(5)(ii) within 30 days after the change is put in effect. 		EREG Due Date: EREG 02325191-05 5/28/20

EMERGENCY PLAN CHANGE SCREENING AND EFFECTIVENESS EVALUATIONS 10 CFR 50.54(Q)	AD-EP-ALL-0602
	Rev. 7

ATTACHMENT 5

Page 1 of 5

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

Screening and Evaluation Number		Applicable Sites	
EREG #: <u>02325191 (Original) 02340830 (Revised)</u> Revisions are noted with change bar in right margin.		BNP	<input type="checkbox"/>
		CNS	<input type="checkbox"/>
		HNP	<input type="checkbox"/>
5AD #: <u>02325182</u>		MNS	<input checked="" type="checkbox"/>
		ONS	<input type="checkbox"/>
		RNP	<input type="checkbox"/>
		GO	<input type="checkbox"/>
Document and Revision	EMERGENCY PLAN - Section F - Revision 20-1		
Part I. Description of Proposed Change:			
<p>Change 1 – Revised Section F.1.b second paragraph to delete paragraph reading ‘Communications by radio with the state headquarters (i.e. SERT) can be achieved by using the state’s Radio Network.’</p> <p>This change removes the state’s Radio Network from use in communicating and notifying. The state’s Radio Network and the communication path is obsolete and not regularly monitored or maintained by states, counties or Duke Energy. There are multiple communication paths available to communicate and make notifications to the state and counties (DEMNET, Commercial phone lines, Cell phones, Satellite phones, etc.).</p>			
Part II. Description and Review of Licensing Basis Affected by the Proposed Change:			
<p><u>Licensing Basis</u></p> <p>McGuire Emergency Plan Change 2 (dated February 1981), additional information submitted April 3, 1981 and July 1, 1981, Revision 97-1 (dated April 1997), and Revision 11-3 (dated October, 2011)</p> <p>Current Emergency Plan Revision 19-03</p> <p>The differences in the approved and the current revision of the Emergency Plan have been reviewed, and they have been determined to meet the regulatory requirements required during the course of revisions.</p>			

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

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):

Change 1 – Revised Section F.1.b second paragraph to delete paragraph reading ‘Communications by radio with the state headquarters (i.e. SERT) can be achieved by using the state’s Radio Network.’

This change removes the state’s Radio Network from use in communicating and notifying.

The change is being made as the state’s Radio Network and the communication path is obsolete and not regularly monitored or maintained by states, counties or Duke Energy.

Multiple communication paths continue to be available to communicate and make notifications to the state and counties (DEMNET, Commercial phone lines, Cell phones, Satellite phones, etc.).

This change maintains provisions for prompt communications among principal response organizations and Duke Energy through the use of DEMNET, Commercial phone lines, Cell phones, Satellite phones, etc. DEMNET is Duke Energy’s primary communications systems used to notify and activate State and local emergency response centers and enable communications between the licensee’s ERFs and with OROs with telephones being backup communications systems.

The differences in approved revisions and the proposed revisions of the Emergency Plans have been reviewed, and they have been determined to continue to meet NRC requirements as described in 10 CFR 50.47(b) and 10 CFR 50, Appendix E during the course of revisions.

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):

Planning Standards

- 10 CFR 50.47(b)(6)- Provisions exist for prompt communications among principal response organizations to emergency personnel and to the public.
- 10 CFR 50.47(b)(8)- Adequate emergency facilities and equipment to support the emergency response are provided and maintained.

Planning Functions

- 6a Systems are established for prompt communication among principal emergency response organizations.
- 6b Systems are established for prompt communication to emergency response personnel.
- 8b Adequate equipment is maintained to support emergency response.

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

NUREG-0654 Rev. 1

II.F. Emergency Communications

- 1.b. Provision for communications with continuous State/local governments within the Emergency Planning Zones;
- 1.d. provision for communications between the nuclear facility and the licensee's near site Emergency Operations Facility, State and local emergency operations center, and radiological monitoring teams;

II.H. Emergency Facilities and Equipment

- 2. Each licensee shall establish an Emergency Operations Facility from which evaluation and coordination of all licensee activities related to an emergency is to be carried out and from which the licensee shall provide information to Federal, State and local authorities responding to radiological emergencies in accordance with NUREG-0696, Revision 1.

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

Change 1 – Revised Section F.1.b second paragraph to delete paragraph reading ‘Communications by radio with the state headquarters (i.e. SERT) can be achieved by using the state’s Radio Network.’

This change removes the state’s Radio Network from use in communicating and notifying.

The change is being made as the state’s Radio Network and the communication path is obsolete and not regularly monitored or maintained by states, counties or Duke Energy.

This change maintains multiple communication paths continue to be available to communicate and make notifications to the state and counties (DEMNET, Commercial phone lines, Cell phones, Satellite phones, etc.).

This change is not a reduction in effectiveness since provisions for prompt communications among principal response organizations and Duke Energy are maintained through the use of DEMNET, Commercial phone lines, Cell phones, Satellite phones, etc. DEMNET is Duke Energy’s primary communications systems used to notify and activate State and local emergency response centers and enable communications between the licensee’s ERFs and with OROs with telephones being backup communications systems.

The proposed change does not reduce the effectiveness of Duke Energy McGuire Nuclear Station’s Emergency Plan. These changes continue to provide assurance that the Emergency Response Organization has the ability and capability to:

- respond to an emergency;
- perform functions in a timely manner;
- effectively identify and take measures to ensure protection of the public health and safety; and
- effectively use response equipment and emergency response procedures.

