



Gary R. Peterson
Vice President

August 15, 2001

Duke Power
Catawba Nuclear Station
4800 Concord Road
York, SC 29745
(803) 831-4251 OFFICE
(803) 831-3221 FAX

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

Subject: Duke Energy Corporation
Catawba Nuclear Station Units 1 and 2
Docket Nos. 50-413 and 50-414
Emergency Plan Implementing Procedures

Please find enclosed for NRC Staff use and review the following
Emergency Plan Implementing Procedures:

RP/0/A/5000/007, Natural Disaster and Earthquake (Rev. 021)
RP/0/A/5000/020, Technical Support Center (TSC) Activation
Procedure (Rev. 015)
SR/0/B/2000/003, Activation of the Emergency Operations Facility
(Rev. 008)

Please delete the following procedure from the Emergency Plan
Implementing Procedures:

RP/0/B/5000/029 Fire Brigade Response (Rev. 000)

This procedure implements the site Fire Plan which is not part of
the Emergency Plan, and therefore is not an Emergency Plan
Implementing Procedure.

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

By copy of this letter, two copies of the above documents are
being provided to the NRC, Region II.

If there are any questions, please call Tom Beadle at 803-831-
4027.

Very truly yours,

Gary R. Peterson

A045

Attachments

U.S. Nuclear Regulatory Commission
August 15, 2001
Page 2

xc (w/attachments):

L. A. Reyes
U.S. Nuclear Regulatory Commission
Regional Administrator, Region II
Atlanta Federal Center
61 Forsyth St., SW, Suite 23T85
Atlanta, GA 30303

(w/o attachments):

C. P. Patel
NRC Senior Project Manager (CNS)
U.S. Nuclear Regulatory Commission
Mail Stop O-8 H12
Washington, DC 20555-0001

D. J. Roberts
Senior Resident Inspector (CNS)
U.S. Nuclear Regulatory Commission
Catawba Nuclear Site

DUKE POWER COMPANY
CATAWBA NUCLEAR STATION
EMERGENCY PLAN IMPLEMENTING PROCEDURES INDEX

VOLUME I

PROCEDURE	TITLE
RP/0/A/5000/001	Classification of Emergency (Rev. 013)
RP/0/A/5000/002	Notification of Unusual Event (Rev. 035)
RP/0/A/5000/003	Alert (Rev. 037)
RP/0/A/5000/004	Site Area Emergency (Rev. 039)
RP/0/A/5000/005	General Emergency (Rev. 039)
RP/0/A/5000/06	Deleted
RP/0/A/5000/006 A	Notifications to States and Counties from the Control Room (Rev. 012)
RP/0/A/5000/006 B	Notifications to States and Counties from the Technical Support Center (Rev. 012)
RP/0/A/5000/006 C	Deleted
RP/0/A/5000/007	Natural Disaster and Earthquake (Rev. 021)
RP/0/A/5000/08	Deleted
RP/0/B/5000/008	Spill Response (Rev. 018)
RP/0/A/5000/009	Collision/Explosion (Rev. 006)
RP/0/A/5000/010	Conducting A Site Assembly or Preparing the Site for an Evacuation (Rev. 013)
RP/0/A/5000/11	Deleted
RP/0/B/5000/12	Deleted
RP/0/B/5000/013	NRC Notification Requirements (Rev. 027)
RP/0/B/5000/14	Deleted
RP/0/A/5000/015	Core Damage Assessment (Rev. 004)
RP/0/B/5000/016	Deleted
RP/0/B/5000/17	Deleted

August 2, 2001

DUKE POWER COMPANY
CATAWBA NUCLEAR STATION
EMERGENCY PLAN IMPLEMENTING PROCEDURES INDEX

VOLUME I

PROCEDURE	TITLE
RP/0/A/5000/018	Emergency Worker Dose Extension (1/15/96)
RP/0/B/5000/019	Deleted
RP/0/A/5000/020	Technical Support Center (TSC) Activation Procedure (Rev. 015)
RP/0/A/5000/021	Deleted
RP/0/B/5000/022	Evacuation Coordinator Procedure (Rev. 003)
RP/0/B/5000/023	Deleted
RP/0/A/5000/024	OSC Activation Procedure (Rev. 007)
RP/0/B/5000/025	Recovery and Reentry Procedure (Rev. 002)
RP/0/B/5000/026	Response to Bomb Threat (Rev. 002)
RP/0/B/5000/028	Communications and Community Relations EnergyQuest Emergency Response Plan (Rev. 001)

August 2, 2001

DUKE POWER COMPANY
CATAWBA NUCLEAR STATION
EMERGENCY PLAN IMPLEMENTING PROCEDURES INDEX

VOLUME II

PROCEDURE	TITLE
HP/0/B/1000/006	Emergency Equipment Functional Check and Inventory (Rev. 053)
HP/0/B/1009/001	Radiation Protection Recovery Plan (Rev. 008)
HP/0/B/1009/003	Radiation Protection Response Following a Primary to Secondary Leak (Rev. 008)
HP/0/B/1009/004	Environmental Monitoring for Emergency Conditions Within the Ten-Mile Radius of CNS (Rev. 028)
HP/0/B/1009/005	Personnel/Vehicle Monitoring for Emergency Conditions (Rev. 016)
HP/0/B/1009/006	Alternative Method for Determining Dose Rate Within the Reactor Building (Rev. 008)
HP/0/B/1009/007	In-Plant Particulate and Iodine Monitoring Under Accident Conditions (Rev. 018)
HP/0/B/1009/008	Contamination Control of Injured Individuals (Rev. 015)
HP/0/B/1009/009	Guidelines for Accident and Emergency Response (Rev. 038)
HP/0/B/1009/014	Radiation Protection Actions Following an Uncontrolled Release of Radioactive Material (Rev. 008)
HP/0/B/1009/016	Distribution of Potassium Iodide Tablets in the Event of a Radioiodine Release (Rev. 011)
HP/0/B/1009/017	Deleted
HP/1/B/1009/017	Post-Accident Containment Air Sampling System (Rev. 001)
HP/2/B/1009/017	Post-Accident Containment Air Sampling System (Rev. 000)
HP/0/B/1009/018	Deleted
HP/0/B/1009/019	Emergency Radio System Operation, Maintenance and Communication (Rev. 010)
HP/0/B/1009/024	Implementing Procedure for Estimating Food Chain Doses Under Post-Accident Conditions (Rev. 002)

August 2, 2001

DUKE POWER COMPANY
CATAWBA NUCLEAR STATION
EMERGENCY PLAN IMPLEMENTING PROCEDURES INDEX

VOLUME II

PROCEDURE	TITLE
HP/0/B/1009/025	Deleted
HP/0/B/1009/026	On-Shift Offsite Dose Projections (Rev. 003)
SH/0/B/2005/001	Emergency Response Offsite Dose Projections (Rev. 001)
SH/0/B/2005/002	Protocol for the Field Monitoring Coordinator During Emergency Conditions (Rev. 001)
OP/0/A/6200/021	Post Accident Liquid Sampling System II+ (Rev. 034)
SR/0/B/2000/001	Standard Procedure for Public Affairs Response to the Emergency Operations Facility (Rev. 002)
SR/0/B/2000/002	Standard Procedure for EOF Services (Rev. 002)
SR/0/B/2000/003	Activation of the Emergency Operations Facility (Rev. 008)
SR/0/B/2000/004	Notification to States and Counties from the Emergency Operations Facility (Rev. 002)

August 2, 2001

Duke Power Company PROCEDURE PROCESS RECORD

(1) ID No. RP/0/A/5000/007Revision No. 021**PREPARATION**

- (2) Station Catawba Nuclear Station
- (3) Procedure Title Natural Disaster and Earthquake
- (4) Prepared By E. J. Brudle Date 7/17/01
- (5) Requires 10CFR50.59 evaluation?
☒ Yes (New procedure or reissue with major changes)
☐ No (Revision with minor changes)
☐ No (To incorporate previously approved changes)
- (6) Reviewed By B. R. Stith (QR) Date 7/23/01
 Cross-Disciplinary Review By J. Baumgardner (QR) NA NA Date 7/30/01
 Reactivity Mgmt. Review By _____ (QR) NA RMS Date 7/23/01
- (7) Additional Reviews
 Reviewed By _____ Date _____
 Reviewed By _____ Date _____
- (8) Temporary Approval (if necessary)
 By _____ (SRO/QR) Date _____
 By _____ (QR) Date _____
- (9) APPROVED BY Richard L. Swenigant Date 7/31/01

PERFORMANCE (Compare with control copy at least once every 14 calendar days while work is being performed)

- (10) Compared with Control Copy _____ Date _____
 Compared with Control Copy _____ Date _____
 Compared with Control Copy _____ Date _____
- (11) Dates(s) Performed _____
 Work Order Number (W/O #) _____

COMPLETION

- (12) Procedure Completion Verification

- ☐ Yes ☐ N/A Check lists and/or blanks properly initialed, signed, dated, or filled in NA, as appropriate?
☐ Yes ☐ N/A Listed enclosures attached?
☐ Yes ☐ N/A Data sheets attached, completed, dated and signed?
☐ Yes ☐ N/A Charts, graphs, etc. attached and properly dated, identified and marked?
☐ Yes ☐ N/A Procedure requirements met?

Verified By _____ Date _____

- (13) Procedure Completion Approved
- _____
- Date
- _____

- (14) Remarks (attach additional pages, if necessary)

Duke Power Company
Catawba Nuclear Station

Natural Disaster and Earthquake

Multiple Use

Procedure No.

RP/**0**/A/5000/007

Revision No.

021

Electronic Reference No.

CN005GNT

Natural Disaster and Earthquake

1. Symptoms

NOTE: The Duke Power Company System Coordinator will notify the Control Room for all severe weather warnings issued for York County. The Control Room is also provided with a NOAA radio.

- 1.1 Tornado watch issued for York County
- 1.2 Tornado warning issued for York County **OR** tornado on-site
- 1.3 Hurricane winds are expected on-site within 12 hours
- 1.4 Earthquake is detected by instrumentation or felt in plant
 - 1.4.1 Seismic event alarm SMA-3 on 1MC8
 - 1.4.2 OBE EXCEEDED alarm on 1AD-4, B/8
 - 1.4.3 Light on Peak Shock Annunciator PSA-1575 on 1MC8
 - 1.4.4 Effects of an earthquake are seen, felt or heard.
- 1.5 Flooding due to high lake level (lake elevation > 593.5 Mean Sea Level (MSL)) or seiche (lake tidal wave).
- 1.6 Low lake level (lake elevation < 557.5 Ft. MSL)

2. Immediate Actions

- _____ 2.1 **IF** a tornado watch has been issued for York County, perform Enclosure 4.1.
- _____ 2.2 **IF** a tornado warning has been issued for York County **OR** tornado on-site, perform Enclosure 4.2.
- _____ 2.3 **IF** Hurricane winds are expected on-site within 12 hours, perform Enclosure 4.3.
- _____ 2.4 **IF** an Earthquake is detected by instrumentation **OR** felt in plant, perform Enclosure 4.4.
- _____ 2.5 **IF** flooding due to high lake level (lake elevation > 593.5 MSL) or seiche (lake tidal wave), perform Enclosure 4.5.
- _____ 2.6 **IF** low lake level (lake elevation < 557.5 Ft. MSL), perform Enclosure 4.6.

3. Subsequent Actions

- _____ 3.1 **IF** communications are lost or communications trouble is encountered, refer to the Emergency Response Telephone Directory.
- _____ 3.2 Contact the Catawba Nuclear Site NRC Resident Inspector (duty person) anytime this procedure is entered.

4. Enclosures

- 4.1 Tornado Watch Issued For York County
- 4.2 Tornado Warning Issued For York County **OR** Tornado On-site
- 4.3 Hurricane Winds Are Expected On-site Within 12 Hours
- 4.4 Earthquake
- 4.5 Flooding Due to High Lake Level (Lake Elevation > 593.5 MSL) **OR** Seiche (Lake Tidal Wave)
- 4.6 Low Lake Level (Lake Elevation < 557.5 Ft. MSL)
- 4.7 Courtesy Notification to States and Counties for a Non-emergency Plant Event

1. Immediate Actions

- NOTE:**
1. A tornado watch indicates conditions are favorable for a tornado to occur.
 2. Wind speed information > 90 mph shall be obtained from the National Weather Service located in Greenville/Spartanburg, S.C. at 1-800-268-7785 or 1-864-879-1085 (unpublished).
 3. Immediate Actions may be performed simultaneously.

_____ 1.1 Announce the following over the PA System:

“Attention all plant personnel. Attention all plant personnel. This is the Operations Shift Manager. A tornado watch has been issued for York County. Be prepared to take shelter should a tornado develop on site. Further updates will be provided as conditions warrant.”

- NOTE:** Further determination should be made for system(s) required to be shut down by this response procedure but required to be operating by a compensatory action item.

_____ 1.2 Refer to the Open Compensatory Action Items and review for applicability.

_____ 1.3 Evaluate implementation of the following:

- _____ 1.3.1 Contact Security and verify that exterior doors are being closed per Security procedures.
- _____ 1.3.2 **IF** a personnel safety hazard does not exist due to lightning or high winds, the Shift Work Manager will utilize appropriate personnel to lower crane booms.
- _____ 1.3.3 Notify RP/Radwaste Chemistry to minimize all handling of radioactive materials and releases of radioactive waste to the environment for the duration of the tornado watch.
- _____ 1.3.4 **IF** RN swapover to the Standby Nuclear Service Water Pond has **NOT** occurred automatically on low low lake level of 557.5 ft. MSL, refer to AP/0/A/5500/020 (Loss of Nuclear Service Water).

_____ 1.4 **IF** any of the following activities are in progress **OR** are scheduled to begin within the time frame of the tornado watch, terminate the activity {PIP C99-03215}:

- _____ • NS pump tests
- _____ • NS heat exchanger tests
- _____ • FWST makeup to the Spent Fuel Pool

Tornado Watch Issued For York County

- 1.5 Review status of alternate power sources and safety related equipment to assure safe shutdown equipment availability (D/Gs, CA, condensate sources, S/G PORVs, ND, KC, RN).

2. Subsequent Actions

2.1 Severe Weather Information/Forecast

To obtain the latest severe weather information/forecast for York County, consult the National Weather Service located in Greenville/Spartanburg, S.C. at 1-800-268-7785 or 1-864-879-1085 (unpublished).

2.2 Meteorological Conditions

As a backup to the Catawba site meteorological system (i.e., wind speed, wind direction, etc.), consult the National Weather Service located in Greenville/Spartanburg, S.C., at 1-800-268-7785 or 1-864-879-1085 (unpublished).

2.3 This procedure remains in effect until one of the following conditions are met:

- Termination of tornado watch for York County by National Weather Service

OR

- Duke Power Meteorological Group (704-594-0341) verifies that a tornado threat to the Catawba Nuclear Site no longer exists.

**Tornado Warning Issued For York County
OR Tornado On-Site****1. Immediate Actions**

- NOTE:**
1. Tornado warning indicates that an actual tornado has been reported to the National Weather Service (NWS) or has been sighted on radar.
 2. Wind speed information > 90 mph shall be obtained from the NWS located in Greenville/Spartanburg, S.C., at 1-800-268-7785 or 1-864-879-1085 (unpublished).
 3. Immediate Actions may be performed simultaneously.

- _____ 1.1 Should the sustained winds, lasting 15 minutes, in excess of 95 mph develop on site which jeopardize the safe operation of the reactor, take the unit(s) to Hot Standby (Mode 3). For the initiation of any unit shutdown, carry out the reporting provisions of RP/0/B/5000/013 (NRC Notification Requirements).
- _____ 1.2 Classify the emergency as appropriate per RP/0/A/5000/001 (Classification of Emergency).
- _____ 1.3 Commence notification and other protective measures as directed by appropriate Emergency Response Procedure.
- 1.4 Announce the following over the PA System:
- _____ • Tornado is not expected to pass over the site
- “Attention all plant personnel. Attention all plant personnel. This is the Operations Shift Manager. A tornado warning has been issued for York County from _____ to _____ hours. Be prepared to take shelter should a tornado develop on site. Further updates will be provided as conditions warrant.”
- _____ • Tornado is expected to pass over the site
- “Attention all plant personnel. Attention all plant personnel. This is the Operations Shift Manager. A tornado warning has been issued for York County. Take shelter immediately. Do not take shelter in temporary buildings or trailers. Further updates will be provided as conditions warrant.”

Enclosure 4.2
Tornado Warning Issued For York County
OR Tornado On-Site

RP/0/A/5000/007

Page 2 of 5

NOTE: Further determination should be made for system(s) required to be shut down by this response procedure but required to be operating by a compensatory action item.

- _____ 1.5 Refer to the Open Compensatory Action Items and review for applicability. Expedite the restoration of important plant systems and components.
- _____ 1.6 Review AP/1(2)/A/5500/007 (Loss of Normal Power), EP/1(2)/A/5000/ECA-0.0 (Loss of All AC Power), and OP/0/B/6100/013 (Standby Shutdown Facility Operation). Take the necessary actions to ensure equipment required for station blackout response is available.
- 1.7 Ensure the following steps have been performed:
 - 1.7.1 Notify Security to perform the following actions per Security procedures:
 - _____ • Close all exterior doors
 - _____ • Close and latch tornado door S303A (access to SPA, 574 elevation, Auxiliary Service Building) (mod CE-61506)
 - 1.7.2 **IF** any of the following activities are in progress **OR** are scheduled to begin within the time frame of the tornado warning, terminate the activity {PIP C99-03215}:
 - _____ • NS pump tests
 - _____ • NS heat exchanger tests
 - _____ • FWST makeup to the Spent Fuel Pool
 - _____ 1.7.3 **IF** a personnel safety hazard does not exist due to lightning or high winds, the Shift Work Manager will utilize appropriate personnel to lower crane booms.
 - _____ 1.7.4 Review status of alternate power sources and safety related equipment to assure safe shutdown equipment availability (D/Gs, CA, condensate sources, S/G PORVs, ND, KC, RN).
 - _____ 1.7.5 Coordinate with Chemistry to increase CACST, UST and hotwell inventories.
 - _____ 1.7.6 Coordinate with IAE to return to service any available out of service battery chargers.
 - _____ 1.7.7 Notify RP/Radwaste Chemistry to stop all handling of radioactive materials and releases of radioactive waste to the environment for the duration of the tornado warning.

**Tornado Warning Issued For York County
OR Tornado On-Site**

- ____ 1.7.8 Ensure fuel handling operations are secured.
- ____ 1.7.9 **IF** a unit is in Modes 5, 6 or No Mode, perform the following:
- ____ • Ensure the Reactor Building Equipment Hatch is secured.
 - ____ • Ensure NC System level is greater than and maintained above 7.25% level (midloop operation).
- ____ 1.7.10 **IF** lake level decreases to 557.5 feet MSL **AND** the RN System suction has **NOT** swapped to the Standby Nuclear Service Water Pond, refer to AP/0/A/5500/020 (Loss of Nuclear Service Water).
- ____ 1.7.11 Ventilation Systems shall be aligned as follows:
- ____ A. Ensure the VF Systems are shutdown per OP/1(2)/A/6450/004 (Fuel Pool Ventilation System).
 - ____ B. Ensure the following ventilation systems are shut down:
 - ____ • VQ per OP/1(2)/A/6450/017 (Containment Air Release and Addition System)
 - ____ • VP per OP/1(2)/A/6450/015 (Containment Purge System)
 - ____ • VE per OP/1(2)/A/6450/002 (Annulus Ventilation System)
- ____ 1.7.12 Notify the responsible System Engineer on duty that all ventilation systems are being shut down, and they need to consider the possibility of condensation.
- ____ 1.8 **IF** a tornado is reported on site property, perform the following steps:
- ____ 1.8.1 Ensure all VA System fans are off.

<p>NOTE: The action taken in the next step causes the VA System to be inoperable. TS 3.0.3 is applicable on both units.</p>
--

- ____ 1.8.2 Depress the "INITIATE" pushbuttons on "TORNADO ISOL TRN A(B)" on IMC-5 and 2MC-5 ensuring all automatic functions occur as expected.
- ____ 1.8.3 **WHEN** conditions permit, coordinate a survey of plant structures and equipment (similar to normal daily rounds) to determine the extent of damage as follows:
- ____ A. Notify personnel from IAE and Mechanical Maintenance to assist Operations in the evaluation of weather induced damage as necessary.
 - ____ B. Notify Radiation Protection personnel to survey the Reactor, Auxiliary and Fuel Pool Buildings to ensure shielding integrity.

**Tornado Warning Issued For York County
OR Tornado On-Site**

- _____ C. Notify Chemistry personnel to survey areas where damage may release dangerous chemicals (e.g. Sulfuric Acid Storage).
 - _____ D. Record the findings of the survey in the associated unit's Nuclear Shift Supervisor Log.
- 1.8.4 **IF** the survey identifies plant damage, perform the following:
- _____ A. Determine the emergency classification for current plant conditions.
 - _____ B. Make required notifications
 - _____ C. Notify management of plant status and any potential for a unit shutdown.
- _____ 1.8.5 **IF** an emergency has **NOT** been declared, notify York County Emergency Management about the event through the York County 911 Telecommunicator and as necessary, request emergency response support. {PIP 0-C00-01689}

<p>NOTE:</p> <ul style="list-style-type: none">1. A request for emergency response support (except an ambulance) from an off-site agency requires a 4-hour notification of the NRC as an "Off-site Notification" per RP/0/B/5000/013 (NRC Notification Requirements).2. A request for ambulance support for a "contaminated injury" is an 8-hour notification and the request for transport of a "clean injury" does not require a NRC notification.
--

- _____ 1.8.6 **IF** emergency response support from York County Emergency Management is requested **AND** an emergency has **NOT** been declared, notify the NRC under the 4-hour notification requirement for Off-site Notifications.

Enclosure 4.2
Tornado Warning Issued For York County
OR Tornado On-Site

RP/0/A/5000/007

Page 5 of 5

2. Subsequent Actions

2.1 Severe Weather Information/Forecast

To obtain the latest severe weather information/forecast for York County, consult the National Weather Service located in Greenville/Spartanburg, S.C. at 1-800-268-7785 or 1-864-879-1085 (unpublished).

2.2 Meteorological Conditions

As a backup to the Catawba site meteorological system (i.e., wind speed, wind direction, etc.), consult the National Weather Service located in Greenville/Spartanburg, S.C. at 1-800-268-7785 or 1-864-879-1085 (unpublished).

_____ 2.3 Restore affected plant systems to normal operation per applicable site procedures

2.4 IF an emergency has NOT been declared for this event AND the NRC has NOT been notified of this event, perform the following:

_____ 2.4.1 Notify the duty Emergency Planner.

_____ 2.4.2 Notify the Community Relations duty person.

_____ 2.4.3 Make a courtesy notification to the states and counties using Enclosure 4.7.

NOTE: Permission for unit startup is required from FEMA/NRC after a plant shutdown due to a natural disaster that affects both the plant and the local government emergency response capability.

_____ 2.5 IF a unit restart is desired, consult site management for unit startup criteria.

2.6 This procedure remains in effect until one of the following conditions are met:

- _____ • Termination of tornado watch for York County by National Weather Service**

OR

- _____ • Duke Power Meteorological Group (704-594-0341) verifies that a tornado threat to the Catawba Nuclear Site no longer exists.**

1. Immediate Actions

- NOTE:**
1. Wind speed information > 90 mph shall be obtained from the National Weather Service (NWS) located in Greenville/Spartanburg, S.C. at 1-800-268-7785 or 1-864-879-1085 (unpublished).
 2. Immediate Actions may be performed simultaneously.
 3. Tornadoes often develop in the northeast quadrant of a hurricane.

1.1 Announce the following over the PA System:

“Attention all plant personnel. Attention all plant personnel. This is the Operations Shift Manager. Hurricane force winds are projected to be on site within 12 hours. Be prepared to take shelter should the hurricane force winds develop on site. Further updates will be provided as conditions warrant.”

- NOTE:** Further determination should be made for system(s) required to be shut down by this response procedure but required to be operating by a compensatory action item.

1.2 Refer to the Open Compensatory Action Items and review for applicability. Expedite the restoration of important plant systems and components.

1.3 Review AP/1(2)/A/5500/007, (Loss of Normal Power), EP/1(2)/A/5000/ECA-0.0, (Loss of All AC Power) and OP/0/B/6100/013, (Standby Shutdown Facility Operation). Take the necessary actions to ensure equipment required for station blackout response is available.

- NOTE:**
1. Sustained winds (lasting 15 minutes) in excess of 73 mph is used as the indicator of the arrival of the hurricane on-site. As the hurricane moves across the site wind speeds could exceed the design basis wind speed of 95 mph.
 2. The Station Blackout rule applies when hurricanes affect nuclear stations and requires the units to be placed in Mode 3, two hours prior to the arrival of hurricane force winds on site.

1.4 Discuss with site management the timing and method for shutting down the plant so as to be in Hot Standby (Mode 3), two hours before the anticipated hurricane arrival at the site.

- NOTE:** Travel to the site could be restricted or prohibited based on the intensity and path of the storm.

1.5 Discuss with site management the potential for on-site 24-hour staffing for shift relief and Emergency Response Organization (ERO).

- _____ 1.6 Review status of alternate power sources and safety related equipment to assure safe shutdown equipment availability (D/Gs, CA, condensate sources, S/G PORVs, ND, KC, RN).
- _____ 1.7 Coordinate with Chemistry to increase CACST, UST and hotwell inventories.
- _____ 1.8 Coordinate with IAE to return to service any available out of service battery chargers.
- _____ 1.9 **IF** a personnel safety hazard does not exist due to lightning or high winds, the Shift Work Manager will utilize appropriate personnel to lower crane booms.
- _____ 1.10 Evaluate running the Diesel Generators based on previous run history prior to the arrival of hurricane force winds on site.
- _____ 1.11 **IF** any of the following activities are in progress **OR** are scheduled to begin, terminate the activity {PIP C99-03215}:
- NS pump tests
 - NS heat exchanger tests
 - FWST makeup to the Spent Fuel Pool

2. Subsequent Actions

- _____ 2.1 Shut down the unit(s) to be in Hot Standby (Mode 3) two hours prior to the arrival of hurricane force winds (sustained wind speeds, lasting 15 minutes, in excess of 73 mph). For the initiation of any unit shutdown, carry out the reporting provisions of RP/0/B/5000/013, (NRC Notification Requirements).
- 2.2 Complete the following steps prior to the arrival of hurricane force winds on site:
- _____ 2.2.1 Notify RP/Radwaste Chemistry to stop all handling of radioactive materials and releases of radioactive waste to the environment for the duration of the hurricane.
- _____ 2.2.2 Ensure fuel handling operations are secured.
- _____ 2.2.3 **IF** a unit is in Modes 5, 6 or No Mode, perform the following:
- _____ • Ensure the Reactor Building Equipment Hatch is secured.
 - _____ • Ensure NC System level is greater than and maintained above 7.25% level (midloop operation).
- _____ 2.2.4 **IF** RN swapper to the Standby Nuclear Service Water Pond has **NOT** occurred automatically on low low lake level of 557.5 ft. MSL, refer to AP/0/A/5500/020 (Loss of RN System)

Enclosure 4.3
Hurricane Winds On-Site Within 12 Hours

RP/0/A/5000/007
Page 3 of 5

2.2.5 Ventilation Systems shall be aligned as follows:

- _____ A. Minimize releases from VQ System while controlling containment pressure throughout the emergency per OP/1(2)/A/6450/017 (Containment Air Release and Addition System).
- _____ B. Ensure the following ventilation systems are shut down:
 - _____ • VF per OP/1(2)/A/6450/004 (Fuel Pool Ventilation System)
 - _____ • VP per OP/1(2)/A/6450/015 (Containment Purge System)
 - _____ • VE per OP/1(2)/A/6450/002 (Annulus Ventilation System)

_____ 2.2.6 Notify the responsible System Engineer on duty that VF, VP, and VE ventilation systems are being shut down, and they need to consider the possibility of condensation.

2.3 **IF** hurricane force winds are on site, perform the following steps:

_____ 2.3.1 Ensure all VA fans are off.

NOTE: The action taken in the next step causes the VA system to be inoperable. TS 3.0.3 is applicable on both units

_____ 2.3.2 Depress the "INITIATE" pushbuttons on "TORNADO ISOL TRN A(B)" on IMC-5 and 2MC-5 ensuring all automatic functions occur as expected.

_____ 2.4 Classify the emergency as appropriate per RP/0/A/5000/001 (Classification of Emergency) and commence notification and other protective measures as directed by appropriate Emergency Response Procedure.

2.5 Severe Weather Information/Forecast

To obtain the latest severe weather information/forecast for York County, consult the National Weather Service located in Greenville/Spartanburg, S.C. at 1-800-268-7785 or 1-864-879-1085 (unpublished).

2.6 Meteorological Conditions

As a backup to the Catawba site meteorological system (i.e. wind speed, wind direction, etc.), consult the National Weather Service located in Greenville/Spartanburg, S.C. at 1-800-268-7785 or 1-864-879-1085 (unpublished).

