



**Progress Energy**

**DEC 10 2003**

SERIAL: BSEP 03-0167

10 CFR 50.54 (q)

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

**BRUNSWICK STEAM ELECTRIC PLANT, UNIT NOS. 1 AND 2  
DOCKET NOS. 50-325 AND 50-324/LICENSE NOS. DPR-71 AND DPR-62  
REVISIONS TO PLANT EMERGENCY PROCEDURES**

Ladies and Gentlemen:

In accordance with 10 CFR 50.54(q) and 10 CFR 50, Appendix E, Section V, Progress Energy Carolinas, Inc. (PEC) is submitting revisions to Brunswick Steam Electric Plant (BSEP), Unit Nos. 1 and 2, plant emergency procedures. PEC has evaluated the revisions, in accordance with 10 CFR 50.54(q), and has determined that the changes do not decrease the effectiveness of the Radiological Emergency Response Plan; and the Plan, as changed, continues to meet the standards of 10 CFR 50.47(b) and the requirements of 10 CFR 50, Appendix E. A list of the revised procedures is provided in Enclosure 1. A summary of the revisions is provided in Enclosure 2. Enclosure 3 contains copies of the revised procedures.

There are no regulatory commitments being made in this submittal. Please refer any questions regarding this submittal to Mr. Gene Atkinson, Supervisor – Emergency Preparedness, at (910) 457-2056.

Sincerely,

Edward T. O'Neil  
Manager – Support Services  
Brunswick Steam Electric Plant

A045

Document Control Desk  
BSEP 03-0167 / Page 2

TG-T/tg-t

Enclosures:

1. List of Revised Plant Emergency Procedures
2. Summary of Revisions
3. Copies of Revised Procedures

cc (with Enclosures 1, 2, and 3):

U. S. Nuclear Regulatory Commission, Region II  
ATTN: Mr. Luis A. Reyes, Regional Administrator  
Sam Nunn Atlanta Federal Center  
61 Forsyth Street, SW, Suite 23T85  
Atlanta, GA 30303-8931

U. S. Nuclear Regulatory Commission  
ATTN: Mr. Eugene M. DiPaolo, NRC Senior Resident Inspector  
8470 River Road  
Southport, NC 28461-8869

U. S. Nuclear Regulatory Commission (**Electronic Copy Only**)  
ATTN: Ms. Brenda L. Mozafari (Mail Stop OWFN 8G9)  
11555 Rockville Pike  
Rockville, MD 20852-2738

cc (with Enclosures 1 and 2):

Ms. Jo A. Sanford  
Chair - North Carolina Utilities Commission  
P.O. Box 29510  
Raleigh, NC 27626-0510

List of Revised Plant Emergency Procedures

Procedure	Revision	Effective Date	Title
OPEP-03.6.5	6	11/26/03	Collection and Analysis of Highly Radioactive Samples
OPEP-03.9.2	8	11/11/03	First Aid and Medical Care
OPEP-04.1	8	11/11/03	Record Keeping and Documentation
OPEP-04.2	27	11/11/03	Emergency Facilities and Equipment
OPEP-04.6	25	12/04/03	Radiological Emergency Kit Inventories

Summary of Revisions

A. OPEP-03.6.5, Collection and Analysis of Highly Radioactive Samples, Revision 6:

1. Reformatted procedure in accordance with OAP-005, Generic Procedure Writer's Guide, and changed cover page to reflect company name change to Progress Energy.
2. Added OE&RC-1005, Collection of Routine and Non-Routine Aqueous Samples, to reference Section 2.12.
3. Deleted "post-accident" prior to references to sampling in Sections 4.2.1, 4.2.2, 4.3.1, 4.4.1, and 5.1 to make generic for all sampling.
4. Reworded Section 5.1.2 to describe instructions for obtaining Post Accident Sampling System (PASS) sample and added new Section 5.1.3 to provide instructions for normal/routine sampling locations.
5. Deleted Babcock & Wilcox as contract sampling analysis location in new Section 5.4; and re-numbered remaining sections.
6. Added Section 5.8 instructions to obtain Attachment 3, Sample Collection Points and Analysis, information from Chemistry Lead.
7. Added information and comments section in Attachment 3 for documentation of normal/routine sampling and PASS information as an enhancement.

B. OPEP-03.9.2, First Aid and Medical Care, Revision 8:

1. Added notification of Site Safety Representative and Manager-Outage and Scheduling in new Section 5.3.5 and Attachment 2, Off-Site Medical Transport Information Form, Section 4.
2. Changed "CP&L" to "Progress Energy" throughout procedure and deleted "Carolina Power & Light Company" on cover page to reflect company name change.
3. Changed "OPEP-Appendix A" to "EPL-001" in Section 5.3 to reflect replacement of Appendix A with EPL-001.

4. Added reference to Radiation Control Area entry gate in Section 5.3.2 to clarify vehicle reporting location.
5. Converted procedure from Word 95 to Word 2002 and reformatted the procedure in accordance with OAP-005, Generic Procedure Writer's Guide.

