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February 1, 2016
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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 Nos. 50-369, 50-370
Emergency Plan, Revision 16-1

Please find attached Revision 16-1 to the McGuire Nuclear Station Emergency Plan. This revision is submitted in accordance with the requirements of 10 CFR 50.54(q) and does not result in a reduction in the effectiveness of the Emergency Plan or the Emergency Plan Implementing Procedures.

Questions regarding this submittal should be directed to Jeff Robertson, McGuire Regulatory Affairs, at (980) 875-4499.



Steven D. Capps

Attachments

AX45
NRR

U. S. Nuclear Regulatory Commission
February 1, 2016
Page 2

(Two Copies)
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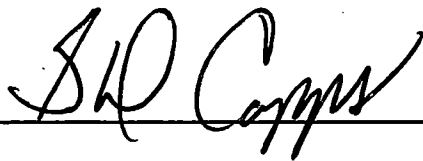
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McGuire Nuclear Station

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February 1, 2016
Page 3

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DUKE ENERGY
McGUIRE NUCLEAR SITE
EMERGENCY PLAN

APPROVED: _____



SITE VICE PRESIDENT

DATE APPROVED: FEB 01, 2016

REVISION 16-1: January, 2016

EFFECTIVE DATE: January, 2016

ORIGINAL DATE: August 25, 1980

DUKE ENERGY COMPANY
McGUIRE NUCLEAR SITE
EMERGENCY PLAN
REVISION LIST

August 25, 1980 Date Issued

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Change 2, February, 1981	Revision 92-1, August 1992
Change 3, June, 1981	Revision 92-2, October 1992
Change 4, August, 1981	Rev. 93-1, April 1993
Revision 1, November 16, 1981	Rev. 93-2, June, 1993
Revision 2, February, 1982	Rev. 93-3, December 1993
Revision 3, February, 1982	Rev. 94-1, January, 1994
Revision 4, April, 1982	Rev. 94-2, June, 1994
Revision 5, June, 1982	Rev. 94-3, August 1994
Revision 6, July, 1982	Rev. 94-4, October 1994
Revision 7, September, 1982	Rev. 95-1, February 1995
Revision 8, November, 1982	Rev. 95-2, April 1995
Revision 9, January, 1983	Rev. 96-1, April 1996
Revision 10, February, 1983	Rev. 96-2, July 1996
Revision 11, June, 1983	Rev. 97-1, April 1997
Revision 12, November, 1983	Rev. 97-2, May 1997
Revision 13, March, 1984	Rev. 97-3, July, 1997
Revision 14, August, 1984	Rev. 98-1, January, 1998
Revision 15, January, 1985	Rev. 98-2, February, 1998
Revision 16, March, 1985	Rev. 98-3, May, 1998
Revision 17, May, 1985	Rev. 98-4, July, 1998
Revision 18, November, 1985	Rev. 98-5, August, 1998
Revision 19, January, 1986	Rev. 98-6, November, 1998
Revision 20, July, 1986	Rev. 99-1, March, 1999
Revision 21, May, 1987	Rev. 99-2, July, 1999
Revision 22, June, 1987	Rev. 99-3 November, 1999
Revision 23, November, 1987	Rev. 00-1, April, 2000
Revision 24, March, 1988	Rev. 00-2, May, 2000
Revision 25, July, 1988	Rev. 00-3, November, 2000
Revision 26, July, 1989	Rev. 01-1, January, 2001
Revision 27, September, 1989	Rev. 01-2, June, 2001
Revision 28, October, 1989	Rev. 02-1, March, 2002
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Revision 30, March, 1990	Rev. 03-1, April, 2003
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Revision 34, October, 1991	Rev. 05-1, July, 2005
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Rev. 07-2, December, 2007
Rev. 08-1, September, 2008
Rev. 09-1, July, 2009
Rev. 09-2, December, 2009
Rev. 10-1, May, 2010
Rev. 10-2, November, 2010
Rev. 11-1, March, 2011
Rev. 11-2, August, 2011
Rev. 11-3, October, 2011
Rev. 12-1, May, 2012
Rev. 12-2, June, 2012
Rev. 12-3, November, 2012
Rev. 12-4, December, 2012
Rev. 13-1, March, 2013
Rev. 13-2, June, 2013
Rev. 13-3, October, 2013
Rev. 14-1, January, 2014
Rev. 14-2, June 2014
Rev. 14-3, September, 2014
Rev. 14-4, October, 2014
Rev. 14-5, December, 2014
Rev. 15-1, May, 2015
Rev. 15-2, July, 2015
Rev. 15-3, October, 2015
Rev. 16-1, January, 2016

**McGuire Emergency Plan
List of Effective Pages**

Emergency Plan Approval Cover Sheet

Coversheet	Rev. 16-1	January, 2016
------------	-----------	---------------

Emergency Plan Revision List

Page 1 thru 2	Rev. 16-1	January, 2016
---------------	-----------	---------------

Table of Contents

Page 1 thru 6	Rev. 16-1	January, 2016
---------------	-----------	---------------

List of Figures

Page 1 thru 2	Rev. 16-1	January, 2016
---------------	-----------	---------------

Introduction

Pages i-1 thru i-7	Rev. 13-3	October, 2013
--------------------	-----------	---------------

A. Assignment of Responsibility

Pages A-1 thru A-5	Rev. 16-1	January, 2016
--------------------	-----------	---------------

B. Onsite Emergency Organization

Pages B-1 thru B-13	Rev. 14-2	June, 2014
---------------------	-----------	------------

C. Emergency Response Support & Resources

Pages C-1 thru C-2	Rev. 09-1	July, 2009
--------------------	-----------	------------

D. Emergency Class System/EAL Basis Document

Pages D-1 thru D-83	Rev. 14-5	December, 2014
---------------------	-----------	----------------

E. Notification Methods & Procedures

Pages E-1 thru E-11	Rev. 14-4	October, 2014
---------------------	-----------	---------------

Rev. 16-1
January, 2016

**McGuire Emergency Plan
List of Effective Pages**

F. Emergency Communications

Pages F-1 thru F-7 Rev. 15-1 May, 2015

G. Public Education & Information

Pages G-1 thru G-4 Rev. 14-3 September, 2014

H. Emergency Facility & Equipment

Pages H-1 thru H-17 Rev. 16-1 January, 2016

I. Accident Assessment

Pages I-1 thru I-3 Rev. 14-5 December, 2014

J. Protective Response

Pages J-1 thru J-22 Rev. 15-1 May, 2015

K. Radiological Exposure Control

Pages K-1 thru K-4 Rev. 15-2 July, 2015

L. Medical & Public Health Support

Pages L-1 thru L-2 Rev. 13-3 October, 2013

M. Recovery & Re-entry Planning

Pages M-1 thru M-5 Rev. 06-2 September, 2006

N. Exercises & Drills

Pages N-1 thru N-3 Rev. 15-1 May, 2015

Rev. 16-1
January, 2016

**McGuire Emergency Plan
List of Effective Pages**

O. Radiological Emergency Response Training

Pages O-1 thru O-2 Rev. 10-2 November, 2010

P. Development Periodic Review & Distribution of Emergency Plans

Pages P-1 thru P-10 Rev. 15-1 May, 2015

Q. Appendices Index

Pages Q-1 Rev. 15-2 July, 2015

Appendix 1 Definitions

Rev. 15-2 July, 2015
Pages 1 thru 4

Appendix 2 Meteorological Program

Rev. 15-3 October, 2015
Pages 1 thru 4

Appendix 3 Alert & Notifications System

Rev. 15-2 July, 2015
Pages 1 thru 5

Appendix 4 Evacuation Time Estimates

Rev. 15-2 July, 2015
Page 1

Appendix 5 Agreement Letters

Rev. 15-3 October, 2015
Pages 1 thru 4

Appendix 6 Emergency Plan Distribution

Rev. 15-2 July, 2015
Pages 1 thru 4

**McGuire Emergency Plan
List of Effective Pages**

Appendix 7 SPCC Plan

Coversheet	Rev. 15-1	May, 2015
Table of Contents	Rev. 15-1	May, 2015
Pages 1 thru 75	Rev. 15-1	May, 2015

Appendix 8 Hazardous Waste Contingency Plan

Pages 1 thru 19	Rev. 13-1	March, 2013
-----------------	-----------	-------------

Appendix 9 Hazardous Materials Response Plan

Pages 1 thru 14	Rev. 13-3	October, 2013
-----------------	-----------	---------------

LIST OF FIGURES

<u>FIGURE NO.</u>	<u>TITLE</u>	<u>PAGE #</u>
i-1	10 Mile EPZ	i-6
i-2	50 Mile EPZ	i-7
A-1	Responsibility for Emergency Response Functions	A-6
B-1a	Minimum On-Shift ERO Staffing Requirements for Emergencies	B-7
B-1b	Minimum Augmented ERO Staffing Requirements for Emergencies	B-8 & 9
B-2	Site Emergency Organization	B-10
B-3	EOF Organization - Minimum Staffing Requirements	B-11
B-4	Inter-Relationships of Response Organizations - Unusual Event	B-12
B-5	Inter-Relationships of Response Organizations - Alert, Site Area Emergency, General Emergency	B-13
E-1	Emergency Notification	E-10
F-1	Emergency Communication Layout Prior to TSC/EOF Activation	F-4
F-2	Emergency Communication Layout After TSC Activation, and During EOF Activation	F-5
F-3	Emergency Response Radio System	F-6
F-4	Emergency Operations Facility Communications	F-7
G-1	Corporate Communications Initial Emergency Response Organization	G-3
G-2	Corporate Communications Emergency Response Organization	G-4
H-1	McGuire Nuclear Site Technical Support Center	H-8
H-2	McGuire Nuclear Site Operations Support Center	H-9
H-3	McGuire/Catawba/Oconee EOF General Location	H-10