2.7 **WHEN** conditions permit, coordinate a survey of plant structures and equipment to determine the extent of damage as follows:

_____ 2.7.1 Notify personnel from IAE and Mechanical Maintenance to assist Operations in the evaluation of weather induced damage as necessary.

Hurricane Winds On-Site Within 12 Hours

- _____ 2.7.2 Notify Radiation Protection personnel to survey the Reactor, Auxiliary and Fuel Pool Buildings to ensure shielding integrity.
- _____ 2.7.3 Notify Chemistry personnel to survey areas where damage may release dangerous chemicals (e.g. Sulfuric Acid Storage).
- _____ 2.7.4 Record the findings of the survey in the associated unit's Nuclear Shift Supervisor log.
- 2.8 **IF** the survey identifies plant damage, perform the following:
 - _____ 2.8.1 Determine the emergency classification for current plant conditions.
 - _____ 2.8.2 Make required notifications.
- _____ 2.9 Restore affected plant systems to normal operation per applicable site procedures.
- _____ 2.10 **IF** an emergency has **NOT** been declared, notify York County Emergency Management about the event through the York County 911 Telecommunicator and as necessary, request emergency response support. {PIP 0-C00-01689}

NOTE:

1. A request for emergency response support (except an ambulance) from an off-site agency requires a 4-hour notification of the NRC as an "Off-site Notification" per RP/0/B/5000/013 (NRC Notification Requirements).
2. A request for ambulance support for a "contaminated injury" is an 8-hour notification and the request for transport of a "clean injury" does not require a NRC notification.

- _____ 2.11 **IF** emergency response support from York County Emergency Management is requested **AND** an emergency has **NOT** been declared, notify the NRC under the 4-hour notification requirement for off-site notifications.

NOTE: Permission for unit startup is required from FEMA/NRC after a plant shutdown due to a natural disaster that affects both the plant and the local government emergency response capability.

- _____ 2.12 **IF** a unit restart is desired, consult site management for unit startup criteria.
- 2.13 This procedure remains in effect until the Duke Power Meteorological Group (704-594-0341) verifies that the threat of hurricane force winds to the Catawba Nuclear Site no longer exists.

Enclosure 4.3

RP/0/A/5000/007

Hurricane Winds On-Site Within 12 Hours

Page 5 of 5

2.14 **IF** an emergency has **NOT** been declared for this event **AND** the NRC has **NOT** been notified of this event, perform the following:

- _____ A. Notify the duty Emergency Planner.
- _____ B. Notify the Community Relations duty person.
- _____ C. Make a courtesy notification to the states and counties using Enclosure 4.7.

1. Immediate Actions

- NOTE:**
1. Immediate Actions may be performed simultaneously.
 2. The four Reactor Coolant Leakage Detection Systems are not seismically qualified and must be assumed to be inoperable following any seismic event. EMF38(L) and EMF39(L) can be verified to be operable based on power availability and sample pump operation.
 3. Reactor Coolant Leakage Detection Systems are not required to be operable during Cold Shutdown.
 4. An OAC Alarm at point CID 2252 indicates that there has been a recording of an event by seismic instrumentation. This alarm is in addition to an event indicator and initiation by starter unit MIMT 5090.

- 1.1 Following any earthquake that is felt in the plant or is recorded on instrumentation, including earthquakes smaller than OBE, declare all four Reactor Coolant Leakage Detection Systems (listed below) are inoperable:
 - _____ 1.1.1 Containment Floor and Equipment Sump Level and Flow Monitoring System
 - _____ 1.1.2 VUCDT Level Monitoring System)
 - _____ 1.1.3 EMF38(L)
 - _____ 1.1.4 EMF39(L)
- 1.2 Determine the operable status of 1(2)EMF38(L) and 1(2)EMF39(L) by the following methods and apply the appropriate action statement for Technical Specification 3.4.15.
 - _____ 1.2.1 Perform a source check from the Control Room to verify that power to 1(2)EMF38(L) and 1(2)EMF39(L) is available.
 - _____ 1.2.2 Visually verify that 1(2)EMF38(L) and 1(2)EMF39(L) sample pump is operational.

- NOTE:**
1. Decision on Shutdown **IF** the OBE has been exceeded **OR** significant damage is found during operator walkdowns, the plant should be shutdown in an orderly manner for more detailed inspections. **IF** the plant has tripped under conditions which would warrant shutdown, the plant should remain shutdown for detailed inspections.
 2. Pre-Shutdown Inspections Following a decision to shutdown the plant, but prior to initiating shutdown, visual inspections of essential safe shutdown equipment should be performed to determine its readiness. Other factors outside of the control of the plant that could affect the timing of the shutdown (e.g. availability/reliability of off site power), should also be evaluated at this time.
 3. Normal Shutdown **WHEN** plant capability to safely shutdown has been verified, normal shutdown would proceed. Under all circumstances the method and pace at which the Reactor is brought to a safe condition should continue to be based upon all instrumentation indications and the operator's judgment.

- _____ 1.3 **IF** the Operational Bases Earthquake (OBE) Exceeded Alarm 1AD-4, B/8, is received **AND** the effects of an earthquake are felt, immediately take the Unit(s) to Hot Standby (Mode 3). For the initiation of any unit shutdown, carry out the reporting provisions of RP/0/B/5000/013, (NRC Notification Requirements).
- _____ 1.4 **IF** the Operational Bases Earthquake (OBE) Exceeded Alarm 1AD-4, B/8, is received **AND** the effects of an earthquake are felt, swap RN to the Standby Nuclear Service Water Pond in accordance with OP/0/A/6400/006C (Nuclear Service Water System).
- _____ 1.5 Classify the emergency as appropriate per RP/0/A/5000/001, (Classification of Emergency), and commence notification and other protective measures as directed by appropriate Emergency Response Procedure.
- _____ 1.6 **IF** the FWST level is decreasing, verify valves 1(2)FW33A and 1(2)FW49B are closed.
- _____ 1.7 **WHEN** appropriate, announce the impending condition over the plant PA System.
- _____ 1.8 **IF** an emergency has **NOT** been declared, notify York County Emergency Management about the event through the York County 911 Telecommunicator and as necessary, request emergency response support. {PIP 0-C00-01689}

- NOTE:**
1. A request for emergency response support (except an ambulance) from an off-site agency requires a 4-hour notification of the NRC as an "Off-site Notification" per RP/0/B/5000/013 (NRC Notification Requirements).
 2. A request for ambulance support for a "contaminated injury" is an 8-hour notification and the request for transport of a "clean injury" does not require a NRC notification.

- _____ 1.9 **IF** emergency response support from York County Emergency Management is requested **AND** an emergency has **NOT** been declared, notify the NRC under the 4-hour notification requirement for off-site notifications.

2. Subsequent Actions

- _____ 2.1 Notify IAE to remove the magnetic tapes from the SMA-3 recorder to evaluate and verify the magnitude of the earthquake according to AM/0/B/5100/010, "Kinematics Seismic Monitoring System Data Collection." Section 3.0 of this enclosure is provided as a reference for seismic monitoring instrument locations.
- _____ 2.2 **IF** the earthquake intensity is $>0.15g$ horizontal **OR** $>0.1g$ vertical ($>$ Safe Shutdown Earthquake) as measured by 1MIMT 5070 (provided by IAE from step 2.1), shut down the unit(s) to Cold Shutdown (Mode 5). For the initiation of any unit shutdown, carry out the reporting provisions of RP/0/B/5000/013, (NRC Notification Requirements).
- 2.3 Seismic verification may be obtained by calling the National Earthquake Information Service at 1-303- 273-8500.
- _____ 2.4 All records made by accelerographs and recorders shall be evaluated to verify the extent of the earthquake.
- 2.4.1 Notify Engineering (RES-I&C) to perform the following:
- _____ A. Collect the etched plates for evaluation purposes from accelerographs and spectrum recorders listed in Section 3 of this enclosure.
- _____ B. Replenish the accelerographs and spectrum recorders with new plates to restore the instrument's function.
- _____ 2.4.2 Notify MCE Civil Engineer that an analysis of the results from the etched plate evaluations is required per section 3.7.4.4 of the UFSAR.
- _____ 2.5 **IF** the earthquake was determined to be $>OBE$, Regulatory Compliance shall make a report to NRC Region II within 24 hours via telephone. (10CFR 50.72)
- _____ 2.6 **IF** the earthquake was determined to be $<OBE$ but recorded on seismic instrumentation, Regulatory Compliance shall prepare and submit a special report to the NRC as defined in Selected Licensee Commitments (SLC) Section 16.7-2, Seismic Instrumentation, Testing Requirements, b.
- 2.7 **WHEN** conditions permit, coordinate a survey of plant structures and equipment (similar to normal daily rounds) to determine the extent of damage, as follows:
- _____ 2.7.1 Notify personnel from IAE and Mechanical Maintenance to assist Operations in the evaluation of damage as necessary.
- _____ 2.7.2 Notify Radiation Protection personnel to survey the Reactor, Auxiliary and Fuel Pool Buildings to ensure shielding integrity.

2.7.3 Notify Chemistry personnel to perform the following:

- _____ A. Survey areas where damage may release dangerous chemicals (e.g. Sulfuric Acid Storage).
- _____ B. Close both Unit 1 and Unit 2 NS Hx Chemical Wet Layup System isolation valves per OP/1(2)/A/6400/064, Chemical Addition to NS Wet Layup System.

_____ 2.7.4 Record the findings of the survey in the associated unit's Nuclear Shift Supervisor Log.

2.8 **IF** the earthquake exceeds OBE **AND** the survey identifies plant damage, perform the following:

- _____ 2.8.1 Evaluate overall plant conditions and consider emergency classifications based on Emergency Coordinator's judgement.
- _____ 2.8.2 Make required notifications.

_____ 2.9 Restore affected plant systems to normal operation per applicable site procedures.

NOTE: Permission for unit startup is required from FEMA/NRC after a plant shutdown due to a natural disaster that affects both the plant and the local government emergency response capability.

_____ 2.10 **IF** a unit restart is desired, consult site management for unit startup criteria.

2.11 **IF** an emergency has **NOT** been declared for this event **AND** the NRC has **NOT** been notified of this event, perform the following:

- _____ 2.11.1 Notify the duty Emergency Planner.
- _____ 2.11.2 Notify the Community Relations duty person.
- _____ 2.11.3 Make a courtesy notification to the states and counties using Enclosure 4.7.

Enclosure 4.4
Earthquake

RP/0/A/5000/007
Page 5 of 5

3. Station Seismic Monitoring Instruments

<u>Instrument #</u>	<u>Name</u>	<u>Location</u>
1MIMT-5010	Peak Accelerograph	Cold Leg Accumulator 1A
1MIMT-5020	Peak Accelerograph	NC Pipe at PZR Surge Line
1MIMT-5030	Peak Accelerograph	NI Pump 1A

NOTE: 1MIMT-5040 also provides input to Peak Shock Annunciator (PSA1575)

1MIMT-5040	Spectrum Recorder	RB Basement 0°
1MIMT-5050	Spectrum Recorder	PZR Lower Support
1MIMT-5060	Spectrum Recorder	Aux Bldg. 577 EL (PP-56)

NOTE: 1MIMT-5000 provides indication of OBE Exceeded on 1AD-4, B/8 in Control Room

1MIMT-5000	Seismic Switch	RB Basement 0°
1MIMT-5070	Strong Motion Accelerograph	RB Basement 0°
1MIMT-5080	Strong Motion Accelerograph	Annulus 619 EL 0°
1MIMT-5090	Starter Unit for SMA-3	RB Basement 0°

Seismic Instrumentation System Information

Seismic switch 1MIMT-5000 provides a Control Room Annunciator 1AD4/B8 for indication of OBE exceeded. 1MIMT 5070/5080 receive a start signal from 1MIMT-5090. 1MIMT 5070/5080 provide magnetic tape recordings which must be played back on SMP-1 to get a recording of the data to be analyzed.

1MIMT-5040 provides Control Room indication of greater than 70% OBE (amber light) or greater than 100% OBE (red light) for certain frequencies between 2 and 25.4 Hz.

1MIMT-5010/5020/5030/5040/5050/5060 contain removable scratch plates. These scratch plates provide indication of peak accelerations.

**Flooding Due to High Lake Level
(Lake Elevation > 593.5 MSL)
or Seiche (Lake Tidal Wave)**

1. Immediate Actions

NOTE: 1. Seiche is same as High Lake Level.

2. Immediate Actions may be performed simultaneously.

- _____ 1.1 Should the lake level exceed 593.5 Ft MSL **AND** jeopardize the safe operation of the reactor, shut down the unit(s) to Hot Standby (Mode 3). For the initiation of any unit shutdown, carry out the reporting provisions of RP/0/B/5000/013, (NRC Notification Requirements).
- _____ 1.2 Contact SPOC to close the Auxiliary Service Building rolling doors AR2 (Hot Tool Crib) and AR5 (Waste Shipping Area). **IF** the rolling doors are damaged to the extent they cannot be closed, ensure a suitable 7½" barrier is installed across the door opening above the 594+0 Floor Slab until the door(s) can be repaired.
- _____ 1.3 Ensure fuel handling operations are stopped.
- _____ 1.4 **IF** a unit is in Modes 5, 6 or No Mode, perform the following:
 - _____ • Ensure the Reactor Building Equipment Hatch is secured.
 - _____ • Ensure NC System level is greater than and maintained above 7.25% level (midloop operation).
- _____ 1.5 Classify the emergency as appropriate per RP/0/A/5000/001, (Classification of Emergency), and commence notification and other protective measures as directed by appropriate Emergency Response Procedure.
- _____ 1.6 **WHEN** appropriate, announce the impending condition over the plant PA System.
- _____ 1.7 **IF** an emergency has **NOT** been declared, notify York County Emergency Management about the event through the York County 911 Telecommunicator and as necessary, request emergency response support. {PIP 0-C00-01689}

NOTE: 1. A request for emergency response support (except an ambulance) from an off-site agency requires a 4-hour notification of the NRC as an "Off-site Notification" per RP/0/B/5000/013 (NRC Notification Requirements).

2. A request for ambulance support for a "contaminated injury" is an 8-hour notification and the request for transport of a "clean injury" does not require a NRC notification.

- _____ 1.8 **IF** emergency response support from York County Emergency Management is requested **AND** an emergency has **NOT** been declared, notify the NRC under the 4-hour notification requirement for off-site notifications.

**Flooding Due to High Lake Level
(Lake Elevation > 593.5 MSL)
or Seiche (Lake Tidal Wave)**

2. Subsequent Actions

- 2.1 **WHEN** conditions permit, coordinate a survey of plant structures and equipment to determine the extent of damage as follows:
- _____ 2.1.1 Notify personnel from IAE and Mechanical Maintenance to assist Operations in the evaluation of weather induced damage as necessary.
 - _____ 2.1.2 Notify Radiation Protection personnel to survey the Reactor, Auxiliary and Fuel Pool Buildings to ensure shielding integrity.
 - _____ 2.1.3 Notify Chemistry personnel to survey areas where damage may release dangerous chemicals (e.g. Sulfuric Acid Storage).
 - _____ 2.1.4 Record the findings of the survey in the associated unit's Nuclear Shift Supervisor Log.
- 2.2 **IF** the survey identifies plant damage, perform the following:
- _____ 2.2.1 Evaluate the overall plant condition and consider emergency classifications based on Emergency Coordinator's judgement.
 - _____ 2.2.2 Make required notifications.
- _____ 2.3 Restore affected plant systems to normal operation per applicable site procedures.

<p>NOTE: Permission for unit startup is required from FEMA/NRC after a plant shutdown due to a natural disaster that affects both the plant and the local government emergency response capability.</p>
--

- _____ 2.4 **IF** a unit restart is desired, consult site management for unit startup criteria.
- 2.5 **IF** an emergency has **NOT** been declared for this event **AND** the NRC has **NOT** been notified of this event, perform the following:
- _____ 2.5.1 Notify the duty Emergency Planner.
 - _____ 2.5.2 Notify the Community Relations duty person.
 - _____ 2.5.3 Make a courtesy notification to the states and counties using Enclosure 4.7.

Enclosure 4.6
Low Lake Level
(Lake Elevation < 557.5 Ft. MSL)

RP/0/A/5000/007
Page 1 of 2

1. Immediate Actions

NOTE: Immediate Actions may be performed simultaneously.

- _____ 1.1 Classify the emergency as appropriate per RP/0/A/5000/001 (Classification of Emergency), and commence notification and other protective measures as directed by appropriate Emergency Response Procedure.
- _____ 1.2 Lake level elevations below 557.5 FT. MSL shall be obtained from the Duke Power Company System Coordinator on the Control Room System Coordinator phone or at 8-382-4413.
- _____ 1.3 Should the lake level decrease below 550.4 Ft MSL **AND** jeopardize the safe operation of the reactor, shut down the unit(s) to Hot Standby (Mode 3). For the initiation of any unit shutdown, carry out the reporting provisions of RP/0/B/5000/013 (NRC Notification Requirements).
- _____ 1.4 **WHEN** appropriate, announce the impending condition over the plant PA System.
- _____ 1.5 **IF** an emergency has **NOT** been declared, notify York County Emergency Management about the event through the York County 911 Telecommunicator and as necessary, request emergency response support. {PIP 0-C00-01689}

NOTE:

- 1. A request for emergency response support (except an ambulance) from an off-site agency requires a 4-hour notification of the NRC as an "Off-site Notification" per RP/0/B/5000/013 (NRC Notification Requirements).
- 2. A request for ambulance support for a "contaminated injury" is an 8-hour notification and the request for transport of a "clean injury" does not require a NRC notification.

- _____ 1.6 **IF** emergency response support from York County Emergency Management is requested **AND** an emergency has **NOT** been declared, notify the NRC under the 4-hour notification requirement for off-site notifications.

2. Subsequent Actions

- 2.1 **WHEN** conditions permit, coordinate a survey of plant structures and equipment to determine the extent of damage as follows:
 - _____ 2.1.1 Notify personnel from IAE and Mechanical Maintenance to assist Operations in the evaluation of weather induced damage as necessary.
 - _____ 2.1.2 Notify Radiation Protection personnel to survey the Reactor, Auxiliary and Fuel Pool Buildings to ensure shielding integrity.
 - _____ 2.1.3 Notify Chemistry personnel to survey areas where damage may release dangerous chemicals (e.g. Sulfuric Acid Storage).

Enclosure 4.6
Low Lake Level
(Lake Elevation < 557.5 Ft. MSL)

RP/0/A/5000/007
Page 2 of 2

- ☐ 2.1.4 Record the findings of the survey in the associated unit's Nuclear Shift Supervisor Log.
- 2.2 **IF** the survey identifies plant damage, perform the following:
 - ☐ 2.2.1 Evaluate the overall plant condition and consider emergency classifications based on the Emergency Coordinator's judgement.
 - ☐ 2.2.2 Make required notifications.
- ☐ 2.3 Restore affected plant systems to normal operation per applicable site procedures.
- 2.4 **IF** an emergency has **NOT** been declared for this event **AND** the NRC has **NOT** been notified of the event, perform the following:
 - ☐ 2.4.1 Notify the duty Emergency Planner.
 - ☐ 2.4.2 Notify the Community Relations duty person.
 - ☐ 2.4.3 Make a courtesy notification to the states and counties using Enclosure 4.7.

**Courtesy Notification to States and Counties
for a Non-emergency Plant Event**

NOTE: This enclosure provides instruction for notifying state and county emergency preparedness management agencies (primary WP/EOCs) and EnergyQuest of **non-emergency** plant events by completing a Courtesy Notification Form (page 4 of 4) and faxing it to each agency, then verifying its receipt with a follow-up phone call. {PIP 0-C00-01689}

1. Complete the Courtesy Notification Form as follows:

- _____ 1.1 Provide the time and date of:
- Notification
 - Event
- _____ 1.2 Mark the event(s) that describes the reason for the notification.
- _____ 1.3 Describe the event briefly, especially any impact to the site (damage, impact on operations, and any requested support received from off-site agencies).

NOTE:

1. The confirmation code number is randomly assigned to each message. This provides a method for authenticating an offsite agency official that calls the site over normal phone lines requesting additional information about the reported event. Knowing the confirmation code number shall be the authorization for site personnel to provide information about the event to the caller.
2. Calls received over selective signal lines are considered to be secure and do not require knowledge of the confirmation code number to receive additional information about the event.

- _____ 1.4 Assign a 2-digit confirmation number to the notification form.
- _____ 1.5 Print the name and title of the individual authorizing the notification.

2. Notification by Group Fax

NOTE: Step 2 sends a group fax and step 3 sends the fax to agencies individually.

- _____ 2.1 Notify the states and county agencies (primary WP/EOCs) of a **non-emergency** plant event(s) by completing a Courtesy Notification Form (page 4 of 4) and transmitting it to the states and counties as follows:

**Courtesy Notification to States and Counties
for a Non-emergency Plant Event**

NOTE: Performing steps 2.1.1 through 2.1.3 sends the Courtesy Notification Form (page 4 of 4) to multiple locations in sequence.

- _____ 2.1.1 Place the completed form (page 4 of 4) face down into the fax machine.
- 2.1.2 Press the pre-programmed one-touch speed dial pushbutton for each of the of the following agencies:
 - _____ ☐ York Co WP/EOC
 - _____ ☐ Gaston Co. WP/EOC
 - _____ ☐ Meck Co. WP
 - _____ ☐ NC WP/EOC
 - _____ ☐ SC WP/EOC
 - _____ ☐ EnergyQuest
- _____ 2.1.3 Press START
- 2.2 Verify by one of the following means that the form (page 4 of 4) was received by each of the agencies:
 - _____ ☐ Selective Signal (Enclosure 1.5, Emergency Response Telephone Directory)
 - _____ ☐ Duke or Commercial Telephone (Enclosures 1.12 – 1.16, Emergency Response Telephone Directory)
- _____ 2.3 **IF** any agency did not receive the group fax, then make the courtesy notification to the agency(s) by performing step 3.
- _____ 2.4 Fax a copy of the Courtesy Notification Form (page 4 of 4) to Emergency Planning at 831-3151.
- _____ 2.5 Report any communications equipment failures to the duty Emergency Planner.

**Courtesy Notification to States and Counties
for a Non-emergency Plant Event**

3. Notification by Individual Fax

- _____ 3.1 Notify the states and county agencies (primary WP/EOCs) of a **non-emergency** plant event(s) by completing a Courtesy Notification Form (page 4 of 4) and transmitting it to the states and counties as follows:

NOTE: Performing steps 3.1.1 through 3.1.3 sends the Courtesy Notification Form (page 4 of 4) to individual agencies one at a time.

- _____ 3.1.1 Place the completed form (page 4 of 4) face down into the fax machine.

NOTE: SC WP/EOC and EnergyQuest list two fax numbers. Use the fax number for sending Emergency Notifications.

- _____ 3.1.2 Enter the individual fax phone number (Enclosures 1.12 through 1.16 in the Emergency Response Phone Book) for the desired individual agency (WP/EOC). EnergyQuest fax number is listed in Enclosure 1.19, Emergency Response Telephone Directory.

- _____ 3.1.3 Press START.

- _____ 3.1.4 Repeat steps 3.1.1 through 3.1.3 until all of the desired agencies have been faxed the form (page 4 of 4).

- _____ 3.2 Verify by one of the following means that the form (page 4 of 4) was received by the agency(s):

- _____ ☐ Selective Signal (Encl. 1.5, Emergency Response Telephone Directory)

- _____ ☐ Duke or Commercial Telephone (Enclosures 1.12 – 1.16, Emergency Response Telephone Directory)

- _____ 3.3 Fax a copy of the completed Courtesy Notification Form (page 4 of 4) to Emergency Planning at 831-3151.

- _____ 3.4 Report any communications equipment failures to the duty Emergency Planner.

Courtesy Notification to States and Counties
for a Non-emergency Plant Event

DUKE POWER COMPANY
CATAWBA NUCLEAR STATION

COURTESY NOTIFICATION FORM
NON-EMERGENCY EVENTS

Time/Date Of Notification: _____ / _____

Time/Date Of Event: _____ / _____

Event (X):

☐ Earthquake

☐ Toxic Gases

☐ Fatality

☐ Flood

☐ Civil Disturbance

☐ Fire Response by
Bethel/Newport

☐ Hurricane

☐ Bomb Threat

☐ Medical Response
by Ambulance

☐ Ice/Snow

☐ Vehicle Crash

☐ HazMat /Spill
Response

☐ Tornado

☐ Explosion

☐ Other Events Impacting Safe
Plant Operation

Description:

Confirmation Code Number: _____ (This number is authentication for any off-site
agency caller to be given information about the event).

Confirmation Phone Number: (803) 831-8185

Reported By: _____ Title: _____

Duke Power Company
PROCEDURE PROCESS RECORD

(1) ID No. RP/0/A/5000/020

Revision No. 015

PREPARATION

(2) Station Catawba Nuclear Station

(3) Procedure Title Technical Support Center (TSC) Activation Procedure

(4) Prepared By E. T. Buckle Date 7/16/01

(5) Requires 10CFR50.59 evaluation?

- ☒ Yes (New procedure or reissue with major changes)
☐ No (Revision with minor changes)
☐ No (To incorporate previously approved changes)

(6) Reviewed By BR SH (QR) Date 7/30/01

Cross-Disciplinary Review By _____ (QR) NA BR Date 7/30/01

Reactivity Mgmt. Review By _____ (QR) NA _____ Date 7/30/01

(7) Additional Reviews

Reviewed By _____ Date _____

Reviewed By _____ Date _____

(8) Temporary Approval (if necessary)

By _____ (SRO/QR) Date _____

By _____ (QR) Date _____

(9) APPROVED BY Richard L. Swigart Date 7/30/01

PERFORMANCE (Compare with control copy at least once every 14 calendar days while work is being performed)

(10) Compared with Control Copy _____ Date _____

Compared with Control Copy _____ Date _____

Compared with Control Copy _____ Date _____

(11) Dates(s) Performed _____

Work Order Number (W/O #) _____

COMPLETION

(12) Procedure Completion Verification

- | | | |
|------------------------------|------------------------------|---|
| <input type="checkbox"/> Yes | <input type="checkbox"/> N/A | Check lists and/or blanks properly initialed, signed, dated, or filled in NA, as appropriate? |
| <input type="checkbox"/> Yes | <input type="checkbox"/> N/A | Listed enclosures attached? |
| <input type="checkbox"/> Yes | <input type="checkbox"/> N/A | Data sheets attached, completed, dated and signed? |
| <input type="checkbox"/> Yes | <input type="checkbox"/> N/A | Charts, graphs, etc. attached and properly dated, identified and marked? |
| <input type="checkbox"/> Yes | <input type="checkbox"/> N/A | Procedure requirements met? |

Verified By _____ Date _____

(13) Procedure Completion Approved _____ Date _____

(14) Remarks (attach additional pages, if necessary)

Duke Power Company
Catawba Nuclear Station

Technical Support Center (TSC) Activation Procedure

Reference Use

Procedure No.

RP/0/A/5000/020

Revision No.

015

Electronic Reference No.

CN005GNZ

1. Symptoms

Conditions exist where events are in progress or have occurred which indicate a potential degradation of the level of safety of the plant and activation of the Emergency Response Organization (ERO) has been initiated.

2. Immediate Actions

- NOTE:**
1. The TSC must be "ACTIVATED" within 75 minutes of the emergency classification time.
 2. This procedure is not required to be followed in step-by-step sequence. Sections of the procedure are to be implemented as the applicable action becomes necessary.
 3. Specific telephone numbers are not provided in this procedure. Telephone numbers are located in the Emergency Response Telephone Directory. A hard copy of the Emergency Response Telephone Directory is located in the TSC. An electronic version of the Emergency Response Telephone Directory is available on the Catawba Nuclear Site Emergency Planning Web Page.

- 2.1 Upon notification to activate the TSC, Emergency Response Organization (ERO) personnel assigned to the TSC shall report to the TSC.
- 2.2 The Emergency Coordinator may initially report to the Control Room to discuss plant status with the Operations Shift Manager.

3. Subsequent Actions

- 3.1 Each represented group is responsible for ensuring their appropriate Checklist is completed (Enclosures 4.1 through 4.16) and for reviewing their Responsibilities.
- 3.2 The following definitions are applicable to the Emergency Notification Form:
 - 3.2.1 **IMPROVING** - Emergency conditions are improving in the direction of a lower classification or termination of the event.
 - 3.2.2 **STABLE** - The emergency situation is under control. Emergency core cooling systems, equipment, plant, etc. are operating as designed.
 - 3.2.3 **DEGRADING** - Given current and projected plant conditions/equipment status, recovery efforts are not expected to prevent entry into a higher emergency classification or the need to upgrade off-site protective action recommendations.
 - 3.2.4 **CRITICAL TASK** - A task that must be completed as soon as possible and normally becomes the number one priority task. The Assessment and repair Team is dispatched immediately from the OSC. Examples include: SSF Startup, Fire Response, MERT or any task vital to protection of the reactor core.