C. OPEP-04.1, Record Keeping and Documentation, Revision 8:

1. Changed "CP&L" to "Progress Energy" throughout procedure and deleted "Carolina Power & Light Company" on cover page to reflect company name change.
2. Changed "Monthly Pager Test Documentation" to "Quarterly Pager Test Documentation" on Attachment 1, Emergency Preparedness Documentation Requirements Matrix.

D. OPEP-04.2, Emergency Facilities and Equipment, Revision 27:

1. Deleted Switchboard Operator from the list of individuals who are notified prior to siren tests in Sections 5.3.3 and 5.4.4 due to phone switch replacement project and changes in Switchboard Operator duties.

E. OPEP-04.6, Radiological Emergency Kit Inventories, Revision 25:

1. Added expiration date for charcoal and zeolite cartridges, and batteries in emergency kit inventories described in Attachments 1-4 and 6-9.
2. Deleted pencils from Attachment 1, Control Room Emergency Kit.
3. Added reminder at bottom of each emergency kit inventory checklist that Ludlum Model 177 must be kept in the "on" position for charging.
4. Deleted "with batteries" after references to flashlights in Attachment 4, Emergency Operations Facility (EOF) Emergency Kit, and Attachment 9, Vehicle Decon Kit, because batteries are located in emergency kits as a separate inventory item; and added extra D-cell batteries to Control Room emergency kit, EOF emergency kit, and vehicle decon kit inventories to ensure spare batteries are available.

5. Relocated references to 9-volt transistor batteries and 55-gallon drum to different sections of EOF emergency kit inventory for consistency with other checklists.
6. Added AV-2000 Self Contained Breathing Apparatus (SCBA) masks and dressout packs to PASS kit in Attachment 5.
7. Corrected typographical error in Attachment 9.
8. Added SCBA masks to Control Room, Technical Support Center (TSC), EOF, PASS, and Operational Support Center (OSC) kits described in Attachment 11, Checklist for Respiratory Protection Equipment.

**Copies of Revised Procedures**



PLANT OPERATING MANUAL

VOLUME XIII

PLANT EMERGENCY PROCEDURE

UNIT  
0

**OPEP-03.6.5**

***COLLECTION AND ANALYSIS OF HIGHLY  
RADIOACTIVE SAMPLES***

REVISION 6



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## **1.0 PURPOSE**

This procedure provides instruction for obtaining and analyzing highly radioactive gaseous and liquid samples taken for determination of core condition and offsite dose projections.

If gross fuel cladding failure or fuel melt occurs, significant quantities of noble gas, volatiles and/or other fission products will be released into the coolant. Concentrations on the order of 10,000 $\mu$ Ci/ml may be present in the sample media making normal laboratory analysis procedures inadequate.

## **2.0 REFERENCES**

- 2.1 BNP Radiological Emergency Response Plan (ERP)
- 2.2 OPEP-04.1, Record Keeping and Documentation
- 2.3 NGGM-PM-0002, Radiation Control and Protection Manual
- 2.4 OE&RC-1500, Analysis of PASS Samples in the Laboratory
- 2.5 OE&RC-1502, Emergency Sampling of Reactor Building Ventilation Monitors
- 2.6 OE&RC-1503, Emergency Sampling of Wide Range Gaseous Monitor (WRGM)
- 2.7 OE&RC-1505, Operating Procedure for Post-Accident Sampling Stations
- 2.8 OE&RC-1520, Post-Accident Operation of the Gas Chromatograph and Analysis of Gaseous Samples
- 2.9 1OP-15, Sampling System Operating Procedure
- 2.10 2OP-15, Sampling System Operating Procedure
- 2.11 OE&RC-0503, Handling the NUPAC PAS -1 Post Accident Sample Cask
- 2.12 OE&RC-1005, Collection of Routine and Non-Routine Aqueous Samples

## **3.0 DEFINITIONS/ABBREVIATIONS**

Highly Radioactive Sample - Samples which have on contact dose rate levels >2.0 Rem/hr.

## **4.0 RESPONSIBILITIES**

**NOTE:** This procedure shall be implemented by the Radiological Controls Director.

### **4.1 Radiological Controls Director**

- 4.1.1 Provide technical and administrative direction for on-site chemistry and radiological functions/activities.
- 4.1.2 Coordinate on-site radiological and chemistry assessment functions during an emergency with the RCM/Dose Projection Coordinator, Technical Assessment Director, and Plant Operations Director.

### **4.2 E&RC Coordinator**

- 4.2.1 Coordinate the organization of sampling and chemistry analysis teams with the OSCMC, Health Physics Lead, Chemistry Lead, and Operations Coordinator.
- 4.2.2 Establish dosimetry requirements for sampling team and chemistry analysis personnel.

### **4.3 Health Physics Lead**

- 4.3.1 Provide technical and administrative direction for Health Physics personnel accompanying the sampling and chemistry analysis teams.

### **4.4 Chemistry Lead**

- 4.4.1 Provide technical and administrative direction for personnel performing sampling and analysis.

## **5.0 INSTRUCTIONS**

- 5.1 Determine the need or anticipated need, based on plant condition, for sampling to support dose projection and core damage assessments.
  - 5.1.1 Coordinate with the Plant Operations Director, Technical Assessment Director, and Site Emergency Coordinator to determine appropriate sample location (source), type of sample and analyses to be performed.

