



**Carolina Power & Light Company**

Robinson Nuclear Plant  
3581 West Entrance Road  
Hartsville SC 29550

Serial: RNP-RA/00-0192

**NOV 17 2000**

United States Nuclear Regulatory Commission  
Attn: Document Control Desk  
Washington, DC 20555

H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2  
DOCKET NO. 50-261/LICENSE NO. DPR-23

TRANSMITTAL OF EMERGENCY PROCEDURE REVISIONS

Ladies and Gentlemen:

In accordance with 10 CFR 50.4(b)(5) and 10 CFR 50, Appendix E, Carolina Power & Light (CP&L) Company is transmitting the attached revisions to Emergency Procedures. A listing of procedure revisions and their effective dates is provided in the enclosure to this letter.

A description of the procedure changes is provided on the "Summary of Changes" page for each Emergency Procedure. Please replace the superseded procedures with the attached revisions.

If you have any questions concerning this matter, please contact Mr. H. K. Chernoff.

Sincerely,

A handwritten signature in black ink, appearing to read "R. L. Warden".

R. L. Warden  
Manager - Regulatory Affairs

CAC/cac

Enclosures:

- List of Procedure Revisions and Effective Dates
- Revised Emergency Procedures

- c: L. A. Reyes, NRC, Region II (w/Enclosure and 2 copies of Procedures)  
R. Subbaratnam, NRC, NRR (w/o Attachments)  
NRC Resident Inspector, HBRSEP (w/Enclosure and Procedures)

A045

List of Procedure Revisions and Effective Dates

<b>Procedure</b>	<b>Revision No.</b>	<b>Effective Date</b>
EPEOF-05, "Radiological Control Manager"	4	11/13/2000
EPPRO-01, "Program and Responsibilities"	7	10/23/2000
EPTSC-04, "Radiological Control Director"	4	11/13/2000

CAROLINA POWER & LIGHT COMPANY  
H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2

PLANT OPERATING MANUAL

VOLUME 2  
PART 5

EMERGENCY PROCEDURE

**EPEOF-05**  
***RADIOLOGICAL CONTROL MANAGER***

REVISION 4

### SUMMARY OF CHANGES

REVISION #	REVISION COMMENTS
Step 8.5.3.21	<p>Moved Steps 8.5.3.6 and 8.5.3.9 to Step 8.5.3.21 and re-numbered subsequent steps.</p> <p>Added step to review PLP-021 for guidance on management of chemical spills.</p> <p>Added a note with the location of Environmental Compliance Unit phone/pager numbers.</p> <p>Re-worded step for clarity involving isolating storm drains from the discharge canal.</p> <p>(AR #16660).</p>

## TABLE OF CONTENTS

SECTION	PAGE
<b>QUICK START GUIDE</b> .....	5-4
8.5.1 <b>PURPOSE</b> .....	5-5
8.5.2 <b>RESPONSIBILITIES</b> .....	5-5
8.5.3 <b>INSTRUCTIONS</b> .....	5-5
8.5.4 <b>RECORDS</b> .....	5-8
8.5.5 <b>ATTACHMENTS</b> .....	5-8
8.5.5.1 Protective Action Recommendations .....	5-9

## RADIOLOGICAL CONTROL MANAGER (RCM) QUICK START GUIDE

**NOTE:** Blanks are provided for place-keeping ✓s only; logs are the official record. This is a summary level guide and does not replace the procedure steps.

1. Sign-in on the facility sign-in board. Log on the Electronic Display System (EDS). \_\_\_\_\_
2. If dialogic was used for callout, upon arrival at the Facility, notify Dialogic at X 1777. \_\_\_\_\_
3. Obtain briefing from Radiological Control Director (RCD) in the Technical Support Center (TSC) or the relieving RCM. \_\_\_\_\_
4. Assess radiological control staff availability. Notify additional resources if necessary. Brief radiological control staff. \_\_\_\_\_
5. Obtain a briefing on the cause of the emergency. \_\_\_\_\_
6. Review Emergency Action Level (EAL)/Protective Action Recommendation (PAR) status. \_\_\_\_\_
7. Obtain wind direction (degrees blowing from/to). \_\_\_\_\_
8. Determine the source term. \_\_\_\_\_
9. Check alignment of TSC/EOF ventilation through HEPA system (R-38). Assess eating/drinking conditions for TSC/EOF Building and provide results to RCD. \_\_\_\_\_
10. Prompt dispatch of Environmental Monitoring Teams (Enmon Teams) downwind and verify locations. \_\_\_\_\_
11. Request updates from the Enmon Team Leader and the Dose Projection Team Leader (DPTL) every 30 minutes. \_\_\_\_\_
12. Establish contact with the Forward Emergency Operations Center (FEOC) if operating. Refer to the ERO Telephone Directory. \_\_\_\_\_
13. Establish contact with the Department of Health & Environmental Control. Refer to the ERO Telephone Directory. \_\_\_\_\_
14. Refer to procedure steps. \_\_\_\_\_

## 8.5 RADIOLOGICAL CONTROL MANAGER (RCM)

### 8.5.1 PURPOSE

This procedure describes the functional responsibilities and procedure steps for the Radiological Control Manager (RCM).

### 8.5.2 RESPONSIBILITIES

1. Manage the radiological control activities in the Emergency Operations Facility (EOF).
2. Maintain awareness of meteorology, dose projections, environmental monitoring, and offsite radiological consequences.
3. Recommend protective actions to the Emergency Response Manager (ERM).
4. Serve as liaison between the EOF and the Radiological Control Director (RCD) in the Technical Support Center (TSC) and corporate radiation control personnel.
5. Conduct ALARA review of engineering review and tasks proposed by the emergency organization.

### 8.5.3 INSTRUCTIONS

1. Upon notification, determine if conditions exist which would prevent immediate occupancy of the EOF and require personnel to report to the Alternate Assembly Area at the Darlington National Guard Armory.
2. Assess Radiological Control (RC) staff availability. The RC staff includes the Environmental Monitoring Team Leader (Enmon TL), the Dose Projection Team Leader (DPTL), the Environmental Monitoring Teams (Enmon Teams) and the Dose Projection Team (DPT).

### 8.5.3 (Continued)

3. Manage RC activities in the EOF to include:
  - a. Source term assessments,
  - b. Dose projection calculations,
  - c. Offsite radiological consequences (Enmon Teams),
  - d. Meteorological data (request each 1 hour, 3 hour and 3 day forecast), and
  - e. Facility habitability.
    - TSC/EOF Building eating, drinking, and smoking restrictions will be determined for the entire facility by the RCM and ERM, status shall be promptly communicated to the RCD for consistency.
4. Assist with notifications to various state and county agencies regarding evacuation and sheltering.
5. Determine the need and availability of offsite assistance.
6. Ensure that necessary information is posted on displays and status boards. Including:
  - a. Offsite radiological status,
  - b. Protective Action Recommendations (PARs), and
  - c. 10 mile emergency planning zone (EPZ) map,
7. Direct issuance of dosimetry as necessary.
8. Determine evacuation routes of personnel to and from the plant. All personnel not needed to mitigate the accident or casualty will be evacuated as Zone A-0 evacuees. If decontamination of personnel and vehicles is not currently being conducted at the plant, then decontamination will occur as for other Zone A-0 evacuees.