3.2.5 ESSENTIAL PERSONNEL - Any personnel required to assist in the performance of assigned emergency response tasks. These personnel would not evacuate in the event of Site Evacuation

3.2.6 RELEASE - Any unplanned and quantifiable discharge to the environment of radioactive effluent attributable to a declared emergency event. Base determinations on information such as EMF readings, containment pressure and other instrument indications, field monitoring results, and knowledge of the event and its impact on system operation and resultant release pathways. A release is considered to be in progress if the following occurs:

A. Reactor Building EMF monitors (38, 39 or 40) reading indicates an increase in activity

OR

EMF monitors 53A or 53B read greater than 1.5 R/hr

AND

Pressure inside the containment building is greater than Tech. Specs.

OR

An actual containment breach is determined.

B. Increase in activity monitored by unit vent EMF monitors 35, 36, or 37

C. Steam generator tube leak monitored by EMF 33.

3.3 The following SDS Group Displays have been established for emergency response use. To access these group displays type, GD (space) Group Display Name, in the white box at the upper right portion of the screen.

Group Display Name	Group Display Description
3.3.1 EROCONT	Selected values associated with Containment
3.3.2 EROCORE1	Incore temperature values
3.3.3 EROCORE2	Additional Incore temperature values
3.3.4 EROCORE3	Additional Incore temperature values
3.3.5 EROEMF	Selected EMF instantaneous values
3.3.6 EROEMF15	Selected EMF 15 minute average values
3.3.7 EROENV	Selected Meteorological values
3.3.8 EROINJCT	Selected Letdown/Charging values
3.3.9 EROPLEAK	Selected Primary to Containment Leakage Values
3.3.10 EROPRIM	Selected Primary system values
3.3.11 ERORD5	Selected Raddose V Dose Assessment Points
3.3.12 EROSAMG	Selected SAMG values
3.3.13 EROSECND	Selected Secondary system values
3.3.14 EROSLEAK	Selected Primary to Secondary Leakage Values
3.3.15 ERORXG	Selected values for the Reactor Engineer

- 3.3.16 ERDS1 ERDS Group 1
- 3.3.17 ERDS2 ERDS Group 2
- 3.4 Personnel with training deficiencies must be approved by the Emergency Coordinator prior to participating as an ERO member. This approval shall be documented in the TSC Log.
- 3.5 RP/0/B/5000/022, "Evacuation Coordinator Procedure," shall be used as the controlling procedure for the Evacuation Coordinator position.
- 3.6 Contact the TSC Data Coordinator for resolution of any computer hardware/software problems, or the OSC NSC Manager for resolution of other equipment problems.
- 3.7 Emergency Planning shall coordinate participation in a post-event critique with the states and counties to determine and document lessons learned.

4. Enclosures

- 4.1 Emergency Coordinator
- 4.2 TSC Dose Assessor
- 4.3 TSC Off-Site Agency Communicator
- 4.4 NRC Communicator
- 4.5 Operations Superintendent
- 4.6 Operations Engineer
- 4.7 Assistant Operations Engineer
- 4.8 Engineering Manager
- 4.9 Reactor Engineer
- 4.10 System Support Engineer
- 4.11 TSC Emergency Planner
- 4.12 TSC Logkeeper
- 4.13 TSC Data Coordinator
- 4.14 RP Support
- 4.15 Security Manager
- 4.16 Assistant Emergency Coordinator
- 4.17 TSC Operational Checklist
- 4.18 Commitments for RP/0/A/5000/020

Enclosure 4.1
Emergency Coordinator Checklist

RP/0/A/5000/020
Page 1 of 11

Initial

_____ Establish the TSC/OSC as Operational (minimally staffed and functional) by completing the following steps.

- A. Print name and time arrived on TSC sign-in board.
- B. Sign TSC Roster located in the TSC sign-in board area.
- C. Obtain self-reading dosimeter from the TSC sign-in board area and complete applicable portion of a dose card using SRWP #33.
- D. Verify that Enclosure 4.17, "TSC Operational Checklist", has been completed. The TSC Emergency Planner is normally assigned the responsibility for completing Enclosure 4.17.
- E. **IF** the TSC Emergency Planner is not present in the TSC, assign the completion of Enclosure 4.17 to a TSC Off-Site Agency Communicator.
- F. TSC Operational as of _____ hours.

_____ Establish the TSC/OSC as Activated (Emergency Coordinator responsibilities have been assumed from the OSM) by completing the following steps.

- A. Receive turnover from Operations Shift Manager using the "Emergency Coordinator Turnover Form."
- B. Verify with OSC Coordinator that OSC is staffed and operational.

OSC Coordinator: _____

- C. Conduct pre-activation conference with TSC staff, OSC Coordinator (via video conference) and Operations Shift Manager (via phone) to confirm readiness for transfer of Emergency Coordinator responsibilities from Control Room to TSC.
- D. Read the definitions for the following terms contained in Step 3.2 in the body of this procedure:
 - Improving
 - Degrading
 - Stable
 - Release

NOTE: The TSC Emergency Coordinator is responsible for tracking Emergency Classifications and approving Off-Site Agency Emergency Notification Forms after the TSC and OSC are activated. This responsibility remains with the TSC Emergency Coordinator and shall not be delegated until the EOF is activated.

- E. TSC and OSC Activated as of _____ hours.

Enclosure 4.1
Emergency Coordinator Checklist

RP/0/A/5000/020
Page 2 of 11

Initial

_____ Announce the following information using the Plant Public Address System.

Emergency (Drill) Message :

"Attention all station personnel. This is a(n) emergency (drill) message. This is a(n) emergency (drill) message.

This is _____ (Name of EC) _____ and as of _____ hours the TSC has been activated and I have assumed Emergency Coordinator responsibilities from the Operations Shift Manager.

A(n) _____ (Emergency Classification) _____ has been declared. The following is a summary of plant status...

Please remain at your site assembly location until you receive further instructions. Information will be provided to you as conditions change."

Drill Message for Standing Down from Site Assembly:

"Attention all station personnel. This is the Emergency Coordinator. This is a drill. This is a drill.

You have been assembled as part of an emergency exercise. If this was a real emergency, you would be asked to remain assembled waiting on further information, or given instructions to leave the site in accordance with our site evacuation plan. You may now return to your normal work assignments. I repeat you may now return to your normal work assignments.

Thank you for your participation."

_____ Immediately inform the OSC Coordinator anytime a Critical Task (as defined in Step 3.2) is identified.

_____ Discuss with the TSC Dose Assessor any radiological release or off-site radiological concerns.

- NOTE:**
1. Site Evacuation is required at General Emergency.
 2. Site Evacuation decisions are based on plant conditions at Alert and Site Area Emergency.

_____ Evaluate with Radiation Protection Manager and appropriate TSC personnel the need to relocate personnel on-site due to radiological hazards or conduct site evacuation of non-essential personnel.

_____ Inform the EOF Director anytime personnel are relocated due to radiological hazards or site evacuation is initiated.

Enclosure 4.1
Emergency Coordinator Checklist

RP/0/A/5000/020
Page 3 of 11

Initial

IF a security event occurs, ensure the following:

_____ Security/HR Manager determines information to be released outside of TSC/OSC/EOF.

_____ TSC Emergency Planner is aware of security event.

_____ **IF** a Site Evacuation is conducted, inform the EOF Director of the approximate number of personnel that will be evacuated

_____ **IF** RP determines that eating and drinking can be allowed in the TSC and OSC, make the following announcement using the TSC/OSC Public Address system:

"This is the Emergency Coordinator. Eating and drinking are now allowed in the TSC and OSC."

_____ **IF** the RP Manager issues a Blanket Dose Extension for the event, make the following announcement using the TSC/OSC Public Address System:

"Attention in the TSC and OSC. This is a(n) emergency (drill) message. This is a(n) emergency (drill) message. The RP Manager has approved a Blanket Dose Extension for this event. If you have any questions concerning your dose limit, please contact RP in the OSC."

_____ **IF** at any time there is a complete loss of RN, work with Operations to ensure off-site power is protected.

_____ Ensure that 10CFR50.54(x) actions are approved prior to performing the action. Reasonable actions that depart from a license condition or technical specification may be performed in an emergency, per 10CFR50.54(x), when this action is immediately needed to protect the health and safety of the public and no action consistent with the license condition or technical specification that can provide adequate or equivalent protection is immediately apparent. Deviation from the intent of an Emergency Procedure constitutes a 10CFR50.54(x) action. Actions taken per 10CFR50.54(x) shall be:

- A. Approved, as a minimum, by a Licensed Senior Reactor Operator prior to taking such action
- B. Documented in the Reactor Operators Logbook
- C. Documented in the TSC Logbook
- D. Reported to the NRC within one hour using RP/0/B/5000/013, "NRC Notification Requirements" {1}

Enclosure 4.1
Emergency Coordinator Checklist

RP/0/A/5000/020
Page 4 of 11

Initial _____

Perform the following as necessary throughout the event:

- A. Assess plant conditions
- B. Establish priorities
- C. Make decisions concerning:
 - Alternate strategies (outside of procedures) as plant conditions change
 - Emergency classifications
 - Mitigation strategies
 - Contingency plans
 - Protective actions for plant personnel and the general public
 - Staffing of the TSC/OSC to ensure that the personnel necessary to effectively assess and mitigate the emergency condition are available
- D. Establish and maintain communications with Federal, State and Local authorities at county warning points or Emergency Operations Centers until the EOF is activated. Immediately notify these off-site agencies of any protective actions recommended by the TSC
- E. Provide periodic updates to the EOF Director concerning plant status
- F. Review and approve any NRC notifications required by RP/0/B/5000/013, "NRC Notification Requirements."
- G. Conduct Update Conferences with the TSC staff approximately every thirty (30) minutes to obtain current plant status. Ensure the OSC Coordinator and EOF Director are aware of when Update Conferences will take place. Refer to page 11 of 11 for staff responsibilities.
- H. Announce the emergency classification, plant status, and priorities via the Public Address System following TSC staff Update Conferences. Information for the Public Address System announcements will be prepared by the Assistant Emergency Coordinator representative or designee.
- I. Approve Emergency Notification Forms as required.
- J. Announce Fitness For Duty expectations to the TSC and OSC after each shift turnover. The fitness for duty announcement is located in Enclosure 4.17.
- K. Authorize emergency worker doses that are expected to exceed the blanket dose extension limits using RP/0/A/5000/018, "Emergency Worker Dose Extension."
- L. Serve as Lead Decision-maker upon entry into Severe Accident Management Guidelines

- | |
|--|
| <p>NOTE:</p> <ul style="list-style-type: none">1. After the EOF is activated, the Emergency Coordinator is not authorized to approve Off-Site Agency Emergency Notification Forms.2. After the EOF is activated, the EOF Director is responsible for tracking Emergency Classifications. |
|--|

_____ Complete or delegate the completion of the "EOF Director Turnover Form."

Enclosure 4.1
Emergency Coordinator Checklist

RP/0/A/5000/020
Page 5 of 11

Initial

- _____ Conduct turnover to EOF Director using the "EOF Director Turnover Form".
- EOF Director: _____
- EOF Activation Time: _____
- _____ **WHEN** the verbal turnover to the EOF Director is complete, fax the completed "EOF Director Turnover Form" to the EOF.
- _____ Announce the following using the TSC/OSC Public Address System:
- "Attention in the TSC and OSC. This is a(n) emergency (drill) message. This is a(n) emergency (drill) message. This is the Emergency Coordinator and as of _____ hours the EOF has been activated."
- _____ Request TSC NRC Communicator to notify the NRC over ENS that the EOF is activated.
- _____ Print the name of 24 Hour Staffing relief for your position on the TSC sign-in board.
- _____ Provide the TSC Emergency Planner with a listing of essential personnel associated with your position that would not leave the site should a site evacuation be necessary.
- _____ **IF** the Control Room enters SACRG-1 **OR** SACRG-2 make the following announcement:
- "Attention in the TSC and OSC. This is a(n) emergency (drill) message. This is a(n) emergency (drill) message. This is the Emergency Coordinator and as of _____ hours the Control Room has entered SCRG-1(2). I will be the Lead Decisionmaker. Begin evaluating plant conditions using the SAMG Diagnostic Flow Chart and the Severe Challenge Status Tree."
- _____ Verify that the TSC Emergency Planner has completed the 24 Hour Staffing/Essential Personnel Logs. The logs are located in Enclosure 4.11, "TSC Emergency Planner."
- _____ **IF** the TSC Emergency Planner is not present in the TSC, assign this function to the TSC Off-Site Agency Communicator.
- _____ **IF** video communications with the OSC become inoperable, delegate someone to fill the role of TSC/OSC Communicator.
- _____ **IF** video communications with the EOF become inoperable, establish communications using telephones.
- _____ **IF** the TSC is not habitable or becomes not habitable, relocate to the Control Room or other location appropriate for plant and radiological conditions. The Emergency Coordinator will decide which TSC staff personnel are relocated to the alternate TSC.

Enclosure 4.1
Emergency Coordinator Checklist

RP/0/A/5000/020
Page 6 of 11

Initial

- _____ **IF** any of the following has occurred **OR** is occurring, contact Environmental Management:
 - A. Diesel Generator has run or is running in a malfunctioning mode for more than one hour.
 - B. Steam release to the environment.
 - C. Anytime Environmental Management resources are needed.

- _____ Refer to the "Emergency Classification Downgrade/Termination Criteria," contained in this enclosure, to determine if termination or downgrade of the event is appropriate and if Recovery Operations are required to be established. **IF** Recovery Operations are required, establish a Recovery Organization using RP/0/B/5000/025, "Recovery and Reentry Procedure."

- _____ Announce over the TSC/OSC PA System that all completed procedures and copies of logs are to be provided to Emergency Planning upon deactivation of the TSC/OSC.

Enclosure 4.1
Emergency Coordinator Checklist

RP/0/A/5000/020
Page 7 of 11

Emergency Coordinator Turnover Form

1. Plant Status:

Unit 1: _____

Unit 2: _____

2. Emergency Classification: _____

Time Declared: _____

3. Off-Site Agency Notifications Turnover to TSC Complete? _____(Y/N)

4. Time Next Notification Due: _____

5. Significant Events:

_____ Radioactive Release

Y/N

_____ Injured Personnel

Y/N

_____ Other (Specify _____)

Y/N

6. Protective Actions in Progress:

_____ Site Assembly (Time Initiated _____)

Y/N

_____ Off-Site Protective Actions Recommended

Y/N (List) _____

_____ Other (Specify _____)

Y/N

7. Response Procedure In Progress: _____

RP _____ RP _____ RP _____

8. Actions in Progress:

Enclosure 4.1

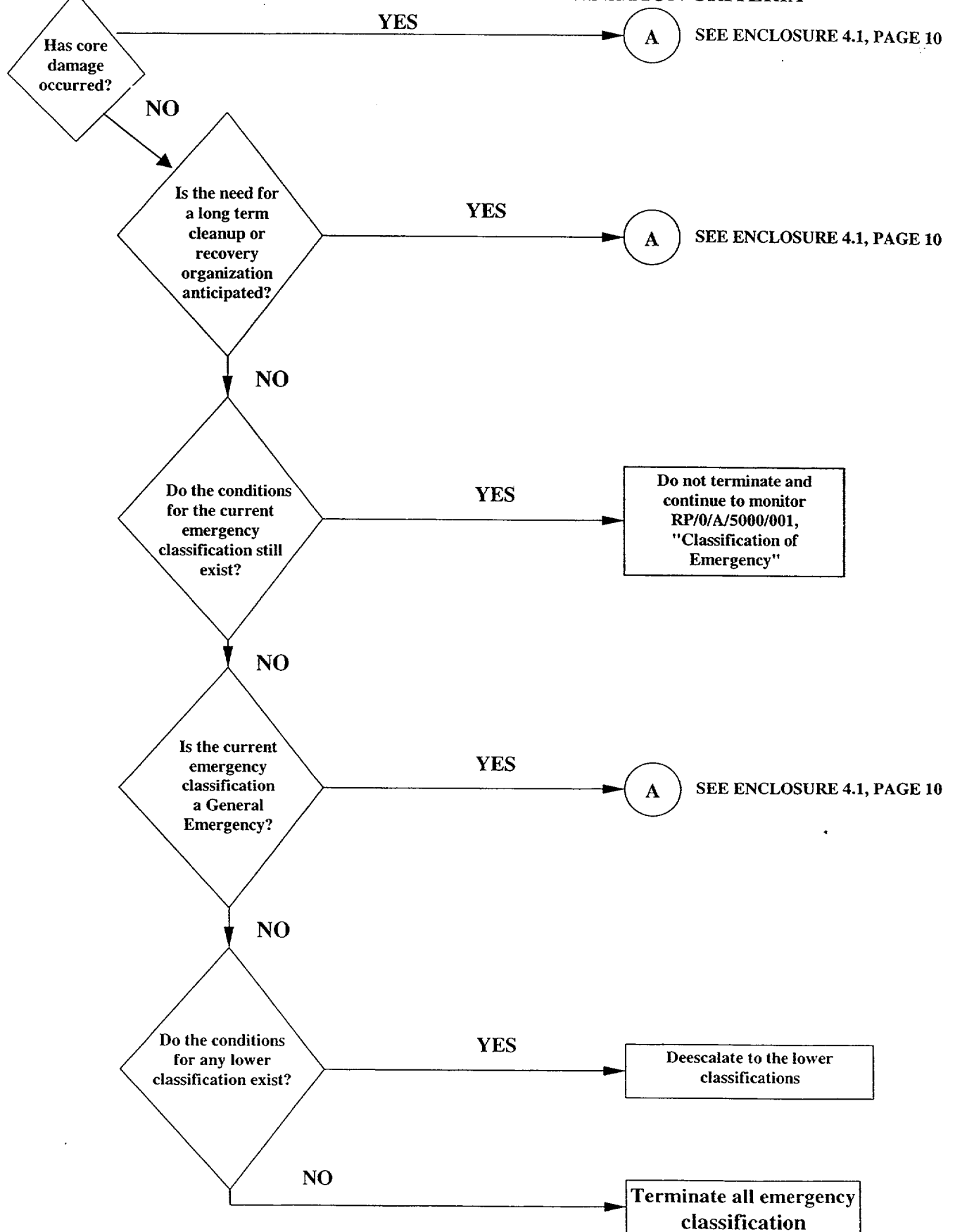
RP/0/A/5000/020

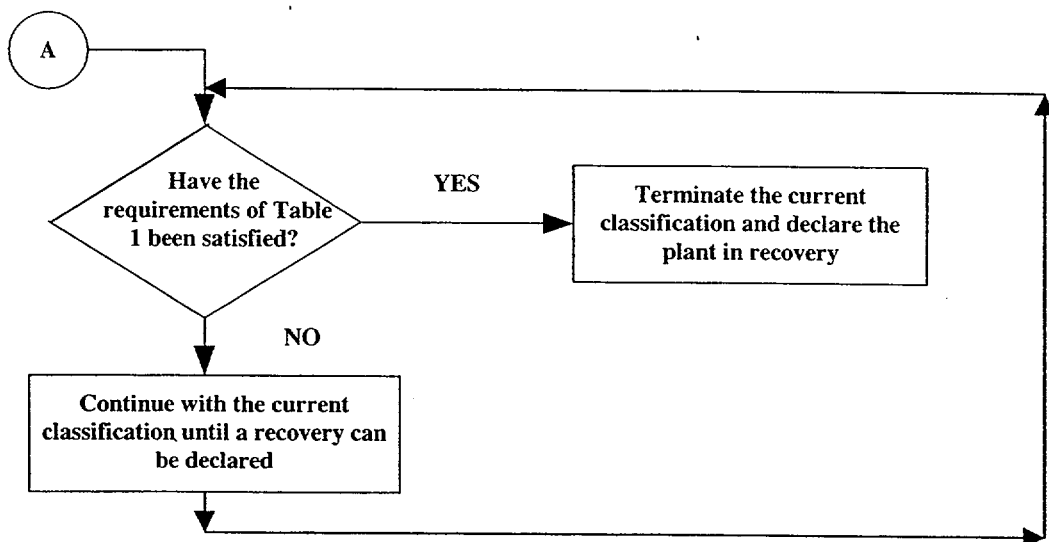
Emergency Coordinator Checklist

Page 8 of 11

UNIT(S) AFFECTED: CATAWBA U1 _____ U2 _____ MCGUIRE U1 _____ U2 _____

GENERAL	DATE: _____	POWER LEVEL	NCS TEMP	NCS PRESS	
	TIME: _____	U-1 _____ U-2 _____	_____	_____	
EMERGENCY CLASSIFICATION	NOUE DECLARED AT: _____ ALERT DECLARED AT: _____ SAE DECLARED AT: _____ G.E. DECLARED AT: _____ TSC ACTIVATED AT: _____ EOF ACTIVATED AT: _____ REASON FOR EMER. CLASS _____ _____				
SITE ASSEMBLY SITE EVACUATION		YES	NO	TIME	LOCATION OR COMMENTS
	SITE ASSEMBLY	_____	_____	_____	_____
	SITE EVAC. (NON-ESSEN.)	_____	_____	_____	_____
	SITE EVAC. (ESSENTIAL)	_____	_____	_____	_____
	OTHER OFFSITE AGENCY INVOLVEMENT	_____	_____	_____	_____
	MEDICAL	_____	_____	_____	_____
	FIRE	_____	_____	_____	_____
	POLICE	_____	_____	_____	_____
RADIOLOGICAL	FIELD MON. TEAMS	NUMBER ASSEM. _____	NUMBER DEPLOYED _____		
		ZONES EVAC		ZONES SHELTERED	
	PARS:	_____	_____	_____	
	RELEASE IN PROGRESS	YES _____	NO _____		
	RELEASE PATHWAY	_____			
	CONTAINMENT PRESSURE	_____	PSIG		
	WIND DIRECTION	_____	WIND SPEED _____		
OFFSITE COMMUNICATIONS	LAST MESSAGE SENT:	NUMBER _____	TIME _____		
	NEXT MESSAGE DUE:	_____	_____		
NOTE: EOF COMMUNICATION CHECKS SHOULD BE COMPLETED PRIOR TO ACTIVATING THE EOF.					
OTHER NOTES RELATED TO THE ACCIDENT/EVENT/PLANT EQUIPMENT FAILED OR OUT OF SERVICE					

EMERGENCY CLASSIFICATION DOWNGRADE/TERMINATION CRITERIA

EMERGENCY CLASSIFICATION DOWNGRADE/TERMINATION CRITERIA**TABLE 1****Recovery Conditions**

_____ No new evacuation or sheltering protective actions are anticipated.

_____ Containment pressure is less than design pressure

_____ Decay heat rejection to the ultimate heat sink has been established and either :

Injection and heat removal have redundancy available (2 trains of injection/DHR or a train of DHR and S/G cooling),

OR

No additional fission product release or fission product barrier challenges would be expected for at least 2 hours following interruption of injection.

_____ The risks from recriticality are acceptably low

_____ Radiation Protection is monitoring access to radiologically hazardous areas

_____ Off-site conditions do not limit plant access

_____ The Public Information Coordinator, NRC officials, and State representatives have been consulted to determine the effects of termination on their activities.

_____ The recovery organization is ready to assume control of recovery operations:

- Catawba - RP/0/B/5000/025
- McGuire - RP/0/A/5700/024

Enclosure 4.1
Emergency Coordinator Checklist

RP/0/A/5000/020
Page 11 of 11

PROCESSES/SITUATIONS	RP#	RESPONSIBILITY
PROCESSES		
Core Damage Assessment	RP/15	Reactor Engineer
Classification of Emergency	RP/01	Operations Superintendent
Emergency Classification Response	RP/02-NOUE RP/03-Alert RP/04-SAE RP/05-GE	Operations Engrs/OSM
Emergency Dose Extension	RP/18	Radiation Protection Mgr (OSC)
Emergency Notification Form/ Offsite Agency Notifications	RP/06B	Offsite Communicators, Operations, Dose Assessment, Emergency Planner
OSC Activation	RP/24	OSC Coordinator and OSC Staff
NRC Notifications	RP/13	NRC Communicator, Reg Compliance (on call)
Public Affairs and News Media Mgmt	RP/28	Community Relations (Media Mgr and Public Spokesperson)
Recovery and Re-entry	RP/25	EOF Director and TSC Emergency Coordinator
Site Assembly	RP/10, immediate actions	Security
Site Evacuation	RP/10, subsequent actions RP/22	Emergency Planner, Security, Radiation Protection, Evacuation Coordinator, Evacuation Coordinator
TSC Activation	RP/20	TSC Emergency Coordinator and TSC Staff
SITUATIONS		
Bomb Threat	RP/26	Security
Collisions or Explosions	RP/09	Operations (Fire Bde)
Fire	RP/29	Operations (Fire Bde)
Medical Emergency	N/A	Security (MERT)
Natural Disasters (Tornado, Hurricane, Earthquake, Flooding, Low Lake Level)	RP/07	Operations OSM, Emergency Planner
Severe Weather Preparations (High Winds, Heavy Icing)	RP/30	All Site Groups
Spills/HAZMAT	RP/08	Operations (Fire Bde), HAZMAT, EH&S, NSC (OSC)

Enclosure 4.2
TSC Dose Assessor Checklist.

RP/0/A/5000/020
Page 1 of 4

Initial

- NOTE:**
1. Off-site Agency Communicators will be contacting Dose Assessment to provide information for the Electronic Emergency Notification Form.
 2. Procedure steps may be completed out of sequence at the discretion of the person performing this enclosure.

- ☐ Upon arrival in the TSC, perform the following:
- Sign in on the TSC Roster
 - Obtain self-reading dosimeter and dose card (SRWP #33)
 - Sign in on staffing board
 - Obtain and put on position badge
- ☐ Establish a TSC Dose Assessor position log of activities (e.g., evolutions impacting this position, decisions made by this position, communications to/from other groups).
- ☐ Perform the following to start the TSC air monitoring:

EMF 55A	EMF 55B
<input type="checkbox"/> A. IF ON, press STOP button.	<input type="checkbox"/> A. IF ON, press STOP button.
<input type="checkbox"/> B. Acknowledge any alarms by pressing the ACKNOWLEDGE button.	<input type="checkbox"/> B. Acknowledge any alarms by pressing the ACKNOWLEDGE button.
<input type="checkbox"/> C. Wait 30 seconds before proceeding to start monitors.	<input type="checkbox"/> C. Wait 30 seconds before proceeding to start monitors.
<input type="checkbox"/> D. Start monitor by pressing start.	<input type="checkbox"/> D. Start monitor by pressing start.
<input type="checkbox"/> E. Acknowledge any alarms.	<input type="checkbox"/> E. Acknowledge any alarms.
<input type="checkbox"/> F. Wait 30 seconds.	<input type="checkbox"/> F. Wait 30 seconds.
<input type="checkbox"/> G. IF the alarm or monitor fails to start, repeat steps A thru F.	<input type="checkbox"/> G. IF the alarm or monitor fails to start, repeat steps A thru F.
<input type="checkbox"/> H. IF the EMF monitor fails to operate properly, request that TSC RP support initiate manual air sampling of the TSC.	<input type="checkbox"/> H. IF the EMF monitor fails to operate properly, request that TSC RP support initiate manual air sampling of the TSC.
<input type="checkbox"/> I. IF necessary, initiate a work request for inspection/repair of EMF monitor.	<input type="checkbox"/> I. IF necessary, initiate a work request for inspection/repair of EMF monitor.

- ☐ Evaluate any protective actions that have been recommended.

Enclosure 4.2
TSC Dose Assessor Checklist

RP/0/A/5000/020
Page 2 of 4

- ☐ Power up both the Dose Assessment and Electronic Notification Form computers and LOGON to the Network per the following:

User Name: **CNSEP2**
Password: **CNSEP2**
Domain: **POWER**

- ☐ Initiate the following emergency response procedures, as necessary:

- SH/0/B/2005/001, "Emergency Response Offsite Dose Projections"
- HP/0/B/1009/014, "Radiation Protection Actions Following an Uncontrolled Release of Liquid Radioactive Material"
- HP/0/B/1009/006, "Alternative Method for Determining Dose Rate within the Reactor Building"

- ☐ Prepare to complete the Dose Assessment portion of the Electronic Notification Form by obtaining a copy of the TSC Dose Assessors Electronic Notification Form Instructions located in the TSC Dose Assessors Notebook.
- ☐ Ensure the NRC Health Physics Network (HPN) is activated.

NOTE: 1. EMF isolation or loss of sample flow can indicate invalid EMF readings.
2. Be aware of the effects of loss of power on critical EMFs.

- ☐ Calculate off-site dose projections approximately every fifteen minutes or at frequency intervals appropriate to plant conditions.
- ☐ IF necessary, contact OSC RP Supervisor to request radiation surveys inside the Protected Area fence.

NOTE: CNS bridge line and wireless phone instructions are located in the TSC Dose Assessor Notebook.

- ☐ Establish communications with EOF Dose Assessment Team via the Dose Assessment bridge line.
- ☐ Perform the following as needed:
- Provide computer off-site dose projection results
 - Coordinate turnover to the EOF
 - Provide support to the EOF team after EOF activation as needed.
 - Be prepared to resume dose assessment activities if EOF functions are transferred back to the TSC.
- ☐ Provide the following staffing information to the Emergency Planner when requested:
- Provide 24-Hour Staffing relief for your position
 - Provide a listing of essential personnel for your position that should not leave the site during a site evacuation.