## 5.0 INSTRUCTIONS

**NOTE:** For samples taken from jet pumps at low power levels (<1%) in small break or non-break events, water level should be raised to the moisture separators to establish a thermal recirculation path.

**NOTE:** Minimum water level of -62" (instrument level) is required to obtain a liquid sample from the jet pumps.

**NOTE:** With Reactor pressure <10 psi, a level of ≥171" (instrument level) will provide ≈ 0.2 gpm sample flow.

**NOTE:** Group 6 Isolations (CAC and CAM) must be overridden for Post-Accident Sampling.

**NOTE:** Loss of emergency busses after the PASS has been placed in Hot Standby may require system valve re-alignment.

5.1.2 If using PASS to obtain samples, then refer to Attachments 1 and 2 for sample determination guidelines.

5.1.3 If normal/routine sampling locations are to be used for liquid samples, then the Chemistry Technicians will use 0E&RC-1005.

5.2 If necessary, verify the Post-Accident Sampling System is in Hot Standby or coordinate with the Plant Operations Director to place it in Hot Standby in accordance with 0E&RC-1505, Operating Procedure for Post-Accident Sampling Stations, 1OP-15, Sampling System Operating Procedure, and 2OP-15, Sampling System Operating Procedure.

5.3 Verify via the Chemistry Lead that the Count Room is ready including availability of the Gas Chromatograph.

**NOTE:** The Gas Chromatograph requires at least 1.5 to 2.0 hours to fully warm up and stabilize before it can be used (if it has been fully shut down).

5.4 If on-site analysis is unavailable, request analysis support from Robinson or Shearon Harris. Follow shipping instructions per applicable E&RC procedures.

5.5 Provide direction to the E&RC Coordinator to assemble and dispatch sampling teams with specific direction on sample location, type and analyses to be performed.

## 5.0 INSTRUCTIONS

**NOTE:** PASS teams are typically three man teams consisting of one person for monitoring and two persons to obtain the sample. (Teams are controlled via normal OSC Missions processes.)

**NOTE:** Post-Accident Sample Collection is performed in accordance with:

- 0E&RC-1505, Operating Procedure for Post-Accident Sampling Stations
- 0E&RC-1503, Emergency Sampling of Wide Range Gaseous Monitor (WRGM)
- 0E&RC-1502, Emergency Sampling of Reactor Building Ventilation Monitors

**NOTE:** Post-Accident Sample Analysis is performed in accordance with:

- 0E&RC-1500, Analysis of PASS Samples in the Laboratory
- 0E&RC-1520, Post Accident Operation of the Gas Chromatograph and Analysis of Gaseous Samples

5.6 Maintain an awareness of the sampling and analysis process status.

5.7 Evaluate changing plant/core conditions for determination of additional sample requirements.

5.7.1 In progressively degrading core conditions, direct additional sampling and analysis to determine accident severity.

5.8 Obtain information for Attachment 3 from the Chemistry Lead.

5.9 Verify sample analyses (results) are promptly provided to:

- Radiological Controls Manager for distribution to the Dose Projection Coordinator
- Plant Operations Director for EAL evaluation
- Technical Assessment Director for distribution to the Accident Assessment Team for core damage assessment.

ATTACHMENT 1  
Page 1 of 1  
Sample Determination Guidelines

A. Locations	Sample Types
Torus Atmosphere	Gas
Drywell Atmosphere*	Gas
Secondary Containment Atmosphere	Gas
SBGT (discharge to Main Stack)	Gas
Jet Pump #6 **	Liq/Diss Gas
Jet Pump #14 **	Liq/Diss Gas
RHR A or B	Liq/Diss Gas
Torus	Liq/Diss Gas

\*Drywell atmosphere may be sampled at three different elevations: 6', 50', and 100'.

\*\*Preferred paths for liquid samples are operating jet pumps; if in shutdown cooling use the operating RHR loop.

**B. Sample Analyses Available**

- Boron Concentration
- Chloride Concentration
- H<sub>2</sub> Concentration
- Atmospheric H<sub>2</sub>
- pH
- O<sub>2</sub> Concentration
- Radionuclides

ATTACHMENT 2  
Page 1 of 1  
**Gaseous Sample Location Guidelines Based on Event**

<u>Event</u>	<u>Sample Location</u> (Gaseous)
• Nonbreak	Suppression Pool
• Small Break	Suppression Pool (after depress) Drywell (before depress)
• Large Break (in containment)	Drywell
• Large Break (outside containment) Reactor Building	Suppression Pool

ATTACHMENT 3  
Page 1 of 1  
**Sample Collection Points and Analysis**

The Chemistry Lead should decide which samples will be obtained and which analysis will be performed.