The change continues to meet NRC requirements, as described in 10 CFR 50.47(b) and 10 CFR 50, Appendix E as well as the requirements of the Duke Energy Site’s Emergency Plans as written and approved.

EMERGENCY PLAN CHANGE SCREENING AND EFFECTIVENESS EVALUATIONS 10 CFR 50.54(Q)	AD-EP-ALL-0602
	Rev. 7

ATTACHMENT 5

Page 4 of 5

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

Part VI. Evaluation Conclusion.			
Answer the following questions about the proposed change.			
1	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"/>
2	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"/>
3	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:		
a	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. If Yes, then mark Part VII as not applicable (N/A).	<input checked="" type="checkbox"/>	
b	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"/>	
NOTE: If prior NRC approval required, then complete Part VII.			
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?		N/A <input checked="" type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
If No, then initiate a License Amendment Request in accordance 10 CFR 50.90, AD-LS-ALL-0002, Regulatory Correspondence, and AD-LS-ALL-0015, License Amendment Request and Changes to SLC, TRM, and TS Bases, and include the tracking number:_____.			

EMERGENCY PLAN CHANGE SCREENING AND EFFECTIVENESS EVALUATIONS 10 CFR 50.54(Q)	AD-EP-ALL-0602
	Rev. 7

ATTACHMENT 5

Page 5 of 5

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

Part VIII. Signatures: EP CFAM Final Approval is required for changes affecting risk significant planning standard 10 CFR 50.47(b)(4) (i.e., Emergency Action Levels and Emergency Action Level Bases). If CFAM approval is NOT required, then mark the CFAM signature block as not applicable (N/A) to indicate that signature is not required.		
Preparer Name (Print): Barry Kimray	Preparer Signature: See CAS	Date: See CAS
Reviewer Name (Print): Renard Burris	Reviewer Signature: See CAS	Date: See CAS
Approver Name (Print): James Smith	Approver Signature: See CAS	Date: See CAS
Approver (EP CFAM, as required) Name (Print) N/A	Approver Signature: N/A	Date: N/A
If the proposed activity is a change to the E-Plan, then initiate PRRs.		
		PRR Number(s): DRR 02322036
If required by Section 5.6, Submitting Reports of Changes to the NRC, then create two EREG General Assignments.		EREG Due Date:
<ul style="list-style-type: none"> 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. 		EREG 02325191-04 5/14/20
<ul style="list-style-type: none"> One for Licensing to submit the 10 CFR 50.54(q) information to the NRC in accordance with 10 CFR 50.4(b)(5)(ii) within 30 days after the change is put in effect. 		EREG Due Date: EREG 02325191-05 5/28/20

QA RECORD

EMERGENCY PLAN CHANGE SCREENING AND EFFECTIVENESS EVALUATIONS 10 CFR 50.54(Q)	AD-EP-ALL-0602
	Rev. 7

1TTACHMENT 4

Page 1 of 9

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

Screening and Evaluation Number	Applicable Sites	
EREG #: 02325193 (Original) 02340831 (Revised) No changes to Screening made.	BNP	<input type="checkbox"/>
	CNS	<input type="checkbox"/>
	HNP	<input type="checkbox"/>
5AD #: 02325184	MNS	<input checked="" type="checkbox"/>
	ONS	<input type="checkbox"/>
	RNP	<input type="checkbox"/>
	GO	<input type="checkbox"/>
Document and Revision	EMERGENCY PLAN - Section J- Revision 20-1	

Part I. Description of Activity Being Reviewed (event or action, or series of actions that may result in a change to the emergency plan or affect the implementation of the emergency plan):

Change #	Section or Step #	Change From	Change to
1	Footer	Rev. 19-3 December, 2019	Rev. 20-1 April, 2020
2	J.7 second paragraph	Protective Action Guides are adopted from EPA 400-R-92-001 and in the State Plan guidance on the use of KI. A flowchart to aid the Emergency Coordinator/EOF Director in making Protective Action Recommendations is also shown in Procedure AD-EP-ALL-0109, Off Site Protective Actions Recommendations. {PIP-G-03-606}	Protective Action Guides are adopted from EPA 400-R-92-001 and in the State Plan guidance on the use of KI. A flowchart to aid the Emergency Coordinator/EOF Director in making Protective Action Recommendations is also shown in Procedure AD-EP-ALL-0109, Off Site Protective Actions Recommendations. {AR 01552744}
3	J.7 third paragraph	As described in section B.4, the Emergency Coordinator and the EOF Director are responsible for making protective action recommendations. Prior to activation of the EOF, the Emergency Coordinator will be responsible for making these recommendations. After activation of the EOF, the EOF Director assumes this responsibility. Protective action recommendations will be provided to the off-site authorities (states and counties) who are responsible for implementing public protective actions. The pre-established warning message format (Figure E-1) will be used in transmitting the recommendations.	As described in section B.4, the Emergency Coordinator and the EOF Director are responsible for making protective action recommendations. Prior to activation of the EOF, the Emergency Coordinator will be responsible for making these recommendations. After activation of the EOF, the EOF Director assumes this responsibility. Protective action recommendations will be provided to the off-site authorities (states and counties) who are responsible for implementing public protective actions. A pre-established warning message format will be used in transmitting the recommendations.
4	J.7 fifth paragraph	The Radiological Assessment Manager is responsible for making dose	The Radiological Assessment Manager is responsible for making dose