LIST OF FIGURES

<u>FIGURE NO.</u>	<u>TITLE</u>	<u>PAGE #</u>
H-4	McGuire/Catawba/Oconee EOF Location	H-11
H-5	McGuire/EOF General Arrangement	H-12
H-6	Media Center	H-13
H-7	Joint Information Center	H-14
H-8	Generalized Met System	H-15
H-9	Alternate TSC	H-16
H-10	Alternate OSC	H-17
J-1	Guidance for Offsite Protective Actions	J-8
J-2	Description of Evacuation Regions	J-11
J-3	MNS ETE Based on 2010 Census - 90% Effectuated Population	J-13
J-4	MNS ETE Based on 2010 Census - 100% Effectuated Population	J-17
J-5	Evacuation Route Map for MNS	J-21
J-6	Summary of Population and Demand	J-22
K-1	Emergency Workers Exposure Guidelines	K-4
M-1	Recovery Organization	M-5
P-1	Supporting Plans	P-4
P-2	Emergency Plan Implementing Procedures	P-5 thru P-8
P-3	Emergency Plan Implementing Procedures Distribution	P-9 P-10
2-1	Meteorological Parameters of the Upgraded System	Q-9
Q-1	Siren Range in Feet	Q-13
Q-2	Siren Locations	Q-14

DUKE ENERGY
MCGUIRE NUCLEAR SITE
EMERGENCY PLAN

<u>Table of Contents</u>	<u>Page #</u>
i. Introduction	
A. Purpose	i-1
B. Scope	i-1
C. Planning Basis	i-3
A. Assignment of Responsibility	
A.1.a Organization	A-1
A.1.b Concept of Operations	A-3
A.1.c Block Diagram Interrelationships	A-3
A.1.d Key Decisionmaking	A-3
A.1.e 24 Hour Emergency Response	A-4
A.2.a Responsibility for and Functions of Emergency Response Organization	A-4
A.2.b Legal Basis for Authority	A-4
A.3 Agreement Letters for Emergency Response Support	A-4
A.4 Individuals Responsible for Continuity of Resources	A-5
B. On-site Emergency Organization	
B.1 Plant Staff Under Emergency Conditions	B-1
B.2 Emergency Coordinator	B-1
B.3 Emergency Coordinator (line of succession)	B-1
B.4 Functional Responsibilities of Emergency Coordinator	B-2
B.5 Minimum Staffing Requirements	B-2
B.6 On-site Functional Area Interfaces	B-2
B.7 Augmented Support of On-site Emergency Organization	B-2
B.8 Contractor and Private Organizations	B-3 thru B-4
B.9 Local Agency Support Services	B-4
B.9.a Law Enforcement, Emergency Traffic Control, Related Police Matters	B-4
B.9.b Early Warning or Evacuation of the Populace	B-5
B.9.c Radiological Emergency Monitoring Assistance	B-5
B.9.d Hospitals, Medical Support	B-5
B.9.e Ambulance Service	B-5
B.9.f Fire-fighting	B-5
B.9.g Public Health and Safety, Evaluation of the Radiological Situation	B-5
B.9.h Local, State and Federal Support Responsibilities	B-6

Rev. 16-1
January, 2016

Table of ContentsPage #

C.	Emergency Response Support and Resources	
C.1.a	Individuals Authorized to Request Federal Assistance	C-1
C.1.b	Federal Resources Arrival Time	C-1
C.1.c	Emergency Operations Facility Resources Available to Federal Response Organizations	C-1
C.2.a	State and County Representation at the Emergency Operations Facility (EOF)	C-1
C.2.b	Licensee Representation at the Off-Site EOC's	C-1
C.3	Radiological Laboratories-Availability and Capability	C-2
C.4	Emergency Support From Other Organizations	C-2
D.	Emergency Classification System/EAL Basis Document	
	Emergency Classification System/EAL Basis Document	D-1 thru D-83
E.	Notification Methodology	
E.1	Notification of Response Organization	E-1
E.2	Activation of Emergency Organization	E-1
E.2.a	Notification of Unusual Event	E-1
E.2.b	Alert	E-2
E.2.c	Site Area Emergency	E-4
E.2.d	General Emergency	E-6
E.3	Emergency Message Format (Initial)	E-8
E.4	Emergency Message Format (Follow-up)	E-9
E.5	State and Local Organizations-Disseminating Public Information	E-9
E.6	Alert and Notification System	E-9
E.7	Supporting Information for Public Information Message	E-9
F.	Emergency Communications	
F.1.a	24 Hour Notification Capability	F-1
F.1.b	Communications With State/Local Governments	F-1
F.1.c	Communications With Federal Organizations	F-2
F.1.d	Communications Between Site, EOF, EOC's and Monitoring Team	F-2
F.1.e	Activation of Emergency Personnel	F-2
F.1.f	Communications Between NRC, EOC and Monitoring Teams	F-2
F.1.g	ERDS Data Transfer	F-2
F.2	Medical Support Communications	F-3
F.3	Communications System Testing	F-3

Table of Contents

Page

G. Public Education and Information

G.1/G.2	Public Education and Information Program	G-1
G.3.a	News Group - Location and Contacts	G-1
G.3.b	News Group - Media Center	G-1
G.4.a	Public Spokesperson	G-2
G.4.b	Spokesperson Information Exchange	G-2
G.4.c	Rumor Control	G-2
G.5	News Media Training Sessions	G-2

H. Emergency Facilities and Equipment

H.1	Technical Support Center/Operations Support Center	H-1
H.1.a	Control Room	H-1
H.1.b	Technical Support Center (TSC)	H-1
H.1.c	Operations Support Center (OSC)	H-2
H.1.d	Alternate Facilities	H-2
H.2	Emergency Operations Facility (EOF)	H-2 thru H-3
H.3	State and Local Government Emergency Operations Center	H-4
H.4	Activation and Staffing	H-4
H.5	Assessment Actions	H-4
H.5.a	Meteorological, Hydrologic and Seismic	H-4 thru H-5
H.5.b	Radiological Monitors	H-6
H.5.c	Plant Parameters	H-6
H.5.d	Fire Detection	H-6
H.6	Data, Monitoring Equipment and Analysis Facilities	H-6
H.7	Off-site Radiological Monitoring	H-7
H.8	Meteorology Instrumentation and Procedures	H-7
H.9	Operations Support Center	H-7
H.10	Emergency Equipment/Instrumentation Inspection, Inventory, Operational Check, Calibration	H-7
H.11	Emergency Kits	H-7
H.12	Receipt and Analysis of Field Monitoring Data	H-7

I. Accident Assessment

I.1	Emergency Action Level Procedures	I-1
I.2	On-site Capability and Resources to Provide Initial Values and Continuing Assessment	I-1
I.2.a	Post Accident Sampling	I-1
I.2.b	Radiation and Effluent Monitors	I-1
I.2.c	In-plant Iodine Instrumentation	I-2
I.3.a/ I.3.b	Method for Determining Release Source Term	I-2
I.4	Effluent Monitor Readings Vs On-site/Off-site Exposure	I-2
I.5	Meteorological Information Availability	I-2
I.6	Release Rates/Projected Doses for Offscale Instrumentation	I-2

<u>Table of Contents</u>	<u>Page #</u>
I.7/	Field Monitoring Within EPZ
I.8	
I.9	Detect and Measure Radioiodine Concentration in the EPZ
I.10	Relationship Between Contamination Levels and Integrated Dose/Dose Rates
I.11	Plume Tracking
J.	Protective Response
J.1.a	Onsite Alerting and Notification
thru	
J.1.d	
J.2	Evacuation Routes and Transportation
J.3	Personnel Monitoring
J.4	Site Evacuation Procedures - Decontamination
J.5	Personnel Accountability
J.6	Protective Equipment Breathing Apparatus, Protective Clothing, KI
J.7	Protective Action Recommendations
J.8	Evacuation Time Estimates
J.9	Implementing Protective Measures
J.10	Implementation of Protective Measures for Plume Exposure Pathway
J.10.a	EPZ Maps
J.10.b	EPZ Population Distribution Map
J.10.c	EPZ Population Alerting and Notification
J.10.d	EPZ Protecting Immobile Persons
J.10.e	Use of Radioprotective Drugs for Persons in EPZ
J.10.f	Conditions for Use of Radioprotective Drugs
J.10.g	State/County Relocation Plans
J.10.h	Relocation Center Locations
J.10.i	Evacuation Route - Traffic Capacities
J.10.j	Evacuated Area Access Control
J.10.k	Planning for Contingencies in Evacuation
J.10.l	State/County Evacuation Time Estimates
J.10.m	Bases for Protective Action Recommendations
J.11	Ingestion Pathway Planning
J.12	Relocation Center - Registering and Monitoring

Table of ContentsPage #

K.	Radiological Exposure Control	
K.1	Onsite Exposure Guidelines	K-1
K.2	Doses in Excess of 10CFR Part 20	K-1
K.3	Emergency Personnel Exposure and Records	K-1
K.3.a	Distribution of Dosimetry	K-1
K.3.b	Dose Records	K-2
K.4	State/Local Plan for Authorizing Doses Exceeding PAG's	K-2
K.5	Decontamination	K-2
K.5.a	Action Levels for Determining the Need for Decontamination	K-2
K.5.b	Radiological Decontamination	K-2
K.6	Contamination Control Measures	K-2
K.6.a	Area Access Control	K-2
K.6.b	Drinking Water and Food Supplies	K-2
K.6.c	Recovery Efforts	K-3
K.7	Decontamination of Personnel at Relocation Assembly Area	K-3
L.	Medical and Public Health Support	
L.1	Hospital and Medical Support	L-1
L.2	On-site First Aid Capability	L-1
L.3	Public, Private, Military Hospitals, Emergency Medical Facilities	L-1
L.4	Transport of Accident Victims	L-2
M.	Recovery and Reentry Planning and Post-Accident Operations	
M.1	Recovery/Reentry Plans and Procedures	M-1
M.1.a	Outline of Site Recovery Plans	M-1
M.1.b	Outline of Recovery Plans	M-2
M.2	Recovery Organization	M-3
M.3	Information to Members of Recovery Organization	M-4
M.4	Total Population Exposure Estimates	M-4
N.	Exercises and Drills	
N.1.a	Exercises	N-1
N.1.b	Exercise Scenario/Response	N-1
N.2	Drills	N-1
N.2.a	Communications	N-1
N.2.b	Fire Drills	N-2
N.2.c	Medical Emergency Drills	N-2
N.2.d	Radiological Monitoring Drills	N-2
N.2.e	Radiation Protection Drills	N-2
N.3	Exercise and Drill Execution	N-3
N.4	Exercise Critique	N-3
N.5	Critique Action Items	N-3