Enclosure 4.2
TSC Dose Assessor Checklist

RP/0/A/5000/020
Page 3 of 4

☐ Consider the following items that may be applicable in order to provide the latest status to the Emergency Coordinator staff and ERO during TSC Update Conferences:

- | | |
|--|---|
| <ul style="list-style-type: none">• Any potential release or release in progress (especially at the site boundary).• Specific areas where off-site dose rates increasing• Meteorological Data (wind speed and wind direction, measured Δ temperature, stability class, and precipitation)• Dose projections based on changes in meteorological status• Dose projections at site boundary• Off-site dose projections that may be above or below normal operating limits• Any release in progress, including dose rates• Field Team Status/Data | <ul style="list-style-type: none">• Analyzed source term• Source Term Mitigation Strategies• Special evaluation for off-site dose consequences in such cases as a containment loss of integrity or steam generator tube rupture• Projected or changing plant conditions• Increase or decrease of release path EMF readings• Significant changes in radiological conditions• On-site radiological concerns• Radiological EAL criteria per RP/0/A/5000/001 |
|--|---|

NOTE:

1. Radiological dose projection information is not required for Emergency Notification Forms that are sent as initial notification of an emergency classification or initial notification of a change to the emergency classification.
2. Off-site dose assessment results, including projections, are to immediately follow the initial notifications.
3. The primary method of providing dose information to the Off-site Agency Communicators is via the Electronic Notification Form program, however, situations may dictate the use of the hard copy Emergency Notification Forms.

- ☐ Provide Off-site Agency Communicators with dose assessment information and other pertinent radiological information as requested utilizing the Electronic Notification Form program.
- ☐ Recommend off-site and on-site protective actions to the Emergency Coordinator (until TSC/EOF dose assessor turnover occurs and the EOF is activated).

Enclosure 4.2
TSC Dose Assessor Checklist

RP/0/A/5000/020
Page 4 of 4

- ☐ Perform the following to stop the TSC air monitoring upon securing from TSC activation:

EMF 55A	EMF55B
<input type="checkbox"/> A. <u>IF</u> ON, press STOP button.	<input type="checkbox"/> A. <u>IF</u> ON, press STOP button.
<input type="checkbox"/> B. Acknowledge any alarms by pressing the ACKNOWLEDGE button.	<input type="checkbox"/> B. Acknowledge any alarms by pressing the ACKNOWLEDGE button.
<input type="checkbox"/> C. Verify monitors are OFF by confirming the ON light goes out and that the acknowledge and alarm lights are ON .	<input type="checkbox"/> C. Verify monitors are OFF by confirming the ON light goes out and that the acknowledge and alarm lights are ON .
<input type="checkbox"/> D. Repeat steps A, B and C as necessary.	<input type="checkbox"/> D. Repeat steps A, B and C as necessary.
<input type="checkbox"/> E. <u>IF</u> necessary, initiate a work request for inspection/repair of EMF monitor.	<input type="checkbox"/> E. <u>IF</u> necessary, initiate a work request for inspection/repair of EMF monitor.

- ☐ Restore dose assessor work area and all equipment to a ready state condition after a drill or event is terminated.
- ☐ Provide all completed paperwork to Emergency Planning upon deactivation of the TSC.

TSC Off-Site Agency Communicator Checklist

Initial

- _____ Print name and time arrived on TSC sign-in board.
- _____ Sign TSC Roster located at the TSC sign-in board.
- _____ Obtain self reading dosimeter from the TSC sign-in board area and complete applicable portion of a dose card using SRWP #33.
- _____ Establish a TSC Off-Site Agency Communicator position log that captures as a minimum:
 - A. Evolutions impacting this position
 - B. Decisions made by this position
 - C. Communication to/from other work groups
- _____ Obtain a copy of RP/O/A/5000/006B, "Notifications to the State and Counties from the Technical Support Center."
- _____ Execute RP/O/A/5000/006B, "Notifications to the State and Counties from the Technical Support Center."
- _____ Verify all TSC clocks are synchronized with the Control Room satellite clock.
- _____ Ensure off-site agency communicators in the EOF are aware of information effecting off-site agencies even after turnover has occurred (e.g., fire in the motor control center has been put out).
- _____ Print the name of 24 Hour Staffing relief for your position on the TSC sign-in board.
- _____ Provide the TSC Emergency Planner with a listing of essential personnel associated with your position that would not leave the site should a site evacuation be necessary.
- _____ Provide all completed paperwork to Emergency Planning upon deactivation of the TSC.

Enclosure 4.4
NRC Communicator Checklist

RP/0/A/5000/020
Page 1 of 1

NOTE: The NRC Communicator position is initially filled by shift personnel in the Control Room. This position transfers to the TSC upon TSC activation.

Initial

- _____ Print name and time arrived on TSC sign-in board.
- _____ Sign TSC Roster located at the TSC sign-in board.
- _____ Obtain self-reading dosimeter from the TSC sign-in board area and complete applicable portion of a dose card using SRWP #33.
- _____ Establish an NRC Communicator position log that captures as a minimum:
 - A. Evolutions impacting this position
 - B. Decisions made by this position
 - C. Communication to/from other work groups

NOTE: RP/0/B/5000/013, "NRC Notification Requirements," provides primary and alternate phone numbers for the NRC Operations Center.

- _____ Establish continuous communications with the NRC Operations Center upon request by the NRC.
- _____ Perform the following activities as necessary throughout the event:
 - A. Inform the NRC of TSC/EOF activation/deactivation.
 - B. Inform the NRC of plant conditions at all times.
 - C. Inform the TSC Regulatory Compliance representative of planned NRC activities.

NOTE: Instructions for use of the OPS bridge line are provided in the Emergency Response Telephone Directory.

- _____ To listen in on the Operations communication loop, dial the OPS bridge line. Be sure the phone/headset is on mute.
- _____ Print the name of 24 Hour Staffing relief for your position on the TSC sign-in board.
- _____ Provide the TSC Emergency Planner with a listing of essential personnel associated with your position that would not leave the site should a site evacuation be necessary.
- _____ Provide all completed paperwork to Emergency Planning upon deactivation of the TSC.

Enclosure 4.5
Operations Superintendent Checklist

RP/0/A/5000/020
Page 1 of 3

Initial

- _____ Print name and time arrived on TSC sign-in board.
- _____ Sign TSC Roster located at the TSC sign-in board.
- _____ Obtain self reading dosimeter from the TSC sign-in board area and complete applicable portion of a dose card using SRWP #33.
- _____ Establish an Operations Superintendent position log that captures as a minimum:
 - A. Evolutions impacting this position
 - B. Decisions made by this position
 - C. Communication to/from other work groups

<p>NOTE: Instructions for use of the Ericsson phone and OPS bridge line are provided at phone location and in the Emergency Response Telephone Directory.</p>
--

- _____ Establish communications with the Control Room, OSC and EOF with the Ericsson phone/headset via the OPS bridge line.
- _____ Perform the following as necessary throughout the event:
 - A. Provide technical expertise regarding solutions to operational problems to the TSC, Control Room, OSC and other members of the ERO as required.
 - B. Advise Emergency Coordinator on the anticipated course of the event.
 - C. Assist in making decisions on emergency classifications, mitigation strategies, and contingency plans.
 - D. Ensure each operating shift is staffed with adequate personnel to support all emergency situations, augmenting with additional resources as necessary.
 - E. Assist the TSC Off-Site Agency Communicators in completion of the Emergency Notification Forms using Step 3.2 for definitions associated with Emergency Notification Form.

Enclosure 4.5
Operations Superintendent Checklist

RP/0/A/5000/020
Page 2 of 3

Initial

_____ Establish direct communications with OSM for the following conditions:

- A. During all 10CFR50.54x discussions.
- B. Anytime it is required to back-track in procedures.
- C. Anytime the TSC recommends skipping procedure steps.
- D. During all discussion of significant troubleshooting plans.
- E. Anytime confusion, misunderstanding or disagreement exists between the Control Room and the TSC.

NOTE: The "Emergency Coordinator Worksheet" of this enclosure may be used to note status information.

- A. Provide the status of the following items as applicable to the Emergency Coordinator staff during Update Conferences.
 - Current Emergency Classification
 - Basis for Current Emergency Classification/Anticipated Changes to Emergency Classification
 - Current Mode
 - NC Temperature
 - NC Pressure
 - S/G Level
 - Current Plant Condition (Improving/Stable/Degrading)
 - Basis for Current Plant Condition
 - Key Problem Area/Recommended Priorities
- B. Evaluate and prioritize requests for information from the TSC staff, EOF staff, NRC and others.
- C. Evaluate and consult with Control Room personnel on suggested mitigation strategies.

_____ Assist Emergency Coordinator as a Decision-maker upon entry into Severe Accident Management Guidelines.

_____ Print the name of 24 Hour Staffing relief for your position on the TSC sign-in board.

_____ Provide the TSC Emergency Planner with a listing of essential personnel associated with your position that would not leave the site should a site evacuation be necessary.

_____ Provide all completed paperwork to Emergency Planning upon deactivation of the TSC.

Enclosure 4.5
Operations Superintendent Checklist

RP/0/A/5000/020
Page 3 of 3

Emergency Coordinator Update Worksheet

Current Emergency Classification: _____

Basis for Emergency Classification/Anticipated Changes in Emergency Classification: _____

Current Plant Parameters:

NC Temp.: _____ Trend: ☐ Up ☐ Down ☐ Stable

NC Press.: _____ Trend: ☐ Up ☐ Down ☐ Stable

S/G Level: A _____ Trend: ☐ Up ☐ Down ☐ Stable

S/G Level: B _____ Trend: ☐ Up ☐ Down ☐ Stable

S/G Level: C _____ Trend: ☐ Up ☐ Down ☐ Stable

S/G Level: D _____ Trend: ☐ Up ☐ Down ☐ Stable

NC Pumps: A ☐ On ☐ Off

NC Pumps: B ☐ On ☐ Off

NC Pumps: C ☐ On ☐ Off

NC Pumps: D ☐ On ☐ Off

Current Plant Condition:

Improving _____ Stable _____ Degrading _____

Key Problem Areas/Recommended Priorities:

Enclosure 4.6
Operations Engineer Checklist

RP/0/A/5000/020
Page 1 of 1

Initial

- _____ Print name and time arrived on TSC sign-in board
- _____ Sign TSC Roster located at the TSC sign-in board.
- _____ Obtain self reading dosimeter from the TSC sign-in board area and complete applicable portion of a dose card using SRWP #33.
- _____ Establish an Operations Engineer position log that captures as a minimum:
 - A. Evolutions impacting this position
 - B. Decisions made by this position
 - C. Communication to/from other work groups

NOTE: Instructions for use of the Ericsson phone and OPS bridge line are provided at phone location and in the Emergency Response Telephone Directory.

- _____ Establish communications with the Control Room, OSC and EOF with the Ericsson phone/headset via the OPS bridge line.
- _____ Perform the following as necessary throughout the event:
 - A. Follow Response Procedures (RPs) and ensure completion of appropriate steps.
 - B. Maintain contact with Operations personnel in the Control Room, OSC and EOF.
 - C. Provide recommends to the Operations Superintendent for emergency classification and protective action recommendation changes based on plant conditions.
 - D. Consult the EOF for possible solutions if procedural adequacy becomes a concern.
 - E. Provide information to Off-site Agency Communicator and the NRC Communicator as requested regarding changes in plant conditions and protective action recommendations due to plant conditions using Step 3.2 for definitions associated with the Emergency Notification Form.
- _____ Serve as Lead Evaluator upon entry into Severe Accident Management Guidelines
- _____ Print the name of 24 Hour Staffing relief for your position on the TSC sign-in board.
- _____ Provide the TSC Emergency Planner with a listing of essential personnel associated with your position that would not leave the site should a site evacuation be necessary.
- _____ Provide all completed paperwork to Emergency Planning upon TSC deactivation.
- _____ Notify the shift SSA to restore the Operations TSC procedure files upon TSC deactivation.

Assistant Operations Engineer Checklist

Initial

- _____ Print name and time arrived on TSC sign-in board
- _____ Sign TSC Roster located at the TSC sign-in board.
- _____ Obtain self reading dosimeter from the TSC sign-in board area and complete applicable portion of a dose card using SRWP #33.
- _____ Establish an Assistant Operations Engineer position log that captures as a minimum:
 - A. Evolutions impacting this position
 - B. Decisions made by this position
 - C. Communication to/from other work groups
- _____ Obtain a copy of RP/0/A/5000/001," Classification of Emergency," from the procedure cabinet.
- _____ Obtain a copy of the current classification procedure and any applicable EOP.

<p>NOTE: Instructions for use of the Ericsson phone and OPS bridge line are provided at phone location and in the Emergency Response Telephone Directory.</p>
--

- _____ Establish communications with the Control Room, OSC and EOF with the Ericsson phone/headset via the OPS bridge line.
- _____ Perform the following as necessary throughout the event:
 - A. Support Control Room and TSC with EOPs and RPs.
 - B. Provide recommends to the Operations Superintendent for emergency classification and protective action recommendation changes based on plant conditions.
 - C. Assist the Operation Engineer in following Response Procedures (RPs) and ensure completion of appropriate steps.
 - D. Assist the Operations Engineer in providing back-up service to Control Room personnel ensuring the correct procedural flowpath is followed.
 - E. Assist the Operations Engineer in preparing Control Room personnel of possible difficult points in the procedures by a look ahead.
 - F. Assist Operations Engineer in development of Severe Accident Management Guidelines Strategies.
- _____ Print the name of 24 Hour Staffing relief for your position on the TSC sign-in board.
- _____ Provide the TSC Emergency Planner with a listing of essential personnel associated with your position that would not leave the site should a site evacuation be necessary.
- _____ Provide all completed paperwork to Emergency Planning upon deactivation of the TSC.

Enclosure 4.8
Engineering Manager Checklist

RP/0/A/5000/020
Page 1 of 3

Initial

- _____ Print name and time arrived on TSC sign-in board
- _____ Sign TSC Roster located at the TSC sign-in board.
- _____ Obtain self reading dosimeter from the TSC sign-in board area and complete applicable portion of a dose card using SRWP #33.

NOTE: The Engineering Manager's OAC computer screen is normally displayed on the large screen to the left of the TSC Emergency Coordinator.

- _____ Ensure Engineering Manager PC is on and displaying plant status.
- _____ Establish an Engineer Manager position log that captures as a minimum:
 - A. Evolutions impacting this position
 - B. Decisions made by this position
 - C. Communication to/from other work groups

NOTE: Instructions for use of the Ericsson phone and OPS bridge line are provided at phone location and in the Emergency Response Telephone Directory.

- _____ Establish communications with the Control Room, OSC and EOF with the Ericsson phone/headset via the OPS bridge line.
- _____ Confirm that the System Support Engineer has verified the Technical Support Center Ventilation System to be operable (capable of operating in filter mode).
- _____ Confirm that the System Engineer has verified the proper response of TSC computers (information displayed matches plant conditions).
- _____ Obtain the following information from the System Support Engineer
 - A. System Initiating Event
 - B. System Fault
 - C. Equipment Out Of Service
- _____ Establish verbal communications with TSC Dose Assessment personnel.
- _____ Establish communications with OSC Equipment Engineer.
OSC Equipment Engineer Contacted: _____
- _____ Establish communications with the Accident Assessment Manager in the EOF.
EOF Accident Assessment Manager Contacted: _____

Enclosure 4.8
Engineering Manager Checklist

RP/0/A/5000/020
Page 2 of 3

Initial

_____ Perform the following as necessary throughout the event:

- A. Continually assess plant conditions and inform the TSC Emergency Coordinator of potential for changing conditions.
- B. Provide the status of the following items to the Emergency Coordinator staff during Update Conferences (Update Conferences are conducted at approximately 30 minute intervals). The following page provides a sheet that may be used to note status information.
- Known system fault(s)
 - Level of Core Damage
 - Estimated time to core uncover/core damage
 - Shutdown Margin
 - Subcooling Margin
 - ECCS Status (injection flow rates, proper ECCS response) (Primary heat removal capability)
 - Aux Feed Status (feedwater flows, proper CA response) (Secondary heat removal capability)
 - Reactor Vessel Integrity Status
 - Manage overall site engineering effort and ensure adequate levels of engineering resources are available to support the TSC and OSC.
 - Serve as point of contact for TSC Reactor Engineer, TSC Systems Support Engineer and OSC Equipment Engineer.

_____ Print the name of 24-Hour Staffing relief for your position on the TSC sign-in board.

_____ Provide the TSC Emergency Planner with a listing of essential personnel associated with your position that would not leave the site should a site evacuation be necessary.

_____ Provide all completed paperwork to Emergency Planning upon deactivation of the TSC.

Enclosure 4.8
Engineering Manager Checklist

RP/0/A/5000/020
Page 3 of 3

Engineering Manager Status Information

1. Known system fault(s)

2. Level of Core Damage

3. Estimated time to core uncover/core damage

4. Shutdown Margin (TIME/MARGIN)

/	/	/	/	/	/
/	/	/	/	/	/
/	/	/	/	/	/

5. Subcooling Margin (TIME/MARGIN)

/	/	/	/	/	/
/	/	/	/	/	/
/	/	/	/	/	/

6. ECCS Status (injection flow rates, proper ECCS response) (Primary heat removal capability)

7. Aux Feed Status (feedwater flows, proper CA response) (Secondary heat removal capability)

8. Reactor Vessel Integrity Status

9. Containment Integrity Status

Enclosure 4.9
Reactor Engineer Checklist.

RP/0/A/5000/020
Page 1 of 3

Initial

- _____ Print name and time arrived on TSC sign-in board.
- _____ Sign TSC Roster located at the TSC sign-in board.
- _____ Obtain self reading dosimeter from the TSC sign-in board area and complete applicable portion of a dose card using SRWP #33.
- _____ Turn on Reactor Engineer computer, log on LAN under ID with write privilege for NE-LIB and verify software.
- _____ Establish a Reactor Engineer position log that captures as a minimum:
 - A. Evolutions impacting this position
 - B. Decisions made by this position
 - C. Communication to/from other work groups
- _____ **IF** applicable, obtain a copy of and execute RP/0/A/5000/015, "Core Damage Assessment."

<p>NOTE: Instructions for use of the Ericsson phone and OPS bridge line are provided at phone location and in the Emergency Response Telephone Directory.</p>
--

- _____ To listen in on the Operations communication loop, dial the OPS bridge line. Be sure that the phone/headset is on mute.
- _____ Perform the following as necessary throughout the event:
 - A. Evaluate plant and reactor performance using available data in terms of:
 - Level of core damage.
 - Estimated time to core uncover/core damage
 - Shutdown margin
 - Subcooling margin
 - Trend appropriate parameters to monitor recovery

<p>NOTE: The "TSC Engineering Manager Update Worksheet" of this enclosure may be used to maintain data to be provided to the TSC Engineering Manager.</p>
--

- B. Provide TSC Engineering Manager and/or TSC Operations Superintendent with information concerning any abnormal core conditions.
- C. Ensure control and accountability of Special Nuclear Materials.
- D. Exchange information with EOF Accident Assessment Group as requested.
- _____ Print the name of 24-Hour Staffing relief for your position on the TSC sign-in board.

Enclosure 4.9
Reactor Engineer Checklist

RP/0/A/5000/020
Page 2 of 3

- _____ Provide the TSC Emergency Planner with a listing of essential personnel associated with your position that would not leave the site should a site evacuation be necessary.
- _____ Provide all completed paperwork to Emergency Planning upon deactivation of the TSC.

[illegible]

Enclosure 4.10
System Support Engineer Checklist

RP/0/A/5000/020
Page 1 of 3

Initial

- _____ Print name and time arrived on TSC sign-in board.
- _____ Sign TSC Roster located at the TSC sign-in board.
- _____ Obtain self reading dosimeter from the TSC sign-in board area and complete applicable portion of a dose card using SRWP #33.
- _____ Establish a System Support Engineer position log that captures as a minimum:
 - A. Evolutions impacting this position
 - B. Decisions made by this position
 - C. Communication to/from other work groups
- _____ Verify the proper response of TSC computers (information displayed matches plant conditions).
- _____ Verify that the Technical Support Center Ventilation System is operable (capable of operating in filter mode).
- _____ Provide the following information to the TSC Engineering Manager:
 - A. Initiating Event:
 - B. Primary Systems Equipment OOS:
 - C. Primary Systems Faults:
 - D. Secondary Systems Equipment OOS:
 - E. Secondary Systems Faults:
 - F. Electrical Systems Equipment OOS:
 - G. Electrical Systems Faults:

Enclosure 4.10
System Support Engineer Checklist

RP/0/A/5000/020
Page 2 of 3

Initial

_____ Perform the following as necessary throughout the event:

NOTE: The "TSC Engineering Manager Update Worksheet" of this enclosure may be used to maintain data to be provided to the TSC Engineering Manager.

- A. Provide TSC Engineering Manager and/or TSC Operations Superintendent with the following information:
 - Known system fault(s)
 - ECCS Status (injection flow rates, proper ECCS response, Primary heat removal capability)
 - Aux Feed Status (feedwater flows, proper CA response, Secondary heat removal capability)
 - Trend appropriate parameters to monitor recovery.
- B. Advise TSC Engineering Manager on current systems status and accident mitigation strategies.
- C. Exchange information with EOF Accident Assessment Group.

_____ Print the name of 24-Hour Staffing relief for your position on the TSC sign-in board.

_____ Provide the TSC Emergency Planner with a listing of essential personnel associated with your position that would not leave the site should a site evacuation be necessary.

_____ Provide all completed paperwork to Emergency Planning upon deactivation of the TSC.

Enclosure 4.10
System Support Engineer Checklist
TSC Engineering Manager Update Worksheet

RP/0/A/5000/020
Page 3 of 3

TIME: _____

Known system fault(s): _____

ECCS Status (injection flow rates, proper ECCS response, Primary heat removal capability): _____

Aux Feed Status (feedwater flows, proper CA response, Secondary heat removal capability):

Trend appropriate parameters to monitor recovery: _____

Enclosure 4.11
TSC Emergency Planner Checklist

RP/0/A/5000/020
Page 1 of 10

Initial

- _____ Print name and time arrived on TSC sign-in board.
- _____ Sign TSC Roster located at the TSC sign-in board.
- _____ Obtain self reading dosimeter from the TSC sign-in board area and complete applicable portion of a dose card using SRWP #33.
- _____ Complete Enclosure 4.17, "TSC Operational Checklist," and provide completed enclosure to Emergency Coordinator for approval.
- _____ Obtain a current copy of the qualified Catawba Nuclear Site Emergency Response Organization.
- _____ Verify that all TSC and OSC positions are staffed by qualified Catawba Nuclear Site Emergency Response Organization personnel.
- _____ Perform the following as necessary throughout the event:
 - A. Directly support the Emergency Coordinator providing:
 - Support for activation and operation of the TSC.
 - Emergency Plan information
 - Interface with NRC
 - Interface with state and county agencies
 - Any other support as requested by the Emergency Coordinator
 - B. Facilitate the operation of the TSC.
 - C. Assist Off-Site Agency Communicators in preparation of emergency notification forms.
 - D. Act as site evacuation point of contact for Emergency Coordinator **AND** serve as interface between Security Manager, Evacuation Coordinator and the Radiation Protection Manager for evacuation purposes.
 - E. **IF** a security event occurs, perform the following for the Emergency Planner bridge line:
 - _____ Notify Community Relations to contact the TSC on the Emergency Planner bridge line.
 - _____ Hang up the Community Relations speakerphone located to the left of the Emergency Coordinator's position.
 - _____ Demand authentication from any person entering the bridge line.
 - _____ Record the name and function of all persons on the bridge line.
 - _____ Connect Security/HR Manager to bridge line to ensure only appropriate information is discussed.
- _____ Establish communications with the EOF Emergency Planner on the Emergency Planning bridge line.

TSC Emergency Planner Checklist

- _____ Establish communications with the Evacuation Coordinator and keep Evacuation Coordinator informed of site evacuation status.
- _____ Assist the NRC Resident in setting up listen only communication on the OPS bridge line.
- _____ Compile 24-Hour Staffing/Essential Personnel Logs for all TSC positions.
- _____ Collect all completed paperwork for Emergency Planning upon deactivation of the TSC.

TSC Emergency Planner Checklist

TSC 24 HOUR STAFFING LOG

POSITION	PRIMARY		RELIEF	
	NAME (Last, First, MI)	SHIFT SCHEDULE	NAME (Last, First, MI)	SHIFT SCHEDULE
Emergency Coordinator				
Asst. Emergency Coordinator				
TSC Off-Site Agency Communicator				
TSC Off-Site Agency Communicator				
TSC Dose Assessor				
Reactor Engineer				
NRC Communicator				
Operations Superintendent				
Operations Engineer				
Asst. Operations Engineer				
Regulatory Compliance				
TSC Emergency Planner				
Engineering Manager				
Systems Support Engineer				
Radiation Protection Support				
TSC Data Coordinator				
TSC Data Coordinator				
TSC Logkeeper				
CR/TSC Communicator				
Security/HR Manager				
Evacuation Coordinator				

[illegible]

TSC Emergency Planner Checklist

TSC Facility Post Event Checklist

Initial

- _____ Obtain printed copy of TSC Log
 - _____ Retrieve:
 - _____ Video Tapes
 - _____ Completed Procedures
 - _____ Notes
 - _____ Turn off:
 - _____ Copier
 - _____ Computers
 - _____ PA System (Used for Critique)
 - _____ OSC Video Conferencing System (Leave EOF Video Conference computer on)
 - _____ Video Monitors
 - _____ Perform:
 - _____ Supply Cabinet Inventory (PT/0/B/4600/004) Checklist
 - _____ Clean Tables Off
 - _____ Put all Trash in Containers
 - _____ Erase Status Boards
 - _____ Procedure Cabinet Inventory
-
- _____ RP/0/A/5000/001 3 copies
 - _____ RP/0/A/5000/002 3 copies
 - _____ RP/0/A/5000/003 3 copies
 - _____ RP/0/A/5000/004 3 copies
 - _____ RP/0/A/5000/005 3 copies
 - _____ RP/0/A/5000/006B 2 copies
 - _____ RP/0/A/5000/007 2 copies
 - _____ RP/0/B/5000/008 2 copies
 - _____ RP/0/A/5000/009 2 copies
 - _____ RP/0/A/5000/010 2 copies
 - _____ RP/0/B/5000/013 2 copies
 - _____ RP/0/A/5000/015 2 copies
 - _____ RP/0/A/5000/018 2 copies

Enclosure 4.11
TSC Emergency Planner Checklist

RP/0/A/5000/020
Page 6 of 10

TSC Facility Post Event Checklist

NOTE: RP/0/A/5000/020 enclosure copies shall be attached to Procedure Process Record and main body of RP/0/A/5000/020

___	RP/0/A/5000/020	2 copies
___	Enclosure 4.1	1 copy
___	Enclosure 4.2	1 copy
___	Enclosure 4.3	1 copy
___	Enclosure 4.4	1 copy
___	Enclosure 4.5	1 copy
___	Enclosure 4.6	1 copy
___	Enclosure 4.7	1 copy
___	Enclosure 4.8	1 copy
___	Enclosure 4.9	1 copy
___	Enclosure 4.10	1 copy
___	Enclosure 4.11	1 copy
___	Enclosure 4.12	1 copy
___	Enclosure 4.13	1 copy
___	Enclosure 4.14	1 copy
___	Enclosure 4.15	1 copy
___	Enclosure 4.16	1 copy
___	Enclosure 4.17	1 copy
___	Enclosure 4.18	1 copy (Include a copy of Enclosure 4.1)
___	RP/0/B/5000/022	2 copies
___	RP/0/B/5000/025	2 copies
___	RP/0/B/5000/026	2 copies
___	HP/0/B/1009/001	2 copies
___	HP/0/B/1009/003	2 copies
___	HP/0/B/1009/004	2 copies
___	HP/0/B/1009/007	2 copies
___	HP/0/B/1009/009	2 copies
___	HP/0/B/1009/014	2 copies
___	HP/0/B/1009/016	2 copies
___	HP/0/B/1009/019	2 copies
___	HP/0/B/1009/024	2 copies
___	HP/0/B/1009/026	2 copies
___	SH/0/B/2005/001	5 copies

TSC Emergency Planner Checklist

TSC Facility Post Event Checklist

- ___ SAMG Drill Strategy Sheets 5 copies
- ___ SAMG Emergency Strategy Sheets 5 copies
- ___ EG/1/A/CSAM/SACRG1 2 copies
- ___ EG/1/A/CSAM/SACRG2 2 copies
- ___ EG/2/A/CSAM/SACRG1 2 copies
- ___ EG/2/A/CSAM/SACRG2 2 copies
- ___ EG/0/A/CSAM/DFC 5 copies
- ___ EG/0/A/CSAM/SAG-1 5 copies
- ___ EG/0/A/CSAM/SAG-2 5 copies
- ___ EG/0/A/CSAM/SAG-3 5 copies
- ___ EG/0/A/CSAM/SAG-4 5 copies
- ___ EG/0/A/CSAM/SAG-5 5 copies
- ___ EG/0/A/CSAM/SAG-6 5 copies
- ___ EG/0/A/CSAM/SAG-7 5 copies
- ___ EG/0/A/CSAM/SCST 5 copies
- ___ EG/0/A/CSAM/SCG-1 5 copies
- ___ EG/0/A/CSAM/SCG-2 5 copies
- ___ EG/0/A/CSAM/SCG-3 5 copies
- ___ EG/0/A/CSAM/SCG-4 5 copies
- ___ EG/0/A/CSAM/SAEG-1 5 copies
- ___ EG/0/A/CSAM/SAEG-2 5 copies
- ___ SAAG File No: 428 - CA-1 through CA-7 5 sets