EMERGENCY PLAN CHANGE SCREENING AND EFFECTIVENESS EVALUATIONS 10 CFR 50.54(Q)	AD-EP-ALL-0602
	Rev. 7

ATTACHMENT 4

Page 2 of 9

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

		<p>projections on a periodic basis. Calculations are made using a computer based dose projection model to calculate projected dose to the population-at-risk for either potential or actual release conditions. For conditions in which a release has not occurred but fuel damage has taken place and radiation levels in the containment building atmosphere are significant, a scoping analysis will be performed to determine what recommendations would be made if containment integrity were lost at that time. The analysis will be based upon a design leak rate and upon a projected penetration failure indicated by a hole size of certain diameter. This analysis will include the use of actual containment pressure, realistic meteorology, and actual source term. A Total Effective Dose Equivalent and Committed Dose Equivalent thyroid dose will be calculated at various distances from the plant (site boundary, 2 miles, 5 miles, 10 miles and beyond if needed). These dose projections are compared to the Protective Action Guides in Procedure AD-EP-ALL-0109, Off Site Protective Actions Recommendations, which are derived from the "Manual of Protective Action Guides and Protective Actions for Nuclear Incidents" (EPA-400-R-92-001) and in the State Plan guidance on use of KI. Based on these comparisons, protective action recommendations are developed by the Radiological Assessment Manager. The Radiological Assessment Manager informs the EOF Director of the situation and recommendations for protective actions. {PIP-G-03-606}</p>	<p>projections on a periodic basis. Calculations are made using a computer based dose projection model to calculate projected dose to the population-at-risk for either potential or actual release conditions. For conditions in which a release has not occurred but fuel damage has taken place and radiation levels in the containment building atmosphere are significant, a scoping analysis will be performed to determine what recommendations would be made if containment integrity were lost at that time. The analysis will be based upon a design leak rate and upon a projected penetration failure indicated by a hole size of certain diameter. This analysis will include the use of actual containment pressure, realistic meteorology, and actual source term. A Total Effective Dose Equivalent and Committed Dose Equivalent thyroid dose will be calculated at various distances from the plant (site boundary, 2 miles, 5 miles, 10 miles and beyond if needed). These dose projections are compared to the Protective Action Guides in Procedure AD-EP-ALL-0109, Off Site Protective Actions Recommendations, which are derived from the "Manual of Protective Action Guides and Protective Actions for Nuclear Incidents" (EPA-400-R-92-001) and in the State Plan guidance on use of KI. Based on these comparisons, protective action recommendations are developed by the Radiological Assessment Manager. The Radiological Assessment Manager informs the EOF Director of the situation and recommendations for protective actions. {AR 01552744}</p>
5	Section J.8 first paragraph	An Analysis of Evacuation Time Estimates is available at the site and a summary of the Time Estimates is included in Figure J-3 and Appendix 4.	An Analysis of Evacuation Time Estimates is available in CSD-EP-MNS-0603-03 (MCGUIRE EVACUATION TIME ESTIMATE STUDY).
6	Section J.8 paragraphs two and three	Under normal weather and for the critical time period (weekday during school hours), the maximum evacuation time for the McGuire EPZ is 4 hours 35	Deleted

EMERGENCY PLAN CHANGE SCREENING AND EFFECTIVENESS EVALUATIONS 10 CFR 50.54(Q)	AD-EP-ALL-0602
	Rev. 7

ATTACHMENT 4

Page 3 of 9

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

		<p>minutes. The critical component in the evacuation is the permanent resident population, all other segments of the population can be evacuated in less than the maximum time.</p> <p>Under adverse weather conditions (winter storm), the evacuation time for the McGuire EPZ is 5 hours 40 minutes. This evacuation time assumes evacuation of the entire EPZ. Figure J-3 provides more detailed information including evacuation times for individual zones. Appendix 4 discusses the ETE used by the site, state and local planners.</p>	
7	Section J.8 old fourth paragraph (new second paragraph)	A description of the methods and assumptions used in developing the analysis of evacuation time estimates is included in the current Evacuation Time Estimate study for McGuire Nuclear Site. (MNS-ETE-12132012, Rev. 000; MNS EVACUATION TIME ESTIMATES (ETE) DATED December 2012). The Evacuation Time Estimates will be considered in evaluating protective action recommendations from the Technical Support Center or the Emergency Operations Facility. A copy of the most recent study is available in the MNS Master File under MNS-ETE-12132012.000 or EP Office area.	A description of the methods and assumptions used in developing the analysis of evacuation time estimates is included in the current CSD-EP-MNS-0603-03 (MCGUIRE EVACUATION TIME ESTIMATE STUDY). The Evacuation Time Estimates were considered when developing protective action recommendations in AD-EP-ALL-0109 (OFFSITE PROTECTIVE ACTION RECOMMENDATIONS) for use in the Technical Support Center or the Emergency Operations Facility. A copy of the most recent study is available in the electronic file system.
8	Section J.8 last paragraph	MNS ETE analysis, using the 2010 decennial census data from the U.S. Census Bureau, was submitted to the NRC via §50.4 on December 13, 2012.	MNS ETE analysis is submitted to the NRC via §50.4 when performed.
9	Section J.9 first paragraph	If protective actions for any off-site location are deemed necessary, the emergency management agency of the affected County, in conjunction with the appropriate State agency (NC-Department of Public Safety) has the legal authority and responsibility for initiating protective measures for the general public in the plume exposure pathway EPZ including evacuation of these areas. Use of sheltering as an alternative to evacuation for impediments to evacuation and special populations is a decision that will be	If protective actions for any off-site location are deemed necessary, the emergency management agency of the affected County, in conjunction with the appropriate State agency (NC-Department of Public Safety) has the legal authority and responsibility for initiating protective measures for the general public in the plume exposure pathway EPZ including evacuation of these areas. Use of sheltering as an alternative to evacuation for impediments to evacuation and special populations is a decision that will be