Table of Contents

Page

O.	Radiological Emergency Response Training	
O.1	Offsite Agency Training	O-1
O.1.a	Emergency Response Training (Offsite Agency)	O-1
O.1.b	Off-site Support Agency - Participation in Training	O-1
O.2	Site Organization Training	O-1
O.3	First Aid Training	O-1
O.4	Training For Radiological Emergency Response Personnel	O-2
O.5	Training Period	O-2
P.	Responsibility for the Planning Effort	
P.1	Emergency Planning Staff Training	P-1
P.2	Emergency Response Planning	P-1
P.3	Site Emergency Planning Manager	P-1
P.4	Review of Emergency Plan	P-1
P.5	Distribution of Revised Plans	P-1
P.6	Supporting Plans	P-2
P.7	Implementing Procedures	P-2
P.8	Table of Contents	P-2
P.9	Audit of Emergency Plan	P-2
P.10	Telephone Number Updates	P-3
Q.	Appendices	
	Index	
	Appendix 1	Definitions
	Appendix 2	Meteorological Program
	Appendix 3	Alert and Notification System Description
	Appendix 4	Evacuation Time Estimates
	Appendix 5	Agreement Letters
	Appendix 6	McGuire Nuclear Site Emergency Plan Distribution
	Appendix 7	SPCC Plan
	Appendix 8	Hazardous Waste Contingency Plan
	Appendix 9	Hazardous Materials Response Plan

A. Assignment of Responsibility

Planning Objective

To assure that State, Local, Federal, private sector, Duke Energy Corporate and McGuire Nuclear Site organizations that are part of the overall response organization within the McGuire Emergency Planning Zone are identified.

A.1.a Organization

The principal organizations that are part of the overall response organization within the McGuire Emergency Planning Zone are listed below:

Federal

NRC (Nuclear Regulatory Commission)
DHS (Department of Homeland Security)
DOE (Department of Energy)
FEMA (Federal Emergency Management Agency)

NOTE: NRC, DHS, and DOE will coordinate response of other Federal Agencies per the Federal Radiological Emergency Response Plan (FRERP).

North Carolina State

N.C. Department of Public Safety, Division of Emergency Management (Note 2)
N.C. Department of Environmental Natural Resources, Division of Radiation Protection

Local Government

The county governments and municipal governments (within the counties) to include the emergency service departments and other agencies interrelated to these local governments within the 10-mile EPZ (plume exposure pathway) of McGuire Nuclear Site are:

Catawba	Gaston
Iredell	Lincoln
Mecklenburg	

The county governments (and municipal governments within the counties) to include the emergency service departments and other agencies interrelated to these local governments within a 50-mile EPZ (ingestion exposure pathway) of McGuire Nuclear Site are:

-North Carolina (Note 1)

Alexander	Davidson	Rutherford
Anson	Davie	Rowan
Burke	Gaston	Stanly
Cabarrus	Iredell	Union
Caldwell	Lincoln	Wilkes
Catawba	Mecklenburg	Yadkin
Cleveland	Montgomery	

-South Carolina (Note 1)

Cherokee	Chester
Lancaster	York

Note 1: Agreement letters with these agencies are not a part of the McGuire Nuclear Site Emergency Plan unless specifically noted in A-3.

Note 2: This agency has the principle state responsibility for emergency response.

Private Sector

The principal organizations in the private sector that are part of the overall response organization for the EPZ are:

Westinghouse
Southern Bell Telephone Company
The Independent Telephone Companies
Radio and Television Stations
Various Nuclear Support Vendors (e.g. Bartlett, GTS, Sun States)
Carolinas Medical Center
Member's Southeastern Electric Exchange
The Salvation Army
The American Red Cross
MEDIC
Huntersville Fire Department
Cornelius Volunteer Fire Department

Non-Government Organizations

INPO (Institute of Nuclear Power Operations), American Nuclear Insurers (ANI) and the NSSS supplier may be called upon for support as needed.

A.1.b Concept of Operations

All emergencies or accident situations at the site are handled initially by the Operations Shift Manager. When an abnormal situation occurs, the Operations Shift Manager is able, utilizing site operating and emergency procedures and from background, training and experience, to determine if the abnormal situation is an emergency condition. During the course of the emergency condition and as response personnel are notified, and emergency centers are activated (OSC, TSC, EOF), the Operations Shift Manager is the person in charge, and assumes the functions of the Emergency Coordinator until the arrival of the Station Manager/Designee. When the Station Manager/Designee arrives and relieves the Operations Shift Manager of the Emergency Coordinator function, he/she becomes the person in charge or the decision maker. When the Emergency Operations Facility (EOF) is operational and activated, the EOF Director is responsible for company emergency response.

The Control Room at the site is the initial center for coordination of emergency response for all emergency conditions. For emergencies classified as Alert, Site Area Emergency and General Emergency, the Emergency Coordinator shall activate the Emergency Response Organization.

The TSC acts in support of the command and control function of the Control Room and provides an area for other site personnel who have expertise in all areas of plant operation to support the emergency condition. This facility is equipped with communication equipment, Operator Aid Computer (OAC) terminals, line printers, off-site and on-site computer access, plant drawings, procedures and other materials and equipment to support its function. Personnel in the TSC will be able to assess the accident condition and make responsible recommendations to the Control Room, the EOF and off-site agencies as necessary to provide for the safety of plant personnel and members of the general public. As the EOF becomes operational and activated, it will assume many of the functions of the TSC and will rely on the TSC as a vital link to the site. The TSC will provide the EOF with up-to-date plant parameters, which will allow this facility to perform its assigned tasks.

The responsibility of the Control Room, TSC and EOF for the various emergency response functions is further detailed in Figure A-1.

A.1.c Block Diagram of Organization Interrelationships

See Figures B-1a, B-1b, B-2, B-3, B-4 and B-5, Section B, "On-Site Emergency Organization" which describes the use of these figures.

A.1.d Key Decision Making

During the course of any emergency condition at McGuire, several persons have the potential to be "in charge" or to be the "Key Decision Maker". Prior to TSC activation and arrival of the Station Manager/Designee, the Operations Shift Manager assumes the

functions of the Emergency Coordinator at the Site and is in charge. When the Station Manager/Designee arrives on-site and assumes the Emergency Coordinator function, he/she becomes the person in charge of emergency response and becomes the key decision maker. After the EOF is operational and activated, the EOF Director is responsible for company emergency response.

A.1.e 24 Hour Emergency Response

The McGuire Site emergency response organization beginning with the Control Room through the TSC is capable of responding to an emergency 24 hours per day, 7 days per week. Section E.2. describes the notification scheme within the site emergency response organization.

A.2.a Responsibility For and Functions of Emergency Response Organization

(See State and County Plans)

A.2.b Legal Basis For Authority

(See State and County Plans)

A.3 Agreement Letters For Emergency Response Support

Appendix 5 contains a description of letters of agreement with the following organizations:

Carolina's Medical Center
Huntersville Volunteer Fire Department
Cornelius Volunteer Fire Department
Mecklenburg County Fire Marshall
Mecklenburg Emergency Medical Services Agency (MEDIC)
Charlotte-Mecklenburg Emergency Management Office
Iredell County Civil Preparedness Agency
Lincoln County Department of Emergency Management
Gaston County Department of Emergency Management
Catawba County Department of Emergency Management
Cabarrus County Department of Emergency Management
REACTS
DOE - Savannah River
INPO - Fixed Nuclear Facility Voluntary Assistance Agreement
North Carolina
Letter Documenting Duke Energy Assumptions for Offsite Dose Calculation Methodology
Joint Information Center
Alternate Site Agreement
Safe Industries
Lincoln Combustion Turbine Facility
Charlotte Mecklenburg Police Department

These Letters of Agreement shall be reviewed annually and updated as necessary.

A.4 Individual Responsible for Continuity of Resources

The emergency response organization is capable of continuous (24 hour/day) operation for an extended period of time. The EOF Director is the individual responsible for assuring continuity of resources within the emergency response organization.

Figure A-1
Responsibility for Emergency Response Functions

Emergency Response Functions	Unusual Event	Alert	Site Area Emergency	General Emergency
Supervision of reactor operations and manipulation of controls	CR	CR	CR	CR
Management of plant operations	CR(TSC)	TSC	TSC	TSC
Technical support to reactor operations	CR(TSC)	TSC	TSC	TSC
Management of corporate emergency response resources	CR(TSC)	TSC/EOF	TSC/EOF	TSC/EOF
Radiological effluent and environs monitoring, assessment, and dose projections	CR(TSC)	TSC/EOF	TSC/EOF	TSC/EOF
Inform State and local emergency response organizations and make recommendations for public protective actions	CR(TSC)	TSC/EOF	TSC/EOF	TSC/EOF
Management of recovery operations	CR(TSC)	TSC/EOF	TSC/EOF	TSC/EOF
Technical support of recovery operations	CR(TSC)	TSC/EOF	TSC/EOF	TSC/EOF

Note: (TSC) indicates that activation of this facility or the performance of this function is optional for the indicated emergency class.

10 CFR 50.54(q) Screening Evaluation Form

Screening and Evaluation Number	Applicable Sites	
EREG #: 1988050 ✓	BNP	<input type="checkbox"/>
	CNS	<input type="checkbox"/>
	CR3	<input type="checkbox"/>
	HNP	<input type="checkbox"/>
5AD #: 1988047 ✓	MNS	x
	ONS	<input type="checkbox"/>
	RNP	<input type="checkbox"/>
	GO	<input type="checkbox"/>

Document and Revision

MNS Emergency Plan Section A. (Assignment of Responsibility) rev 16-1 January 2016

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):

- ✓ Made the following changes to A.3 (Agreement Letters For Emergency Response Support)
- ✓ Added "a description of" to clarify what is in Appendix 5 pertaining to agreement letters.
- ✓ Duke Energy Back-Up TLD Reader was deleted because this group is within the Duke Energy Fleet and an agreement letter is not required.
- ✓ G&G Metal Fabrication, INC. Fire Equipment Services Division changed to "Safe Industries" because this is the company that maintains the Hale Pumps.
- ✓ These Letters of Agreement shall be updated as necessary and at least once every three (3) years was changed to "These Letters of Agreement shall be reviewed annually and updated as necessary" to align Section A to Appendix 5 wording of a previous change.