### 8.5.3 (Continued)

9. Based on plant data, dose projections and meteorology, determine the need for protective sheltering or evacuation, including appropriate routes. Utilize Attachment 8.5.5.1, Protective Action Recommendations, initially to determine prioritization.
10. Implement EPRAD-03, Dose Projections. This function is delegable to the Dose Projection Team Leader (DPTL). Confer with the DPTL to evaluate results and recommend protective actions. Consider the following:
  - a. Plume travel time for evacuation purposes (close-in sheltering vs. evacuation if the plume is already in route or if there will be a short term high dose period),
  - b. Evacuation times vs. plume dose duration, and
  - c. Hot spots resulting from plume deposition.
11. Provide protective action recommendations (PARs) to the ERM. Utilize EPCLA-01, Emergency Control and the Protective Action Guides to assist.
12. If the dose projection is > 1 Rem Total Effective Dose Equivalent or 5 Rem Committed Dose Equivalent to the thyroid, verify calculation of doses beyond the site boundary per EPRAD-03, Dose Projections.
13. Notify the DPTL of the status of Phase "A" isolation.
14. Obtain offsite radiological data from the Environmental Monitoring Team Leader (Enmon TL). Compare with results from the state and other offsite radiological data. Evaluate abnormal results.
15. Compare offsite monitoring results and dose projections against the Emergency Action Levels (EALs) to determine if the results warrant a change in emergency classification. Inform the Emergency Response Manager (ERM).
16. Periodically confer with the Department of Health & Environmental Control (DHEC) regarding dose projections and environmental monitoring data.

### 8.5.3 (Continued)

17. As requested by state officials, arrange for analysis of environmental samples by the Brunswick or Harris Plants or the Harris Energy & Environmental Center and for whole body counting and bioassay of affected offsite personnel.
18. Consider the administration of potassium iodide (KI) to the Environmental Monitoring (Enmon) Teams if the expected thyroid Committed Dose Equivalent will exceed 25 Rem. Inform the ERM to recommend KI administration to the offsite agencies.
19. Review and approve the Dosimeter Correction Factor (DCF) prepared by the Enmon\TL or DPTL. Provide the DCF to the ERM.
20. Approve exposure extensions.
21. Review PLP-021, "Chemical Storage, Inventory, Spill and Hazard Communication Program", for items to consider in the event of a chemical spill or accident.

<p><b>NOTE:</b> Contact numbers for the Environmental Compliance Unit are listed in the Emergency Response Organization Phone Book.</p>
---

- a. Contact the Environmental Compliance Unit to determine reportability.
  - b. Ensure the settling pond is isolated from the discharge canal for spills directed toward storm drains.
22. Coordinate shift change with the Administration & Logistics Manager (ALM).
  23. Develop recovery strategy.

### 8.5.4 RECORDS

N/A

### 8.5.5 ATTACHMENTS

- 8.5.5.1 Protective Action Recommendations

**PROTECTIVE ACTION RECOMMENDATIONS**DETERMINATION OF AFFECTED ZONES BASED ON WIND DIRECTION  
(EVACUATION TIME IN MINUTES)

<u>WIND FROM</u>	<u>AFFECTED ZONES</u>	<u>WINTER WEEKDAY, FAIR WEATHER</u>	<u>WINTER WEEKNIGHT FAIR WEATHER</u>	<u>SUMMER WEEKDAY FAIR WEATHER</u>	<u>WINTER WEEKDAY, ADVERSE WEATHER</u>
North (338° - 022°)	A-0, B-1, B-2, C-1, C-2, D-1, D-2	225	180	210	295
Northeast (023° - 067°)	A-0, C-1, D-1, D-2, E-2	225	180	210	295
East (068° - 112°)	A-0, D-1, D-2, E-1, E-2	225	180	210	295
Southeast (113° - 157°)	A-0, A-1, A-2, D-2, E-1, E-2	225	180	210	295
South (158° - 202°)	A-0, A-1, A-2, B-1, B-2, E-1, E-2	225	180	210	295
Southwest (203° - 247°)	A-0, A-1, A-2, B-1, B-2	225	180	210	295
West (248° - 292°)	A-0, B-1, B-2, C-1, C-2	225	180	210	295
Northwest (293° - 337°)	A-0, B-1, B-2, C-1, C-2, D-2	225	180	210	295
ALL ZONES (10 MILE RADIUS)		240	180	215	315

CAROLINA POWER & LIGHT COMPANY  
H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2

PLANT OPERATING MANUAL

VOLUME 2  
PART 5

EMERGENCY PROCEDURE

**EPPRO-01**  
***PROGRAM AND RESPONSIBILITIES***

REVISION 7

### SUMMARY OF CHANGES

STEP #	REVISION COMMENTS
8.1.3.1	Revised the name of AP-022
8.1.3.2	Revised the name of AP-022
8.1.6	Created a hurricane guidance section. (CR 16553)

## TABLE OF CONTENTS

SECTION	PAGE
8.1	<b>PROGRAM AND RESPONSIBILITIES</b> ..... 1-4
8.1.1	<b>DRILL AND EXERCISE PARTICIPATION</b> ..... 1-4
8.1.2	<b>DRILLS AND EXERCISES</b> ..... 1-5
8.1.3	<b>EP PROCEDURE MAINTENANCE AND PROGRAM IMPROVEMENTS</b> . 1-10
8.1.4	<b>INADVERTENT SIREN ACTIVATION</b> ..... 1-11
8.1.5	<b>EMERGENCY RESPONSE ORGANIZATION BEEPER DISTRIBUTION</b> . 1-14
8.1.6	<b>HURRICANE PREPARATION GUIDANCE</b> ..... 1-14
8.1.7	<b>INTENTIONALLY BLANK</b> ..... 1-14
8.1.8	<b>INTENTIONALLY BLANK</b> ..... 1-14
8.1.9	<b>INTENTIONALLY BLANK</b> ..... 1-14
8.1.10	<b>SCENARIO DEVELOPMENT</b> ..... 1-14
8.1.11	<b>INTENTIONALLY BLANK</b> ..... 1-18
8.1.12	<b>PUBLIC EDUCATION AND INFORMATION</b> ..... 1-19
8.1.13	<b>RECORDS</b> ..... 1-20
8.1.14	<b>ATTACHMENTS</b> ..... 1-20
8.1.14.1	EP IMPROVEMENT FORM ..... 1-21
8.1.14.2	SIREN SYSTEM INADVERTENT ACTIVATION REPORT ..... 1-22
8.1.14.3	ERO BEEPER DISTRIBUTION ..... 1-23
8.1.14.4	DRILL OBJECTIVES ..... 1-24
8.1.14.5	ACCEPTANCE CRITERIA ..... 1-31

## 8.1 PROGRAM AND RESPONSIBILITIES

### 8.1.1 DRILL AND EXERCISE PARTICIPATION:

1. ERO personnel are expected to drill/exercise with their designated team.
  - a. If they will be unavailable for the drill it is their responsibility to ensure some one from another team will fill their position.
  - b. Relief team personnel will participate in at least one team Drill, Exercise, or Tabletop each year.
  - c. Non-Team designated ERO personnel are expected to coordinate with the other persons qualified for their position to ensure the position is staffed for each drill/exercise and that each ERO member participates in at least one Drill per calendar year.
2. ERO personnel filling critical positions shall be observed at least once in a calendar year performing their ERO duties.
3. Unless otherwise directed by Emergency Preparedness (EP), ERO personnel should respond during augmentation for their facility.
  - a. Those personnel available to respond should establish 24 hour coverage for the position.
  - b. Personnel on night shift may be exempted from augmentation, but should be used to establish 24 hour coverage.
  - c. After the rotation is established, personnel may be simulated to be sent home and return to their place of work.
  - d. Personnel are required to keep the manager responsible for their accountability informed of their location should an evacuation be conducted at a later time.