EMERGENCY PLAN CHANGE SCREENING AND EFFECTIVENESS EVALUATIONS 10 CFR 50.54(Q)	AD-EP-ALL-0602
	Rev. 7

ATTACHMENT 4

Page 4 of 9

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

		made by the offsite officials. Sheltering in lieu of evacuation should also be considered during a short term release. A short term release is any release that can be accurately projected to be less than the affected protective action zone's evacuation time. An example would be a "puff release". In addition, sheltering may be appropriate (when available) for areas not designated for immediate evacuation because: 1) it positions the public to receive additional instructions; and 2) it may provide protection equal to or greater than evacuation. {PIP G-04-337} Public notification of the emergency, the resources used to determine if an evacuation is necessary, the evacuation routes, and the methods used for evacuating persons in the plume exposure pathway EPZ are outlined in the appropriate County and State emergency plans.	made by the offsite officials. Sheltering in lieu of evacuation should also be considered during a short term release. A short term release is any release that can be accurately projected to be less than the affected protective action zone's evacuation time. An example would be a "puff release". In addition, sheltering may be appropriate (when available) for areas not designated for immediate evacuation because: 1) it positions the public to receive additional instructions; and 2) it may provide protection equal to or greater than evacuation. {AR 01554088} Public notification of the emergency, the resources used to determine if an evacuation is necessary, the evacuation routes, and the methods used for evacuating persons in the plume exposure pathway EPZ are outlined in the appropriate County and State emergency plans.
10	Section J.10.a	Procedure AD-EP-ALL-0109, Off Site Protective Actions Recommendations and Figures J-2 describe the EPZ's, government jurisdictions and evacuation zones for McGuire Nuclear Site. Evacuation routes are displayed in Figure J-5.	Procedure AD-EP-ALL-0109, Off Site Protective Actions Recommendations and CSD-EP-MNS-0603-03 (MCGUIRE EVACUATION TIME ESTIMATE STUDY) describe the EPZ's, government jurisdictions and evacuation zones for McGuire Nuclear Site. Evacuation routes are displayed in CSD-EP-MNS-0603-03 (MCGUIRE EVACUATION TIME ESTIMATE STUDY).
11	Section J.10.b	Figure J-6 describes the population distribution by Emergency Planning subzone. The FSAR describes the population distribution by sector.	CSD-EP-MNS-0603-03 (MCGUIRE EVACUATION TIME ESTIMATE STUDY) describes the population distribution by Emergency Planning subzone.
12	Figures J-2 through J-6	Figures containing information from most recent Evacuation Time Estimate analysis.	Deleted in Revision 20-1

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 <input type="checkbox"/>
	No <input checked="" type="checkbox"/>

Part II. Activity Previously Reviewed?	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>
Is this activity Fully bounded by an NRC approved 10 CFR 50.90 submittal or Alert and Notification System Design Report?	10 CFR 50.54(q) Effectiveness		Continue to Attachment 4,	

EMERGENCY PLAN CHANGE SCREENING AND EFFECTIVENESS EVALUATIONS 10 CFR 50.54(Q)	AD-EP-ALL-0602
	Rev. 7

ATTACHMENT 4
Page 5 of 9

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

<p>If yes, identify bounding source document number or approval reference and ensure the basis for concluding the source document fully bounds the proposed change is documented below:</p> <p>Justification:</p>	<p>Evaluation is not required. Enter justification below and complete Attachment 4, Part V.</p>	<p>10 CFR 50.54(q) Screening Evaluation Form, Part III</p>					
<p>Bounding document attached (optional)</p>		<p><input type="checkbox"/></p>					
<p></p>							
<p>Part III. Editorial Change</p> <p>Is this activity an editorial or typographical change only, such as formatting, paragraph numbering, spelling, or punctuation that does not change intent?</p> <p>Justification:</p> <p>The changes below are defined as editorial in accordance with AD EP ALL 0602, and do not change the intent of the steps as written.</p> <p>Changes 1, 2, 4 and 9.</p>	<table border="1"> <tr> <td>Yes</td> <td><input type="checkbox"/></td> <td>No or Partially</td> <td><input checked="" type="checkbox"/></td> </tr> </table> <p>10 CFR 50.54(q) Effectiveness Evaluation is not required. Enter justification and complete Attachment 4, Part V.</p>	Yes	<input type="checkbox"/>	No or Partially	<input checked="" type="checkbox"/>	<table border="1"> <tr> <td>Continue to Attachment 4, Part IV and address non editorial changes</td> </tr> </table>	Continue to Attachment 4, Part IV and address non editorial changes
Yes	<input type="checkbox"/>	No or Partially	<input checked="" type="checkbox"/>				
Continue to Attachment 4, Part IV and address non editorial changes							
<p></p>							
<p>Part IV. Emergency Planning Element and Function Screen (Reference Attachment 1, Considerations for Addressing Screening Criteria)</p>							
<p>Does this activity involve any of the following, including program elements from NUREG-0654/FEMA REP-1 Section II? If answer is yes, then check box.</p>							
<p>1</p>	<p>10 CFR 50.47(b)(1) Assignment of Responsibility (Organization Control)</p>						
<p>1a</p>	<p>Responsibility for emergency response is assigned.</p>	<p><input type="checkbox"/></p>					
<p>1b</p>	<p>The response organization has the staff to respond and to augment staff on a continuing basis (24-7 staffing) in accordance with the emergency plan.</p>	<p><input type="checkbox"/></p>					
<p>2</p>	<p>10 CFR 50.47(b)(2) Onsite Emergency Organization</p>						
<p>2a</p>	<p>Process ensures that onshift emergency response responsibilities are staffed and assigned</p>	<p><input type="checkbox"/></p>					
<p>2b</p>	<p>The process for timely augmentation of onshift staff is established and maintained.</p>	<p><input type="checkbox"/></p>					
<p>3</p>	<p>10 CFR 50.47(b)(3) Emergency Response Support and Resources</p>						
<p>3a</p>	<p>Arrangements for requesting and using off site assistance have been made.</p>	<p><input type="checkbox"/></p>					
<p>3b</p>	<p>State and local staff can be accommodated at the EOF in accordance with the emergency plan.</p>	<p><input type="checkbox"/></p>					
<p>4</p>	<p>10 CFR 50.47(b)(4) Emergency Classification System</p>						