**UNIT** \_\_\_\_\_

**LIQUID SAMPLES POINT**

Jet Pump No. 6 \_\_\_\_\_

RHR A (torus, coolant) \_\_\_\_\_  
(circle one)

Jet Pump No. 14 \_\_\_\_\_

RHR B (torus, coolant) \_\_\_\_\_  
(circle one)

Other \_\_\_\_\_

**LIQUID ANALYSIS**

Conductivity \_\_\_\_\_ Boron \_\_\_\_\_ pH \_\_\_\_\_

Chloride \_\_\_\_\_  $\gamma$  Scan \_\_\_\_\_ diss.H<sub>2</sub> \_\_\_\_\_

Other \_\_\_\_\_

**GAS SAMPLES POINT**

CAC-AT-4409 \_\_\_\_\_ CAC-AT-4410 \_\_\_\_\_ Other \_\_\_\_\_

Drywell \_\_\_\_\_; Elev \_\_\_\_\_ Drywell \_\_\_\_\_; Elev \_\_\_\_\_ SBT \_\_\_\_\_

Suppression Pool \_\_\_\_\_ Suppression Pool \_\_\_\_\_ Rx Bldg \_\_\_\_\_

**GAS ANALYSIS**

$\gamma$  Scan \_\_\_\_\_ Hydrogen \_\_\_\_\_ Oxygen \_\_\_\_\_ Part-I<sub>2</sub> \_\_\_\_\_

**NOTE:** Sampling and analysis time should be three hours or less after the decision is made to take a sample of reactor coolant or containment and perform a specific analysis.

**NOTE:** Chloride analysis should be within 24 hours of the sample being taken.

**NOTE:** Boron analysis is not required unless the SLC tank has been injected.  
If boron analysis is necessary, sample analysis should be less than three hours after the decision is made to take the sample.

Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



## REVISION SUMMARY

Revision 6 of OPEP-03.6.5 consists of the following changes:

- Reformatted procedure in accordance with OAP-005, Generic Procedure Writer's Guide, and changed cover page to reflect company name change to Progress Energy.
- Added OE&RC-1005, Collection of Routine and Non-Routine Aqueous Samples, as new reference in Section 2.12.
- Deleted "post-accident" prior to references to sampling in Sections 4.2.1, 4.2.2, 4.3.1, 4.4.1, and 5.1 to make generic for all sampling.
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- Deleted Babcock & Wilcox as contract sampling analysis location and designated new Section 5.4; and re-numbered remaining sections.
- Added instructions to obtain Attachment 3 information from Chemistry Lead as new Section 5.8.
- Added information in Attachment 3 for documentation of normal/routine sampling and PASS information, and added comments section as enhancement.

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**0PEP-03.9.2*****FIRST AID AND MEDICAL CARE***

REVISION 8

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## 1.0 PURPOSE

This procedure shall be implemented during emergencies requiring first aid and medical care.

## 2.0 REFERENCES

OPEP-03.9.3, Transport of Contaminated Injured Personnel

## 3.0 GENERAL

**NOTE:** The responsibilities and limits on the actions of private organizations and local support services groups (i.e., hospitals, doctors, rescue squads) are delineated in the agreement appended to the Radiological Emergency Response Plan.

- 3.1 In cases of severe injury, life-saving first aid or medical treatment will take precedence over personnel decontamination. In general, the order of medical treatment will be:
1. Care of severe physical injuries
  2. Personnel decontamination
  3. First aid to other injuries
  4. Definitive medical treatment and subsequent therapy as required
- 3.2 If possible, contaminated patients should not leave the facility for medical treatment until decontamination can be accomplished at the plant site.
- 3.3 If it is necessary to transport a contaminated or potentially contaminated injured individual off-site for medical treatment, refer to the guidelines established in OPEP-03.9.3, Transport of Contaminated Injured Personnel.
- 3.4 Individuals providing care for injury victims should provide first aid consistent with their training and observe radiological control measures to the extent possible.
- 3.5 This procedure provides guidelines to be used for the administration of first aid and medical care for injury victims who incur major illnesses or injuries requiring the assistance of others.

### 3.0 GENERAL (Continued)

- 3.6 Prior to activation of the emergency facilities the coordination of first aid/medical and rescue operations is the responsibility of the Control Room (SEC). Following activation of the TSC/OSC this responsibility is transferred to the TSC/OSC.

#### 3.6.1 Prior to Activation of the TSC/OSC

The Control Room is the central control point for coordination of all activities associated with on-site medical response and, if necessary, transport of injured personnel to off-site medical facilities.

Fire Brigade personnel may be notified to respond, and the Shift Incident Commander will establish local incident command and communications with the Control Room.

#### 3.6.2 TSC/OSC Activated

Response to on-site medical emergencies/injuries will be controlled within the established emergency response organization process. The OSC will provide the central control point for coordination of activities associated with on-site medical response.

This process consists of notification of medical emergency/injury to the OSC (via the Control Room, field personnel, etc.) for response. In coordination with the Emergency Repair Director (ERD) and Plant Operations Director, the Operations Coordinator will dispatch and establish communications with the Fire Brigade from the OSC in accordance with the mission team dispatch process of OPEP-02.6.12, Activation and Operation of the Operational Support Center. Requests for off-site medical assistance will be coordinated via the TSC and EOF.