## 8.1.2 DRILLS AND EXERCISES

1. Emergency Response Organization (ERO) personnel will participate in periodic drills at least once each calendar year. Additionally one team, on a rotational basis, will participate in the Graded Exercise. The purpose of conducting drills is to ensure that each team has the skills to successfully deal with a real emergency. The following are the types of drills conducted:
  - a. Medical Emergency Drills: Medical emergency drills will be conducted annually. They will involve a simulated contaminated and injured individual. Off-site portions of these drills may be conducted as part of an exercise.
  - b. HP/PASS Drills: Health Physics drills, including response to and analysis of simulated elevated airborne and liquid samples and direct radiation measurements, will be conducted semi-annually.
    - At least one of these radiation protection drills will involve the use of the Post Accident Sampling System.
    - These drills may also include the Medical Services drill.
  - c. Combined Functional Drills: Combined Functional Drills may include any of the required drills and serve as the primary method of practical training for new ERO members and continuing training for existing members.
2. An Exercise will be conducted as required by 10 CFR, Part 50, Appendix E.
  - a. The scenario which will ultimately escalate to at least a Site Area Emergency.

8.1.2.2 (Continued)

- b. The scenario will be varied from year to year such that all elements of the Plant, County, and State Plans and emergency organizations are tested within a six (6)-year period.
  - c. Each Exercise scenario will include a list of performance objectives and a description of the expected responses. Specific tasks that should be evaluated are listed in Attachment 8.1.14.4 and 8.1.14.5, "Drill Objectives" and "Acceptance Criteria" respectively.
    - Attachments identify the Emergency Response facility where the activity is most likely to occur, however, the objective may be judged acceptable if performed in an alternate location.
    - Credit may be taken for objectives that are satisfactorily completed during real events.
  - d. An off-hours exercise which starts between 6:00 p.m. and 4:00 a.m. will be conducted once every six (6) years.
  - e. Advance knowledge of the scenario content and the times of the exercises will be kept to a minimum to ensure a realistic participation by those involved.
3. The EP Staff is responsible for planning and conducting drills and exercises not addressed elsewhere (e.g., Fire Drills are addressed in the Fire Plan). They shall provide:
- a. The scenario including objectives for the drill/exercise.
    - From time to time "specific objectives" which are in addition to required performance objectives will be added to the Training Exercise Objectives. These may be in response to previous deficiencies, EP TPC items or require that normally simulated items be actually performed. A prompt to consider these items is contained in the pre-drill checklist.

### 8.1.2.3 (Continued)

- Qualified controller/evaluators to evaluate the drill/exercise.
- As a minimum Controller/Evaluators should be available to evaluate the following:
  - each facility activating,
  - Environmental Monitoring Teams,
  - Mechanical Damage Control Missions (as applicable),
  - Electrical Damage Control Missions (as applicable),
  - Chemistry/Health Physics Missions,
  - Offsite functions to be simulated,
  - any special functions (e.g. fire, injury)
- b. A yearly plan for ERO exercises.
- c. A critique noting strengths, deficiencies and comments on drill/exercise performance.
  - A Strength is an action or activity performed in an above average manner, or in a creative manner to resolve a problem without the violation of a requirement. These are items which all teams should consider adopting.
  - Deficiency will consist, for the purpose of critiques, as the action or actions which deviate from an approved or prescribed procedure, standard, specification, regulation or exercise/drill objective. Examples are procedure violation or a Technical Specification violation during the course of a drill or exercise.
  - A note worthy item which does not meet the requirement of a Strength or a Deficiency is a comment.
  - Critiques will be conducted after each Exercise.

### 8.1.2.3c (Continued)

- Rough Draft Critiques should be issued for comment, to the ERO teams members, which participated, in seven working days or less. The rough draft critique should be issued unless two teams are playing the same scenario less than two week apart. In this case the seven working day criteria will begin at the end of the second drill.
  
- The Critique will normally consist of the following:
  1. Cover Letter and Summary
  2. Objectives per facility
  3. Status of Objective (Met or Not Met)
  4. Strengths
  5. Deficiencies
  6. Comments
  
- The Cover letter will consist of a brief statement containing the date on which the drill(s) was conducted, team(s) that participated, and be signed by the Supervisor of Emergency Preparedness.
  
- The Summary will be a statement of overall drill performance.
  
- The objectives may be listed in their entirety in the critique but will also be listed in each section as they pertain to each facility.
  
- Each objective will be listed in the appropriate section and will be noted depending on whether the Acceptance criteria has been met during the drill.
  
- Satisfactory completion of an objective by any team will satisfy that requirement for the Site. Any team failure to demonstrate an objective is a deficiency and will be handled as such. At the discretion of EP Supervision failure to demonstrate an objective(s) may require redemonstration.

8.1.2.3c (Continued)

- Controller/Evaluator should justify failures as such in the critiques held after the drill and in the write-up given to Emergency Preparedness.
  - Deficiencies will be noted as such and a Condition Report (CR) should be initiated prior to issuing the final copy of the critique. A statement should be included in the critique that a CR has been written.
- d. Ensure implementation of comments or changes to Emergency Procedures as identified on EP Improvement Forms or drill critiques.
- Comments will be screened by the EP staff for applicability.
- e. A pre-drill and post-drill review of items needed to prepare for the drill/exercise or return to normal following the drill/exercise (i.e., reset simulator telephones).
- f. Follow-up on drill identified deficiencies by initiating Condition Reports (CR) as needed.

### 8.1.3 EP PROCEDURE MAINTENANCE AND PROGRAM IMPROVEMENTS

1. Procedure improvements may be recommended by completing an Attachment 8.1.14.1, EP Improvement Form, or a DCF as specified in AP-022, Procedure Review and Approval Process, and routing it to the Supervisor Emergency Preparedness.
2. Procedure changes to the Robinson Emergency Plan and/or Emergency Procedures will be accomplished as required by AP-022, Procedure Review and Approval Process.
  - a. Emergency Preparedness will be responsible to maintain the Emergency Action Levels (EAL) and supporting basis documents, as well as the Emergency Procedures.
  - b. Documents will be developed and maintained to comply with applicable regulations.
  - c. The EAL basis document will be revised to reflect NUREG-0654, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," or other management directives and policies.

### 8.1.3.2 (Continued)

- d. All Emergency Procedures, EALs, and the Emergency Plan shall receive a 10 CFR 50.54(q) review to ensure the effectiveness of the Emergency Plan is not inadvertently reduced.
3. For each drill or real event, EP improvement forms will be available. A record of items submitted will be maintained by the EP staff.
4. Items reported on EP improvement forms or drill critiques will be screened for entry into the Corrective Action Program.
5. Feedback regarding disposition of items will be provided to the individual who initiated the comment.
  - a. This feedback is documented on the improvement form.

### 8.1.4 INADVERTENT SIREN ACTIVATION

1. Upon receiving a report of an inadvertent siren activation:
  - a. If a real emergency or drill/exercise is in progress that involves sounding of the sirens, then direct the callers to tune to an Emergency Alerting System Station listed in the emergency public information distributed by CP&L.
  - b. If no event is in progress obtain information requested on attachment 8.1.14.2, Siren System Inadvertent Activation Report and ask the caller if a call back is desired once more information is known.

8.1.4 (Continued)

2. If an inadvertent siren activation has been confirmed, then notify the following:

- a. All County Emergency Operations Center or Warning Points concerning the plant status. This can be accomplished via Selective Signaling or the Bell lines.