EMERGENCY PLAN CHANGE SCREENING AND EFFECTIVENESS EVALUATIONS 10 CFR 50.54(Q)	AD-EP-ALL-0602
	Rev. 7

ATTACHMENT 4
Page 6 of 9

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

4a	A standard scheme of emergency classification and action levels is in use. (Requires final approval of Screen and Evaluation by EP CFAM.)	<input type="checkbox"/>
5	10 CFR 50.47(b)(5) Notification Methods and Procedures	
5a	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 notification.	<input checked="" type="checkbox"/>
5b	Administrative and physical means have been established for alerting and providing prompt instructions to the public within the plume exposure pathway.	<input type="checkbox"/>
5c	The public ANS meets the design requirements of FEMA-REP-10, Guide for Evaluation of Alert and Notification Systems for Nuclear Power Plants, or complies with the licensee's FEMA-approved ANS design report and supporting FEMA approval letter.	<input type="checkbox"/>

EMERGENCY PLAN CHANGE SCREENING AND EFFECTIVENESS EVALUATIONS 10 CFR 50.54(Q)	AD-EP-ALL-0602
	Rev. 7

ATTACHMENT 4
Page 7 of 9

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

Part IV. Emergency Planning Element and Function Screen (cont.)		
6	10 CFR 50.47(b)(6) Emergency Communications	
6a	Systems are established for prompt communication among principal emergency response organizations.	<input type="checkbox"/>
6b	Systems are established for prompt communication to emergency response personnel.	<input type="checkbox"/>
7	10 CFR 50.47(b)(7) Public Education and Information	
7a	Emergency preparedness information is made available to the public on a periodic basis within the plume exposure pathway emergency planning zone (EPZ).	<input type="checkbox"/>
7b	Coordinated dissemination of public information during emergencies is established.	<input type="checkbox"/>
8	10 CFR 50.47(b)(8) Emergency Facilities and Equipment	
8a	Adequate facilities are maintained to support emergency response.	<input type="checkbox"/>
8b	Adequate equipment is maintained to support emergency response.	<input type="checkbox"/>
9	10 CFR 50.47(b)(9) Accident Assessment	
9a	Methods, systems, and equipment for assessment of radioactive releases are in use.	<input type="checkbox"/>
10	10 CFR 50.47(b)(10) Protective Response	
10a	A range of public PARs is available for implementation during emergencies.	<input type="checkbox"/>
10b	Evacuation time estimates for the population located in the plume exposure pathway EPZ are available to support the formulation of PARs and have been provided to State and local governmental authorities.	<input checked="" type="checkbox"/>
10c	A range of protective actions is available for plant emergency workers during emergencies, including those for hostile action events.	<input type="checkbox"/>
10d	KI is available for implementation as a protective action recommendation in those jurisdictions that chose to provide KI to the public.	<input type="checkbox"/>
11	10 CFR 50.47(b)(11) Radiological Exposure Control	
11a	The resources for controlling radiological exposures for emergency workers are established.	<input type="checkbox"/>
12	10 CFR 50.47(b)(12) Medical and Public Health Support	
12a	Arrangements are made for medical services for contaminated, injured individuals.	<input type="checkbox"/>
13	10 CFR 50.47(b)(13) Recovery Planning and Post-accident Operations	
13a	Plans for recovery and reentry are developed.	<input type="checkbox"/>
14	10 CFR 50.47(b)(14) Drills and Exercises	
14a	A drill and exercise program (including radiological, medical, health physics and other program areas) is established.	<input type="checkbox"/>
14b	Drills, exercises, and training evolutions that provide performance opportunities to develop, maintain, and demonstrate key skills are assessed via a formal critique process in order to identify weaknesses.	<input type="checkbox"/>
14c	Identified weaknesses are corrected.	<input type="checkbox"/>
15	10 CFR 50.47(b)(15) Emergency Response Training	
15a	Training is provided to emergency responders.	<input type="checkbox"/>