The coordination and facilitation of off-site medical response is the responsibility of the Plant Operations Director. This will require coordination with the Communications Director, Security Director, and EOF staff; and, may require coordination with Site Access Control Points and State and County personnel controlling the roadways, etc.

## 4.0 RESPONSIBILITIES

### 4.1 Operations Shift Supervisor

In all situations when emergency response facilities are not activated, the Shift Supervisor is responsible for implementation of this procedure and coordination of on-site and off-site medical response.

### 4.2 Plant Operations Director (POD)

The Plant Operations Director is responsible for coordinating off-site medical response with the Communications Director, Security Director, Radiological Controls Director and EOF staff; including the accumulation of information on the "Off-Site Medical Transport Information Form".

### 4.3 Fire Brigade

The Fire Brigade is responsible for providing emergency medical care and rescue extrication activities consistent with their training.

**NOTE:** The Fire Brigade is an on-shift response team. The team reports to the OSC, as a unit, upon activation of the facility and provides first aid, medical, fire response, chemical/hazardous material, confined space, and search/rescue services.

### 4.4 Environmental & Radiological Controls (E&RC)/E&RC Coordinator

E&RC/E&RC Coordinator is responsible for coordinating radiological monitoring and decontamination (if necessary) of any victims of an accident. Health Physics personnel are responsible for providing radiological monitoring and decontamination services as necessary.

### 4.5 Operations Coordinator

The Operations Coordinator is responsible for coordinating on-site first aid, medical, and rescue operations when the emergency facilities are activated. The position is also responsible for providing the necessary status information to the ERD, TSC and Control Room.

## 5.0 PROCEDURE

- 5.1 Upon notification of a medical emergency/injured individual on-site the controlling location (Control Room if the TSC and OSC are not activated) will notify and dispatch the Fire Brigade.
- 5.2 The controlling location will:
- 5.2.1 Establish communications with the local incident command (Shift Incident Commander or designate) and monitor activities.
  - 5.2.2 Ascertain status of the medical emergency and record on Attachment 2 of this procedure.
  - 5.2.3 Notify the Radiation Control Group/E&RC Coordinator for radiological monitoring and decontamination of the victim(s), if necessary.
- 5.3 Determine if off-site transport/assistance is required and, if necessary, notify Brunswick County 911 Center for assistance. (Alternate phone numbers are available in EPL-001). Refer to OPEP-03.9.3, Transport of Contaminated Injured Personnel.
- 5.3.1 In communication with the 911 dispatcher provide and/or acquire the information identified by asterisk and bold print on the "Off-Site Medical Transport Information Form". Any information that cannot be provided must be relayed immediately when available.
  - 5.3.2 Notify Security/Security Director of the request for off-site assistance and provide the following:
    - Number of medical/rescue personnel responding
    - Estimated time of arrival (ETA)
    - Location vehicle will report to, including RCA gate entry.
  - 5.3.3 If the transport victim/victims are contaminated, or potentially contaminated dispatch at least one Radiological Controls technician (HP) to each receiving hospital to provide assistance. Designate another Radiological Controls technician(s) to accompany the victim(s) if RC resources are available or are not needed to maintain minimum shift staffing and /or support site needs.
  - 5.3.4 Expedite notification of immediate family members, particularly in severe injury cases, including the name of the receiving hospital.
  - 5.3.5 Notify the Site Safety Representative and Manager – Outage and Scheduling.

## 5.0 PROCEDURE (Continued)

**NOTE:** Under no circumstances should information concerning personnel injury or fatality be released outside the Progress Energy organization until the immediate family has been notified and senior site and corporate management informed.

### 5.4 Medical Care Providers will:

#### 5.4.1 Establish communications and report as much of the following data as possible for assessment:

1. Number of injured personnel
2. Nature and severity of injuries
3. Locations of injured personnel
4. Radiological conditions (Contaminated or Potentially Contaminated)
5. Any special medical needs
6. Injured persons' names
7. Cause of injuries

#### 5.4.2 Administer lifesaving first aid and treatment of severe injuries. Such actions take precedence over decontamination procedures.

#### 5.4.3 Use protective clothing whenever practical. Do not delay emergency lifesaving care if protective clothing is not readily available.

#### 5.4.4 Move victims away from areas of high radiation exposure or contamination if possible. Do not delay emergency lifesaving care if extraction procedures will be delayed.

#### 5.4.5 Prepare victim for transport, if needed.



## 5.0 PROCEDURE (Continued)

### 5.5 Radiological Control Technicians will:

- 5.5.1 Monitor accident victims for radioactive contamination. Do not delay or hinder emergency medical care to survey victims for contamination.
- 5.5.2 As time and resources permit, record first aid steps taken, dose rates, etc., on the Patient Radiation and Medical Status forms (Attachment 1). This information should accompany the patient and be communicated to receiving medical personnel.
- 5.5.3 Assess radiation exposure of personnel injured in areas where they may have received excessive exposure. Communicate excessive exposures to EMS and/or attending physician(s).
- 5.5.4 Take steps necessary to confine the spread of contamination as much as possible.
  - 1. If possible, remove contaminated clothing from the patient (removal of clothing usually removes approximately 90% of contamination).
  - 2. Use clean sheets, coveralls, etc., to confine as much contamination as possible.
- 5.5.5 When necessary, provide personnel monitoring devices (TLDs and/or dosimeters) for attending personnel.