Sirens are located as follows:

- Chesterfield County - 13 Siren Locations  
Siren #'s - 01, 02, 03, 04, 05, 06, 09, 10, 11, 15, 16, 17, and 45
- Darlington County - 28 Siren Locations  
Siren #'s - 07, 08, 12, 13, 14, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 30, 31, 32, 33, 34, 36, 37, 38, 39, 41, 42, 43, and 44
- Lee County - 4 Siren Locations  
Siren #'s - 28, 29, 35, and 40

Total Sirens - 45 Siren Locations (All Counties)

- b. Notify the Telecommunication Help Desk (8-1-800-800-6200) that an inadvertent siren activation has occurred and request that repair personnel be dispatched to correct the problem. Request a work order Number and a return call when the sirens have been silenced.
- c. Notify Emergency Preparedness by phone or pager. The ERO Phone Book has the necessary information
- d. Notify Robinson Communications of the inadvertent siren activation and request immediate notification if a press release is to be issued. A press release relating to this event is reportable to the NRC. Consult AP-030, NRC Reporting Requirements.

8.1.4 (Continued)

3. When the Unit 2 Control Room is notified that the siren(s) have been silenced ensure that:
  - a. Evaluate AP-030, NRC Reporting Requirements, for potential NRC reporting.
  - b. Notify the State and County Warning Points concerning the status of the sirens.
  - c. Notify Robinson Communications.
4. Forward information gathered and any completed Attachment 8.1.14.2 forms to Emergency Preparedness for retention as appropriate.

### **8.1.5 EMERGENCY RESPONSE ORGANIZATION BEEPER DISTRIBUTION**

1. After qualifying as an ERO member, EP will arrange an ERO beeper for the positions identified in Attachment 8.1.14.3, ERO Beeper Distribution.
2. Beepers are to ensure that the plant has the ability to meet the 30-45 minute response staffing requirements.
3. Plant Public Address, Non-Responding Emergency Communicators, dialogic and/or beepers are used to contact the 60-75 minute staff, and other positions not required by NUREGs.

### **8.1.6 HURRICANE PREPARATION GUIDANCE (CR 16553)**

OMM-021 "Operation During Adverse Weather Conditions", provides direction for hurricane/adverse weather preparations. Additional tasks for the EP staff to consider are:

- Establish the response teams.
- Designate and post sleeping areas.
- Set up and test the satellite telephone.

### **8.1.7 INTENTIONALLY BLANK**

### **8.1.8 INTENTIONALLY BLANK**

### **8.1.9 INTENTIONALLY BLANK**

### **8.1.10 SCENARIO DEVELOPMENT**

1. Several months prior to the start of the routine training exercise schedule perform the following:
  - a. Identify required objectives to be performed during that year.
  - b. Identify any "specific objectives" in addition to the required objectives.
  - c. Prior to the final day in the November preceding the year the scenario development team is needed, request EP Management obtain scenario development team members per guidance below.

8.1.10 **SCENARIO DEVELOPMENT** (Continued)

2. The Scenario development team is comprised of:
  - a. Core Team (required)
    - Emergency Preparedness (2)
    - Health Physics
    - Mechanical Maintenance
    - I&C/Electrical Maintenance
    - Operations
    - Training (Simulator qualified)
  - b. Optional Team (Scenario specific)
    - Fire Protection
    - Security
    - Site Safety Representative
    - Engineering
    - Chemistry
  - c. Preferably team members will have at least a year experience at Robinson.
  - d. Team members should be assigned to the development team for the entire year.
  - e. Team members should not be on shift to allow for consistent attendance of scenario meetings, training, and exercises/drills.

#### 8.1.10.2 SCENARIO DEVELOPMENT (Continued)

- f. Team members are expected to:
    - attend team development meetings,
    - function as a Controller/Evaluator in Exercises as requested,
    - maintain all scenario development materials confidential and promptly report to EP any compromise of scenario elements,
    - develop scenario materials and mock-ups assigned.
  - g. Prior to each Biennial Graded Exercise determine the final dates for the submittal of the 90 day Biennial Graded Exercise objective and the 45 day Biennial Graded Exercise scenario to the NRC.
  - h. Determine which two members of the Emergency Preparedness staff will be the Scenario development representatives for scenario development.
3. NRC Evaluated Exercise preparations should begin as early as possible. Normally scheduled NRC Exercise preparations should begin at least 3 months prior to the submittal date for the complete package.
4. To the extent practical, scenarios should be validated using the following guidance.
- a. For NRC Evaluated Exercises, validation should utilize licensed individuals and be performed close to the actual date of the Exercise. This will ensure the simulator model and operator response is similar to expectations. Separate validation by team members is also desirable.
  - b. For Normal Training Exercises the “Operations” portion of the scenario is validated by training staff. The integrated scenario (operations combined with EP aspects) should be reviewed by the EP scenario development member and Training to verify adequate timing of events for EP purposes.

## 8.1.10 SCENARIO DEVELOPMENT (Continued)

5. To the extent practical, scenarios should contain the following information. The following sections are suggested for all graded and training exercises.

### Section 1.0 Introduction

The introduction contains a description of time, date, and type of exercise. It also includes a description of the level of agency involvement and the agencies which will participate. The introduction also includes a description of each section contained in the scenario manual.

### Section 2.0 Objectives

This section defines the exercise objectives.

### Section 3.0 Scenario

This section describes the postulated sequence of events occurring at the H.B. Robinson Steam Electric Plant Unit 2 (HBRSEP) which will require the HBRSEP Emergency Preparedness Organization and various onsite and offsite organizations to respond. Included in this sections are copies of the exercise messages and pertinent data which will be utilized to control the progress of the exercise scenario.

#### Subsection 3.1 Messages

This subsection contains copies of the exercise messages which will be utilized to control the progression of the exercise scenario.

#### Subsection 3.2 Plant Parameters

This subsection contains time related information concerning the postulated plant conditions, which corresponds to the development of the exercise scenario.

#### Subsection 3.3 Meteorological Information

This subsection contains information and data concerning the postulated meteorological conditions to the site area which will be utilized in the development of the exercise scenario.

## 8.1.10 SCENARIO DEVELOPMENT (Continued)

### Subsection 3.4 Radiological and Damage Control Mission Information

This subsection contains information and data concerning the postulated radiological conditions and Damage Control missions. The radiological information is for onsite as well as offsite conditions due to the abnormal conditions of HBRSEP. The missions are for troubleshooting and repair of onsite damaged or out of service plant equipment needed for the operation of HBRSEP.

### Section 4 Controller instructions

This section contains information concerning the controller aspects of exercise participants and facilities.

### Section 5 Evaluator Instructions

This section contains information concerning the evaluation of exercise participants and facilities.

### Section 6 Supplementary Material

This section contains materials to be used by Controller/Evaluators for documenting strengths, deficiencies, and comments to be used in the individual critiques.

## 8.1.11 INTENTIONALLY BLANK

## 8.1.12 PUBLIC EDUCATION AND INFORMATION

1. Emergency Preparedness and Site Communications shall perform the following actions:
  - a. In cooperation with the State of South Carolina, local governments and with corporate CP&L efforts, ensure that public education and information efforts are consistent and complementary.
  - b. Ensure that a public information program for persons living in the possible plume exposure Emergency Planning Zone includes the following elements:
    - Brochures or other media containing educational information on emergency preparedness, nuclear power and radiation, and how to contact CP&L for more information.
    - Coordination of speakers to address emergency preparedness when requested
    - Supplying news material for the media
  - c. Ensure that the public education program includes the following information:
    - The potential for occurrence of a radiological emergency.
    - How to recognize a radiological emergency notification.
    - What proper, immediate actions (e.g., return to home, close windows and turn on radio) should be taken upon notification.
    - Protective actions to be taken if shelter is prescribed.
    - General procedure to follow if an evacuation is required.
    - General education on radiation.
    - A contact for how to learn more about emergency preparedness.