EMERGENCY PLAN CHANGE SCREENING AND EFFECTIVENESS EVALUATIONS 10 CFR 50.54(Q)	AD-EP-ALL-0602
	Rev. 7

ATTACHMENT 4
Page 8 of 9

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

Part IV. Emergency Planning Element and Function Screen (cont.)		
16	10 CFR 50.47(b)(16) Emergency Plan Maintenance	
16a	Responsibility for emergency plan development and review is established.	<input type="checkbox"/>
16b	Planners responsible for emergency plan development and maintenance are properly trained.	<input type="checkbox"/>
<p>PART IV. Conclusion</p> <p>If no Part IV criteria are checked, then provide Justification and complete Part V below.</p> <p>Justification:</p> <p>The following changes will be evaluated - Changes 3, 5, 6, 7, 8, 10, 11 and 12.</p> <p>If any Attachment 4, 10 CFR 50.54(q) Screening Evaluation Form, Part IV criteria are checked, then complete Attachment 4, 10 CFR 50.54(q) Screening Evaluation Form, Part V and perform a 10 CFR 50.54(q) Effectiveness Evaluation. Program Element 4a requires final approval of Screen and Evaluation by EP CFAM.</p>		
		<input type="checkbox"/>
<p>Part V. Signatures:</p> <p>EP CFAM Final Approval is required for changes affecting Program Element 4a. If CFAM approval is <u>NOT</u> required, then mark the EP CFAM signature block as not applicable (N/A) to indicate that signature is not required.</p>		
Preparer Name (Print): Barry Kimray	Preparer Signature: See CAS	Date: See CAS
Reviewer Name (Print): Renard Burris	Reviewer Signature: See CAS	Date: See CAS
Approver Name (Print): James Smith	Approver Signature: See CAS	Date: See CAS
Approver (EP CFAM, as required) Name (Print) N/A	Approver Signature: N/A	Date: N/A

EMERGENCY PLAN CHANGE SCREENING AND EFFECTIVENESS EVALUATIONS 10 CFR 50.54(Q)	AD-EP-ALL-0602
	Rev. 7

ATTACHMENT 4
Page 9 of 9

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

If the proposed activity is a change to the E-Plan, then initiate PRRs.	PRR Number(s): DRRs 02318200, 02283408 and, 02318174.
<p>If required by Section 5.6, Submitting Reports of Changes to the NRC, then create two EREG General Assignments.</p> <ul style="list-style-type: none"> 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. 	<p>EREG Due Date: EREG 02325193-04 5/14/20</p>
<ul style="list-style-type: none"> One for Licensing to submit the 10 CFR 50.54(q) information to the NRC in accordance with 10 CFR 50.4(b)(5)(ii) within 30 days after the change is put in effect. 	<p>EREG Due Date: EREG 02325193-05 5/28/20</p>

QA RECORD

EMERGENCY PLAN CHANGE SCREENING AND EFFECTIVENESS EVALUATIONS 10 CFR 50.54(Q)	AD-EP-ALL-0602
	Rev. 7

ATTACHMENT 5

Page 1 of 7

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

Screening and Evaluation Number		Applicable Sites	
EREG #: <u>02325193 (Original) 02340831 (Revised)</u> Revisions are noted with change bar in right margin.		BNP	<input type="checkbox"/>
		CNS	<input type="checkbox"/>
		HNP	<input type="checkbox"/>
5AD #: <u>02325184</u>		MNS	<input checked="" type="checkbox"/>
		ONS	<input type="checkbox"/>
		RNP	<input type="checkbox"/>
		GO	<input type="checkbox"/>
Document and Revision		EMERGENCY PLAN - Section J - Revision 20-1	

Part I. Description of Proposed Change:

Change #	Section or Step #	Change From	Change to
3	J.7 third paragraph	As described in section B.4, the Emergency Coordinator and the EOF Director are responsible for making protective action recommendations. Prior to activation of the EOF, the Emergency Coordinator will be responsible for making these recommendations. After activation of the EOF, the EOF Director assumes this responsibility. Protective action recommendations will be provided to the off-site authorities (states and counties) who are responsible for implementing public protective actions. The pre-established warning message format (Figure E-1) will be used in transmitting the recommendations.	As described in section B.4, the Emergency Coordinator and the EOF Director are responsible for making protective action recommendations. Prior to activation of the EOF, the Emergency Coordinator will be responsible for making these recommendations. After activation of the EOF, the EOF Director assumes this responsibility. Protective action recommendations will be provided to the off-site authorities (states and counties) who are responsible for implementing public protective actions. A pre-established warning message format will be used in transmitting the recommendations.
5	Section J.8 first paragraph	An Analysis of Evacuation Time Estimates is available at the site and a summary of the Time Estimates is included in Figure J-3 and Appendix 4.	An Analysis of Evacuation Time Estimates is available in CSD-EP-MNS-0603-03 (MCGUIRE EVACUATION TIME ESTIMATE STUDY).
6	Section J.8 paragraphs two and three	Under normal weather and for the critical time period (weekday during school hours), the maximum evacuation time for the McGuire EPZ is 4 hours 35 minutes. The critical component in the evacuation is the permanent resident population, all other segments of the population can be evacuated in less than the maximum time.	Deleted