### 5.6 Retain attachments for event documentation. Provide to Emergency Preparedness representatives or the Communications Director for collection.

**ATTACHMENT 1**

Page 1 of 2

**Patient Radiation And Medical Status (To Accompany Patient)**

NAME OF PATIENT: \_\_\_\_\_  
 LOCATION, DATE, AND TIME OF INCIDENT: \_\_\_\_\_  
 SUMMARY DESCRIPTION OF INCIDENT: \_\_\_\_\_

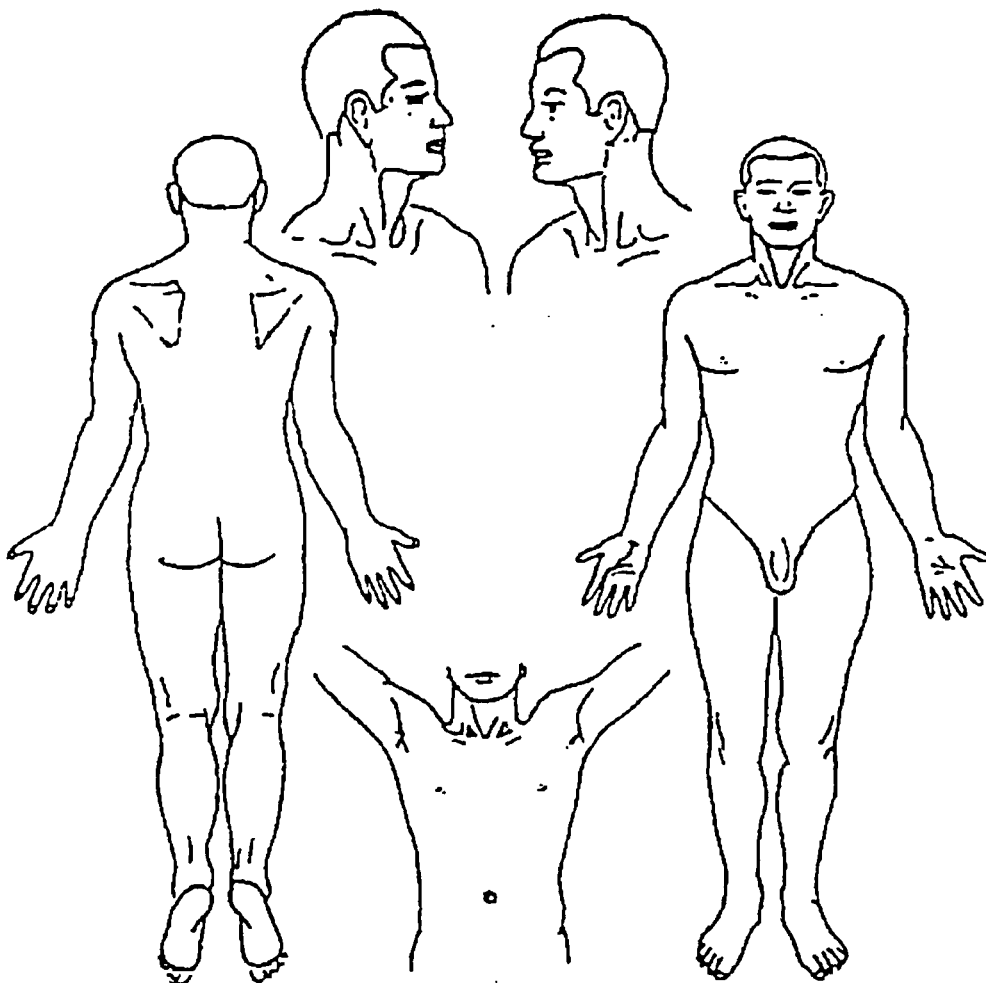
TYPE OF EXPOSURE/INJURY			
WOUNDS	EXTERNAL EXPOSURE	SKIN CONTAMINATION	INTERNAL CONTAMINATION
Yes/No Where? - Indicate overleaf How serious? _____ _____ General condition? _____ _____	Yes/No Where? Whole body local _____ How much? _____ Rem (likely/possible) what? $\beta$ $\gamma$ Neutr	Yes/No Where? Indicate overleaf How much? Indicate meter readings overleaf What? Mixed fission products? Other (describe): _____ _____	Yes/No Now? Wounds/ingestion/inhale How much? _____ _____ What? Mixed fission products: Other (describe): _____ _____
MEASURES TAKEN			
TIME:	TIME:	TIME:	TIME:
First aid: Vomiting Medical: Wound decon: How: Effect:	Symptoms? Nausea +/- Vomiting +/- Skin erythema +/- Other? _____ Symptomatic treatment? Blood samples taken? _____ Badge taken? NEUTRON IRRADIATION ONLY: Ring taken? Buttons, hair, nail clippings taken?	Decon techniques Effect: (Indicate decontaminated areas overleaf) Residual contamination at time of transfer? (Describe: mark on skin):	Nose blow: Sample taken? Decon of orifices: Where? How? Decon fluids kept? Other samples taken: Urine? Feces? Other?