### 8.1.13 RECORDS

EP records are vital records. Maintenance and testing records are documented per EPPRO-02 and retained per RMP-011. Drill critiques are documented as self assessments per CAP-NGGC-0201.

### 8.1.14 ATTACHMENTS

- 8.1.14.1 EP Improvement Form
- 8.1.14.2 Siren System Inadvertent Activation Report
- 8.1.14.3 ERO Beeper Distribution
- 8.1.14.4 Drill Objectives
- 8.1.14.5 Acceptance Criteria

ATTACHMENT 8.1.14.1  
Page 1 of 1  
**EP IMPROVEMENT FORM**

DATE: \_\_\_\_\_

ERO POSITION: \_\_\_\_\_

NAME: \_\_\_\_\_

RECOMMENDED CHANGE IS IN REFERENCE TO:

\_\_\_\_\_ EMERGENCY PLAN

\_\_\_\_\_ EMERGENCY FACILITY

\_\_\_\_\_ EP- \_\_\_\_\_  
(Give Number)

\_\_\_\_\_ EP TRAINING

\_\_\_\_\_ EQUIPMENT

\_\_\_\_\_ OTHER (List) \_\_\_\_\_

I RECOMMEND THE FOLLOWING CHANGE, ADDITION OR IMPROVEMENT:

(Be specific - list all information) \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

For Emergency Preparedness Use

Id Number: \_\_\_\_\_

Priority: \_\_\_\_\_

C/A Assigned to: \_\_\_\_\_

Due Date: \_\_\_\_\_

(N/A for priority 3 items)

RESOLUTION \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



ATTACHMENT 8.1.14.3  
Page 1 of 1  
**ERO BEEPER DISTRIBUTION**

All Team Members in the following positions.

SEC	OSC Leader	AERM
POD	ERM	NRC
TAD	A&LM	EP
ERD	TAM	JIC Director
RCD/RCM	POA	Reactor Engineer
ESTL	EC	Computer Support
Superintendent Shift Operations Desk	DPTL	Company Spokesperson
State/County Communicator		RC Tech Damage Control
RC Tech Facilities (45 min)		En Mon Team (45 min)

Rotational Beeper positions

NRC Communicator	Chemistry/Environmental Monitoring
PI Communicator	Electrical Engineer
Security Lieutenant	
Mechanical Engineer	JIC Technical Spokesperson
Damage Control Leaders	RC Tech Facilities (75 min)
(1) Mechanics	En Mon TL
(1) I&C/Electricians	En Mon Team (75 min)

(1) Normally on shift, beepers available

ATTACHMENT 8.1.14.4  
Page 1 of 7  
**DRILL OBJECTIVES**

	NUREG 0654	OBJECTIVE	CR	TSC	OSC	JIC	EOF	FREQ
1	A.1.e F.1.a	Provide 24 hour per day on shift emergency response personnel as required by the Emergency Plan including the capability of 24 hour per day manning of communications.	X					6yr
2	A.4	Demonstrate ability to staff Emergency Response Facilities (ERF) 24 hours per day.		X	X	X	X	6yr
3	B.5 H.4 B.7 <sup>1</sup> b.2	Demonstrate the ability to augment shift staff and activate ERFs with Emergency Plan Table 5.3.2-1, "Capability for Additions" column for 30-45 min and 60-75 min.		X	X		X	2yr
4	B.7.a B.7.b B.7.c B.7.d	Demonstrate the ability to augment shift staff with: -Logistics support personnel -Technical support for reentry/recovery operations -Management interface with governmental authorities -Corporate interface with news media		X			X X X	2yr

<sup>1</sup>10CFR50.47

ATTACHMENT 8.1.14.4

Page 2 of 7

**DRILL OBJECTIVES**

	NUREG 0654	OBJECTIVE	CR	TSC	OSC	JIC	EOF	FREQ
5	B.8	Demonstrate the ability to contact Contractors and private organizations for technical assistance.					X	Ann
6	B.9 L.4 <sup>1</sup> b.12	Demonstrate the ability to obtain assistance from law enforcement, medical, and fire-fighting organizations including assistance for contaminated personnel.	X					Ann
7	C.2.b	Demonstrate the ability to provide a representative to the SEOC/FEOC (when activated) and County EOCs.					X	2yr
8	C.3 <sup>1</sup> b.9	Demonstrate the ability to coordinate radiological monitoring and analysis.					X	Ann
9	D.1 I.1 <sup>1</sup> b.4	Demonstrate the ability to identify and properly classify events using appropriate procedures, plant system parameter values, and the EALs.	X	X				Ann
10	E.2 F.1.e <sup>1</sup> b.2	Demonstrate the ability to alert, notify, and mobilize ERO personnel	X	X	X	X	X	Ann
11	E.3 <sup>1</sup> b.5	Demonstrate the ability to make initial emergency notification to State and Chesterfield, Darlington, and Lee County Warning Points or EOCs within 15 minutes following declaration of each emergency classification.	X				X	Ann

<sup>1</sup>10CFR50.47

ATTACHMENT 8.1.14.4

Page 3 of 7

**DRILL OBJECTIVES**

	NUREG 0654	OBJECTIVE	CR	TSC	OSC	JIC	EOF	FREQ
12	E.4 <sup>1</sup> b.5	Demonstrate the ability to make follow-up notifications to State and Chesterfield, Darlington, and Lee County Warning Points or EOCs within 60 minutes following initial and change of classification notifications.	X				X	Ann
13	E.7 J.7 <sup>1</sup> b.10	Demonstrate the ability to formulate protective action recommendations and transmit to State and County personnel.					X	Ann
14	F.1 F.1.a F.1.b	Demonstrate the ability to communicate with State and County personnel using primary and backup communication systems.	X				X	Ann
15	F.1.c	Demonstrate the provisions to communicate with Federal emergency response organizations.	X	X				Ann
16	F.1.d <sup>1</sup> b.6	Demonstrate the ability to communicate between the CR, TSC, EOF, OSC, and Enmon teams.	X	X	X		X	Ann
17	F.1.f	Demonstrate the ability to communicate with the NRC within 60 minutes following each emergency classification declaration.	X	X				Ann
18	G.3.a G.3.b	Demonstrate the ability to activate the JIC and interface with the news media.				X		2yr

<sup>1</sup>10CFR50.47

ATTACHMENT 8.1.14.4  
Page 4 of 7  
**DRILL OBJECTIVES**

	NUREG 0654	OBJECTIVE	CR	TSC	OSC	JIC	EOF	FREQ
19	G.4.a G.4.b <sup>1</sup> b.7	Demonstrate the ability to provide a Company Spokesperson and timely dissemination of information to the news media.				X		2yr
20	G.4.c	Demonstrate the ability to deal with rumors.				X		2yr
21	H.6.a H.6.b I.5	Demonstrate the ability to obtain data from meteorological, hydrologic, seismic, radiological monitors, and sampling devices.	X				X	Ann
22	I.2 <sup>1</sup> b.9	Demonstrate the ability to obtain samples and analyze data from the PASS and other post accident monitoring equipment.			X			Ann
23	I.3.a I.3.b	Demonstrate the ability to determine the source term and magnitude of releases.	X				X	Ann
24	I.8 I.9 J.7	Demonstrate the ability to project dosage to the public, from the ingestion pathway, based on plant and field data.					X	Ann
25	J.1 <sup>1</sup> b.2	Demonstrate the ability to alert and advise individuals who are visitors, contractors, and members of the public onsite.	X					Ann