This Emergency Plan change DOES NOT impact any planning standard of 10 CFR 50.47(b) or any program elements from NUREG-0654/FEMA REP-1 Section II. This Emergency Plan change DOES NOT impact any emergency planning function as set forth in the elements of Appendix E of 10CFR part 50. Therefore a 50.54(q) effectiveness evaluation is not required.

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"/>	No	<input 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:		Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
		10 CFR 50.54(q) Effectiveness Evaluation is not required. Enter justification and complete Attachment 4, Part V & VI.		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				

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 initiating notification of the declared emergency within 15 minutes (30 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"/>

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 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	


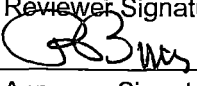
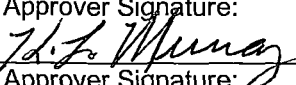
10 CFR 50.54(q) Screening Evaluation Form

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"/>

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, a 10 CFR 50.54(q) Effectiveness Evaluation is not required, then complete Attachment 4, 10 CFR 50.54(q) Screening Evaluation Form, Part V. Go to Attachment 4, 10 CFR 50.54(q) Screening Evaluation Form, Part VI for instructions describing the NRC required 30 day submittal.		X
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. Shaded block requires final approval of Screen and Evaluation by EP CFAM.		<input type="checkbox"/>

Part V. Signatures:

Preparer Name (Print): Randy Gibson	Preparer Signature: 	Date: 1/5/16
Reviewer Name (Print): Renard O. Burris	Reviewer Signature: 	Date: 1/5/16
Approver (EP Manager Name (Print): Kevin L. Murray	Approver Signature: 	Date: 1-11-16
Approver (CFAM, as required) Name (Print): N/A	Approver Signature: N/A	Date:

10 CFR 50.54(q) Screening Evaluation Form

Part VI. NRC Emergency Plan and Implementing Procedure Submittal Actions

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.

x

x

QA RECORD

H. Emergency Facilities and Equipment

H.1 Technical Support Center (TSC)/Operations Support Center (OSC)

H.1.a Control Room. The Control Room is utilized for evaluation and control of the initial phase of an emergency, including corrective actions and notification and activation of McGuire, Duke Energy, state and local emergency response organizations. The Control Room has redundant (telephone and alternate) two-way communications with emergency centers and off-site agencies. See Figure F-1 for communication scheme.

H.1.b Technical Support Center. (Figure H-1) The Technical Support Center (TSC) is utilized for evaluation of plant status by knowledgeable plant, vendor, NRC and other support groups during an emergency. This center will also be utilized to direct the on-site and initial off-site aspects of an emergency. Anticipated occupants are defined in Emergency Planning Group Manual Section 1.1, On-site Emergency Organization. The TSC has the following capabilities:

1. Redundant two-way communications with the Control Room, the OSC, the Emergency Operations Facility and the Nuclear Regulatory Commission Operations Center. See Figure F-2 for communication scheme.
2. Monitoring for direct radiation and airborne radioactive materials with local readout of radiation level and alarms if levels are exceeded.
3. Display, printout or trend record of comprehensive data necessary to monitor reactor system status and to evaluate plant system abnormalities, in-plant and off-site radiological parameters and meteorological parameters are available. This capability is provided via the operator aid computer. Capabilities to access and display parameters, individually or in groups is provided.
4. Ready access to as-built plant drawings such as general arrangements, flow diagrams, electrical one-lines, instrument details, etc.
5. Radiological habitability during postulated radiological accidents to the same degree as the Control Room.
6. Provisions for staffing by the Station Manager (Emergency Coordinator), advisors and representatives from the site as necessary. Room is also provided for NRC personnel. Space for up to 35 persons plus instrumentation displays are provided.

The TSC is located near the Control Room, on elevation 767, in the Service Building. The TSC is within one (1) minute walking distance from the Control Room. This is a permanent facility.

H.1.c Operations Support Center. (Figure H-2) The Operations Support Center (OSC) is that place designated for Operations, Radiation Protection, Chemistry, Maintenance, IAE, and others as necessary, to report to in an emergency condition. This center will be used to brief and prepare site personnel for work assignments in support of the emergency condition. The OSC is located on the Auxiliary Building roof office, elevation 784'. Workspace and resources are shared with the Outage Control Center (OCC). The OSC shall have priority over the OCC if any emergency is declared during an outage. The OSC has adequate capacity and supplies including provisions for respiratory protection, protective clothing, portable lighting, portable radiation monitoring equipment and communications equipment.

H.1.d Alternate Facilities. (Figures H-9 and H-10) Alternate TSC and OSC facilities have been established in the McGuire Admin Building as a contingency. Communications equipment similar to that provided in the designated TSC and OSC facilities is available but not all regulatory required equipment/capability is provided.

H.2 Emergency Operations Facility (EOF)

The Emergency Operations Facility (EOF) is utilized for direction and control of all emergency and recovery activities with emphasis on the coordination of off-site activities such as communications with local, state and federal agencies, and coordination of corporate and other outside support. Anticipated occupants are the EOF organization and appropriate state and federal agency representatives.

The EOF has the following capabilities:

- a. The capability for obtaining and displaying plant data and radiological information for each reactor at a nuclear power reactor site and for each nuclear power reactor site that the facility serves.
- b. The capability to analyze plant technical information and provide technical briefings on event conditions and prognosis to licensee and offsite response organizations for each reactor at a nuclear power reactor site and for each nuclear power reactor site that the facility serves.
- c. The capability to support response to events occurring simultaneously at more than one nuclear power reactor site if the emergency operations facility serves more than one site.

The Common EOF in Charlotte serves as an alternate facility that would be accessible even if the site is under threat of or experiencing hostile action, to function as a staging area for augmentation of emergency response staff and having the following characteristics required collectively of the alternate facilities for use when onsite emergency facilities cannot be safely accessed during hostile action:

- The capability for communication with the emergency operations facility, control room, and plant security.
- The capability to perform offsite notifications.
- The capability for engineering assessment activities, including damage control team planning and preparation.

The EOF has redundant two-way communications with the Technical Support Center and appropriate off-site support agencies. (See Section F).

The EOF is located at 526 South Church Street, Charlotte, NC in the Energy Center Phase II, third floor (Rooms 0300, 0330, 0331, 0332, 0333, 0334, 0335, 0336, 0337, 0337-A, 0340, 0341, 0342, 0343, 0343-A, 0343-B, 0344 and 0345). The EOF layout and location are shown on Figures H-3 thru H-5.

The Joint Information Center and Media Center are utilized for the origination of news briefings and interviews. Anticipated staffing includes the News Group personnel, industry and government representatives and support personnel. News media personnel can be accommodated for press conferences, etc., in the Media Center. (See Figure H-6 and H-7.)

The Joint Information Center has two-way communications with the Emergency Operations Facility and corporate headquarters.

The Joint Information Center (JIC) is located in Duke's Energy Center, 526 South Church Street, Charlotte, N.C. The JIC is located on the first floor, room ECI-0111.

The facilities and resources in the JIC include:

- Work space
- Telephones
- Facsimile machines
- Copy machines
- Podium and PA system
- Tone alert radio
- TV monitor and VCR for real time viewing of the press conferences and taped review of news broadcasts from all three major networks
- Status board
- Wall charts dealing with nuclear site systems and evacuation zones
- Name tags
- Limited clerical support as needed
- Meals during long term activation
- Security escort to other JIC facilities as needed

The media center is located in Duke's Energy Center, 526 South Church Street, Charlotte, N.C. The center is located on the first floor in the O.J. Miller Auditorium.

The facilities and resources in the Media Center include:

- PA system and direct access to recording
- 18 telephones for news media
- Court recorders for prompt press conference transcripts
- Charts dealing with nuclear site systems and evacuation zones
- Modem/computer connections for the news media
- Overhead projector
- Slide projector
- Screen
- Press kits
- News releases
- Technical resources
- Security, registration and badging

H.3 State and Local Government Emergency Operations Centers

See County and State Plans.

H.4 Activation and Staffing

McGuire emergency centers (TSC, OSC) are activated as required by the appropriate Emergency Response Procedure. Activation of the TSC and OSC is required for Alert and above emergency conditions. Timely activation and staffing of the Emergency Operations Facility is important to allow the Nuclear Site staff the ability to correct the situation with minimal interference from outside organizations. The Emergency Coordinator will perform the role and function of the EOF Director until activation of the EOF has taken place. The EOF Organization will be alerted and staffed for Alert and higher emergency classifications. The EOF will be staffed using 75 minutes as a goal for the minimum staff to be in place and operational.

H.5 Assessment Actions

Onsite monitoring systems used to initiate emergency measures are defined in Section I. Those used for conducting assessment evaluations during any emergency condition are listed below:

H.5.a Meteorological. A description of the primary meteorological measurement facility is found in Appendix 2. These basic meteorological parameters are displayed in the Control Room, see Figure H-8, Generalized Meteorological System.

1. During periods of primary system unavailability, an alternate source of meteorological data is established as the NWS (NATIONAL WEATHER SERVICE) office. Wind direction and speed are from standard NWS instrumentation at conventional heights.

Wind direction from the NWS can replace the tower (40 m) wind direction. Wind speed from the NWS can replace the lower tower (10 m) wind speed for dose calculation purposes; it can also replace the tower (40 m) wind speed for transport speed considerations.

A monthly telephone contact, initiated by plant personnel, with the NWS office will be established to insure that this basic meteorological information can be accessed. See PT/0/A/4600/089.

2. The following field checks will be performed each week by plant personnel:

Wind Direction

- (a) Recorder Time Accuracy
- (b) Recorder Zero
- (c) Translator Zero
- (d) Translator Full Scale

Wind Speed

- (a) Recorder Time Accuracy
- (b) Recorder Zero
- (c) Translator Zero
- (d) Translator Full Scale

Delta - Temperature

- (a) Recorder Time Accuracy

3. Onsite meteorological instruments will be calibrated at a frequency specified by Technical Specifications. During calibration periods, basic meteorological data, characteristic of site conditions, will be accessible from the NWS. These instruments will be calibrated in accordance with approved procedures.

Hydrologic

A hydrological description of the McGuire Nuclear Site is located in the MNS FSAR, Section 2.4.