TIME:                      B.P.:                      PULSE:                      RESP.:

ATTACHMENT 1  
Page 2 of 2  
**PATIENT RADIATION AND MEDICAL STATUS (To Accompany Patient)**

INDICATE CONTAMINATED AREAS AS TO LOCATION,  
DEGREE OF CONTAMINATION AND DECON EFFORT

INDICATE LOCATION OF WOUNDS (Use Additional Sheets if  
Necessary)



Distance Skin-to-Probe: \_\_\_\_\_ in.    Type of Meter Used \_\_\_\_\_  
Time: \_\_\_\_\_ (indicate model and number)

ATTACHMENT 2  
Page 1 of 1  
Off-Site Medical Transport Information Form

1. INJURIES

a. Names and \*extent of injuries

_____	_____
_____	_____
_____	_____
_____	_____

\*b. Number of personnel requiring off-site transport

\_\_\_\_\_

\*c. Number of contaminated personnel (to be transported)

\_\_\_\_\_

• Radiological

• Chemical or otherwise

\_\_\_\_\_

\_\_\_\_\_

2. REQUEST FOR OFF-SITE ASSISTANCE

a. Time of Request (911 dispatch call)

\_\_\_\_\_

\*b. Location Rescue Squad directed to respond to  
(Primary Access, Secondary Access, Warehouse H, etc.)

\_\_\_\_\_

\*c. Estimated time of arrival (ETA)

\_\_\_\_\_

\*d. Number of emergency personnel responding

\_\_\_\_\_

3. PATIENT TRANSPORT

a. Time of site departure

\_\_\_\_\_

\*b. Receiving hospital

\_\_\_\_\_

c. Name of accompanying HP

\_\_\_\_\_

d. Hospital ETA

\_\_\_\_\_

4. FOLLOW UP

a. Family notified (time)

\_\_\_\_\_

b. Hospital arrival time

\_\_\_\_\_

c. Notified Site Safety Representative and Manager O&S

\_\_\_\_\_

d. Personnel Status (i.e., admitted stable, admitted  
critical, treated and released, etc.)

\_\_\_\_\_

## REVISION SUMMARY

Revision 8 to OPEP-03.9.2 consists of the following changes:

- Added notification of Site Safety Representative and Manager-Outage and Scheduling in new Section 5.3.5 and Attachment 2, Off-Site Medical Transport Information Form, Section 4, as enhancement.
- Changed "CP&L" to "Progress Energy" throughout procedure and deleted "Carolina Power & Light Company" on cover page to reflect company name change.
- Revised reference from "OPEP-Appendix A" to "EPL-001" in Section 5.3 to reflect replacement of Appendix A with EPL-001.
- Added reference to RCA gate entry in Section 5.3.2 to clarify vehicle reporting location.
- Converted procedure from Word 95 to Word 2002 and reformatted in accordance with OAP-005, Generic Procedure Writer's Guide.



**Progress Energy**

BRUNSWICK NUCLEAR PLANT

**I**  
**Information**  
**Use**

PLANT OPERATING MANUAL

VOLUME XIII

PLANT EMERGENCY PROCEDURE

UNIT  
0

**0PEP-04.1**

***RECORD KEEPING AND DOCUMENTATION***

REVISION 8

## **1.0 PURPOSE**

The purpose of this procedure is to establish guidelines for the maintenance of records and documentation associated with the Emergency Preparedness Program.

## **2.0 REFERENCES**

- 2.1 10CFR50
- 2.2 ANSI N45.2.9-1974, Requirements for Collection, Storage, and Maintenance of Quality Assurance Records for Nuclear Power Plants
- 2.3 Reg Guide 1.88, Collection, Storage, and Maintenance of Nuclear Power Plant Quality Assurance Records

## **3.0 DEFINITIONS**

- 3.1 Record - a document that when completed, furnishes evidence of the satisfaction of a regulatory or procedural requirement. Each responsible organization identifies those documents considered to be records.

## **4.0 RESPONSIBILITIES**

- 4.1 The Supervisor - Emergency Preparedness is responsible for the completion, collection, and maintenance of records and documentation of emergency planning group activities.
- 4.2 Emergency Response Organization (ERO) members filling emergency response facility positions are responsible for the completion and compilation of all forms, logs, and documentation relating to the responsibilities of the respective position. (Applies to drills, exercises, and actual events)
- 4.3 The Emergency Preparedness Representative is responsible for the collection and compilation of all documentation associated with the activation of the emergency response plan. (Applies to drills, exercises, and actual events).

## 5.0 INSTRUCTIONS

- 5.1 Records shall be legible, accurate, appropriately complete, retrievable, and have reasonable measures taken to preclude their loss.
- 5.2 Attachment 1, Emergency Preparedness Documentation Requirements Matrix provides a list of the documentation requirements including the procedural location.
- 5.3 **Radiological Emergency Response Plan and Plant Emergency Procedures**
  - 5.3.1 Revisions to the Radiological Emergency Response Plan and implementing procedures (Plant Emergency Procedures) shall be provided to Document Services for retention as a QA document for the life of the plant license.
  - 5.3.2 The documentation package should include any required safety analysis (10CFR50.59) and plan effectiveness review (10CFR50.54(q) documentation.