- ___ Copy of Qualified ERO Listing (TSC & OSC only) for procedure cabinet

- ___ ERO Position Specific Notebooks - attach the following enclosures to copy of Procedure Process Record and main body of Procedure RP/0/A/5000/020:
 - ___ Enclosure 4.1 1 copy
 - ___ Enclosure 4.2 1 copy (Include 2 copies of TSC Dose Assessor
Electronic Notification Form Instructions [EP
Group Manual Guideline 5.6.4, Encl. 5.1])
 - ___ Enclosure 4.3 1 copy (Include 1 copy of RP/0/A/5000/006B and 5
copies of Emergency Notification Form)
 - ___ Enclosure 4.4 1 copy
 - ___ Enclosure 4.5 1 copy
 - ___ Enclosure 4.6 1 copy
 - ___ Enclosure 4.7 1 copy
 - ___ Enclosure 4.8 1 copy
 - ___ Enclosure 4.9 1 copy
 - ___ Enclosure 4.10 1 copy
 - ___ Enclosure 4.11 1 copy
 - ___ Enclosure 4.12 1 copy
 - ___ Enclosure 4.13 1 copy

Enclosure 4.11
TSC Emergency Planner Checklist
TSC Facility Post Event Checklist

RP/0/A/5000/020
Page 8 of 10

Initial

- ☐ Enclosure 4.14 1 copy
- ☐ Enclosure 4.15 1 copy
- ☐ Enclosure 4.16 1 copy
- ☐ Enclosure 4.17 1 copy
- ☐ Enclosure 4.18 1 copy (Include a copy of Enclosure 4.1)

- ☐ Perform the following with regards to the TSC Ericsson phones:
- ☐ Assure all TSC cell phones have been turned off
 - ☐ Remove battery from phone and place in charger

- ☐ Replenish:
- ☐ Procedure cabinet
 - ☐ Supplies as necessary (Reseal Cabinets)

- ☐ Call:
- ☐ Cleaning Crew
 - ☐ Southern Food (If items need to be picked up)

- ☐ Turn in to Emergency Planning:
- ☐ Logs
 - ☐ Completed Procedures
 - ☐ Notes
 - ☐ Video Tapes
 - ☐ Supply Inventory Checklist

Enclosure 4.11
TSC Emergency Planner Checklist

RP/0/A/5000/020
Page 9 of 10

OSC Facility Post Event Checklist

Initial

_____ Print:

- _____ Copy of OSC Log
- _____ Team Task Sheets

_____ Retrieve:

- _____ Video Tapes
- _____ Completed Procedures
- _____ Notes

_____ Turn off:

- _____ Copier
- _____ Computers
- _____ PA System
- _____ Video Conferencing System Monitors (not computers)
- _____ Video Monitors

_____ Perform:

- _____ Supply Cabinet Inventory If Tamper Seal Is Broken (PT/0/B/4600/04) Checklist
- _____ Clean Tables Off
- _____ Put all Trash In Containers
- _____ Erase Status Boards
- _____ Procedure Cabinet Inventory
 - _____ RP/0/B/5000/008 2 copies
 - _____ RP/0/A/5000/029 2 copies
 - _____ RP/0/A/5000/030 2 copies
 - _____ RP/0/A/5000/024 1 copy
 - _____ HP/0/B/1000/006 2 copies
 - _____ HP/0/B/1009/001 2 copies
 - _____ HP/0/B/1009/003 2 copies
 - _____ HP/0/B/1009/005 2 copies
 - _____ HP/0/B/1009/006 2 copies
 - _____ HP/0/B/1009/007 2 copies
 - _____ HP/0/B/1009/008 2 copies
 - _____ HP/0/B/1009/009 4 copies
 - _____ HP/0/B/1009/014 2 copies
 - _____ HP/0/B/1009/016 2 copies
 - _____ HP/1/B/1009/017 2 copies
 - _____ HP/2/B/1009/017 2 copies

OSC Facility Post Event Checklist

Initial

_____ Replace: RP/0/A/5000/024 - 1 copy each

- _____ Equipment Engineer
- _____ Maintenance Manager
- _____ Radiation Protection Manager
- _____ Radiation Protection Supervisor
- _____ DRC Supervisor
- _____ Chemistry Manager
- _____ EH&S Manager
- _____ OSC Coordinator
- _____ OSC Operations Supervisor
- _____ OSC Log/Status Keeper
- _____ NSC Manager
- _____ Procedure Cabinet

_____ Replenish:

- _____ Procedures
- _____ Supplies as necessary (Reseal Cabinets)

_____ Call:

- _____ Cleaning Crew
- _____ Southern Foods if items need to be picked up

_____ Turn in to Emergency Planning

- _____ Logs
- _____ Team Task Sheets
- _____ Completed Procedures
- _____ Notes
- _____ Video Tapes
- _____ Supply Inventory Checklist (PT/0/B/4600/004)

Enclosure 4.12
TSC Logkeeper Checklist

RP/0/A/5000/020
Page 1 of 1

Initial

- _____ Print name and time arrived on TSC sign-in board.
- _____ Sign TSC Roster located at the TSC sign-in board.
- _____ Obtain self reading dosimeter from the TSC sign-in board area and complete applicable portion of a dose card using SRWP #33.

NOTE: The TSC Log is normally displayed on the large screen to the right of the TSC Emergency Coordinator.

- _____ Startup TSC Logkeeper Computer.

NOTE: Instructions for operating the electronic message board are displayed on the back of the electronic message board remote control.

- _____ Verify that current Emergency Classification is displayed on electronic message board.
- _____ Perform the following as necessary throughout the event:

NOTE: Incorrect log entries are corrected by a new entry in the log.

1. Provide logkeeping of the event for the Emergency Coordinator.
2. **IF** Autolog becomes inoperable, maintain log manually.
3. Ensure the electronic event classification status board is maintained with current emergency classification.
4. Coordinate data displays as requested by the Emergency Coordinator.
5. Ensure that emergency declaration time stated in the TSC Log are consistent with the emergency declaration times stated on the applicable Emergency Notification Form.

- _____ Print the name of 24-Hour Staffing relief for your position on the TSC sign-in board.
- _____ Provide the TSC Emergency Planner with a listing of essential personnel associated with your position that would not leave the site should a site evacuation be necessary.
- _____ Provide a printed copy of the final TSC Log to Emergency Planning upon deactivation of the TSC.

TSC Data Coordinator Checklist

Initial

- _____ Ensure TLD has been obtained.
- _____ Print name and time arrived on TSC sign-in board.
- _____ Sign TSC Roster located at the TSC sign-in board.
- _____ Obtain self reading dosimeter from the TSC sign-in board area and complete applicable portion of a dose card using SRWP #33.
- _____ Obtain a copy of the Data Coordinator's Reference Manual located in the OAC Area of the TSC.

- | | |
|--------------|---|
| NOTE: | <ol style="list-style-type: none">1. Emergency Response Data System (ERDS) transmission to the NRC is required to be initiated within one hour of declaring an actual Alert or higher Emergency Classification.2. The Control Room normally initiates ERDS transmission.3. ERDS transmission is simulated for drills/exercises. |
|--------------|---|

- _____ **IF** classification is Alert or higher, verify ERDS data transmission to the NRC has been established by the Control Room.
- _____ **IF** ERDS data transmission has not been established, troubleshoot as necessary and initiate ERDS data transmission per Data Coordinator's Reference Manual.
- _____ Perform the following as necessary throughout the event:
 - A. Verify that TSC and OSC electronic equipment is operating properly per the Data Coordinator's Reference Manual.
 - B. Establish contact with EOF Data Coordinator.
 - C. Ensure data is available in the TSC and OSC for use in accident mitigation.
 - D. Manage data gathering and dissemination by:
 - Maintaining IT hardware/software in the TSC and OSC.
 - Ensuring necessary software graphics and displays operate and meet the needs of the TSC and OSC.
 - Providing TSC and OSC hardware/software oversight.
 - Maintain ERDS transmission to the NRC.
- _____ Print the name of 24-Hour Staffing relief for your position on the TSC sign-in board.
- _____ Provide the TSC Emergency Planner with a listing of essential personnel associated with your position that would not leave the site should a site evacuation be necessary.
- _____ Provide all completed paperwork to Emergency Planning upon deactivation of the TSC.

Enclosure 4.14
RP Support Checklist

RP/0/A/5000/020
Page 1 of 4

Initial

- _____ Print name and time arrived on TSC sign-in board.
- _____ Sign TSC Roster located at the TSC sign-in board.
- _____ Obtain self reading dosimeter from the TSC sign-in board area and complete applicable portion of a dose card using SRWP #33.
- _____ Print the name of 24-Hour Staffing relief for your position on the TSC sign-in board.
- _____ Establish an RP Support position log that captures as a minimum:
 - A. Evolutions impacting this position
 - B. Decisions made by this position
 - C. Communication to/from other work groups
- _____ Perform the following actions upon arrival at the TSC:
 - A. Open TSC Emergency Kit
 - B. Place portable instruments into service.
 - C. Provide TSC personnel Self Reading Dosimeters (SRDs) as necessary; (e.g., Pocket Dosimeters).
 - D. Provide Dose Cards to TSC personnel, as necessary.
 - E. Monitor TSC dose rates, as necessary.
 - F. Initiate contamination control requirements, as appropriate
 - G. Inform Emergency Coordinator when eating and drinking is permitted in the TSC and OSC.
- _____ Set up personnel monitoring equipment based on contamination levels and site conditions; (e.g., TSC Portal Monitor, and frisker, as necessary).
 - A. Initiate personnel monitoring contamination control requirements, as necessary.
 - B. Establish a travel path for personnel entering the TSC, as necessary.
 - C. Establish a travel path for personnel exiting the TSC, as necessary.
 - D. Ensure personnel monitoring equipment is used by personnel in the TSC.
- _____ Activate Field Monitoring Team (FMT) organization based on information from dose assessors and potential radiological releases.

<p>NOTE: Notify RP Supervisor and TSC Dose Assessor of any field teams assigned prior to OSC activation.</p>

- A. Contact OSC RP Management (RP Supervisor or RP Duty Shift) for FMT support.
- B. Request FMT support based on number of RP personnel available in OSC.
- C. Request FMT support based on current meteorological conditions.
- D. Request additional FMTs per notification by TSC Dose Assessor or EOF Field Monitor Coordinator, as appropriate.

Enclosure 4.14
RP Support Checklist

RP/0/A/5000/020
Page 2 of 4

Initial

_____ Contact Field Monitor Team members in OSC or Emergency Equipment Storage Room, as appropriate.

- A. Determine personnel assignment to Field Monitor Teams.
- B. Initiate HP/0/B/1009/019, "Emergency Radio System Operation Maintenance, and Communication"

_____ Update FMT personnel on plant radiological status.

- A. Update FMT personnel on any previous or current off-site releases; (e.g., plume of radioactive material, liquid or gaseous activity that has been released).
- B. Update FMT personnel on potential off-site release; (e.g., plume of radioactive material, liquid or gaseous activity that may be released).

_____ Obtain current meteorological information.

- A. Assess initial plume movement based on meteorological information.

_____ Dispatch one or more Field Monitor Teams as follows:

<u>Call Sign</u>	<u>Members</u>	<u>Transportation</u>
Sample Van 1	2	Emergency Van
Sample Van 2	2	Emergency Van
Alpha	2	Land Vehicle
Bravo	2	Land Vehicle (as necessary)
Charlie	2	Land Vehicle (as necessary)
Delta	2	Land Vehicle (as necessary)

_____ Dispatch Field Monitor Teams based on stability class, wind direction, wind speed, and time of release, as follows:

- A. Sample Van 1 to left side of the plume.
- B. Sample Van 2 to right side of the plume.
- C. Alpha Survey Team to the 0.5 mile site radius to traverse the plume at its estimated arc.
- D. Bravo Survey Team in an attempt to intersect the leading edge of the plume.
- E. Charlie and Delta Survey Teams to assist in defining any affected areas.

_____ Request field team to assess potential offsite radiological conditions; (e.g., dose rates from gaseous or liquid release).

_____ Instruct Emergency Sample Vans to obtain environmental samples as necessary per HP/0/B/1009/004, "Environmental Monitoring for Emergency Conditions Within the Ten Mile Radius of Catawba Nuclear Station".

Initial

Enclosure 4.14
RP Support Checklist

RP/0/A/5000/020
Page 3 of 4

- NOTE:**
1. Changes in meteorological conditions may affect assembly points.
 2. On site survey teams, inside the protected area, dispatched from OSC (e.g., Foxtrot Team) should report survey results to OSC RP Supervision.
 3. TSC RP Support or EOF Field Monitor Coordinator are to be notified of on site survey results using telephone or radio, as appropriate.

_____ Direct a Field Monitor Team to survey Assembly Areas outside of the Protected Area Fence, as necessary.

- A. Provide guidance for Field Team surveys based on current radiological conditions; (e.g., Catawba Training Center or Administration Building Assembly Areas may be downwind of a plume).

_____ Notify RPM and TSC Dose Assessor of plume directional movement as determined by field team surveys.

- A. Communicate significant meteorological changes to RPM and TSC Dose Assessor.
_____ Monitor dose rates in TSC.

- A. Initiate discussion with RPM on the need to evacuate TSC if General Area dose rate approaches 5 mrem/hr and dose rate is expected to continue.
B. Initiate discussions with RPM regarding need to provide dose extensions for Field Monitoring team members, when appropriate.

_____ Inform RPM and TSC Dose Assessor of any on-site or near site hazards.

- A. Notify RPM of vehicle accidents.
B. Notify RPM of personnel accidents.
C. Notify RPM of safety incidents reported by the FMTs

_____ Maintain a 10 mile radius map in the TSC.

- A. Confirm approximate plume shape and location using accumulated field team information.
B. Illustrate approximate plume shape and location on the map using accumulated field data.
C. Post current FMT locations.
D. Post latest instrument survey results for each field monitoring location.

_____ Continue field-monitoring strategies for plume assessment.

- A. Review plant radiological status.
B. Review field data and meteorological information approximately every fifteen minutes for any changes, which might affect field monitoring.
C. Advise FMTs on public protective actions.
D. Advise FMTs on conditions that they should be aware of while in a plume area.

Enclosure 4.14
RP Support Checklist

RP/0/A/5000/020
Page 4 of 4

Initial

- _____ Advise TSC Dose Assessor of field monitoring results.
 - A. Initiate discussions with RPM and the TSC Dose Assessor regarding need to issue KI tablets to Field Teams if offsite Radioiodine dose rates approach 10 rem/hr.
- _____ Issue re-zeroed pocket dosimeters to TSC personnel when necessary.
 - A. Issue dose cards to TSC personnel when necessary.
- _____ Maintain an organized file of sample results/data generated from FMT activities.
- _____ Acquire FMT equipment and RP supplies including protective clothing, as necessary.
- _____ Coordinate radiological monitoring of food items supplied to the TSC with Commodities and Facilities and Emergency Planning representatives.
- _____ Provide turnover information to Field Monitor Coordinator (FMC) at EOF, as necessary.

NOTE TSC RP Support becomes functionally responsible to OSC RPM upon EOF activation.

- _____ Restore RP Emergency Response Kit equipment to a ready state condition after a drill or event is terminated.
- _____ Provide the TSC Emergency Planner with a listing of essential personnel associated with your position that would not leave the site should a site evacuation be necessary.
- _____ Provide all completed paperwork to Emergency Planning upon deactivation of the TSC.

Enclosure 4.15
Security Manager Checklist

RP/0/A/5000/020
Page 1 of 1

Initial

- _____ Print name and time arrived on TSC sign-in board.
- _____ Sign TSC Roster located at the TSC sign-in board.
- _____ Obtain self reading dosimeter and complete applicable portion of a dose card using SRWP #33.

NOTE: Security has the lead role for locating unaccounted personnel identified during a Site Assembly.

- _____ Provide OSC Radiation Protection Manager with the names and location of Security personnel not located at a designated site assembly.
- _____ Establish a Security Manager position log that captures as a minimum:
 - A. Evolutions impacting this position
 - B. Decisions made by this position
 - C. Communication to/from other work groups
- _____ Provide site assembly status information to the Emergency Coordinator.
 - A. Number of unaccounted personnel inside the protected area
 - B. Evaluate the number of unaccounted personnel to determine if making an announcement by name for these personnel to re-swipe their badge in a site assembly card reader is feasible
 - C. Approximate number of personnel assembled inside and outside the protected area
- _____ Notify the Emergency Coordinator when site assembly is completed.
- _____ Serve as Security point of contact for:
 - A. Site Assembly Accountability
 - B. Site Evacuation
 - C. MERT Support
 - D. Security Plan Implementation
- _____ Coordinate evacuation with Evacuation Coordinator and Emergency Planner.
 - A. Provide Emergency Coordinator with approximate number of site evacuees.
 - B. Ensure RP is preparing for appropriate evacuation site.
 - C. Inform the Emergency Coordinator when site evacuation has been completed.
- _____ Print the name of 24-Hour Staffing relief for your position on the TSC sign-in board.
- _____ Provide the TSC Emergency Planner with a listing of essential personnel associated with your position that would not leave the site should a site evacuation be necessary.
- _____ Provide all completed paperwork to Emergency Planning upon deactivation of the TSC.

Assistant Emergency Coordinator Checklist

Initial

- _____ Print name and time arrived on TSC sign-in board.
- _____ Sign TSC Roster located in the TSC sign-in board area.
- _____ Obtain self reading dosimeter and complete applicable portion of a dose card using SRWP #33.
- _____ Establish an Assistant Emergency Coordinator position log that captures as a minimum:
 - A. Evolutions impacting this position
 - B. Decisions made by this position
 - C. Communication to/from other work groups
- _____ Obtain several copies of "Emergency Coordinator Update Form" for use as the event progresses.
- _____ Review Enclosure 4.1, "Emergency Coordinator Checklist" and "Emergency Coordinator Responsibilities."
- _____ Perform the following as necessary throughout the event:
 - A. Assist the Emergency Coordinator in activation of the Technical Support Center
 - B. Assist the TSC Off-Site Agency Communicator prepare Emergency Notification Forms
 - C. Prepare routine updates for Emergency Coordinator using the "Emergency Coordinator Update Form."
 - D. Fax a copy of each completed "Emergency Coordinator Update Form" to the EOF Director.
 - E. Assist the Emergency Coordinator in turnover to the EOF
 - Complete the "EOF Director Turnover Form" from Enclosure 4.1.
 - Review the completed "EOF Director Turnover Form" with the Emergency Coordinator.
 - Fax the "EOF Director Turnover Form" to the EOF for use by the EOF Director during turnover.
 - F. Act as a receiver of information when the Emergency Coordinator is unavailable and relay the information to the Emergency Coordinator in a timely manner.
 - G. Proactively seek information when the Emergency Coordinator is in a reactive mode.
 - H. Make face-to-face confirmation of information provided when the Emergency Coordinator is unavailable.
 - I. Serve as the Emergency Coordinator when needed.
 - J. Assist in making decisions on emergency classifications, mitigation strategies, contingency plans and protective actions for plant personnel and the general public.
- _____ Print the name of 24 hour staffing relief for your position on the TSC sign-in board.
- _____ Provide all completed paperwork to Emergency Planning upon deactivation of the TSC.

Enclosure 4.17
TSC Operational Checklist

RP/0/A/5000/020
Page 1 of 2

Initial

_____ Verify that personnel qualified to perform the following functions are present in the TSC. These personnel are required to be present within 45 minutes of the Emergency Declaration.

_____ TSC Dose Assessor

_____ Time arrived in TSC

NOTE: NRC Communicator position is filled by shift personnel. This position is initially located in the Control Room and transfers to the TSC upon TSC activation.

_____ Verify that personnel qualified to perform the following functions are present in the TSC. These personnel are required to be present within 75 minutes of the Emergency Declaration.

_____ Emergency Coordinator

_____ Time arrived in TSC

_____ TSC Off-Site Agency Communicator (2)

_____ Time arrived in TSC

_____ Time arrived in TSC

_____ Reactor Engineer (Core/Thermal Hydraulics)

_____ Time arrived in TSC

_____ Announce the following using the TSC/OSC Public Address:

- A. "Anyone who has consumed alcohol within the past five (5) hours, notify either the Emergency Coordinator or the OSC Coordinator."
- B. "All personnel in the TSC and OSC must have on a TLD and a self-reading dosimeter. Assume areas are contaminated until surveyed by RP."
- C. "No eating or drinking until the TSC and OSC are cleared by RP."

_____ **IF** less than 30 minutes have elapsed since a site assembly was initiated, make the following announcement using the plant PA System:

"A site assembly is in progress. If you have not swiped your identification badge at a site assembly point card reader, swipe the card at this time."

Enclosure 4.17
TSC Operational Checklist

RP/0/A/5000/020
Page 2 of 2

Initial

_____ Contact Corporate Security at 382-1234 to ensure that they have been notified to unlock the EOF.

_____ Verify the Engineering Manager has determined the operability of the TSC Ventilation (pressurization and filter) System.

_____ **IF** TSC Ventilation System is inoperable, notify the Emergency Coordinator of the following available information:

A. Reason for inoperability _____

B. Expected time duration for return service _____

C. Radiological hazard to TSC personnel _____

_____ Verify the TSC Off-Site Agency Communicator is prepared to take over communications with state and local agencies:

A. Emergency Notification Forms are available.

B. Selective Signaling phone or outside lines are functional.

_____ TSC Operational Checklist complete at _____
(Time)

Enclosure 4.18
Commitments for RP/0/A/5000/020

RP/0/A/5000/020
Page 1 of 1

{1} PIP 2-C96-0273

August 1, 2001

To: CNS EPIP Manual Holders:

Please delete the following procedure from your Catawba Nuclear Station
Emergency Plan Implementing Procedures Manual:

RP/0/B/5000/029, Fire Brigade Response (Rev. 000)



E. T. Beadle
Emergency Planning Manager

(R04-01)

Duke Power Company
**PROCEDURE PROCESS RECORD
 FOR STANDARD PROCEDURES**

(1) ID No.: SR/0/B/2000/003

Revision No.: 008

PREPARATION(2) Procedure Title Activation of the Emergency Operations Facility(3) Prepared By Jan AdamsDate 7/11/01

(4) Applicable To:	<input type="checkbox"/> ONS	<input checked="" type="checkbox"/> MNS	<input checked="" type="checkbox"/> CNS
(5) Technical Advisor			<u>[Signature]</u>
(6) Requires NSD 228 Applicability Determination	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
YES = New procedure or reissue with major changes NO = Reissue with minor changes OR to incorporate previously approved changes			
(7) Review (QR)	By _____ Date _____	By <u>[Signature]</u> Date <u>07/17/01</u>	By <u>BRH</u> Date <u>7/24/01</u>
Cross-Disciplinary Review (QR)	By _____ NA _____ Date _____	By <u>[Signature]</u> NA <u>[Signature]</u> Date <u>7/17/01</u>	By _____ NA <u>MS</u> Date <u>7/24/01</u>
Reactivity Mgmt. Review (QR)	By _____ NA _____ Date _____	By <u>[Signature]</u> NA <u>[Signature]</u> Date <u>7/17/01</u>	By _____ NA <u>MS</u> Date <u>7/24/01</u>
Mgmt. Involvement Review (Ops. Supt.)	By _____ NA _____ Date _____	By <u>[Signature]</u> NA <u>[Signature]</u> Date <u>7/17/01</u>	By _____ NA <u>MS</u> Date <u>7/24/01</u>
(8) Additional Reviews	By _____ (QA) Date _____ By _____ Date _____	By _____ (QA) Date _____ By _____ Date _____	By _____ (QA) Date _____ By _____ Date _____
(9) Approved	By _____ Date _____	By <u>[Signature]</u> Date <u>7/30/01</u>	By <u>[Signature]</u> Date <u>7/25/01</u>
(10) Use Level			

PERFORMANCE (Compare with Control Copy every 14 calendar days while work is being performed.)

(11) Compared with Control Copy _____ Date _____
 Compared with Control Copy _____ Date _____
 Compared with Control Copy _____ Date _____

(12) Date(s) Performed _____
 Work Order Number (WO#) _____

COMPLETION

(13) Procedure Completion Verification

- ☐ Yes ☐ NA Check lists or blanks properly initiated, signed, dated, or filled in NA, as appropriate?
☐ Yes ☐ NA Required enclosures attached?
☐ Yes ☐ NA Data sheets attached, completed, dated, and signed?
☐ Yes ☐ NA Charts, graphs, etc., attached and properly dated, identified, and marked?
☐ Yes ☐ NA Procedure requirements met?

Verified By _____ Date _____

(14) Procedure Completion Approved _____ Date _____

(15) Remarks (attach additional pages, if necessary)

Duke Power Company
McGuire Nuclear Station

Activation of the Emergency Operations Facility

Multiple Use

Procedure No.

SR/0/B/2000/003

Revision No.

008

Electronic Reference No.

MC007003

Activation of the Emergency Operations Facility

1. Symptoms

Conditions exist where events are in progress or have occurred which resulted in the activation of the Emergency Operations Facility (EOF) Emergency Response Organization (ERO).

2. Immediate Actions

- 2.1 Upon notification to activate, ERO personnel assigned to the EOF shall report to that facility.

3. Subsequent Actions

NOTE: This procedure is not intended to be followed in a step-by-step sequence. Sections of the procedure are to be implemented, as the applicable action becomes necessary.

- 3.1 The EOF must be operational using 75 minutes as a goal for the minimum staff to be in place following declaration of an Alert or higher classification.
- 3.2 Turnover should occur with the TSC at a time that will not decrease the effectiveness of communications with the off-site agencies.
- 3.3 Each represented group is responsible for ensuring their appropriate checklist is completed.
- 3.4 **IF** additional positions are needed to support the emergency, or for 24 coverage, **THEN** the following are available for telephone numbers.

- Catawba

Home phone numbers are located in the Catawba Nuclear site Qualified Emergency Response Organization Members Listing located on the Catawba Emergency Planning Home Page. Office phone numbers are located in the electronic Duke Power telephone directory.

- McGuire

NOTE: To access the McGuire Emergency Planning Home Page you must first select the Safety Assurance Home Page from the "Site Web Pages" menu on the McGuire Web Page.

Home and work phone numbers are located in the McGuire Nuclear Site Data Verification & Facility Org. listing located on the McGuire Emergency Planning Home Page. Office phone numbers are also located in the electronic Duke Power telephone directory.

- 3.5 The following SDS Group Displays have been established for emergency response use. To access these group displays, type GD (space)"Group Display Name" in the white box at the upper right portion of the screen.

Catawba Specific

<u>Group Display Name</u>	<u>Group Display Description</u>
ERDS1	ERDS Group 1
ERDS2	ERDS Group 2
EROCONT	Selected values associated with containment.
EROCORE1	Incore temperature values
EROCORE2	Additional incore temperature values
EROCORE3	Additional incore temperature values
EROINJCT	Selected letdown/charging values
EROPLEAK	Selected primary to containment leakage values
EROSLEAK	Selected primary to secondary leakage values
EROPRIM	Selected primary system values
ERORD5	Selected Raddose V Assessment Points
ERORXG	Selected Value for Reactor Engineer
EROSAMG	Selected SAMG Values
EROSSECND	Selected secondary system values

McGuire Specific

<u>Group Display Name</u>	<u>Group Display Description</u>
ERO-1	Selected plant parameters
EROCONT	Emergency Response Containment
EROCORE	Emergency Response Incore
EROINJCT	Emergency Response Injection
EROPRIM	Emergency Response Primary
ERORD5	Selected Raddose V Assessment Points
EROSSECND	Emergency Response Secondary. {PIP-M-99-2593, M-00-1107}.

- 3.6 To resolve equipment problems, contact the following:

- Computer problems - EOF Data Coordinator
- Other equipment problems - EOF Services Manager

3.7 Definitions

3.7.1 The following definitions are applicable to the Emergency Notification Form, Line 8: {1}

- IMPROVING - Emergency conditions are improving in the direction of a lower classification or termination of the event.
- STABLE - The emergency situation is under control. Emergency core cooling systems, equipment, plant, etc., are operating as designed.
- DEGRADING - Given current and projected plant conditions/equipment status, recovery efforts are not expected to prevent entry into a higher emergency classification or the need to upgrade off-site Protective Action Recommendations

3.7.2 The following definitions are applicable to the Emergency Notification Form, Line 10:

- EMERGENCY RELEASE - Any unplanned and quantifiable discharge to the environment of radioactive effluent **ATTRIBUTABLE TO A DECLARED EMERGENCY EVENT**. A release is considered to be in progress if any one or more of the following occurs:

- Reactor Building EMF monitors reading indicates an increase in activity (Catawba and McGuire 38, 39 or 40).