Seismic

A description of the seismic monitoring instrumentation and area seismology studies are found in McGuire FSAR, Sections 3.7 and 2.5 respectively.

H.5.b Radiological Monitors

Radiological monitors including process monitors, area monitors, post-accident monitoring equipment, effluent monitors, personnel monitoring devices, portable monitors and sampling equipment are described in various Radiation Protection procedures, the McGuire FSAR, Emergency Plan Implementing Procedures and Safety Evaluation Report.

H.5.c. Plant Parameters

Equipment and instrumentation to monitor plant parameters such as reactor coolant pressure, temperature, levels, containment pressure, temperature, humidity, sump levels, hydrogen concentrations, system flow rates, status, line-ups, are included in operating and emergency procedures. Examples of specific instruments used for accident evaluation are given in Section I.

H.5.d Fire Detection

Fire detection devices of the ionization-chamber and thermal type are located throughout the site.

H.6 Data, Monitoring Equipment and Analysis Facilities

Provisions have been made and exist to obtain data from off-site agencies or monitoring equipment and analysis facilities. The provisions are described below:

- a. Meteorological information is available from the National Weather Service as described in Section H.5.a. Monitoring of the Catawba River for hydrologic data is conducted within the Duke System of dams and hydro-electric facilities. Seismic data is available from the U.S. Geological Survey Office as provided for in the McGuire Procedure RP/0/A/5700/007 (Earthquake).
- b. Radiological monitors for emergency environmental monitoring are provided in emergency kits. The established environmental monitoring network and sampling equipment in the surrounding area are also available to provide emergency assessment data. Environmental Radiological Monitoring equipment includes radioiodine and particulate continuous air samplers and thermoluminescent dosimeters. The thermoluminescent dosimeters are posted and collected in accordance with Table 1, Branch Technical Position, Rev. 1 of November, 1979. Emergency Planning Implementing Procedure, HP/0/B/1009/023 (Environmental Monitoring for Emergency Conditions) lists locations of posted thermoluminescent dosimeters and air samplers.
- c. See Section C.3.

H.7 Offsite Radiological Monitoring

As described in H.6.b above.

H.8 Meteorology Instrumentation and Procedures

See Section H.5.a.

H.9 Operations Support Center

See Section H.1.c.

H.10 Emergency Equipment/Instrumentation Inspection, Inventory, Operational Check, Calibration

McGuire Procedure PT/0/A/4600/088, Functional Check of Emergency Vehicle and Equipment, defines the inspection, inventory and operational checks required of emergency equipment. Various Radiation Protection procedures define the criteria for calibration of all monitoring equipment located in the emergency kits.

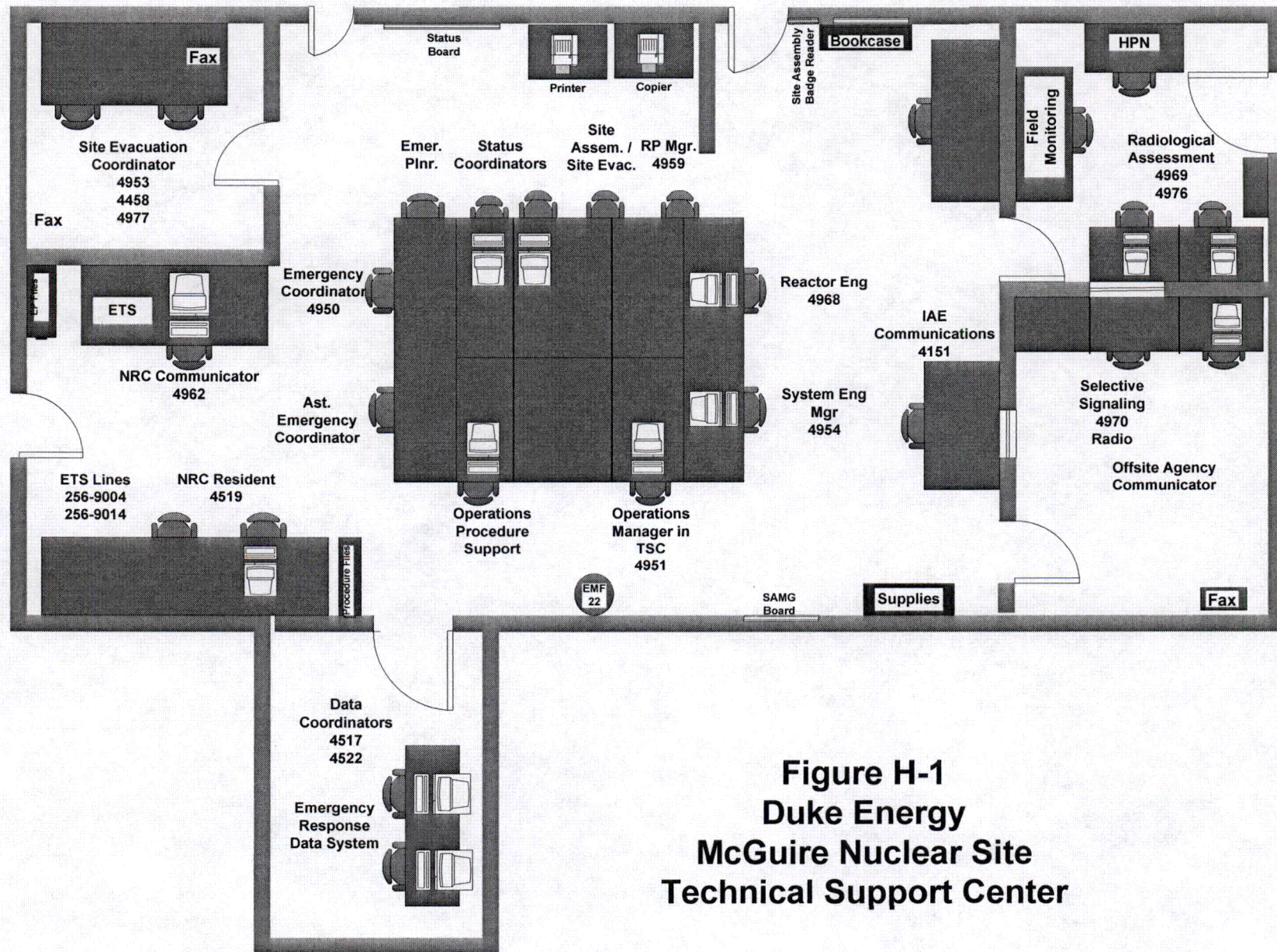
H.11 Emergency Kits

Radiological Emergency kits are described in PT/0/A/4600/088, Functional Check of Emergency Vehicle and Equipment.

H.12 Receipt and Analysis of Field Monitoring Data

Duke Energy's Emergency Operations Facility (Radiological Assessment Manager) will be the central point for the receipt of off-site monitoring data results and sample media analysis results collected by Duke personnel. Resources exist within the organization to evaluate the information and make recommendations based upon the evaluations. The Radiological Assessment Manager's group will perform these evaluations and make recommendations to the EOF Director for protective actions. The EOF Director is the individual responsible for making protective action recommendations to off-site agencies after activation of the EOF.