EMERGENCY PLAN CHANGE SCREENING AND EFFECTIVENESS EVALUATIONS 10 CFR 50.54(Q)	AD-EP-ALL-0602
	Rev. 7

ATTACHMENT 5

Page 2 of 7

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

		Under adverse weather conditions (winter storm), the evacuation time for the McGuire EPZ is 5 hours 40 minutes. This evacuation time assumes evacuation of the entire EPZ. Figure J-3 provides more detailed information including evacuation times for individual zones. Appendix 4 discusses the ETE used by the site, state and local planners.	
7	Section J.8 old fourth paragraph (new second paragraph)	A description of the methods and assumptions used in developing the analysis of evacuation time estimates is included in the current Evacuation Time Estimate study for McGuire Nuclear Site. (MNS-ETE-12132012, Rev. 000; MNS EVACUATION TIME ESTIMATES (ETE) DATED December 2012). The Evacuation Time Estimates will be considered in evaluating protective action recommendations from the Technical Support Center or the Emergency Operations Facility. A copy of the most recent study is available in the MNS Master File under MNS-ETE-12132012.000 or EP Office area.	A description of the methods and assumptions used in developing the analysis of evacuation time estimates is included in the current CSD-EP-MNS-0603-03 (MCGUIRE EVACUATION TIME ESTIMATE STUDY). The Evacuation Time Estimates were considered when developing protective action recommendations in AD-EP-ALL-0109 (OFFSITE PROTECTIVE ACTION RECOMMENDATIONS) for use in the Technical Support Center or the Emergency Operations Facility. A copy of the most recent study is available in the electronic file system.
8	Section J.8 last paragraph	MNS ETE analysis, using the 2010 decennial census data from the U.S. Census Bureau, was submitted to the NRC via §50.4 on December 13, 2012.	MNS ETE analysis is submitted to the NRC via §50.4 when performed.
10	Section J.10.a	Procedure AD-EP-ALL-0109, Off Site Protective Actions Recommendations and Figures J-2 describe the EPZ's, government jurisdictions and evacuation zones for McGuire Nuclear Site. Evacuation routes are displayed in Figure J-5.	Procedure AD-EP-ALL-0109, Off Site Protective Actions Recommendations and CSD-EP-MNS-0603-03 (MCGUIRE EVACUATION TIME ESTIMATE STUDY) describe the EPZ's, government jurisdictions and evacuation zones for McGuire Nuclear Site. Evacuation routes are displayed in CSD-EP-MNS-0603-03 (MCGUIRE EVACUATION TIME ESTIMATE STUDY).
11	Section J.10.b	Figure J-6 describes the population distribution by Emergency Planning subzone. The FSAR describes the population distribution by sector.	CSD-EP-MNS-0603-03 (MCGUIRE EVACUATION TIME ESTIMATE STUDY) describes the population distribution by Emergency Planning subzone.
12	Figures J-2 through J-6	Figures containing information from most recent Evacuation Time Estimate analysis.	Deleted in Revision 20-1

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

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

Licensing Basis

McGuire Emergency Plan Change 2 (dated February 1981), additional information submitted April 3, 1981 and July 1, 1981, Revision 97-1 (dated April 1997), and Revision 11-3 (dated October, 2011)

Current Emergency Plan Revision 19-03

The differences in the approved and the current revision of the Emergency Plan have been reviewed, and they have been determined to meet the regulatory requirements required during the course of 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):

Change 3

Section J.7 third paragraph

Proposed change revises the last sentence from 'The pre-established warning message format (Figure E-1) will be used in transmitting the recommendations.' to 'A pre-established warning message format will be used in transmitting the recommendations.'

Figure E-1 was deleted in a previous Emergency Plan revision under 10CFR50.54(q) but the reference to it in Section J was not revised. The proposed change provides an accurate description of current notification processes.

Procedures for notification of State and local governmental agencies that are capable of alerting them of the declared emergency within 15 minutes after declaration of an emergency and providing follow-up notification continue to be maintained in Section E, Notification Methodology, of the McGuire Emergency Plan. Duke Energy and the McGuire Offsite Agencies utilize a pre-established warning message format for Emergency Notification Forms (ENFs).

Changes 5, 6, 7, 8, 10, 11 and 12

These proposed changes –

- Remove specific Evacuation Time Estimate (ETE) information applicable to a single ETE analysis/study. Examples include evacuation times, ETE scenarios and data tables (Figures). This change removes the need to revise the McGuire Emergency Plan each time a new ETE analysis/study is performed.
- Add references to the current ETE information in the controlled document CSD-EP-MNS-0603-03 (MCGUIRE EVACUATION TIME ESTIMATE STUDY). CSD-EP-MNS-0603-03 is used for determining the current ETE results. Referencing CSD-EP-MNS-0603-03 assure the most recent ETE data is referenced.
- Clarifies how ETE information is related to Protective Action Recommendations (PARs) in AD-EP-ALL-0109 (OFFSITE PROTECTIVE ACTION RECOMMENDATIONS). The ETE information is used to develop PARs in AD-EP-ALL-0109 rather than reference in the TSC/EOF when considering PARs.

These changes continue to maintain up to date ETEs for the population located in the plume exposure pathway EPZ are available to support the formulation of PARs and have been provided to State and local governmental

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

authorities. The results of ETE analyses/studies and McGuire PARs are provided to McGuire Offsite Agencies.

The differences in approved revisions and the proposed revisions of the McGuire Emergency Plans have been reviewed, and they have been determined to continue to meet NRC requirements as described in 10 CFR 50.47(b) and 10 CFR 50, Appendix E during the course of revisions.

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):

Planning Standards

- 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 followup 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 50.47(b)(10) - A range of protective actions has been developed for the plume exposure pathway 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. Evacuation time estimates have been developed by applicants and licensees. Licensees shall update the evacuation time estimates on a periodic basis. 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 pathway EPZ appropriate to the locale have been developed.

Planning Functions

- 5a 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 notification.
- 10b Evacuation time estimates for the population located in the plume exposure pathway EPZ are available to support the formulation of PARs and have been provided to State and local governmental authorities.

NUREG-0654 Rev. 1

II.E.Notification Methods and Procedures

- Each organization shall establish procedures which describe mutually agreeable bases for notification of response organizations consistent with the emergency classification and action level scheme set forth in Appendix 1. These procedures shall include means for verification of messages. The specific details of verification need not be included in the plan.
- 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.