<sup>1</sup>10CFR50.47

ATTACHMENT 8.1.14.4

Page 5 of 7

**DRILL OBJECTIVES**

	NUREG 0654	OBJECTIVE	CR	TSC	OSC	JIC	EOF	FREQ
26	J.3 K.7	Demonstrate the ability to evacuate non-essential personnel from site to be monitored and decontaminated at an offsite location.			X		X	6yr
27	J.4	Demonstrate the ability to monitor, decontaminate and evacuate non-essential personnel from site.			X		X	6yr
28	J.5	Demonstrate the ability to account for individuals in the protected area and identify the names of those unaccounted for within 30 minutes.		X				6yr
29	J.6 K.3.a K.3.b	Demonstrate the ability to provide ERO personnel protective clothing, respiratory protection, dosimetry, and radioprotective drugs. This also includes determination of doses received and maintenance of dose records 24 hours per day.	X	X	X		X	2yr
30	K.1 <sup>1</sup> b.11	Demonstrate the ability to establish onsite exposure guidelines consistent with EPA emergency worker and lifesaving activities.		X				Ann
31	L.2	Demonstrate the ability to provide onsite first aid capability.			X			Ann

<sup>1</sup>10CFR50.47

ATTACHMENT 8.1.14.4

Page 6 of 7

**DRILL OBJECTIVES**

	NUREG 0654	OBJECTIVE	CR	TSC	OSC	JIC	EOF	FREQ
32	M.1 M.2 M.3 M.4	Demonstrate the ability to reassess plant conditions and evaluate recovery/reentry considerations.					X	6yr
33	N.1.b	Demonstrate the ability to augment the ERO, during an Exercise, between 6:00 p.m. and 4:00 a.m. or any weekend hours.	X					6yr
34	N.2.d	Perform Radiological Monitoring Drills which involve collection and analysis of all sample media (e.g., water, vegetation, soil and air), and provisions for communications and record keeping.					X	Ann
35	N.2.b	Perform fire drills which demonstrate the ability of the fire brigade to respond to a fire and interface with offsite fire assistance.	X					6yr
36	N.2.c	Perform medical emergency drills which demonstrate the ability to deal with a medical emergency involving a simulated contaminated individual including participation of offsite medical treatment agencies.	X		X			Ann

<sup>1</sup>10CFR50.47

ATTACHMENT 8.1.14.4

Page 7 of 7

**DRILL OBJECTIVES**

	NUREG 0654	OBJECTIVE	CR	TSC	OSC	JIC	EOF	FREQ
37	N.2.e (1) <sup>1</sup> b.9	Perform Health Physics Drills which involve response to, and analysis of, simulated elevated airborne and liquid samples and direct radiation measurements in the environment.			X			6mo
38	ACR 94- 01156 CA .1	Perform an offsite hazards drill which will involve response to, and analysis of simulated offsite hazards (examples: chlorine, propane, hydrogen, gasoline or some other offsite hazard either natural man made). Samples and measurements as well as protective measures should be taken.	X	X	X		X	Ann
39	N.4	Perform a critique at the conclusion of an exercise to evaluate the ability of organizations to respond as required.	X	X	X	X	X	Ann
40		Demonstrate that NRC identified open items resulting from pervious exercises can be closed.						Ann
41	CR 98- 02026	Demonstrate actual use of SCBA's including field change out of spare cylinder.			X			6mon

<sup>1</sup>10CFR50.47

ATTACHMENT 8.1.14.5  
Page 1 of 7  
**ACCEPTANCE CRITERIA**

	OBJECTIVE	ACCEPTANCE CRITERIA
1	Provide 24 hour per day on shift emergency response personnel as required by the Emergency Plan including the capability of 24 hour per day manning of communications.	This objective is met as long as the staffing requirements of Technical Specifications, Emergency Plan Table 5.3.2-1 "Minimum Shift Size" column are satisfied.
2	Demonstrate ability to staff ERFs 24 hours per day.	This objective is met when the ERFs are staffed and a shift turnover is complete.
3	Demonstrate the ability to augment shift staff and activate ERFs with Emergency Plan Table 5.3.2-1, "Capability for Additions" column for 30-45 min and 60-75 min.	This objective is met when the staffing requirements of the Emergency Plan Table 5.3.2-1, "Capability for Additions" column is satisfied.
4	Demonstrate the ability to augment shift staff with: -Logistics support personnel -Technical support for reentry/recovery operations -Management interface with governmental authorities -Corporate interface with news media	This objective is met when facilities are capable of being activated
5	Demonstrate the ability to contact Contractors and private organizations for technical assistance.	This objective is met when the ability to contact has been demonstrated. (Actual contact may be simulated.)
6	Demonstrate the ability to obtain assistance from law enforcement, medical, and fire-fighting organizations including assistance for contaminated personnel.	This objective is met when the ability to contact has been demonstrated. (Actual contact may be simulated.)

<sup>1</sup>10CFR50.47

ATTACHMENT 8.1.14.5  
Page 2 of 7  
**ACCEPTANCE CRITERIA**

	OBJECTIVE	ACCEPTANCE CRITERIA
7	Demonstrate the ability to provide a representative to the SEOC/FEOC (when activated) and County EOCs.	This objective is met when the facilities are activated and an ERO representative is present.
8	Demonstrate the ability to coordinate radiological monitoring and analysis.	This objective is met when appropriate monitoring and analysis data are received. (May be simulated)
9	Demonstrate the ability to identify and properly classify events using appropriate procedures, plant system parameter values, and the EALs.	This objective is met when events are correctly classified in a timely manner.
10	Demonstrate the ability to alert, notify, and mobilize ERO personnel.	This objective is met when the ERFs are activated.
11	Demonstrate the ability to make initial emergency notification to State and Chesterfield, Darlington, and Lee County Warning Points or EOCs within 15 minutes following declaration of each emergency classification.	This objective is met when initial notifications are accomplished within the required 15 minutes. Time starts at emergency declaration and ends at first contact.
12	Demonstrate the ability to make follow-up notifications to State and Chesterfield, Darlington, and Lee County Warning Points or EOCs within 60 minutes following initial and change of classification notifications.	This objective is met when follow-up notifications are accomplished within the required 60 minutes. Time starts at completion of the previous notification and ends at first contact.

<sup>1</sup>10CFR50.47

ATTACHMENT 8.1.14.5  
Page 3 of 7  
**ACCEPTANCE CRITERIA**

	OBJECTIVE	ACCEPTANCE CRITERIA
13	Demonstrate the ability to formulate protective action recommendations and transmit to State and County personnel.	This objective is met when protective action recommendations are transmitted to the State and Counties within 15 minutes following the declaration of a General Emergency.
14	Demonstrate the ability to communicate with State and County personnel using primary and backup communication systems.	This objective is met when communications have been established using the Selective Signaling system and one of the backup systems.
15	Demonstrate the provisions to communicate with Federal emergency response organizations.	This objective is met by agreement letters.
16	Demonstrate the ability to communicate between the CR, TSC, EOF, OSC, and Enmon teams.	This objective is met when none of the other Objectives fail due to communications.
17	Demonstrate the ability to communicate with the NRC within 60 minutes following each emergency classification declaration.	This objective is met when communications are established within the required time. Time starts at emergency declaration and ends at first contact.
18	Demonstrate the ability to activate the JIC and interface with the news media.	This objective is met when the JIC is activated and a press conference conducted.