FIGURE H-1



**Figure H-1
Duke Energy
McGuire Nuclear Site
Technical Support Center**

FIGURE H-2

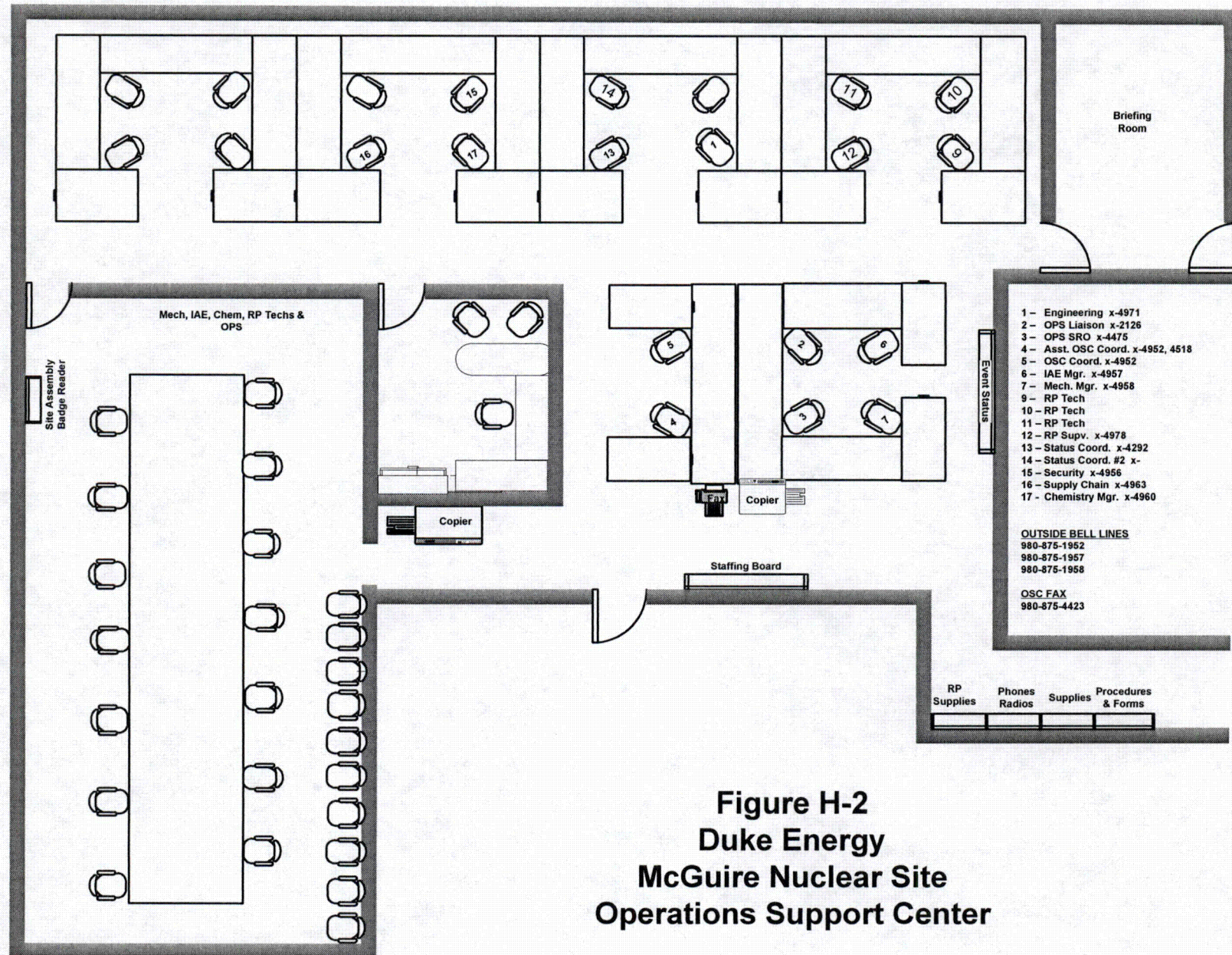
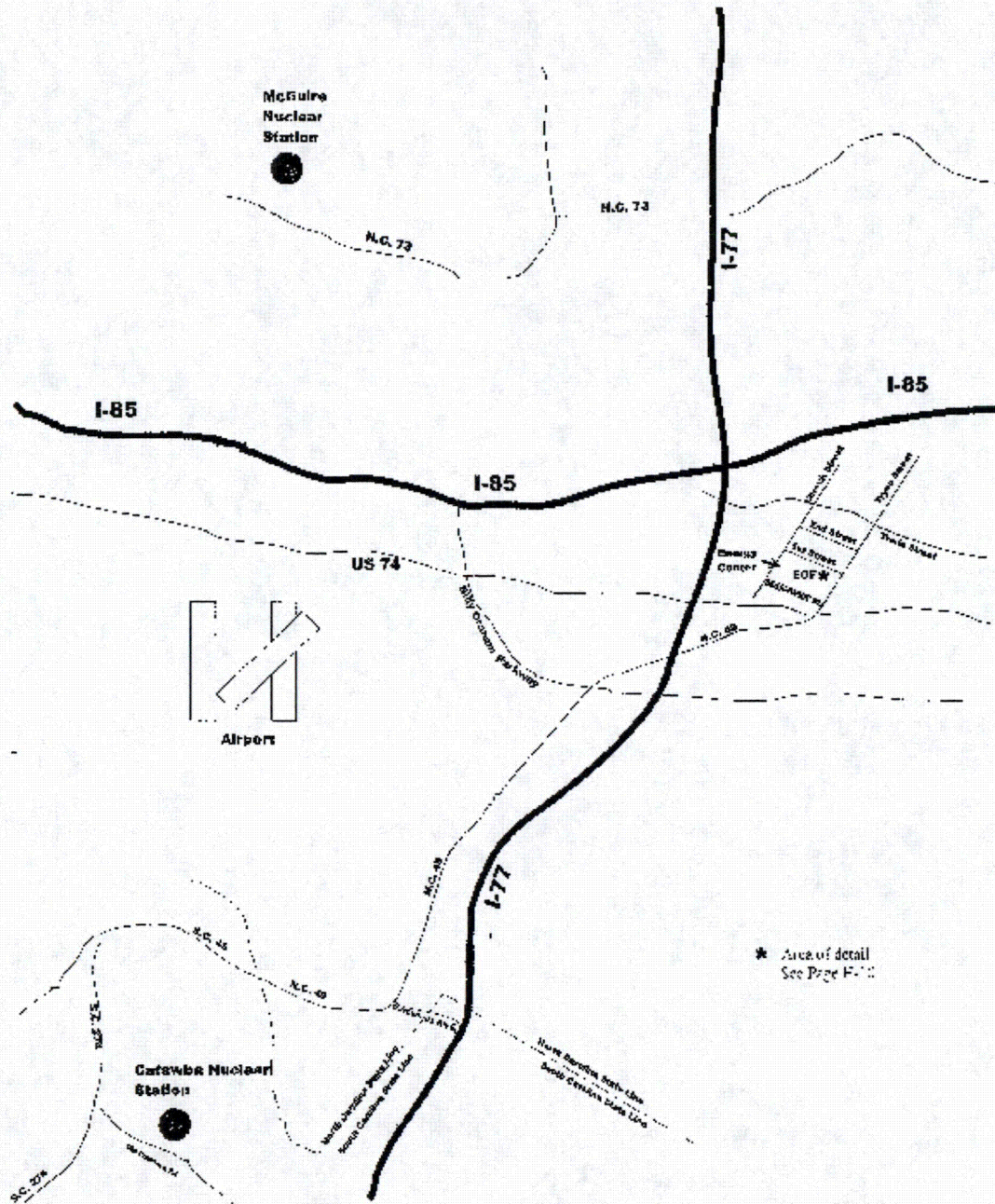


Figure H-2
Duke Energy
McGuire Nuclear Site
Operations Support Center

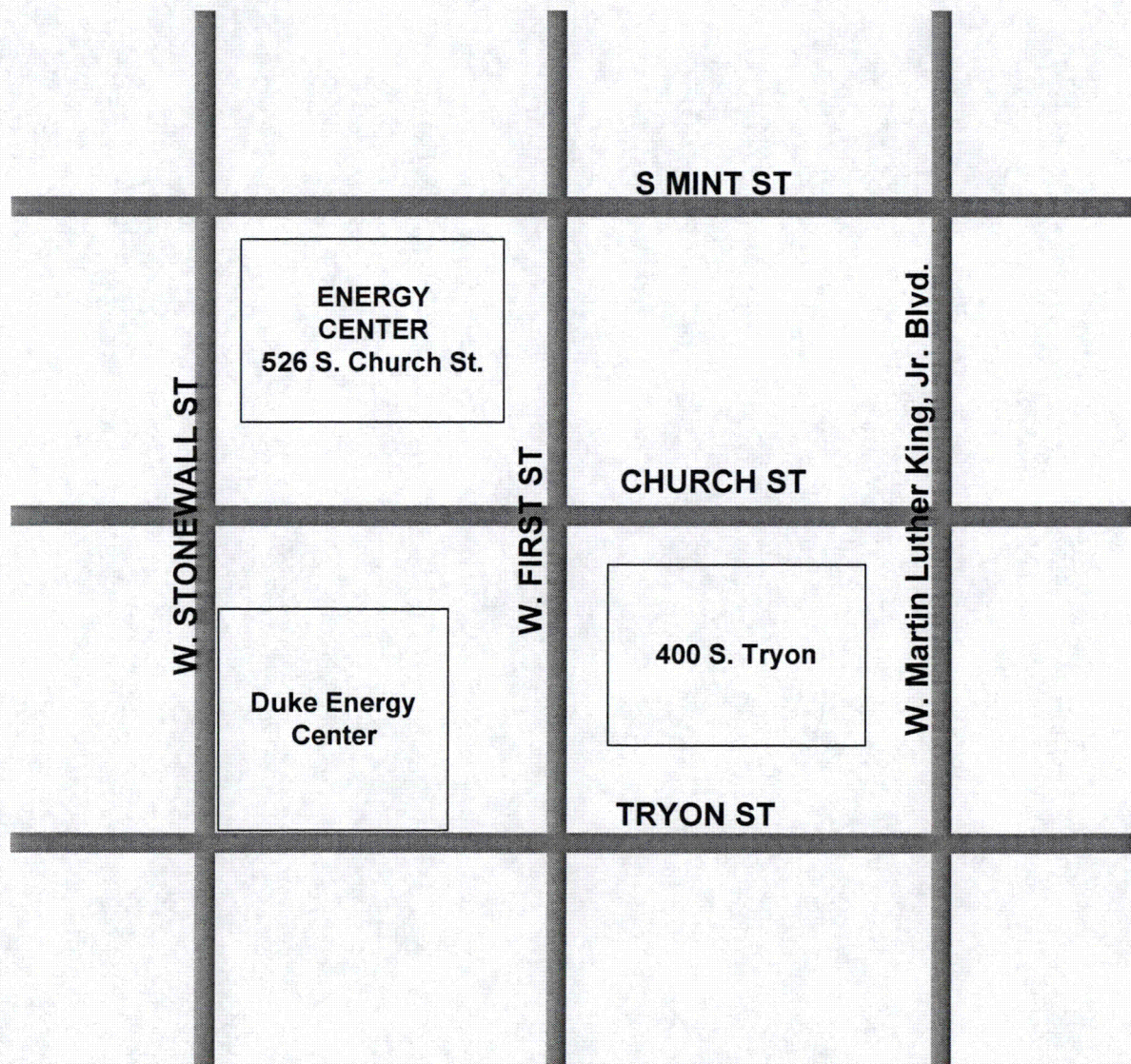
FIGURE H-3
DUKE ENERGY
EMERGENCY RESPONSE
MNS/CNS/ONS EOF
GENERAL LOCATION



The Media Center and Joint Information Center are in the Energy Center Phase I on the 1st floor.
The EOF is in the Energy Center Phase II on the 3rd floor.