OR

Containment High Range EMF monitors reading greater than 1.5 R/hr.
(Catawba 53A or 53B) (McGuire 51A or 51B)

AND

Pressure inside the containment building is greater than Tech. Specs.
(Catawba and McGuire 0.3 psig)

OR

An actual containment breach is determined.

- Increase in activity monitored by Unit Vent EMF (Catawba and McGuire 35, 36, or 37).
- Steam generator tube leak monitored by EMF (Catawba and McGuire 33)
- Field Monitoring Team results.
- Knowledge of the event and its impact on system operation and resultant release pathways.

3.7.3 **ACTIVATED** - The Emergency Operations Facility has accepted turnover and has direction and control of assigned emergency response functions.

- 3.7.4 OPERATIONAL - The Emergency Response Facility (e.g. Technical Support Center Operations Support Center, Emergency Operations Facility) is staffed and ready to perform assigned emergency response functions.

4. Enclosures

- 4.1 EOF Director/Assistant EOF Director Checklist
- 4.2 Catawba Protective Actions
- 4.3 McGuire Protective Action
- 4.4 Emergency Classification Downgrade/Termination
- 4.5 Radiological Assessment Manager Checklist
- 4.6 EOF Dose Assessor Checklist
- 4.7 Field Monitoring Coordinator Checklist
- 4.8 Radio Operator Checklist
- 4.9 EOF Off-Site Agency Communicator Checklist
- 4.10 Access Control Director Checklist
- 4.11 Accident Assessment Manager Checklist
- 4.12 Accident Assessment Interface Checklist
- 4.13 Operations Interface Checklist
- 4.14 Administrative Support Checklist
- 4.15 Reactor Physics Checklist
- 4.16 EOF Emergency Planner Checklist
- 4.17 EOF Log Recorder/Status Keeper Checklist
- 4.18 EOF Data Coordinator Checklist
- 4.19 EOF Services Manager Checklist
- 4.20 Meteorologist Checklist
- 4.21 Fitness for Duty Questionnaire
- 4.22 Commitments for SR/0/B/2000/003

INITIAL

NOTE: You are only required to complete Enclosure 4.21, Fitness for Duty Questionnaire, when reporting to the facility outside of your normal work hours.

_____ Put on position badge.

_____ Sign in on the EOF staffing board.

NOTE: The EOF Log Recorder will maintain the official log for the EOF Director/Assistant EOF Director. The EOF Director/Assistant EOF Director may maintain an additional log if desired.

_____ Establish a log of activities.

_____ Establish communications with the Emergency Coordinator or Assistant Emergency Coordinator in the affected site's TSC as follows:

- Video conference

OR

- Use the affected site's EOF Director to Emergency Coordinator Ringdown phone

OR

- Catawba TSC, dial 8-831-5870

OR

- McGuire TSC, dial 8-875-4950

_____ Verify the following EOF positions, as a minimum, are filled, have checked out their assigned equipment/procedures and are prepared to assume their EOF duties prior to declaring the EOF operational:

- _____ EOF Director
- _____ Accident Assessment Manager
- _____ Radiological Assessment Manager
- _____ Access Control Director
- _____ Off-Site Agency Communicator
- _____ Off-Site Agency Communicator

NOTE: For all drills, messages should be preceded with "This is a drill. This is a drill."

_____ Announce over the EOF public address system the following:

"Anyone who is reporting to this facility outside of your normal work hours and has consumed alcohol within the past five (5) hours, notify either the EOF Director, Assistant EOF Director, or the appropriate lead in each functional area."

_____ Declare the EOF operational. EOF operational time: _____.

NOTE: For all drills, messages should be preceded with "This is a drill. This is a drill"

_____ Announce the following over the EOF public address system:

"Attention all EOF personnel. This is _____ and as of _____ hours,
(EOF Director's Name)
the EOF is operational."

_____ Inform the Emergency Coordinator or Assistant Emergency Coordinator that the EOF is:

- Operational
- Gathering plant status information
- Ready to receive turnover at the Emergency Coordinator's convenience.

_____ Read the definitions for the following terms contained in Steps 3.7.1 and 3.7.2 in the body of this procedure:

- Stable
- Degrading
- Improving
- Emergency Release

NOTE: The following step may be accomplished by conducting a Time Out or by verifying the level of readiness with the individuals in the positions.

_____ Verify the following positions, at a minimum, are ready to activate (i.e. have received the necessary information from their TSC counterpart, etc.) and are positioned to perform the next off site agency communication via the Emergency Notification Form (ENF).

- _____ Accident Assessment Manager
- _____ Radiological Assessment Manager
- _____ Lead Off-Site Agency Communicator

NOTE: The Emergency Coordinator or Assistant Emergency Coordinator faxes copy of EOF Director Turnover Form to EOF. A copy of the "EOF Director Turnover Form" is provided on page 8 of this enclosure for use if needed.

NOTE: If a classification change is recognized during turnover the turnover should not be completed until after the activated facility (TSC) declares and transmits the notification to the offsite agencies.

_____ Receive turnover from Emergency Coordinator or Assistant Emergency Coordinator utilizing the "EOF Director Turnover Form."

_____ Begin preparing, or delegate to the Assistant EOF Director, for briefing Offsite Agencies using the job aide on page 9 of 9. {8}

NOTE: The EOF Director is responsible for determining Emergency Classifications, approving Protective Action Recommendations, and approving Off-Site Agency Emergency Notification Forms after the EOF is activated. These responsibilities remain with the EOF Director and shall not be delegated.

_____ Inform the Emergency Coordinator that the EOF is ready to activate.

NOTE: For all drills, messages should be preceded with "This is a drill. This is a drill."

_____ Announce over the EOF public address system the following:

"Attention all EOF personnel. The EOF was activated at _____ hours. This is _____. I am the EOF Director and have taken responsibility for emergency management from the Emergency Coordinator in the Technical Support Center. The current emergency classification is _____. The following is a summary of the plant status.....

Additional information will be provided to you as conditions change. The next off-site agency notification shall be transmitted by _____ hours. The EOF staff shall prepare for a time-out and a roundtable discussion at _____ hours."

_____ Discuss current emergency classification with the EOF staff and verify that it meets the criteria of:

- Catawba RP/0/A/5000/001
- OR**
- McGuire RP/0/A/5700/000

_____ Upon declaration of a Site Area Emergency, consult with the Accident Assessment Manager and the Radiological Assessment Manager to determine potential zones for protective action recommendations should the event progress to a General Emergency.

____ Upon declaration of a General Emergency, the EOF Director shall IMMEDIATELY (within 15 minutes) recommend Protective Actions to off-site authorities via the Emergency Notification Form (ENF) using:

- Catawba Enclosure 4.2, Page 1
- McGuire Enclosure 4.3

NOTE: If changes to the initial Protective Action Recommendations are recommended to and approved by the EOF Director, these changes shall be transmitted to the off site agencies within 15 minutes.

____ Evaluate specific plant conditions, off-site dose projections, field monitoring team data, and assess need to update Protective Action Recommendations made to states and counties in the previous notification.

- Catawba Enclosure 4.2, page 2
- McGuire Enclosure 4.3

____ Review dose projections with Radiological Assessment manager to determine if Protective Action Recommendations are required beyond the 10 mile EPZ.

____ **IF** Protective Action Recommendations are required beyond 10 miles, **THEN** notify the states and counties and request they consider sheltering/evacuation of the general population located beyond the affected 10 mile EPZ.

____ Discuss, or delegate to the Assistant EOF Director the responsibility to discuss, plant status with the County Directors of Emergency Preparedness (CDEP), the State Liaisons or the State Directors of Emergency Preparedness (SDEP) as necessary/requested using one of the following methods:

- The EOF State Liaisons will communicate information from the EOF Director to County/State representatives using the Decision Line.

NOTE: If using the EOF/Assistant EOF Director telephone individual State and/or County numbers can be obtained from the appropriate sites Emergency Telephone Directory.

- Use the Decision Lines or the EOF/Assistant EOF Director telephone to contact the appropriate states/counties. Obtain the Decision Line Dial Codes or phone numbers from the appropriate Emergency Telephone Directory. {7}

Catawba Site Specific

____ York CDEP _____

____ Mecklenburg CDEP _____

____ Gaston CDEP _____

____ NC SDEP _____

____ SC SDEP _____

McGuire Site Specific

_____ Mecklenburg CDEP _____
_____ Gaston CDEP _____
_____ Lincoln CDEP _____
_____ Iredell CDEP _____
_____ Catawba CDEP _____
_____ Cabarrus CDEP _____
_____ NC SDEP _____

_____ **IF** Duke Power has provided Protective Action Recommendations to the States and Counties,
THEN request SDEPs and CDEPs to inform the EOF Director of the decisions for actual Protective
Actions for the plume exposure pathway populations. Record SDEPs and CDEPs protective action
decisions below:

Zones Evacuated: _____

Zones Sheltered: _____

Information Received from: _____

_____ Inform Emergency Coordinator or Assistant Emergency Coordinator of SDEPs and CDEPs
protective action decisions and other off-site conditions.

_____ Perform the following steps as needed throughout the event:

- Conduct a time-out and hold a roundtable discussion approximately every 30 minutes with the
EOF staff to discuss:
 - Emergency Classification
 - Protective Action Recommendations
 - Emergency Notification Form status
 - Off-site dose projections
 - Mitigation strategies
 - Termination criteria as defined in Enclosure 4.4
- Announce to the EOF the emergency classification, plant status, and priorities via the EOF public
address system following EOF time-outs.
- The Emergency Coordinator or Assistant Emergency Coordinator updates may be broadcast on
the EOF public address system.

- Advise Emergency Coordinator or Assistant Emergency Coordinator of the following:
 - All aspects of the emergency situation, including alternate strategies outside of procedures as plant conditions dictate.
 - Emergency Classification changes
 - Protective Action Recommendations changes
 - Mitigation strategies
 - Contingency plans
- Ensure that 10CFR50.54(x) actions are approved prior to performing the action. (Reasonable actions that depart from a license condition or technical specification may be performed in an emergency, per 10CFR50.54(x), when this action is immediately needed to protect the health and safety of the public and no action consistent with the license condition or technical specification that can provide adequate or equivalent protection is immediately apparent. Deviation from an Emergency Procedure constitutes a 10CFR50.54(x) action. Actions taken per 10CFR50.54(x) shall be:
 - Approved, as a minimum, by a Licensed Senior Reactor Operator prior to taking such action, and
 - Documented in the Reactor Operators Logbook, and
 - Documented in the TSC Logbook, and
 - Reported to the NRC within one hour using:
 - RP/0/B/5000/013, "NRC Notification Requirements" {3}
 - RP/0/A/5700/010, "NRC Immediate Notification Requirements"
- Authorize emergency worker extensions if the radiation exposure doses are expected to exceed the blanket dose extension limits authorized by the Radiation Protection Manager using:
 - Catawba RP/0/A/5000/018
 - McGuire System Radiation Protection Manual Section VI-6
- Approve personnel with training deficiencies prior to their participation as an EOF staff member. This approval shall be documented in the EOF Log.
- Assist Emergency Coordinator or Assistant Emergency Coordinator as requested upon entry into Severe Accident Management Guidelines.
- Turn over EOF Director duties to the Assistant EOF Director prior to leaving the EOF Director's Area.

____ Verify that the EOF Emergency Planner completes the "EOF 24-Hour Staffing Log" located in Enclosure 4.16.

____ Assist TSC Emergency Coordinator or Assistant Emergency Coordinator as a Decision Maker upon entry into Severe Accident Management Guidelines (SAMG) {PIP-0-M-99-2593}.

NOTE: The Off-Site Recovery Organization will stay at the EOF and work with the counties and states if radiological conditions exist beyond the site boundary. The On-Site Recovery Organization will be established by the Emergency Coordinator.

_____ Establish Recovery Organization if needed using:

- Catawba RP/0/A/5000/025
- McGuire RP/0/A/5700/024

_____ Conduct a critique following termination of a drill or actual event.

_____ Provide all completed paperwork to Emergency Planning following termination of a drill or actual event.

Close out the emergency event in accordance with the applicable procedure:

_____ Notification of Unusual Event

Catawba - RP/0/A/5000/002

McGuire - RP/0/A/5700/001

_____ Alert

Catawba - RP/0/A/5000/003

McGuire - RP/0/A/5700/002

_____ Site Area Emergency

Catawba - RP/0/A/5000/004

McGuire - RP/0/A/5700/003

_____ General Emergency

Catawba - RP/0/A/5000/005

McGuire - RP/0/A/5700/004

Enclosure 4.1

SR/0/B/2000/003

EOF Director/Assistant EOF Director Checklist

Page 8 of 9

 UNIT(S) AFFECTED: CATAWBA UI _____ U2 _____ MCGUIRE UI _____ U2 _____
 (8)

GENERAL	DATE: _____	POWER LEVEL	NCS TEMP	NCS PRESS	
	TIME: _____	U-1 _____ U-2 _____	_____	_____	
EMERGENCY CLASSIFICATION	NOUE DECLARED AT: _____ ALERT DECLARED AT: _____ SAE DECLARED AT: _____ G.E. DECLARED AT: _____ REASON FOR EMER CLASS: _____ _____				
SITE ASSEMBLY SITE EVACUATION		YES	NO	TIME	LOCATION OR COMMENTS
	SITE ASSEMBLY	_____	_____	_____	_____
	SITE EVAC. (NON-ESSEN.)	_____	_____	_____	_____
	SITE EVAC. (ESSENTIAL)	_____	_____	_____	_____
	OTHER OFFSITE AGENCY INVOLVEMENT	_____	_____	_____	_____
	MEDICAL	_____	_____	_____	_____
	FIRE	_____	_____	_____	_____
	POLICE	_____	_____	_____	_____
RADIOLOGICAL	FIELD MON. TEAMS	NUMBER ASSEM. _____	NUMBER DEPLOYED _____		
		ZONES EVAC		ZONES SHELTERED	
	PARS:	_____	_____	_____	
		YES	NO		
	RELEASE IN PROGRESS	_____	_____		
	RELEASE PATHWAY	_____			
	CONTAINMENT PRESSURE	_____	PSIG		
	WIND DIRECTION	_____	WIND SPEED	_____	
OFFSITE COMMUNICATION		NUMBER	TIME		
	LAST MESSAGE SENT:	_____	_____		
	NEXT MESSAGE DUE:	_____	_____		
NOTE: EOF COMMUNICATION CHECKS SHOULD BE COMPLETED PRIOR TO ACTIVATING THE EOF.					
OTHER NOTES RELATED TO THE ACCIDENT/EVENT/PLANT EQUIPMENT FAILED OR OUT OF SERVICE					

Job Aid {8}

		AVAILABLE	NOT AVAILABLE	COMMENTS
S/G HEAT REMOVAL	AFW TRAIN A	_____	_____	
	AFW TRAIN B	_____	_____	
	TD AFW TRAIN	_____	_____	
ECCS	NV TRAIN A	_____	_____	COMMENTS
	NV TRAIN B	_____	_____	
	NI TRAIN A	_____	_____	
	NI TRAIN B	_____	_____	
	ND TRAIN A	_____	_____	
	ND TRAIN B	_____	_____	
	STAND BY MU WATER PMP	_____	_____	
COOLING WATER	KC TRAIN A	_____	_____	COMMENTS
	KC TRAIN B	_____	_____	
	RN TRAIN A	_____	_____	
	RN TRAIN B	_____	_____	
POWER SYSTEMS	BUSLINE A	_____	_____	COMMENTS
	BUSLINE B	_____	_____	
	DG A	_____	_____	
	DG B	_____	_____	
	SATA	_____	_____	
	SATB	_____	_____	
	TRAIN A DC POWER	_____	_____	
	TRAIN B DC POWER	_____	_____	
CONTAINMENT	SSF DG	_____	_____	COMMENTS
	CONT. SPRAY TRAIN A	_____	_____	
	CONT. SPRAY TRAIN B	_____	_____	
	H ² IGNITERS TRAIN A	_____	_____	
	H ² IGNITERS TRAIN B	_____	_____	
	CONT. AIR RETURN FANS TRAIN A	_____	_____	
	CONT. AIR RETURN FANS TRAIN B	_____	_____	
	CONT. ISOL. TRAIN A	_____	_____	
	CONT. ISOL. TRAIN B	_____	_____	
		ACTUATED	ISOL.COMPL.	

Note: This form is not required for TSC/EOF Turnover. It is made available as a job aid only and can be used for other activities (e.g. Brief the NRC).

Make an immediate PROTECTIVE ACTION RECOMMENDATION (PAR) to be entered on Line 15 of the Emergency Notification Form using one of the following tables:

WIND SPEED LESS THAN OR EQUAL TO 5 MPH

Evacuate zones: A0, A1, B1, C1, D1, E1, F1

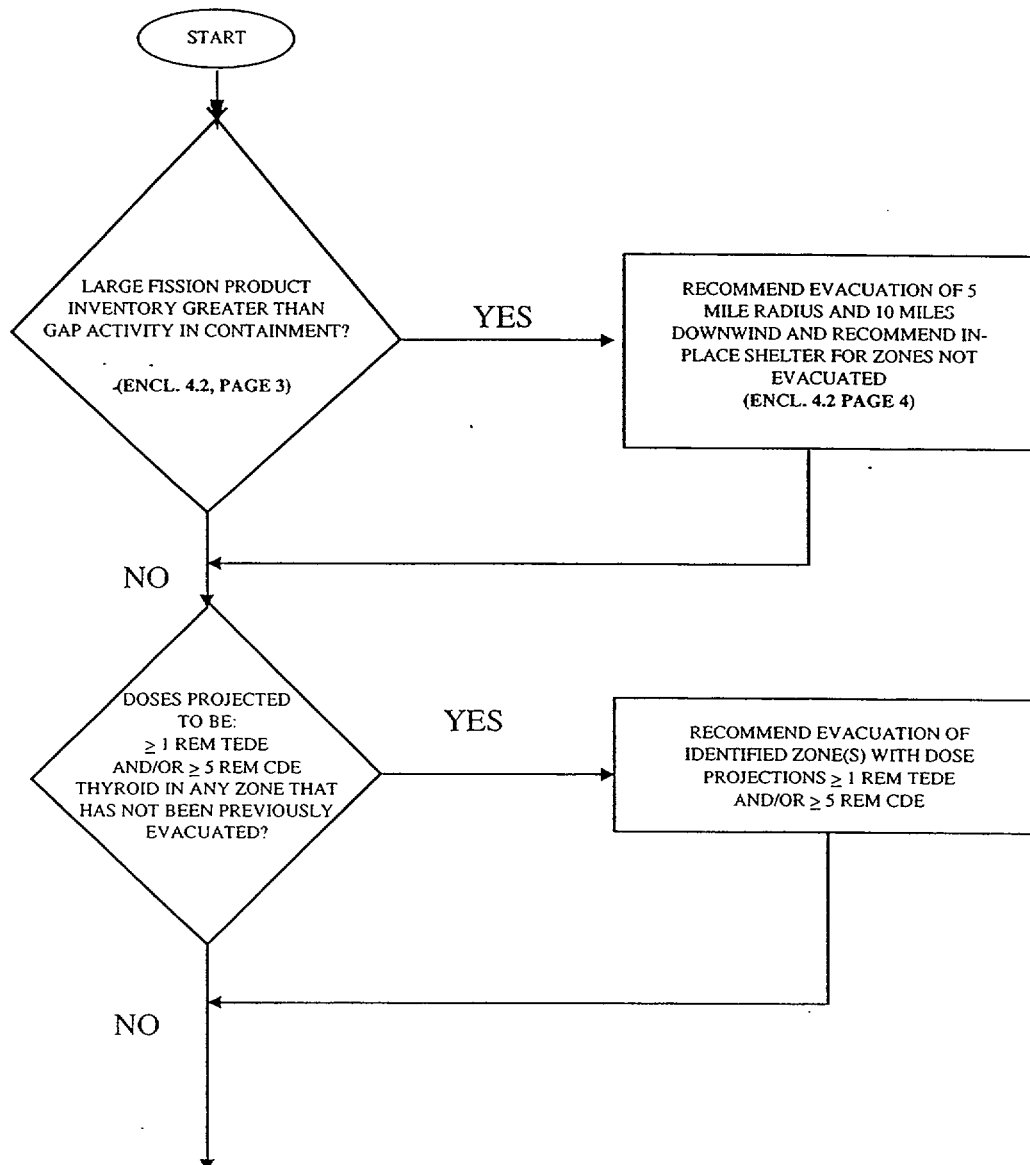
AND

Shelter In-Place zones: A2, A3, B2, C2, D2, E2, F2, F3

WIND SPEED GREATER THAN 5 MPH

Wind Direction (Degrees from North)	2 Mile Radius - 5 miles Downwind	Remainder of EPZ
	<i>EVACUATE</i>	<i>SHELTER IN-PLACE</i>
348.75 -11.25	A0, B1, C1, D1	A1, A2, A3, B2, C2, D2, E1, E2, F1, F2, F3
11.26 -33.75	A0, C1, D1	A1, A2, A3, B1, B2, C2, D2, E1, E2, F1, F2, F3
33.76 -56.25	A0, C1, D1, E1	A1, A2, A3, B1, B2, C2, D2, E2, F1, F2, F3
56.26 -78.75	A0, C1, D1, E1, F1	A1, A2, A3, B1, B2, C2, D2, E2, F2, F3
78.76 -101.25	A0, C1, D1, E1, F1	A1, A2, A3, B1, B2, C2, D2, E2, F2, F3
101.26 -123.75	A0, D1, E1, F1	A1, A2, A3, B1, B2, C1, C2, D2, E2, F2, F3
123.76 -146.25	A0, E1, F1	A1, A2, A3, B1, B2, C1, C2, D1, D2, E2, F2, F3
146.26 -168.75	A0, A1, E1, F1	A2, A3, B1, B2, C1, C2, D1, D2, E2, F2, F3
168.76 -191.25	A0, A1, E1, F1	A2, A3, B1, B2, C1, C2, D1, D2, E2, F2, F3
191.26 -213.75	A0, A1, B1, E1, F1	A2, A3, B2, C1, C2, D1, D2, E2, F2, F3
213.76 -236.25	A0, A1, B1, F1	A2, A3, B2, C1, C2, D1, D2, E1, E2, F2, F3
236.26 -258.75	A0, A1, B1, F1	A2, A3, B2, C1, C2, D1, D2, E1, E2, F2, F3
258.76 -281.25	A0, A1, B1, C1	A2, A3, B2, C2, D1, D2, E1, E2, F1, F2, F3
281.26 -303.75	A0, A1, B1, C1	A2, A3, B2, C2, D1, D2, E1, E2, F1, F2, F3
303.76 -326.25	A0, B1, C1	A1, A2, A3, B2, C2, D1, D2, E1, E2, F1, F2, F3
326.26 -348.74	A0, B1, C1, D1	A1, A2, A3, B2, C2, D2, E1, E2, F1, F2, F3

Guidance for Protective Actions
Protective Action Recommendation Flowchart



CONTINUE ASSESSMENT OF LARGE FISSION PRODUCT INVENTORY IN CONTAINMENT, DOSE PROJECTION CALCULATIONS, WIND SPEED AND WIND DIRECTION TO DETERMINE IF ADDITIONAL ZONES SHOULD BE RECOMMENDED FOR EVACUATION.

NOTE:

CHANGES IN WIND SPEED AND/OR WIND DIRECTION MAY REQUIRE THAT ADDITIONAL ZONES BE RECOMMENDED FOR EVACUATION. THESE ADDITIONAL RECOMMENDATIONS ARE BASED ON THE FOLLOWING:

- IF WIND SPEED IS LESS THAN OR EQUAL TO 5 MPH AND LARGE FISSION PRODUCT INVENTORY IS LESS THAN GAP ACTIVITY IN CONTAINMENT THEN RECOMMEND EVACUATION OF ZONES A0, A1, B1, C1, D1, E1, AND F1 IF NOT PREVIOUSLY RECOMMENDED FOR EVACUATION
- IF WIND SPEED IS GREATER 5 MPH AND LARGE FISSION PRODUCT INVENTORY IS LESS THAN GAP ACTIVITY IN CONTAINMENT THEN USE ENCLOSURE 4.2 TO DETERMINE IF EVACUATION OF ADDITIONAL ZONES SHOULD BE RECOMMENDED
- IF LARGE FISSION PRODUCT INVENTORY IS GREATER THAN GAP ACTIVITY IN CONTAINMENT THEN USE ENCLOSURE 4.2 PAGE 4 OF 4 TO DETERMINE IF EVACUATION OF ADDITIONAL ZONES SHOULD BE RECOMMENDED

Guidance for Protective Actions

Guidance for Determination of Gap Activity

Fission product inventory inside Containment is greater than gap activity if the containment radiation level exceeds the levels in the table below:

TIME AFTER SHUTDOWN (HOURS)	HIGH RANGE CONTAINMENT MONITOR READING - EMF 53A and/or EMF 53B <i>100 % GAP Activity Release</i>
0	2,340 R/Hr
0 - 2	864 R/Hr
2 - 4	624 R/Hr
4 - 8	450 R/Hr
>8	265 R/Hr

Enclosure 4.2
Catawba Protective Actions

SR/0/B/2000/003
Page 4 of 4

Protective Action Zones Determination Table
(This Table Used For Large Fission Product Inventory Greater Than Gap Activity In Containment Only)
Use this table to determine the recommended zones for evacuation within the
5 mile radius and 10 miles downwind for any windspeed.

PROTECTIVE ACTION ZONES DETERMINATION TABLE		
Wind Direction (Degrees from North)	5 Mile Radius - 10 miles Downwind	Remainder of EPZ
	<i>EVACUATE</i>	<i>IN-PLACE SHELTER</i>
348.75 -11.25	A0, A1, B1, B2, C1, C2, D1, D2, E1, F1	A2, A3, E2, F2, F3
11.26 -33.75	A0, A1, B1, C1, C2, D1, D2, E1, F1	A2, A3, B2, E2, F2, F3
33.76 -56.25	A0, A1, B1, C1, C2, D1, D2, E1, E2, F1	A2, A3, B2, F2, F3,
56.26 -78.75	A0, A1, B1, C1, C2, D1, D2, E1, E2, F1, F2	A2, A3, B2, F3
78.76 -101.25	A0, A1, B1, C1, D1, D2, E1, E2, F1, F2	A2, A3, B2, C2, F3,
101.26 -123.75	A0, A1, B1, C1, D1, D2, E1, E2, F1, F2, F3	A2, A3, B2, C2
123.76 -146.25	A0, A1, B1, C1, D1, E1, E2, F1, F2, F3	A2, A3, B2, C2, D2
146.26 -168.75	A0, A1, A2, B1, C1, D1, E1, E2, F1, F2, F3	A3, B2, C2, E2
168.76 -191.25	A0, A1, A2, B1, C1, D1, E1, F1, F2, F3	A3, B2, C2, D2, E2
191.26 -213.75	A0, A1, A2, A3, B1, B2, C1, D1, E1, F1, F2, F3	C2, D2, E2
213.76 -236.25	A0, A1, A2, A3, B1, B2, C1, D1, E1, F1, F2, F3	C2, D2, E2
236.26 -258.75	A0, A1, A2, A3, B1, B2, C1, D1, E1, F1, F3	C2, D2, E2, F2
258.76 -281.25	A0, A1, A2, A3, B1, B2, C1, C2, D1, E1, F1	D2, E2, F2, F3
281.26 -303.75	A0, A1, A2, A3, B1, B2, C1, C2, D1, E1, F1	D2, E2, F2, F3
303.76 -326.25	A0, A1, A3, B1, B2, C1, C2, D1, E1, F1	A2, D2, E2, F2, F3
326.26 -348.74	A0, A1, B1, B2, C1, C2, D1, D2, E1, F1	A2, A3, E2, F2, F3

_____ **Make an immediate PROTECTIVE ACTION RECOMMENDATION (PAR)** within 15 minutes to be entered on line 15 of the Emergency Notification Form (ENF) using the following information as appropriate.

NOTE:{5}1. If necessary, obtain needed data from one of the following sources in order of sequence:

A. DPC Meteorological Lab (8-594-0341).

B. National Weather Service in Greer, S.C. (864-879-1085 or 1-800-268-7785).

C. Catawba Nuclear Station Control Room (8-831-5345).

IF containment radiation levels exceed the levels on Enclosure 4.3, page 2 of 3, **THEN:**

_____ Evacuate the 5-mile radius **AND** 10 miles downwind as shown in the table on Enclosure 4.3, page 2 of 3, using wind direction.

AND

_____ Shelter remaining zones as shown in the table on Enclosure 4.3, page 2 of 3, using wind direction.

OR

IF containment radiation levels **DO NOT** exceed the levels on Enclosure 4.3, page 2 of 3, **THEN:**

IF wind speed is less than or equal to 5 MPH, **THEN:**

_____ Evacuate zones L, B, M, C, N, A, D, O, R

AND

_____ Shelter zones E, F, G, H, I, J, K, P, Q, S

OR

IF wind speed is greater than 5 MPH, **THEN:**

_____ Evacuate the 2-mile radius **AND** 5 miles downwind as shown in the table on Enclosure 4.3, page 3 of 3, using wind direction.