<sup>1</sup>10CFR50.47

ATTACHMENT 8.1.14.5  
Page 4 of 7  
**ACCEPTANCE CRITERIA**

	OBJECTIVE	ACCEPTANCE CRITERIA
19	Demonstrate the ability to provide a Company Spokesperson and timely dissemination of information to the news media.	This objective is met when a Company spokesperson is present and briefings are conducted as appropriate.
20	Demonstrate the ability to deal with rumors.	This objective is met when false information is corrected by responsible personnel.
21	Demonstrate the ability to obtain data from meteorological, hydrologic, seismic, radiological monitors, and sampling devices.	This objective is met when data has been obtained and provided to appropriate personnel.
22	Demonstrate the ability to obtain samples and analyze data from the PASS and other post accident monitoring equipment.	This objective is met when samples have been obtained and accurately analyzed.
23	Demonstrate the ability to determine the source term and magnitude of releases.	This objective is met when source term and release magnitude/dose protection have been accurately determined.
24	Demonstrate the ability to project dosage to the public, from the ingestion pathway, based on plant and field data.	This objective is met when Dose Projection information is included in the General Emergency declaration notification or as a follow-up to the General Emergency notification.

<sup>1</sup>10CFR50.47

ATTACHMENT 8.1.14.5  
Page 5 of 7  
**ACCEPTANCE CRITERIA**

	OBJECTIVE	ACCEPTANCE CRITERIA
25	Demonstrate the ability to alert and advise individuals who are visitors, contractors, and members of the public onsite.	This objective is met when individuals receive, understand, and respond as required to notifications provided by alarms and PA.
26	Demonstrate the ability to evacuate non-essential personnel from site to be monitored and decontaminated at an offsite location.	This objective is met when personnel are sent to an offsite location for decontamination. (May be simulated.)
27	Demonstrate the ability to monitor, decontaminate and evacuate non-essential personnel from site.	This objective is met when personnel are able to discuss decontamination procedures.
28	Demonstrate the ability to account for individuals in the protected area and identify the names of those unaccounted for within 30 minutes.	This objective is met when accountability is completed within 30 minutes.
29	Demonstrate the ability to provide ERO personnel protective clothing, respiratory protection, dosimetry, and radioprotective drugs. This also includes determination of doses received and maintenance of dose records 24 hours per day.	This objective is met when adequate supplies are available and dose records are maintained during the drill.

<sup>1</sup>10CFR50.47

ATTACHMENT 8.1.14.5  
Page 6 of 7  
**ACCEPTANCE CRITERIA**

	OBJECTIVE	ACCEPTANCE CRITERIA
30	Demonstrate the ability to establish onsite exposure guidelines consistent with EPA emergency worker and lifesaving activities.	This objective is met when emergency worker and lifesaving exposure guidelines are implemented.
31	Demonstrate the ability to provide onsite first aid capability.	This objective is met when First Responders have provided initial treatment and the victims have been delivered to the rescue squad. (Portions may be simulated.)
32	Demonstrate the ability to reassess plant conditions and evaluate recovery/reentry considerations.	This objective is met when a recovery plan and an organization is formulated. (May be simulated.)
33	Demonstrate the ability to augment the ERO, during an Exercise, between 6:00 p.m. and 4:00 a.m. or any weekend hours.	This objective is met when augmentation is successfully completed between the hours of 6:00 p.m. and 4:00 a.m. or any weekend hours.
34	Perform Radiological Monitoring Drills which involve collection and analysis of all sample media (e.g., water, vegetation, soil and air), and provisions for communications and record keeping.	This objective is met when environmental measurement through analysis of water, vegetation, soil, and air sample media have been completed, recorded and communicated.
35	Perform fire drills which demonstrate the ability of the fire brigade to respond to a fire and interface with offsite fire assistance.	This objective is met when the fire brigade arrives at the scene with appropriate equipment and offsite fire assistance is coordinated. (Portions may be simulated.)

<sup>1</sup>10CFR50.47

**ACCEPTANCE CRITERIA**

	OBJECTIVE	ACCEPTANCE CRITERIA
36	Perform medical emergency drills which demonstrate the ability to deal with a medical emergency involving a simulated contaminated individual including participation of offsite medical treatment agencies.	This objective is met when first responders arrive at the scene and offsite assistance is coordinated. (Portions may be simulated.)
37	Perform Health Physics Drills which involve response to, and analysis of, simulated elevated airborne and liquid samples and direct radiation measurements in the environment.	This objective is met when response and analysis is made to simulated elevated airborne and liquid samples and direct radiation measurements in the environment.
38	Perform an offsite hazards drill which will involve response to and analysis of simulated offsite hazards (example chlorine, propane, hydrogen, gasoline or some other offsite hazard either natural or man made). Samples, measurements as well as protective measures should be taken.	This objective is met when an offsite hazard is included in a drill or exercise and protective measures are taken and the hazard is measured for the protective measures.
39	Perform a critique at the conclusion of an exercise to evaluate the ability of organizations to respond as required.	This objective is met when the critique report has been issued.
40	Demonstrate that NRC identified open items resulting from pervious exercises can be closed.	This objective is met by the closure of NRC open items.
41	Demonstrate use of SCBAs including field change out of spare cylinder.	This objective is meet when actual use of SCBA's and change out of cylinder are demonstrated.

<sup>1</sup>10CFR50.47

CAROLINA POWER & LIGHT COMPANY  
H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2

PLANT OPERATING MANUAL

VOLUME 2  
PART 5

EMERGENCY PROCEDURE

**EPTSC-04**

***RADIOLOGICAL CONTROL DIRECTOR***

REVISION 4

### SUMMARY OF CHANGES

<b>Step #</b>	<b>REVISION COMMENTS</b>
8.4.3.17	<p>Moved Step 8.4.3.14 to 8.4.3.17 and re-numbered subsequent steps.</p> <p>Added step to review PLP-021 for guidance on management of chemical spills.</p> <p>Added a note with the location of Environmental Compliance Unit phone/pager numbers.</p> <p>Re-worded step for clarity involving isolating storm drains from the discharge canal.</p> <p>(AR #16660)</p>

## TABLE OF CONTENTS

SECTION	PAGE
<b>QUICK START GUIDE</b> .....	4-4
8.4.1 <b>PURPOSE</b> .....	4-5
8.4.2 <b>RESPONSIBILITIES</b> .....	4-5
8.4.3 <b>INSTRUCTIONS</b> .....	4-5
8.4.4 <b>RECORDS</b> .....	4-10
8.4.5 <b>ATTACHMENTS</b> .....	4-10

## RADIOLOGICAL CONTROL DIRECTOR (RCD) QUICK START GUIDE

**NOTE:** Blanks are provided for place keeping  $\checkmark$ s only, logs are the official record. This is a summary level guide and does not replace the procedure steps.