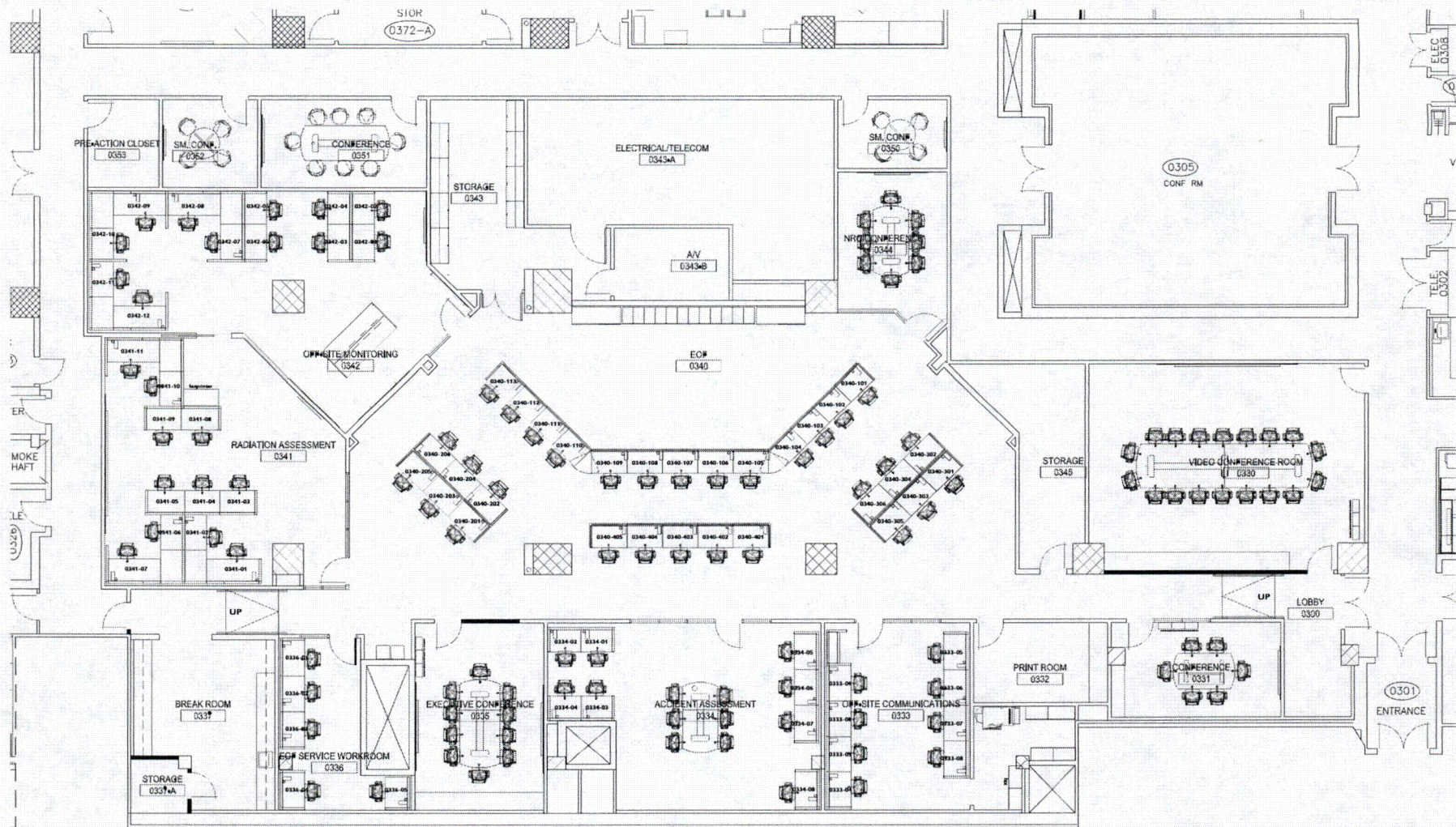
Figure H-4
**DUKE ENERGY
GENERAL OFFICE RESPONSE
FACILITY**