AND

_____ Shelter remaining zones as shown on Enclosure 4.3, page 3 of 3, using wind direction.

Enclosure 4.3
McGuire Protective Actions

SR/0/B/2000/003
Page 2 of 3

NOTE: Fission product inventory inside containment is greater than gap activity if the containment radiation level exceeds the levels in the table below

_____ **IF** the OAC is available, **THEN** call up the following computer points based on need:

Unit 1 OAC

Unit 2 OAC

M1A0829	1EMF51A	M2A0829	2EMF51A
M1A0835	1EMF51B	M2A0835	2EMF51B

Time After Shutdown (Hours)	Containment Monitor Reading (R/HR) EMF51A or 51B (100% Gap Activity Release)
0	2,340
0-2	864
2-4	624
4-8	450
>8	265

PROTECTIVE ACTION ZONES DETERMINATION

For Containment Radiation Levels Exceeding GAP Activity		
Wind Direction (deg from N) Chart Recorder 1EEBCR9100 Point # 8 Average Upper Wind Direction{5}	Evacuate 5 Mile Radius-10 Mile Downwind	Shelter
0 - 22.5	L,B,M,C,N,A,D,O,R,E,S,F	G,H,I,J,K,P,Q
22.6 - 45.0	L,B,M,C,N,A,D,O,R,E,Q,S	F,G,H,I,J,K,P
45.1 - 67.5	L,B,M,C,N,A,D,O,R,E,Q,S	F,G,H,I,J,K,P
67.6 - 90.0	L,B,M,C,N,A,D,O,R,P,Q,S	E,F,G,H,I,J,K
90.1 - 112.5	L,B,M,C,N,A,D,O,R,K,P,Q,S	E,F,G,H,I,J
112.6 - 135.0	L,B,M,C,N,A,D,O,R,I,K,P,Q,S	E,F,G,H,J
135.1 - 157.5	L,B,M,C,N,A,D,O,R,I,K,P,Q	E,F,G,H,J,S
157.6 - 180.0	L,B,M,C,N,A,D,O,R,I,J,K,P	E,F,G,H,Q,S
180.1 - 202.5	L,B, M,C,N,A,D,O,R,G,H,I,J,K,P	E,F,Q,S
202.6 - 225.0	L,B,M,C,N,A,D,O,R,G,H,I,J,K,P	E,F,Q,S
225.1 - 247.5	L,B,M,C,N,A,D,O,R,F,G,H,I,J	E,K,P,Q,S
247.6 - 270.0	L,B,M,C,N,A,D,O,R,F,G,H,I,J	E,K,P,Q,S
270.1 - 292.5	L,B,M,C,N,A,D,O,R,E,F,G,H,J	I,K,P,Q,S
292.6 - 315.0	L,B,M,C,N,A,D,O,R,E,F,G	H,I,J,K,P,Q,S
315.1 - 337.5	L,B,M,C,N,A,D,O,R,E,F,G	H,I,J,K,P,Q,S
337.6 - 359.9	L,B,M,C,N,A,D,O,R,E,F,S	G,H,I,J,K,P,Q

Wind Speed Greater than 5 Miles per Hour		
Wind Direction (deg from N) Chart Recorder 1EEBCR9100 Point # 8 Average Upper Wind Direction{5}	Evacuate 2 Mile Radius-5 Mile Downwind	Shelter
0 - 22.5	L,B,M,C,D,O,R	A,E,F,G,H,I,J,K,N,P,Q,S
22.6 - 45.0	L,B,M,C,D,O,R	A,E,F,G,H,I,J,K,N,P,Q,S
45.1 - 67.5	L,B,M,C,D,O,R	A,E,F,G,H,I,J,K,N,P,Q,S
67.6 - 90.0	L,B,M,C,D,O,R,N	A,E,F,G,H,I,J,K,P,Q,S
90.1 - 112.5	L,B,M,C,O,R,N	A,D,E,F,G,H,I,J,K,P,Q,S
112.6 - 135.0	L,B,M,C,O,N,R,A	D,E,F,G,H,I,J,K,P,Q,S
135.1 - 157.5	L,B,M,C,O,A,N	D,E,E,G,H,I,J,K,P,Q,R,S
157.6 - 180.0	L,B,M,C,A,N	D,E,F,G,H,I,J,K,O,P,Q,R,S
180.1 - 202.5	L,B,M,C,A,N	D,E,F,G,H,I,J,K,O,P,Q,R,S
202.6 - 225.0	L,B,M,C,A,N,D	E,F,G,H,I,J,K,O,P,Q,R,S
225.1 - 247.5	L,B,M,C,A,D	E,F,G,H,I,J,K,N,O,P,Q,R,S
247.6 - 270.0	L,B,M,C,A,D	E,F,G,H,I,J,K,N,O,P,Q,R,S
270.1 - 292.5	L,B,M,C,A,D	E,F,G,H,I,J,K,N,O,P,Q,R,S
292.6 - 315.0	L,B,M,C,A,D	E,F,G,H,I,J,K,N,O,P,Q,R,S
315.1 - 337.5	L,B,M,C,D,R	A,E,F,G,H,I,J,K,N,O,P,Q,S
337.6 - 359.9	L,B,M,C,D,R	A,E,F,G,H,I,J,K,N,O,P,Q,S

GUIDANCE FOR OFFSITE PROTECTIVE ACTIONS

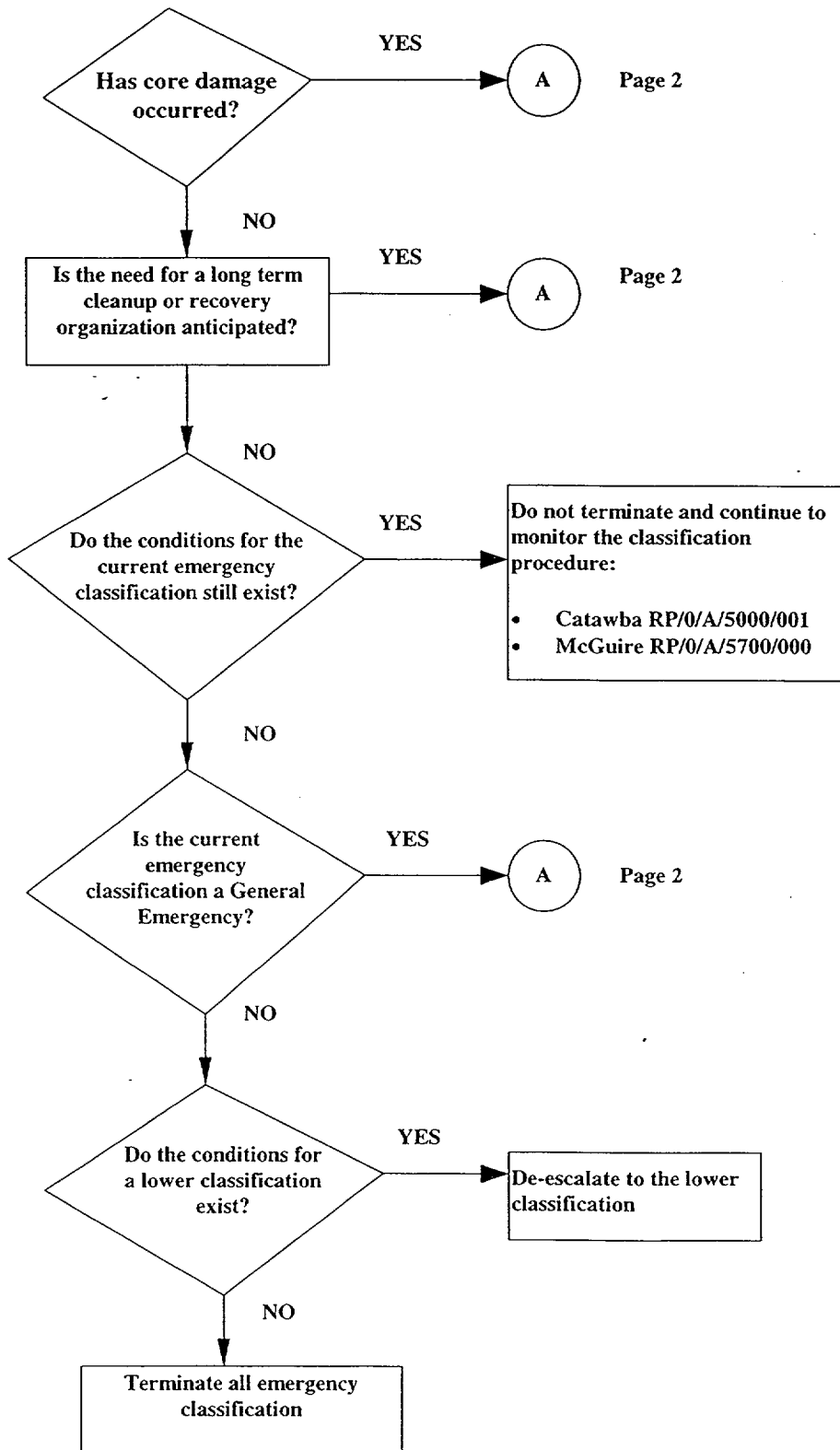
PAGs (Projected Dose)

Total Effective Dose Equivalent (TEDE)	Committed Dose Equivalent (CDE) Thyroid	Recommendation
< 1 rem	< 5 rem	No Protective Action is required based on projected dose.
≥ 1 rem	≥ 5 rem	Evacuate affected zones and shelter the remainder of the 10 mile EPZ not evacuated.

Protective Action Guides (PAGs) are levels of radiation dose at which prompt protective actions should be initiated and are based on EPA-400-R-92-001, Manual of Protective Action Guides and Protective Actions for Nuclear Incidents.

Enclosure 4.4
**Emergency Classification Downgrade/
Termination Criteria**

SR/0/B/2000/003
Page 1 of 2



Emergency Classification Downgrade/ Termination Criteria

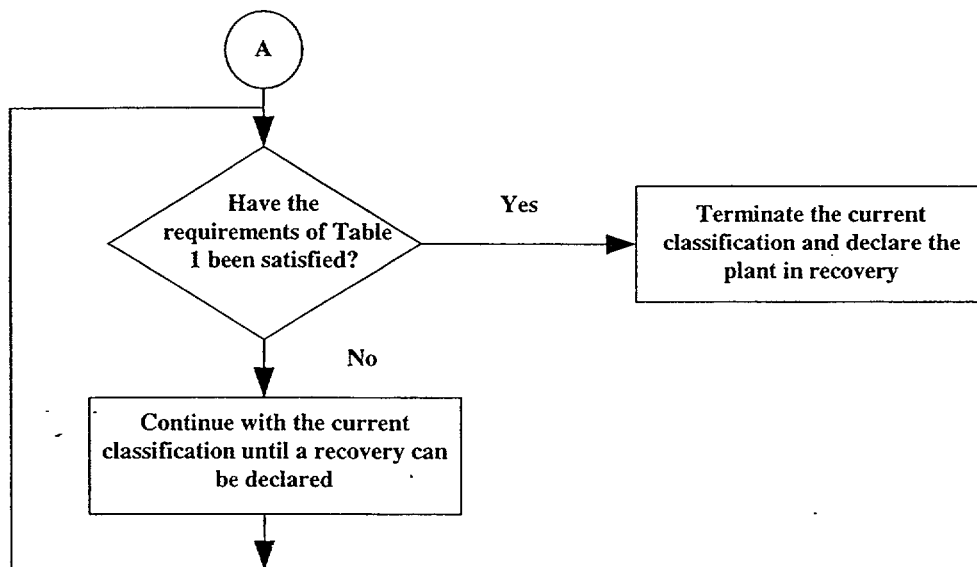


Table 1

- _____ No new evacuation or sheltering protective actions are anticipated.
- _____ Containment pressure is less than design pressure.
- _____ Decay heat rejection to the ultimate heat sink has been established and either:
 - Injection and heat removal have redundancy available (2 trains of injection/DHR or a train of DHR and S/G cooling),
 - OR
 - No additional fission product release or fission product barrier challenges would be expected for at least 2 hours following interruption of injection. {2}
- _____ The risks from recriticality are acceptably low.
- _____ Radiation Protection is monitoring access to radiologically hazardous areas.
- _____ Off-site conditions do not limit plant access.
- _____ The Public Information Coordinator, NRC officials, and State representatives have been consulted to determine the effects of termination on their activities.
- _____ The recovery organization is ready to assume control of recovery operations:
 - Catawba - RP/0/B/5000/025
 - McGuire - RP/0/A/5700/024

Enclosure 4.5
Radiological Assessment Manager Checklist

SR/0/B/2000/003
Page 1 of 7

INITIAL

NOTE: You are only required to complete Enclosure 4.21, Fitness for Duty Questionnaire when reporting to the facility outside of your normal work hours.

- _____ Put on position badge.
- _____ Sign in on the EOF staffing board.
- _____ Notify EOF Director that the Radiological Assessment Manager (RAM) position is operational.
- _____ Ensure all Radiation Protection personnel reporting to the EOF also sign in on the staffing board.
- _____ Power up the Radiological Assessment Computer.
- _____ Verify EOF Off-Site Agency Communicators have opened an electronic Emergency Notification Form.
- _____ Log on to the Emergency Notification Form by following the instructions in the EOF Radiological Assessment Managers Logbook behind the ENF Logon Instructions tab.
- _____ Verify the electronic Emergency Notification Form can be accessed.
- _____ Establish a log of activities.
- _____ Discuss the following with the EOF Director:
 - 1) Any release in progress, including dose rates (especially at the site boundary)
 - 2) Field Team status/data
 - 3) On-site radiological concerns
- _____ Review Criteria in "Classification of Emergency" procedure for emergency classification changes and discuss with Accident Assessment personnel plant conditions including power failures, valve closures, etc.

Catawba RP/0/A/5000/001

OR

McGuire RP/0/A/5700/000

Catawba Specific

- _____ Obtain HP/0/B/1009/009, "Guidelines for Accident and Emergency Response," and perform duties as described in the procedure.
- _____ Establish communications with the TSC via the RP Loop; communication established after beep. {4}

Radiological Assessment Manager Checklist

_____ Review dose projections to determine if Protective Action Recommendations are required beyond the 10 mile EPZ.

NOTE: If changes to the initial Protective Action Recommendations are recommended to and approved by the EOF Director, these changes shall be transmitted to the off site agencies within 15 minutes.

_____ Evaluate with the EOF Director recommendations for public protective actions.

_____ Assist Public Affairs and/or Public Spokesperson with dose comparisons based on computer model or field data.

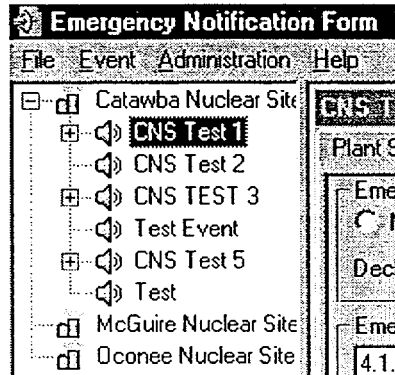
NOTE: Radiological dose projection information is not required for Emergency Notification Forms that are sent as initial notification of an emergency classification or initial notification of a change to the emergency classification.

_____ Provide radiological information on the electronic Emergency Notification Form as per the directions beginning on page 3 of this enclosure.

_____ Provide all completed paperwork to Emergency Planning upon deactivation of the emergency facility.

ELECTRONIC ENF INSTRUCTIONS

- _____ Double-click on the appropriate site (Catawba Nuclear Site or McGuire Nuclear Site.)
- _____ Select Current Event (i.e.: Loss of Off-Site Power, 03/08/99 1st Quarter Drill, CNS Test etc.)



- NOTE:**
- Off-site Communicators are responsible for creating the Event. If event has not been created, contact the Off-site Communicators.
 - The Radiological Assessment Manager is responsible for completing and maintaining the Release and Met./Off-site Dose Sections. Information for these Sections may be loaded directly from the RADDOSSE V Program.
 - RADDOSSE V information for the electronic emergency notification form must be saved to the "ini" file.

- _____ Verify that a RADDOSSE V Dose Run for the current event has been performed.

- NOTE:** Radiological dose projection information is **not** required for Emergency Notification Forms that are sent as initial notification of an emergency classification or initial notification of a change to the emergency classification. However, it may be loaded/transmitted if available within the required timeframe.

Radiological Assessment Manager Checklist

Select the **Release** Section tab for the specific event.

CNS Test 1

Plant Status | Plant Summary | Protective Actions | **Release** | Met/Outside Dose | Communications

Emergency Release
☐ None ☐ Potential ☒ Is occurring ☐ Has occurred

Release Type
☐ Airborne ☒ Ground Level

Airborne Release
 Started: 04/26/1999 11:30 Stopped: / /
 Started: / / Stopped: / /

Liquid Release
 Started: / / Stopped: / /

Release Magnitude
 Unit of Measure: ☒ Curies per Second ☐ Curies
 Normal Operating Limits: ☐ Below ☒ Above

Noble Gases:	7.98E+00
Iodines:	7.45E-02
Particulates:	6.29E-04
Other:	

Load From RadDose Clear

Save Cancel Validate

NOTE: If automatic load feature is not operational, manually enter the RADDose information.

- _____ Select the **“Load From RadDose”** button on the bottom of the screen.
- _____ Screen will request confirmation of specific dose run to be loaded. **Click Yes or No**
- _____ Verify loaded data is correct.
- _____ Click the **“Save”** button at the bottom of the screen. This will update the status indicator for this section.

Enclosure 4.5
Radiological Assessment Manager Checklist

SR/0/B/2000/003
Page 5 of 7

Status Indicators at the bottom of the screen will change colors to indicate the updated information.

Indicator information is as follows:

Black - information and time conflict

Green - information is 0 to 10 minutes old.

Yellow - information is 10 to 15 minutes old.

Red - information is greater than 15 minutes old

Plant Status	Plant Summary	Protective Actions	Release	Met./Offsite Dose	Communications	Last Msg Sent	Next Msg D
10/18/1999 14:47	10/18/1999 14:48	10/18/1999 14:49	10/28/1999 07:45	10/18/1999 14:49	10/18/1999 14:50	10/19/1999 13:47	10/19/1999 1
RED	RED	RED	GREEN	RED	RED		RED

_____ Immediately proceed to the **Met./Offsite Dose** Section.


_____ Select the **Met./Offsite Dose** Section tab for the specific event.

CNS Test 1

Plant Status | Plant Summary | Protective Actions | Release | **Met./Offsite Dose** | Communications

Offsite Dosage Estimate

☒ New ☐ Unchanged

Projection Time: 

Estimated Duration: hrs

TEDE mrem Thyroid CDE mrem

Site Boundary:

2 miles

5 miles

10 miles

Meteorological Data

Wind Direction: (degrees)

Stability Class:

Speed: mph

Precipitation: inches / 15 mins. of

Load From RadDose Clear

Save Cancel Validate

Enclosure 4.5
Radiological Assessment Manager Checklist

SR/0/B/2000/003
Page 6 of 7

NOTE: If automatic load feature is not operational, manually enter the RADDOSE information.

- _____ Select the **“Load From RadDose”** button on the bottom of the screen.
- _____ Screen will request confirmation of specific dose run to be loaded. **Click Yes or No**
- _____ Verify loaded data is correct.
- _____ Click the **“Save”**. This will update the status indicator for this section.

Status Indicators at the bottom of the screen will change colors to indicate the updated information.
Indicator information is as follows:

Black - information and time conflict

Green – information is 0 to 10 minutes old.

Yellow – information is 10 to 15 minutes old.

Red – information is greater than 15 minutes old

Plant Status	Plant Summary	Protective Actions	Release	Met./Offsite Dose	Communications	Last Msg Sent	Next Msg D
10/18/1999 14:47	10/18/1999 14:48	10/18/1999 14:49	10/28/1999 07:45	10/18/1999 14:49	10/18/1999 14:50	10/19/1999 13:47	10/19/1999 1
RED	RED	RED	GREEN	RED	RED		RED

- _____ Verify that Dose Assessment is routinely performing RADDOSE V updates.
- _____ Continue to update or validate the ENF information form as appropriate

ENF UPDATES

If a new dose run is available perform the following:

- _____ Select the **“Load From RadDose”** button on the bottom of each screen.
- _____ Screen will request confirmation of specific dose run to be loaded. **Click Yes or No**
- _____ Verify loaded data is correct.

- _____ Click the **“Save”**. This will update the status indicator for this section. **Status indicators will reflect Update.**

VALIDATION

If the existing dose information is still current and new information does not need to be loaded perform the following:

- _____ Verify Data is current
- _____ Select the **“Validate”** button on the bottom right of the screen of each section. **Status indicators will reflect Update.**

NOTE: Protective Action Recommendations will be loaded into the ENF by the Accident Assessment Manger

- _____ Evaluate protective actions with the Accident Assessment Manager and the EOF Director.

Enclosure 4.6
EOF Dose Assessor Checklist
Initial EOF Activation Checklist

SR/0/B/2000/003
Page 1 of 2

INITIAL

NOTE: You are only required to complete Enclosure 4.21, Fitness for Duty Questionnaire when reporting to the facility outside of your normal work hours.

- _____ Put on position badge.
- _____ Sign in on the EOF staffing board.

NOTE: RADDose V information must be saved to the "ini" file in order for the Radiological Assessment Manager to transfer the information to the electronic emergency notification form.

- _____ Obtain a copy of SH/0/B/2005/001 (Emergency Response Offsite Dose Projections).
- _____ Initiate a Log of Activities.
- _____ Turn on dose assessment and data acquisition computers and acquire necessary information. **IF** data acquisition programs are unavailable, **THEN** request from TSC information obtained from SDS or the Control Room (EMF and Met data).

NOTE: Be aware of the effects of loss of power on critical EMFs.

- _____ Verify operability and validity of EMFs through the TSC.
- _____ Verify effluent discharge alignment with Shift Lab, RP Manager (TSC), or RP Dose Assessors (TSC) as necessary.
- _____ Establish communications with dose assessment personnel at the TSC. Compare information, projections and strategies with the TSC.
- _____ Set up video conferencing with the TSC Dose Assessors, if desired.
- _____ Obtain turnover from the TSC.
- _____ Verify operability of the Health Physics Network (HPN) phone by placing a call to the NRC using the number listed on the HPN phone

NOTE: The NRC Regional Office will request the activation of the HPN phone through the Emergency Notification System (ENS) telephone if desired.

- _____ **IF** requested during a drill or actual event, **THEN** activate the HPN phone by placing a call to the NRC using the number listed on the HPN phone.

Enclosure 4.6
EOF Dose Assessor Checklist

SR/0/B/2000/003
Page 2 of 2

NOTE:

1. Perform off-site dose projections and determine protective action recommendations.
2. Dose projections shall be run at least every 30 minutes or as directed by the RAM.

- _____ Analyze source term data, formulate source term mitigation strategies, and provide information to the Radiological Assessment Manager, members of the EOF and TSC Dose Assessors as required.
- _____ Perform dose projections as appropriate to plant conditions.
- _____ Interact with Field Monitoring Coordinator to compare off-site dose projections to actual field readings.

NOTE: Radiological dose projection information is not required for Emergency Notification Forms that are sent as initial notification of an emergency classification or initial notification of a change to the emergency classification.

- _____ Evaluate dose projections and provide protective action recommendations to the Radiological Assessment Manager and the EOF Director.
- _____ IF SAMGs are implemented AND offsite releases approach, or exceed, 1REM TEDE or, 5 REM Thyroid CDE, THEN notify the EOF SAMG Evaluator (Located in the Accident Assessment Area). {PIP-M-99-5381}
- _____ Restore equipment to a "Ready Status" and notify appropriate personnel of conditions that would cause a less than operational status.
- _____ Provide all completed paperwork to Emergency Planning upon deactivation of the emergency facility.

Field Monitoring Coordinator Checklist

NOTE: You are only required to complete Enclosure 4.21, Fitness for Duty Questionnaire, when reporting to the facility outside of your normal work hours.

_____ Put on position badge.

_____ Sign in on the EOF staffing board.

_____ Obtain a copy of SH/0/B/2005/002 (Protocol for the Field Monitoring Coordinator During Emergency Conditions).

_____ Establish a log of activities.

Catawba Specific

_____ Perform duties as described in the following:

- HP/0/B/1009/004, "Environmental Monitoring for Emergency Conditions Within the Ten Mile Radius of CNS"
- HP/0/B/1009/009, "Guidelines for Accident and Emergency Response"
- HP/0/B/1009/019, "Emergency Radio System Operation, Maintenance, & Communication"

_____ Restore equipment to a "Ready Status" and notify appropriate personnel of conditions that would cause a less than operational status.

_____ Provide all completed procedures and copies of logs to the EOF Emergency Planner upon deactivation of the EOF.

Enclosure 4.8
Radio Operator Checklist

SR/0/B/2000/003
Page 1 of 1

INITIAL

NOTE: You are only required to complete Enclosure 4.21, Fitness for Duty Questionnaire, when reporting to the facility outside of your normal work hours.

- _____ Put on position badge.
- _____ Sign in on the EOF staffing board.
- _____ Establish a log of activities.
- _____ Obtain a copy of SH/0/B/2005/002 (Protocol for the Field Monitoring Coordinator During Emergency Conditions), Enclosure 5.3 (Field Monitoring Survey Data Sheet) and Enclosure 5.4 (Meteorological Update for Field Monitoring Teams). {6}
- _____ Establish contact with Field Teams.
- _____ Relay instructions obtained from the Field Monitoring Coordinator to the Field Teams.
- _____ Provide all completed paperwork to Emergency Planning upon deactivation of the emergency facility.

Enclosure 4.9
EOF Off-Site Agency Communicator Checklist

SR/0/B/2000/003
Page 1 of 1

NOTE: You are only required to complete Enclosure 4.21, Fitness for Duty Questionnaire when reporting to the facility outside of your normal work hours.

- _____ Put on position badge.
- _____ Sign in on the EOF staffing board.
- _____ Establish a log of activities
- _____ Perform the duties as described in procedure SR/0/B/2000/004 (Notification to States and Counties from the Emergency Operations Facility)
- _____ Ensure emergency notification times are satisfied.
- _____ Provide all completed paperwork to Emergency Planning upon deactivation of emergency facility.

Enclosure 4.10
Access Control Director Checklist

SR0/B/2000/003
Page 1 of 2

NOTE: You are only required to complete Enclosure 4.21, Fitness for Duty Questionnaire when reporting to the facility outside of your normal work hours.

- _____ Put on position badge.
- _____ Sign in on the staffing board located in the EOF Director's area.
- _____ Establish a log of activities
- _____ Conduct turnover with Corporate Security to enable them to return to their normal jobs.
- _____ Process responders found on the Access List as follows:
 - Request a photo ID from all personnel entering the EOF.
 - Verify the identity of all personnel by comparing the photo ID to facial features.

Catawba Specific

- Direct all personnel to sign the CNS Exercise/Drill/Event Attendance Sheet or green CNS Exercise/Drill/Event Observer Attendance Sheet.
- Direct all personnel to sign the CNS EOF Drill/Event Participation Form.

McGuire Specific

- Direct all personnel to sign the Emergency Planning Exercise/Event/Drill or Drill Observer Training Attendance Sheet.

Process responders with "NO ACCESS" appearing beside their names as follows:

- Call an FFD contact listed in RP/0/A/5700/014, Tab 8, to verify if "NO ACCESS" is for a positive drug screen.

NOTE: Verification by the FFD contact of no positive drug screen indicates that the responder is Fit for Duty and "NO ACCESS" is related to a training deficiency.

- Ask EOF Director to waive training requirement and allow access. Document waiver in the EOF Log.
- Ask Emergency Coordinator to waive training requirement if the EOF Director has "NO ACCESS" due to expired training. Document waiver in the EOF log.

Enclosure 4.10
Access Control Director Checklist

SR/0/B/2000/003
Page 2 of 2

- Direct all personnel to obtain the appropriate EOF position badge.

_____ Process responders not found on the Access List as follows:

- Request EOF access from the appropriate EOF group primary, EOF Director, or Assistant EOF Director, if prior approval has not been given.
- Request approved credentials from Federal, State and Off-Site Agency officials desiring EOF access and direct them to sign the Drill Observer Training Attendance Sheet, if applicable.
- Request picture ID from any Duke Power observers and direct them to sign the Drill Observer Training Attendance Sheet, if applicable.

_____ Notify Corporate Security to secure EOF following deactivation of the emergency facility.

_____ Notify Facility Services at 382-4948 to clean the EOF following deactivation of the EOF.

_____ Place new EOF Access List in appropriate box at EOF Access Control desk.

_____ Provide all completed paperwork to Emergency Planning upon deactivation of the emergency facility.

Enclosure 4.11
Accident Assessment Manager Checklist

SR/0/B/2000/003
Page 1 of 9

INITIAL

NOTE: You are only required to complete Enclosure 4.21, Fitness for Duty Questionnaire when reporting to the facility outside of your normal work hours.

_____ Put on position badge.

_____ Sign in on the EOF staffing board.

_____ Establish a log of activities

_____ **IF** additional positions are needed to support the emergency, **THEN** staff the Administrative Support and the Reactor Physics positions as appropriate.