1. Sign-in on facility sign-in board. Log on Electronic Display System (EDS). \_\_\_\_\_
2. If dialogic was utilized for callout, upon arrival at the Technical Support Center (TSC), notify dialogic of your arrival at the facility (857-1777). \_\_\_\_\_
3. Obtain a briefing on Plant Status. \_\_\_\_\_
4. Determine if contaminated individuals have been released from the plant. \_\_\_\_\_
5. Obtain wind direction (degrees blowing from). Request 1 hour, 3 hour, and 3 day weather forecasts. \_\_\_\_\_
6. Coordinate with the Radiological Control Manager (RCM) in the Emergency Operations Facility (EOF). \_\_\_\_\_
7. Determine the E&RC staff available in the emergency facilities, request additional resources as needed. \_\_\_\_\_
8. Request updates on the E&RC Team status every 30 minutes from an available E&RC Supervisor or assigned "lead" person. \_\_\_\_\_
9. Determine status of habitability for the TSC (from the RCM) and for the OSC (from the OSC Leader). \_\_\_\_\_
10. Notify the SEC of readiness to activate. \_\_\_\_\_
11. Refer to procedure steps. \_\_\_\_\_

## 8.4 RADIOLOGICAL CONTROL DIRECTOR (RCD)

### 8.4.1 PURPOSE

This procedure describes the functional responsibilities and procedure steps for the Radiological Control Director (RCD).

### 8.4.2 RESPONSIBILITIES

1. Manage the radiological control activities in the Technical Support Center (TSC).
2. Monitor meteorology, onsite radiological consequences and dose projections.
3. Liaison with the Radiation Control Manager (RCM) in the Emergency Operations Facility (EOF).

### 8.4.3 INSTRUCTIONS

**NOTE:** The Radiation Control (RC) Technician on shift will report to the Superintendent-Shift Operations and support Operations during an emergency. The technician will continue reporting to the SSO after activation of the Operations Support Center (OSC) unless higher priority actions are required as deemed necessary by the OSC Leader.

1. Advise the E&RC Team Lead (either E&RC Supervisor or "lead" technician) of monitoring locations and sample collection points in the plant, collection of required data and assessment of radiological conditions at these points.
2. Request in-plant samples to assess plant/fuel conditions.
3. Report to the Site Emergency Coordinator (SEC) regarding:
  - a. Radiological monitoring and assessment,
  - b. Radiation exposure control,
  - c. Team direction & supporting missions,

#### 8.4.3.3 (Continued)

- d. Emergency facility habitability,
    - TSC/EOF Building status as decided by the RCM and ERM.
  - e. Sampling and analysis, and
  - f. Liaison with Offsite Radiation Control (RC) personnel and the RCM in the EOF
4. Advise the Environmental & Radiation Control (E&RC) Team Supervisor or Lead person regarding:
    - a. Prioritizing tasks,
    - b. Determining protective gear and dosimetry,
    - c. Development of precautions for the reentry team briefing,
    - d. Deviations from a full set of anti-contamination clothing, and
    - e. Changes to requirements for protective equipment.
  5. Determine the need for on-site protective sheltering or evacuation, along with routes (to and from the plant) based on plant data, dose projections and meteorology.
    - a. Recommend site evacuation assembly location.
      - Monitor personnel at access points as required.
  6. Consult the Dose Projection Team Leader (DPTL) in the EOF to determine affected zones in the 10 mile Emergency Planning Zone (EPZ). Assign priorities as necessary.
  7. Contaminated, injured personnel should be treated on site if possible.
  8. Turn on the Post Accident Sampling System (PASS).
  9. Notify the RCM regarding Phase "A" Isolation.

### 8.4.3 (Continued)

10. Provide guidance to the E&RC Team Supervisor or Lead Person for establishing personnel and vehicle decontamination areas when required.
  - a. Determine if an alternate means of transporting personnel from the plant is needed.
  - b. Based on wind direction and magnitude of release, determine an appropriate area to set up for vehicle decon.
  - c. Determine the proper method of decon and area setup (i.e., masslin wipe down, wash down with soap and water, water supply, water containment, decon supplies, etc.)
  - d. Determine release limits.
  - e. Consider personnel transport in CP&L vehicle(s), and deferring vehicle decon until part of the recovery effort.
  - f. If radiation levels on site prohibit adequate decontamination or monitoring these functions may be performed at county operated locations.
    - Inform county emergency management officials if this contingency must be used.
11. Coordinate with the State and the Nuclear Regulatory Commission (NRC) as required.
12. Ensure exposure control and that Special Radiation Work Permits (RWPs) are issued as necessary. Approve exposure extensions.
13. Ensure that necessary information is posted on displays and status boards. Including:
  - a. Onsite radiological status
  - b. Protective Action Recommendations (PARs)
  - c. 10 mile emergency planning zone (EPZ) map
  - d. TSC Habitability Status.

8.4.3 (Continued)

14. Recommend the administration of potassium iodide (KI) to CP&L personnel and contract employees when the Committed Dose Equivalent (CDE) to the thyroid is > 25 Rem.
  - a. Determine if KI is required for personnel in buildings designed to maintain habitability such as the Control Room and TSC/EOF building.
15. Regulatory limits shall be observed for planned radiation exposures to emergency workers unless the Plant General Manager (PGM), the Radiological Control Director (RCD) or the Site Emergency Coordinator (SEC) authorizes the individual to exceed 5 Rem TEDE in a year.
16. Follow these Emergency Worker Dose Guidelines:

**NOTE:** In all cases, it is the responsibility of each individual, to maintain the total effective dose equivalent ALARA.

Declared pregnant women shall not participate in these actions.

Internal exposures shall be minimized by respiratory protection and contamination controlled by the use of protective clothing.

Entry into High Radiation Areas shall not be permitted unless instrumentation capable of measuring the anticipated radiation levels is provided.

Entry into a High Radiation Area shall require wearing a self-reading dosimeter capable of measuring the expected exposure to be received.

Entry into Radiation Fields of > 100 Rem/hr. shall not be permitted unless specifically authorized by the PGM or RCD. In their absence the SEC shall authorize.

8.4.3.16 (Continued)

- a. Repair/Reentry efforts may require individuals to enter a hazardous area to protect valuable installations, or to make the facility more secure against events which could lead to radioactivity releases (i.e., assessment actions or entry of damage repair parties who are to repair valve leaks or add iodine-fixing chemicals to spilled liquids).
  - In such instances, planned dose to emergency workers shall not exceed 10 Rem TEDE to the whole body, 30 Rem to the lens of the eye, or 100 Rem to any other organ including skin and extremities.
  
- b. Lifesaving Actions or Protection of Large Population efforts may require personnel to search for and remove injured persons or entry to prevent conditions that would probably injure numbers of people, a planned dose shall not exceed 25 Rem TEDE to the whole body, 75 Rem to the lens of the eye, or 250 Rem to any other organ including skin and body extremities. This applies to:
  - The removal of injured persons if the saving of life is possible.
  - Entry to prevent conditions that, if left uncorrected, could lead to damage or releases that would probably injure numbers of people on or offsite.
  - Justifiable dose limits for situations in which the collective dose avoided by the emergency operation is significantly larger than that incurred by the workers involved.
  
- c. Actions requiring a dose > 25 Rem shall consider the following in addition:
  - Rescue personnel shall be volunteers and shall be instructed about the risks involved. Refer to EPOSC-04, Emergency Work Control.
  - Volunteers above the age of 45 shall be selected when possible for the purpose of avoiding unnecessary genetic effects.

### 8.4.3 (Continued)

17. Review PLP-021, "Chemical Storage, Inventory, Spill and Hazard Communication Program", for items to consider in the event of a chemical spill or accident.

<p><b>NOTE:</b> Contact numbers for the Environmental Compliance Unit are listed in the Emergency Response Organization Phone Book.</p>
---

- a. Contact the Environmental Compliance Unit to determine reportability.
  - b. Ensure the settling pond is isolated from the discharge canal for spills directed toward storm drains.
18. Develop recovery strategy.

### 8.4.4 RECORDS

N/A

### 8.4.5 ATTACHMENTS

N/A