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

II.J. Protective Response

8. Each licensee's plan shall contain time estimates for evacuation within the plume exposure EPZ. These shall be in accordance with Appendix 4.

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

Change 3

Section J.7 third paragraph

Proposed change revises the last sentence from 'The pre-established warning message format (Figure E-1) will be used in transmitting the recommendations.' to 'A pre-established warning message format will be used in transmitting the recommendations.'

Figure E-1 was deleted in a previous Emergency Plan revision under 10CFR50.54(q) but the reference to it in Section J was not revised. The proposed change provides an accurate description of current notification processes.

Procedures for notification of State and local governmental agencies that are capable of alerting them of the declared emergency within 15 minutes after declaration of an emergency and providing follow-up notification continue to be maintained in Section E, Notification Methodology, of the McGuire Emergency Plan. Duke Energy and the McGuire Offsite Agencies utilize a pre-established warning message format for Emergency Notification Forms (ENFs). Thus, the proposed change does not reduce the effectiveness of McGuire's Emergency Plan.

Changes 5, 6, 7, 8, 10, 11 and 12

These proposed changes –

- Remove specific Evacuation Time Estimate (ETE) information applicable to a single ETE analysis/study. Examples include evacuation times, ETE scenarios and data tables (Figures). This change removes the need to revise the McGuire Emergency Plan each time a new ETE analysis/study is performed.
- Adds references to the current ETE information in the controlled document CSD-EP-MNS-0603-03 (MCGUIRE EVACUATION TIME ESTIMATE STUDY). CSD-EP-MNS-0603-03 is used for determining the current ETE results. Referencing CSD-EP-MNS-0603-03 assure the most recent ETE data is referenced.
- Clarifies how ETE information is related to Protective Action Recommendations (PARs) in AD-EP-ALL-0109 (OFFSITE PROTECTIVE ACTION RECOMMENDATIONS). The ETE information is used to develop PARs in AD-EP-ALL-0109 rather than reference in the TSC/EOF when considering PARs.

These changes continue to maintain up to date ETEs for the population located in the plume exposure pathway EPZ are available to support the formulation of PARs and have been provided to State and local governmental authorities. The results of ETE analyses/studies and McGuire PARs are provided to McGuire Offsite Agencies. Thus, the proposed change does not reduce the effectiveness of McGuire's Emergency Plan.

EMERGENCY PLAN CHANGE SCREENING AND EFFECTIVENESS EVALUATIONS 10 CFR 50.54(Q)	AD-EP-ALL-0602
	Rev. 7

ATTACHMENT 5

Page 6 of 7

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

The proposed change does not reduce the effectiveness of Duke Energy McGuire Nuclear Station's Emergency Plan. These changes continue to provide assurance that the Emergency Response Organization has the ability and capability to:

- respond to an emergency;
- perform functions in a timely manner;
- effectively identify and take measures to ensure protection of the public health and safety; and
- effectively use response equipment and emergency response procedures.

The change continues to meet NRC requirements, as described in 10 CFR 50.47(b) and 10 CFR 50, Appendix E as well as the requirements of the McGuire's Emergency Plans as written and approved.

Part VI. Evaluation Conclusion.

Answer the following questions about the proposed change.

1	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"/>
2	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"/>
3	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:		
a	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. If Yes, then mark Part VII as not applicable (N/A).	<input checked="" type="checkbox"/>	
b	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"/>	

NOTE: If prior NRC approval required, then complete Part VII.

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?	N/A <input checked="" type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
--	---	------------------------------	-----------------------------

If No, then initiate a License Amendment Request in accordance 10 CFR 50.90, AD-LS-ALL-0002, Regulatory Correspondence, and AD-LS-ALL-0015, License Amendment Request and Changes to SLC, TRM, and TS Bases, and include the tracking number:_____.

EMERGENCY PLAN CHANGE SCREENING AND EFFECTIVENESS EVALUATIONS 10 CFR 50.54(Q)	AD-EP-ALL-0602
	Rev. 7

ATTACHMENT 5

Page 7 of 7

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

Part VIII. Signatures: EP CFAM Final Approval is required for changes affecting risk significant planning standard 10 CFR 50.47(b)(4) (i.e., Emergency Action Levels and Emergency Action Level Bases). If CFAM approval is <u>NOT</u> required, then mark the CFAM signature block as not applicable (N/A) to indicate that signature is not required.		
Preparer Name (Print): Barry Kimray	Preparer Signature: See CAS	Date: See CAS
Reviewer Name (Print): Renard Burris	Reviewer Signature: See CAS	Date: See CAS
Approver Name (Print): James Smith	Approver Signature: See CAS	Date: See CAS
Approver (EP CFAM, as required) Name (Print) N/A	Approver Signature: N/A	Date: N/A
If the proposed activity is a change to the E-Plan, then initiate PRRs.		PRR Number(s): DRR 02318200, 02283408 and 02318174
If required by Section 5.6, Submitting Reports of Changes to the NRC, then create two EREG General Assignments.		EREG Due Date: EREG 02325193-04 5/14/20
<ul style="list-style-type: none"> 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. 		
<ul style="list-style-type: none"> One for Licensing to submit the 10 CFR 50.54(q) information to the NRC in accordance with 10 CFR 50.4(b)(5)(ii) within 30 days after the change is put in effect. 		EREG Due Date: EREG 02325193-05 5/28/20

QA RECORD