- Catawba

Home phone numbers are located in the Catawba Nuclear Site Qualified Emergency Response Organization Members Listing located on the Catawba Emergency Planning Home Page. Office phone numbers are located in the electronic Duke Power telephone directory.

- McGuire

NOTE: To access the McGuire Emergency Planning Home Page you must first select the Safety Assurance Home Page from the "Site Web Pages" menu on the McGuire Web Page.

Home and work phone numbers are located in the McGuire Nuclear Site Data Verification & Facility Org. listing located on the McGuire Emergency Planning Home Page. Office phone numbers are also located in the electronic Duke Power telephone directory.

_____ Obtain a copy of the "Classification of Emergency" procedure for the affected station.

- Catawba: RP/0/A/5000/001
- McGuire: RP/0/A/5700/000

Enclosure 4.11
Accident Assessment Manager Checklist

SR/0/B/2000/003
Page 2 of 9

_____ Obtain a copy of the current classification procedure for the affected station from the procedure cabinet:

Notification of Unusual Event

Catawba - RP/0/A/5000/002

McGuire - RP/0/A/5700/001

Alert

Catawba - RP/0/A/5000/003

McGuire - RP/0/A/5700/002

Site Area Emergency

Catawba - RP/0/A/5000/004

McGuire - RP/0/A/5700/003

General Emergency

Catawba - RP/0/A/5000/005

McGuire - RP/0/A/5700/004

_____ Ensure PC is on and displaying plant status.

_____ Log on to the Emergency Notification Form by following the instructions in the EOF Accident Assessment Managers Logbook behind the ENF Logon Instructions tab.

_____ Verify electronic Emergency Notification Form can be accessed.

_____ Provide the required information on the electronic Emergency Notification Form as per the directions beginning on page 4 of this enclosure.

_____ Perform the following steps as needed

_____ Coordinate the following functions:

- Accident Assessment Interface
- Operations Interface
- Reactor Physics (As needed)
- Administrative Support (As needed)

NOTE: If changes to the initial Protective Action Recommendations are recommended to and approved by the EOF Director, these changes shall be transmitted to the off site agencies within 15 minutes.

_____ Work closely with the Radiological Assessment Manager and be prepared to discuss the following topics during the EOF staff time-outs or earlier as appropriate:

- Emergency classification recommendations utilizing the "Classification of Emergency" procedure for the affected station:
 - Catawba: RP/0/A/5000/001
 - McGuire: RP/0/A/5700/000
- Protective action recommendations
- Current plant status
- Accident mitigation strategies with priorities
- Anticipated course of the event
- Possible solutions if procedural adequacy becomes a concern
- Prioritization of key issues

_____ Provide information contained in Sections 5 through 9 of the Emergency Notification Form. Refer to Step 3.6 in the main body of this procedure for definitions associated with the Emergency Notification Form.

_____ Coordinate with the Radiological Assessment Manager to provide the information contained in Section 15 of the Emergency Notification Form.

_____ Assist TSC Emergency Coordinator as requested upon entry into Severe Accident Management Guidelines (SAMGs).

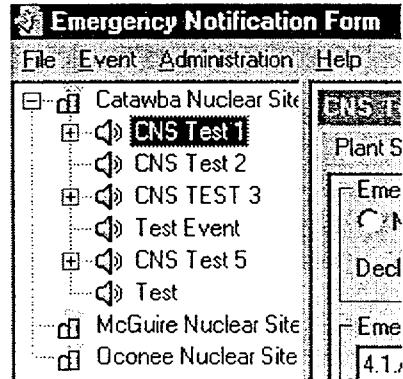
_____ Provide all completed paperwork to Emergency Planning upon deactivation of the emergency facility.

Accident Assessment Manager Checklist

Page 4 of 9

ELECTRONIC ENF INSTRUCTIONS

- _____ Double-click on the appropriate site (Catawba Nuclear Site or McGuire Nuclear Site.)
- _____ Select Current Event (i.e.: Loss of Off-Site Power, 03/08/99 1st Quarter Drill, CNS Test etc.)



NOTE: Off-site Communicators are responsible for creating the Event. If event has not been created, contact the Off-site Communicators.

NOTE: Accident Assessment is responsible for completing and maintaining the **Plant Status**, **Plant Summary** and **Protective Action** sections of the ENF.

- _____ Select the **Plant Status** Section tab for the specific event.

Unit	Included	Status	Shutdown Date	Shutdown Time	Percent Power
1	No				
2	No				

Enclosure 4.11
Accident Assessment Manager Checklist

SR/0/B/2000/003
Page 5 of 9

_____ Complete the following:

- **Emergency Classification:** Select appropriate classification and declaration time.
- **Emergency Action Level (EAL):** Select appropriate EAL.
- **Reactor Status:** Enter Reactor Status information for each unit and indicate which unit is affected. (**Included**)
- **Gap Activity:** For Alert and Site Area Emergency Check **NO**.

For **General Emergency**, refer to SR/0/B/2000/003, Enclosure 4.3, to determine if containment radiation levels are > 100% of Gap Activity. Confirm with the RAM and EOF Director.

_____ Click the “**Save**” button at the bottom of the screen.

Plant Status	Plant Summary	Protective Actions	Release	Met./Offsite Dose	Communications	Last Msg Sent	Next Msg D
10/28/1999 09:48	08/10/1999 14:57	08/10/1999 14:59	10/28/1999 09:09	10/28/1999 09:10	08/10/1999 14:59	06/23/1999 12:20	06/23/1999 1
GREEN	RED	RED	RED	RED	RED		RED

Note: Status Indicator at the bottom of the screen will change colors to indicate the updated information.

Indicator information is as follows:**Black** - information and time conflict

Green – information is 0 to 5 minutes old.

Yellow – information is 5 to 15 minutes old.

Red – information is greater than 15 minutes old

_____ Select the **Plant Summary** Section tab for the specific event.

Final 3

Plant Status | Plant Summary | Protective Actions | Release | Met/Offsite Dose | Communications

Plant Condition
☒ Improving ☐ Stable ☐ Degrading

Description/Remarks
EAL information will automatically be included on Initial messages.
Facility Activation information will automatically be included on the appropriate messages.

0 500 characters maximum

Check Spelling

Save Cancel Validate

Complete the following information:

_____ **Plant Condition:** (Select Improving, Stable , or Degrading) Confirm with the EOF Director.

- **Improving:** Emergency conditions are improving in the direction of a lower classification or termination of the event.
- **Stable:** The emergency situation is under control. Emergency core cooling systems, equipment, plans, etc. are operating as designed.
- **Degrading:** Given current and projected plant conditions / equipment status, recovery efforts are not expected to prevent entry into a higher emergency classification or the need to upgrade offsite Protective Action Recommendations.

_____ **Description/Remarks:** Write a concise description for declaring the event, or changes since last notification. **The first message in the classification will automatically include the EAL information.** Include any other information that may affect the off-site Agencies (see list below). Follow-up messages should include relevant information and changes that have occurred since the last message. **(Don't just repeat the EAL information or the last message.)**

NOTE: Remember to "close the loop" on items from previous notifications.

Enclosure 4.11
Accident Assessment Manager Checklist

SR/0/B/2000/003
Page 7 of 9

Examples of additional information to be included in line 7.

- Other unrelated classifiable events (for example, during an Alert, an event which, by itself would meet the conditions for an unusual Event)
- Major/Key Equipment Out of Service
- Emergency response actions underway
- Fire(s) onsite
- Flooding related to the emergency
- Explosions
- Loss of offsite Power
- Core Uncovery
- Core Damage
- Medical Emergency Response Team activation related to the emergency
- Personnel injury related to the emergency or death
- Transport of injured individuals offsite - specify whether contaminated or not
- Site Evacuation/relocation of site personnel
- Saboteurs/Intruders/Suspicious devices/Threats
- Chemical or Hazardous Material Spills or Releases
- Extraordinary noises audible offsite
- Any event causing/requiring offsite agency response
- Any event causing increased media attention

_____ Click the "Save" button at the bottom of the screen.

NOTE: Status Indicator at the bottom of the screen will change colors to indicate the updated information
--

Accident Assessment Manager Checklist

NOTE: Protective Action Determination is **only** required for a **General Emergency**.

Select the **Protective Action** section tab.

02/20/2000 Test

Plant Status | Plant Summary | **Protective Actions** | Release | Met./Offsite Dose | Communications

Emergency Classification: 100% Gap Activity Released
 Notification of Unusual Event: NO

Reactor Status

Unit	Included	Status	Shutdown Date	Shutdown Time	Percent Power
1	No				
2	No				

Meteorological Data

Wind Direction: () * (degrees) Speed: () mph
 Stability Class: () Precipitation: ()

Recommended Action

Evacuate: () Shelter In-Place: ()

Load Protective Action Recommendations

Save Cancel Validate

If the Emergency Classification **IS NOT** a General Emergency verify the select the "Validate" button at the bottom right of the screen. (The status indicator at the bottom of the screen will be updated)

If the Emergency Classification **IS** a General Emergency perform the following:

- Select the Load Protective Action bar at the bottom of the screen. (**Protective actions will automatically be loaded into the program based on wind speed, direction, and gap activity**).
- With input from the Radiological Assessment Manager (RAM), verify loaded Protective Actions are correct utilizing SR/0/B/2000/003 Enclosure 4.3.
- Click the "Save" button at the bottom of the screen.

NOTE: Status Indicator at the bottom of the screen will change colors to indicate the updated information.

_____ Establish a routine to periodically validate the data of **each section** to assure information is current by performing the following:

- Verify Data is current
- If the information is still current and no additional information needs to be added, select the **“Validate”** button on the bottom right of the screen of each section.
- If the section needs to be revised and/or additional information needs to be added, enter the updated information, then select the **“Save”** button on the bottom left of the screen of each section.

Enclosure 4.12
Accident Assessment Interface Checklist

SR/0/B/2000/003
Page 1 of 4

INITIAL

NOTE: You are only required to complete Enclosure 4.21, Fitness for Duty Questionnaire when reporting to the facility outside of your normal work hours.

- _____ Put on position badge.
- _____ Sign in on the EOF staffing board.
- _____ Establish a log of activities.
- _____ Ensure PC is on and displaying affected station and unit plant status.

Catawba Specific

- _____ Establish bridge line for Operations Loop by dialing 8-831-3994. Communication is established after the beep.

McGuire Specific

- _____ Establish bridge line for Operations Loop by dialing 8-875-4500. Communication is established after the beep.
- _____ Establish communication link with System Engineering Manager in the TSC, as needed by dialing 8-875-4954.

- _____ Obtain a copy of the Classification of Emergency procedure for the affected station.
 - Catawba: RP/0/A/5000/001
 - McGuire: RP/0/A/5700/000

Enclosure 4.12
Accident Assessment Interface Checklist

SR/0/B/2000/003
Page 2 of 4

_____ Obtain a copy of the current classification procedure for the affected station from the procedure cabinet.

Notification of Unusual Event
Catawba - RP/0/A/5000/002
McGuire - RP/0/A/5700/001

Alert
Catawba - RP/0/A/5000/003
McGuire - RP/0/A/5700/002

Site Area Emergency
Catawba - RP/0/A/5000/004
McGuire - RP/0/A/5700/003

General Emergency
Catawba - RP/0/A/5000/005
McGuire - RP/0/A/5700/004

_____ Obtain a copy of the Core Damage Assessment procedure for the affected station from the procedure cabinet.

- Catawba: RP/0/A/5000/015
- McGuire: RP/0/A/5700/019

_____ Obtain a copy of Accident Assessment Technical Manual

_____ Gather plant status information using the Accident Assessment Initial Information Request Form found on page 4 of this enclosure.

_____ Upon declaration of a General Emergency **IMMEDIATELY RECOMMEND** to Accident Assessment Manager protective actions for the initial Emergency Notification Form using:

- Catawba: Enclosure 4.2
- McGuire: Enclosure 4.3

_____ Perform the following steps as needed throughout the event:

_____ **IF** condition warrants, **THEN** determine analysis of the reactor core and containment conditions in regard to:

- Core sub-cooling
- Decay heat generation
- Heat removal capabilities (core and containment)
- Fission product release potential (core and containment)

Enclosure 4.12
Accident Assessment Interface Checklist

SR/0/B/2000/003
Page 3 of 4

- _____ **IF** condition warrants, **THEN** provide:
 - Estimates of core uncover times
 - Interpretations of reactor water level data
- _____ Follow status of the Emergency Operations Procedures (EOPs) and discuss with the Accident Assessment Manager.
- _____ Maintain communication with the Radiological Assessment group in the EOF.
- _____ Advise Operations Interface of the anticipated course of events.
- _____ Provide information for status board in the Accident Assessment Group room and maintain the appropriate logs.
- _____ Advise Accident Assessment Manager on the following:
 - Anticipated course of events
 - Diagnosis of the accident and mitigation strategies
 - Analysis of core and containment
 - Core damage and fission product release potential
 - Background information of system design
 - Emergency classifications
- _____ Support Systems Engineering Manager in the TSC in accident and mitigation strategies.
- _____ Assist TSC as requested upon entry into Severe Accident Management Guidelines.
- _____ Provide all completed paperwork to Emergency Planning upon deactivation of the emergency facility.

Accident Assessment Interface Checklist

Initial Information Request

Initial Information Request	Results
Emergency Classification Status	
EAL Declaration Chronology	
Protective Actions Status	
Reactor/Turbine Status	
Power Level	
Time of Trip & On What Signal	
Any Abnormal Response	
NC Pump Status	
Core Cooling Status (subcooled margin/ RVLIS/natural circulation)	
Orange or Red CSFs Alarms Received	
Safety Injection	
When Actuated & on What Signal	
NV, NI, ND, Ice Condenser Status	
Feedwater	
CF and CA Status	
Main Steam	
Isolation Status	
SMSV, SM PORV, SB Status	
Electric Power	
600V, 4160V, D/G Status	
Containment	
Isolation Status	
NS and VX Status	
Security/Fire/Flooding/HAZMAT/Other Hazards	
Plant Conditions Status	
Off-site Releases	
Status	

Enclosure 4.13
Operations Interface Checklist

SR/0/B/2000/003
Page 1 of 1

INITIAL

NOTE: You are only required to complete Enclosure 4.21, Fitness for Duty Questionnaire when reporting to the facility outside of your normal work hours.

- _____ Put on position badge.
- _____ Sign in on the EOF staffing board.
- _____ Establish a log of activities.

Catawba Specific

- _____ Establish communications for Operations Loop by dialing 8-831-3994. Communication is established after the beep.

McGuire Specific

- _____ Establish bridge line for Operations Loop by dialing 8-875-4500. Communication is established after the beep.

- _____ Perform the following steps as needed throughout the event:
 - _____ Serve as the communications interface with the Accident Assessment Group and the TSC Operations Group.
 - _____ Advise Accident Assessment Group on the following:
 - Emergency Operations Procedures (EOPs)
 - Diagnosis of the accident and mitigation strategies
 - Emergency classification
 - _____ Advise TSC of the anticipated course of events.
- _____ Provide all completed paperwork to Emergency Planning upon deactivation of the emergency facility.

Enclosure 4.14
Administrative Support Checklist

SR/0/B/2000/003

Page 1 of 1

INITIAL

NOTE: You are only required to complete Enclosure 4.21, Fitness for Duty Questionnaire when reporting to the facility outside of your normal work hours.

- _____ Obtain a copy of Accident Assessment Manual, Emergency Operating Procedures and affected plant PRA manual from Nuclear Engineering office area.
- _____ Put on position badge.
- _____ Sign in on the EOF staffing board.
- _____ Ensure PCs are on and functional.
- _____ Establish a log of activities.
- _____ Notify other positions of the Accident Assessment Group at the direction of the Accident Assessment Manager.
- _____ Record recommendations of the Accident Assessment team and plant status as appropriate on the status board in the Accident Assessment group room.
- _____ Provide all completed paperwork to Emergency Planning upon deactivation of the emergency facility.

Enclosure 4.15
Reactor Physics Checklist

SR/0/B/2000/003
Page 1 of 1

INITIAL

NOTE: You are only required to complete enclosure 4.21, Fitness for Duty Questionnaire when reporting to the facility outside of your normal work hours.

- _____ Put on position badge.
- _____ Sign in on the EOF staffing board.
- _____ Establish a log of activities.
- _____ Obtain any applicable nuclear design calculations from the Nuclear Engineering office area.
- _____ Establish communications with the TSC Reactor Engineer.
- _____ **IF** conditions warrant, **THEN** determine analysis of the reactor core and the fuel with respect to:
 - Reactor Physics parameters
 - Core subcriticality
- _____ Provide Accident Assessment Manager with information concerning any abnormal core conditions.
- _____ Provide all completed paperwork to Emergency Planning upon deactivation of the emergency facility.

Enclosure 4.16
Emergency Planner Checklist

SR/0/B/2000/003
Page 1 of 9

INITIAL

NOTE: You are only required to complete Enclosure 4.21, Fitness for Duty Questionnaire when reporting to the facility outside of your normal work hours.

- _____ Put on position badge.
- _____ Sign in on the EOF staffing board.
- _____ Establish a log of activities.

NOTE: The Public Address amplifier is in the Janitor Storage Room across from the bathroom. The controls are in a yellow box mounted on the wall on the right side of the room.

- _____ Turn on the EOF Public Address system.
- _____ Power up and log on Emergency Planner Computer as follows.
 - _____ Log on using "EOFWS" as the USER ID.
 - _____ Leave the Password field blank and click OK.
- _____ Display Autolog-EP by performing the following:
 - _____ Double click on Emergency Planning icon.
 - _____ Double click on AutoLog(EP).
 - _____ Enter your User ID.
 - _____ Enter the password (PASSWORD).
 - _____ Click "Login as Current SS".
 - _____ Click OK.
 - _____ **IF** the appropriate station log is not displayed, **THEN** select the appropriate station log by clicking on "File" and then "Open" on the menu bar.
- _____ Obtain the Emergency Planner headset from the Emergency Planner Desk area and dial into the EP bridge line using 8-831-4010 or another available bridge line.
- _____ Support EOF Director with the following:
 - _____ Complete EOF Director Checklist items as requested.

Enclosure 4.16
Emergency Planner Checklist

SR/0/B/2000/003
Page 2 of 9

- _____ Clarify Emergency Plan and Emergency Plan Implementing Procedure information.
- _____ Interface with the NRC.
- _____ Interface with federal, state and local agencies.
- _____ Assist Off-Site Agency Communicators in preparation of emergency notifications as needed.
- _____ Compile a 24-Hour Staffing Log for each EOF position. The log is contained in this enclosure.
- _____ Verify that EOF Public Affairs personnel have considered 24-hour staffing.
- _____ Upon deactivation of the EOF, collect all completed paperwork and forward to the appropriate Emergency Planning Manager.
- _____ Upon deactivation of the EOF, complete "EOF Post Event Checklist."

Enclosure 4.16
Emergency Planner Checklist

SR/0/B/2000/003
Page 3 of 9

EOF DIRECTOR AREA
24 HOUR POSITION EOF STAFFING LOG

Position	Primary		Relief	
	Name (Last, First, MI)	*Shift Schedule	Name (Last, First, MI)	*Shift Schedule
EOF Director				
Assistant EOF Director				
EOF Staff Support/ Status Keeper				
EOF Log Recorder				
EOF Emergency Planner				
Radiological Assessment Manager				
Accident Assessment Manager				

* List hours of coverage; i.e. 0800-2000, or 8am -8pm.

Enclosure 4.16
Emergency Planner Checklist

SR/0/B/2000/003
Page 4 of 9

DOSE ASSESSMENT AREA

24 HOUR POSITION EOF STAFFING LOG

Position	Primary		Relief	
	Name (Last, First, MI)	*Shift Schedule	Name (Last, First, MI)	*Shift Schedule
EOF Dose Assessor				
EOF Dose Assessor				
EOF Dose Assessor				
EOF Dose Assessor (HPN)				
Field Monitoring Coordinator				
Radio Operator				
Meteorologist				

* List hours of coverage; i.e. 0800-2000, or 8am -8pm.

Enclosure 4.16
Emergency Planner Checklist

SR/0/B/2000/003
Page 5 of 9

ACCIDENT ASSESSMENT AREA
24 HOUR POSITION EOF STAFFING LOG

	Primary		Relief	
Position	Name (Last, First, MI)	*Shift Schedule	Name (Last, First, MI)	*Shift Schedule
EOF Data Coordinator				
EOF Data Coordinator (As Needed)				
Accident Assessment Interface				
Accident Assessment Interface (As Needed)				
Reactor Physics (As Needed)				
Administrative Support (As Needed)				
Operations Interface				

* List hours of coverage; i.e. 0800-2000, or 8am -8pm.

Enclosure 4.16
Emergency Planner Checklist

SR/0/B/2000/003
Page 6 of 9

OFF SITE AGENCY COMMUNICATOR
24 HOUR POSITION EOF STAFFING LOG

	Primary		Relief	
Position	Name (Last, First, MI)	*Shift Schedule	Name (Last, First, MI)	*Shift Schedule
Lead EOF Off-Site Agency Communicator				
EOF Off-Site Agency Communicator				
EOF Off-Site Agency Communicator				

* List hours of coverage; i.e. 0800-2000, or 8am -8pm.

Enclosure 4.16
Emergency Planner Checklist

SR/0/B/2000/003
Page 7 of 9

ACCESS CONTROL AREA
24 HOUR POSITION EOF STAFFING LOG

	Primary		Relief	
Position	Name (Last, First, MI)	*Shift Schedule	Name (Last, First, MI)	*Shift Schedule
EOF Access Control Director				
EOF Services Manager				

* List hours of coverage; i.e. 0800-2000, or 8am -8pm.

Enclosure 4.16
Emergency Planner Checklist

SR/0/B/2000/003
Page 8 of 9

EOF FACILITY POST EVENT CHECKLIST

- ☐ Obtain printed copy of EOF Log
- ☐ Archive Log by selecting the "Archive" button
- ☐ Shutdown the AutoLog program.

When prompted to "Log off and remain Shift Supervisor" select NO.

Retrieve:

- ☐ Completed Procedures
- ☐ Notes

NOTE: The Ericsson Cellular phones need to remain on to charge properly.

Turn off:

- ☐ Copiers
- ☐ Computers (Leave EOF Director PC and Dose Assessment on with video conferencing running as well as the Data Coordinators Server Computer.)
- ☐ Video Monitors
- ☐ Public Address Components
- ☐ Projectors

Perform:

- ☐ Applicable sections of SR/0/B/4600/086 to replenish supply cabinet and procedure inventories.
- ☐ Clean Tables Off
- ☐ Put all Trash in Containers
- ☐ Erase Status Boards
- ☐ Verify all Fax machines have paper supply replenished (5 Fax machines)
- ☐ Verify all copiers have paper supply replenished (2 Copiers)

Replenish the following:

Position Specific Notebooks (Procedure, Checklist, Log Sheets):

- ☐ EOF Director
- ☐ Radiological Assessment Manager
- ☐ EOF Dose Assessor
- ☐ Field Monitoring Coordinator
- ☐ Radio Operator
- ☐ EOF Off-Site Agency Communicator
- ☐ Access Control Director
- ☐ Accident Assessment Manager
- ☐ Accident Assessment Interface
- ☐ EOF Operations Interface
- ☐ EOF Administrative Support

Emergency Planner Checklist

- ☐ Reactor Physics
- ☐ EOF Emergency Planner
- ☐ EOF Log Recorder/Status Keeper
- ☐ EOF Data Coordinator
- ☐ EOF Services Manager
- ☐ Meteorologist
- ☐ EOF Access List in Access Control Director's area

Enclosure 4.17
EOF Log Recorder/Staff Support/
Status Keeper Checklist

SR/0/B/2000/003
Page 1 of 1

NOTE: You are only required to complete Enclosure 4.21, Fitness for Duty Questionnaire when reporting to the facility outside of our normal work hours.

INITIAL

- _____ Put on position badge.
- _____ Sign in on the EOF staffing board.
- _____ Ensure PC is on.

NOTE: Instructions for the use of the AutoLog program are provided in the EOF.

The TSC Status Coordinator will enter plant status information (i.e. priorities, mitigation actions, classification changes, etc.). The EOF Log Recorder should enter EOF specific information and other information as directed by the EOF Director or Assistant EOF Director. There will be some duplicate information in the TSC and EOF logs (i.e. Classification changes, etc.)

- _____ Establish an official log of all significant EOF activities and EOF Director decisions using the AutoLog computer program.
- _____ **IF** the AutoLog computer program is not available, **THEN** establish a manual log of all significant EOF activities and EOF Director decisions.
- _____ Maintain EOF status boards.
- _____ Track established priorities on EOF status board as requested by EOF Director.
- _____ Provide all completed paperwork to Emergency Planning upon deactivation of the emergency facility.

Enclosure 4.18
EOF Data Coordinator Checklist

SR/0/B/2000/003
Page 1 of 1

NOTE: You are only required to complete Enclosure 4.21, Fitness for Duty Questionnaire when reporting to the facility outside of our normal work hours.

INITIAL

- _____ Put on position badge.
- _____ Sign in on the EOF staffing board.
- _____ Establish a log of activities.
- _____ Verify EOF computer hardware, software, and data display equipment is operational per Section 1 of the Data Coordinator's Reference Manual.
- _____ Provide the following computer support as required:
 - Software and hardware applications support
 - Data acquisition support
 - Communication with TSC Data Coordinator
- _____ Provide all completed paperwork to Emergency Planning upon deactivation of the emergency facility.

Enclosure 4.19
EOF Services Manager Checklist

SR/0/B/2000/003
Page 1 of 2

NOTE: You are only required to complete Enclosure 4.21, Fitness for Duty Questionnaire when reporting to the facility outside of our normal work hours.

INITIAL

- _____ Put on position badge.
- _____ Sign in on the EOF staffing board.
- _____ Unlock supply cabinet.
- _____ Establish duty function contacts for the following EOF service areas and list on board in EOF service area:
 - Administration/Commissary
 - Communications
 - Transportation Services
 - Risk Management
 - Procurement
- _____ Perform the duties as described in SR/0/B/2000/002.
- _____ Establish a log of activities.
- _____ Provide general administrative support, office supplies and ensure office equipment is functioning properly.
- _____ Provide food and beverages to meet nutritional needs.
- _____ Provide facilities to meet personal needs (dining facilities, toilets, trash receptacles and disposal) as required.
- _____ Contact Communications to troubleshoot and repair telephone systems, mobile radios and pagers as required.
- _____ Contact Transportation Services or others to arrange for necessary equipment for the movement of materials and personnel as required.
- _____ Arrange for accommodations for personnel as required.
- _____ Contact Risk Management to serve as liaison between Duke and the insurance companies in gathering data and establishing claims offices to disburse emergency assistance funds to evacuees as required.

EOF Services Manager Checklist

- _____ Coordinate all activities related to the procurement of materials, equipment and services from outside suppliers including arranging for transportation and receiving as required.
- _____ Contact additional personnel and arrange schedule for continuous support as required.
- _____ Ensure that all trash and left over food products are properly contained and arrange for disposal.
- _____ Provide all completed paperwork to Emergency Planning upon deactivation of the emergency facility.

Enclosure 4.20
Meteorologist Checklist

SR/0/B/2000/003
Page 1 of 1

NOTE: You are only required to complete Enclosure 4.21, Fitness for Duty Questionnaire when reporting to the facility outside of our normal work hours.

INITIAL

- _____ Put on position badge.
- _____ Sign in on the EOF staffing board.
- _____ Establish a log of activities.
- _____ Discuss changing meteorological conditions with Field Monitoring Coordinator.
- _____ Refer to step 3.5 in the main body of this procedure for instructions on obtaining meteorological information from the appropriate plant SDS computer screens.
- _____ Provide all completed paperwork to Emergency Planning upon deactivation of the emergency facility.

Enclosure 4.21
Fitness for Duty Questionnaire

SR/0/B/2000/003
Page 1 of 1

Print Name: _____ Employee ID #: _____

Sign Name: _____ ERO Position: _____

HAVE YOU CONSUMED ALCOHOL IN THE LAST FIVE (5) HOURS?

MARK THE APPROPRIATE BOX

No

☐

If No, stop here and fold this form and drop it in the box provided.

Yes

☐☐☐

If your answer is Yes, take this form to a member of management for observation.

OBSERVATION DETERMINATION

What did you have? _____

How much did you have? _____

Can you perform your function unimpaired? YES ☐ NO ☐

In my opinion, observation of this individual indicates the individual is capable of performing his/her ERO function.

Signature Of Management Observer

Date

Fold the form and drop it in the box provided.

Enclosure 4.22
Commitment for SR/0/B/2000/003

SR/0/B/2000/003
Page 1 of 1

- | | | |
|-----|----------------|-------|
| {1} | PIP 0-M97-4210 | NRC-1 |
| {2} | PIP 0-M96-1645 | |
| {3} | PIP 2-C96-0273 | |
| {4} | PIP 0-C98-3123 | |
| {5} | PIP 0-M98-3522 | |
| {6} | PIP-0-M98-2065 | |
| {7} | PIP-0-C00-3830 | |
| {8} | PIP-0-M99-3800 | |