GENERAL OFFICE BUILDING LAYOUT - CHARLOTTE, NC



Rev. 16-1
January, 2016

FIGURE H-5
Emergency Operations Facility
EOF GENERAL ARRANGEMENT



**Figure H-6
Duke Energy
Media Center**

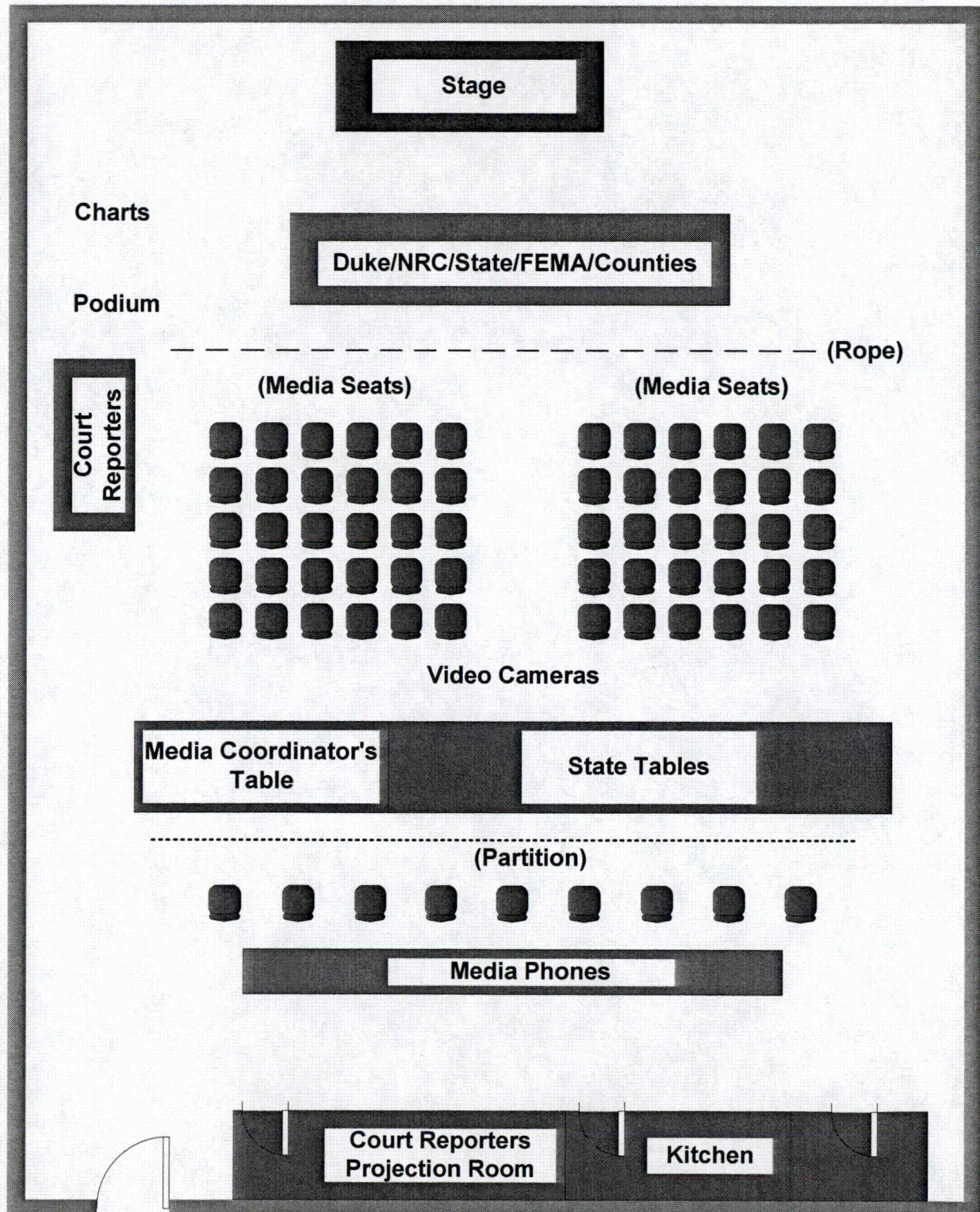


Figure H-7
Duke Energy
Joint Information Center

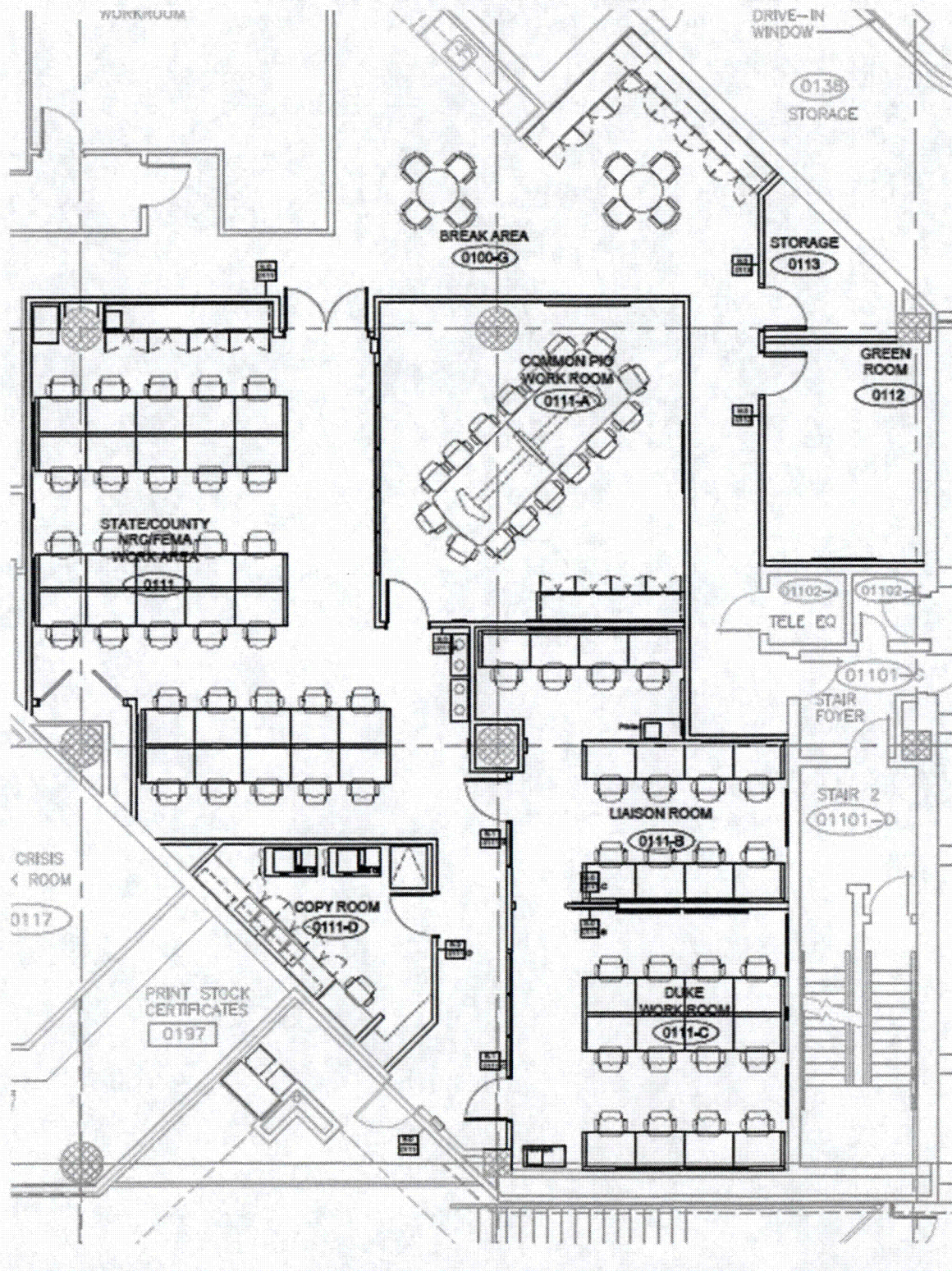
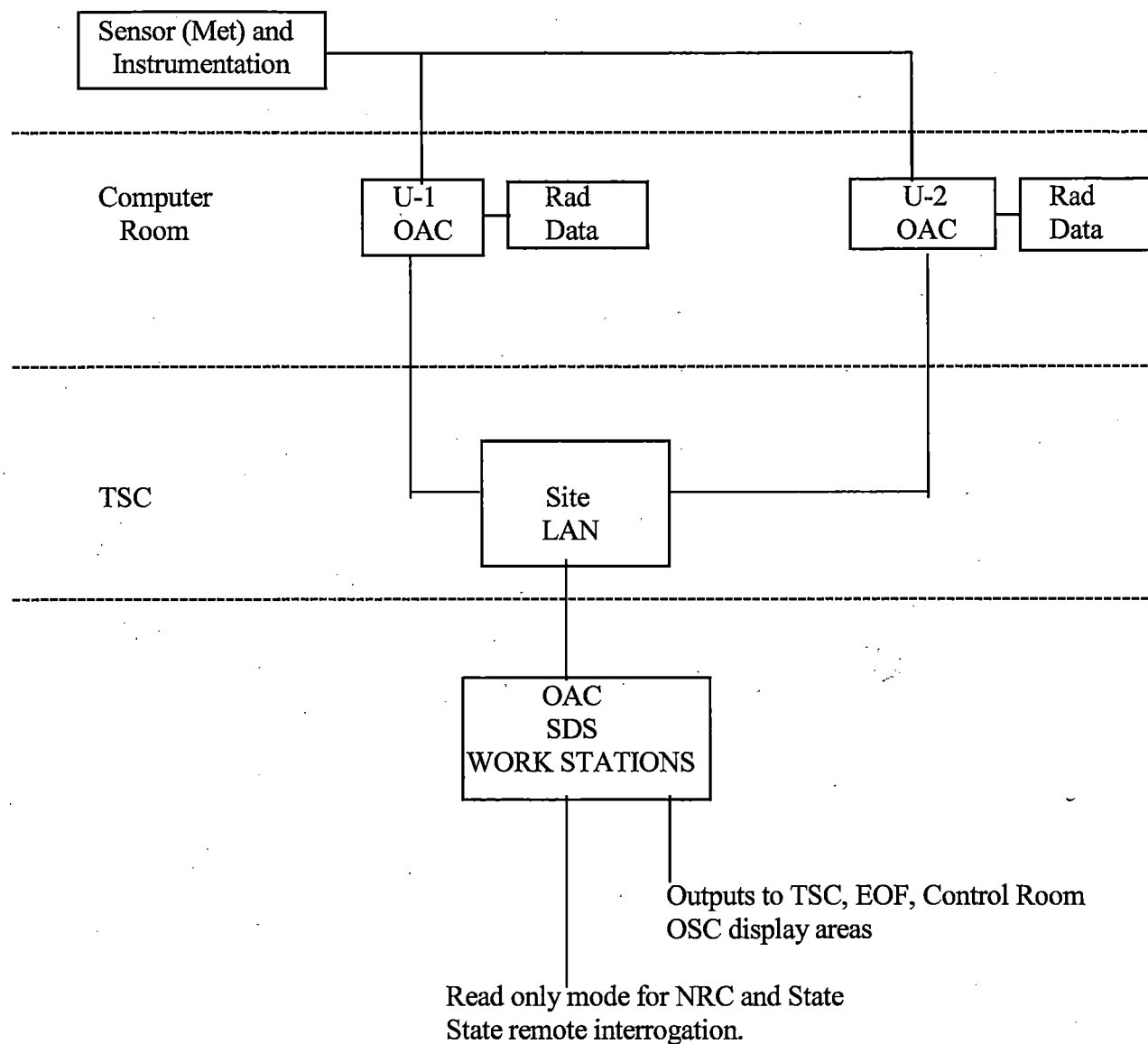


FIGURE H-8
McGuire and Catawba Nuclear Sites
Generalized Met System



**MCGUIRE NUCLEAR SITE
ALTERNATE TECHNICAL SUPPORT CENTER
(EXECUTIVE BOARD ROOM, ROOM 111, ADMIN. BUILDING)**

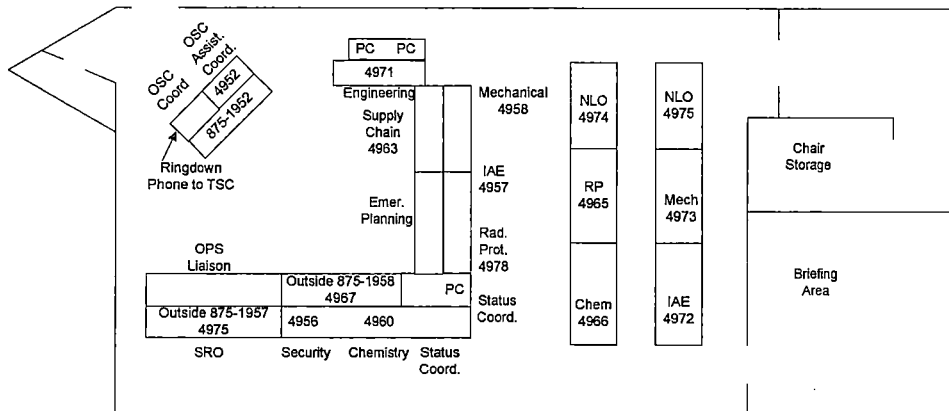


- ## Office Equipment

- * Indicates existing phones. All others are to be plugged in when the Alternate TSC is activated.

FIGURE H-10

**MCGUIRE NUCLEAR SITE
ALTERNATE OPERATIONS SUPPORT CENTER
(TRAINING ROOM TR155, ADMIN. BUILDING)**



Office Equipment

- FAX, Mail Room, Room 116 -- *875-4506.
- FAX, EP, Room 114 -- *875-4382.
- Copier, Mail Room, Room 116.
- Copier, SA, Room 170.
- CBX, CBX Office in Lobby.

* Indicates existing phone. All others are to be plugged in when the Alternate OSC is activated.

10 CFR 50.54(q) Screening Evaluation Form

12/1/16

RB

Screening and Evaluation Number	Applicable Sites			
EREG #: 1991138	BNP	<input type="checkbox"/>		
	CNS	<input type="checkbox"/>		
	CR3	<input type="checkbox"/>		
	HNP	<input type="checkbox"/>		
5AD #: 1991136	MNS	x		
	ONS	<input type="checkbox"/>		
	RNP	<input type="checkbox"/>		
	GO	<input type="checkbox"/>		
Document and Revision MNS Emergency Plan Section H (Emergency Facilities and Equipment) 16-1 January 2016				
<p>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):</p> <p>H2 (Emergency Operations Facility (EOF)) changed the physical location of the Joint Information Center (JIC) from "EC1- 0172" to "EC1-0111" because the JIC has been updated to a new facility. Figure H-7 was updated to the general arrangement of the new JIC location. This Emergency Plan change was performed to describe the physical location and arrangement of the JIC.</p> <p>The JIC remains located at 526 South Church Street, Charlotte, NC in the Energy Center. The functionality, capabilities and requirements of the JIC have NOT changed.</p> <p>This Emergency Plan change DOES NOT impact any planning standard of 10 CFR 50.47(b) or any program elements from NUREG-0654/FEMA REP-1 Section II This Emergency Plan change DOES NOT impact any emergency planning function as set forth in the elements of Appendix E of 10CFR part 50. Therefore a 50.54(q) effectiveness evaluation is not required.</p>				
Part II. Activity Previously Reviewed?	Yes	<input type="checkbox"/>	No	X
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 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	
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:				
Bounding document attached (optional)				<input type="checkbox"/>

10 CFR 50.54(q) Screening Evaluation Form

11/21/16
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Part III. Editorial Change		Yes	<input type="checkbox"/>	No	X
Is this activity an editorial or typographical change only, such as formatting, paragraph numbering, spelling, or punctuation that does not change intent?		10 CFR 50.54(q) Effectiveness Evaluation is not required. Enter justification and complete Attachment 4, Part V & VI.		Continue to Attachment 4, Part IV and address non editorial changes	
Justification:					
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"/>
5	10 CFR 50.47(b)(5) Notification Methods and Procedures				
5a	Procedures for notification of State and local governmental agencies are capable of initiating notification of the declared emergency within 15 minutes (30 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"/>

10 CFR 50.54(q) Screening Evaluation Form

11/21/16
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10 CFR 50.54(q) Screening Evaluation Form


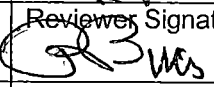

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Part IV. Emergency Planning Element and Function Screen (cont.)		
6	10 CFR 50.47(b)(6) Emergency Communications	
6a	Systems are established for prompt communication among principal emergency response organizations.	<input type="checkbox"/>
6b	Systems 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 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"/>

10 CFR 50.54(q) Screening Evaluation Form

1/21/16

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, a 10 CFR 50.54(q) Effectiveness Evaluation is not required, then complete Attachment 4, 10 CFR 50.54(q) Screening Evaluation Form, Part V. Go to Attachment 4, 10 CFR 50.54(q) Screening Evaluation Form, Part VI for instructions describing the NRC required 30 day submittal.		X
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. Shaded block requires final approval of Screen and Evaluation by EP CFAM.		<input type="checkbox"/>

Part V. Signatures:		
Preparer Name (Print): Randy Gibson	Preparer Signature: 	Date: 1/14/16
Reviewer Name (Print): Renard O. Burris	Reviewer Signature: 	Date: 1/21/16
Approver (EP Manager Name (Print): Kevin L. Murray	Approver Signature: 	Date: 1-21-16
Approver (CFAM, as required) Name (Print): n/a	Approver Signature: n/a	Date: n/a

Part VI. NRC Emergency Plan and Implementing Procedure Submittal Actions

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.	X
• 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.	X

QA RECORD