## 5.4 Exercise and Drill Documentation

- 5.4.1 Exercise documentation packages shall be assembled for submittal to Document Services for retention as a QA document for the life of the plant.
  - 1. The exercise documentation package should consist of:
    - a. Exercise scenario package
    - b. Emergency facility logs (TSC, OSC, EOF, JIC, Control Room/simulator) and documentation
    - c. Emergency Notification Forms (OPEP-02.6.21, Attachment 1)
    - d. Rosters
    - e. Exercise critique report



## 5.0 INSTRUCTIONS

5.4.2 Drill documentation packages shall be assembled for submittal to Document Services for retention as a vital document for a minimum period of six years.

1. The drill documentation package should consist of:
  - a. Drill scenario package
  - b. Emergency Notification Forms (OPEP-02.6.21, Attachment 1)
  - c. Rosters
  - d. Drill critique report

## 5.5 Independent Program Review (50.54t) Documentation

5.5.1 The Supervisor - Emergency Preparedness is responsible for the coordination of an independent review of the Emergency Preparedness Program to include, but is not limited to:

1. Radiological Emergency Response Plan (ERP)
2. Plant Emergency Procedures (PEP)
3. Emergency Preparedness Training Program
4. Program Maintenance
5. Facilities and equipment
6. Interface with state and local governments

## 5.0 INSTRUCTIONS

**NOTE:** An independent review shall be performed by persons who have no direct responsibility for the implementation of the emergency preparedness program either:

- At intervals not to exceed 12 months, or
- As necessary, based on an assessment by the licensee against performance indicators, and as soon as reasonably practicable after a change occurs in personnel, procedures, equipment, or facilities that potentially could adversely affect emergency preparedness, but no longer than 12 months after the change.

In any case, all elements of the emergency preparedness program must be reviewed at least once every 24 months.

5.5.2 The results of independent reviews shall be reviewed and corrective actions initiated.

5.5.3 The results of independent reviews, along with recommendations for improvements, shall be documented and reported to corporate management, plant management, and involved off-site organizations (county, state, and federal agencies).

5.5.4 The review documentation package shall be forwarded to Document Services for retention as a QA document for a minimum of five years.

## 5.6 Emergency Plan Activation Documentation

5.6.1 Following any activation of the Radiological Emergency Response Plan for actual events, the Supervisor - Emergency Preparedness shall ensure that the plant response is adequately documented.

## **5.0 INSTRUCTIONS**

5.6.2 For emergency classification in which emergency facilities are not activated (i.e., NOUE) the following material should be compiled.

1. Executive summary (including timeline)
2. Notifications, including notification checklists, sent to state and local agencies.
3. Operations shift logs (Shift Superintendent/Supervisor)
4. Pertinent news releases
5. Post-event critique results
6. Any additional information as determined by conditions

5.6.3 For emergency classification in which emergency facilities are activated, the following additional materials should be compiled.

1. Official logs and documentation from all facilities (TSC, OSC, EOF, and JIC).

5.6.4 The event documentation package shall be compiled and forwarded to Document Services for retention as a QA document for the life of the plant plus 10 years.

## **5.7 Miscellaneous Records Documentation**

5.7.1 The Emergency Preparedness Documentation Requirements Matrix (Attachment 1) provides the following information for emergency preparedness records and retention:

1. Record and type
2. Retention requirement
3. Location for retention
4. Associated procedure

ATTACHMENT 1  
Page 1 of 2  
**Emergency Preparedness Documentation Requirements Matrix**

RECORD	RECORD TYPE	RETENTION	LOCATION	PROCEDURE
Emergency Plan and Implementing Procedure (PEP) Revisions	QA	Plant Life	Vault	This procedure
Letter of Agreement Review Documentation	QA	2 years	Vault	0PEP-04.8
Annual Emergency Plan Review with PNSC Documentation	QA	Life	Vault	0PEP-04.8
Annual EAL Review with State and County Documentation	QA	2 years	Vault	0PEP-04.8
Siren Tests Documentation				
<ul style="list-style-type: none"> <li>• Silent</li> <li>• Growl</li> <li>• Full Volume</li> <li>• Annual Study</li> </ul>	Vital	2 years	Vault	0PEP-04.2
	Vital	5 years	Vault	0PEP-04.2
	Vital	5 years	Vault	0PEP-04.2
	Vital	6 years	Vault	This procedure
FEMA Siren Report Documentation	QA	Life	Vault	0PEP-04.2
Emergency Facility Quarterly Inventory Documentation	Vital	2 years	EP files	0PEP-04.2
Emergency Facility Quarterly Readiness Check Documentation	Vital	2 years	EP files	0PEP-04.2
Communication Tests Documentation	QA	2 years	Vault	0PEP-04.2

ATTACHMENT 1  
Page 2 of 2  
**Emergency Preparedness Documentation Requirements Matrix**

RECORD	RECORD TYPE	RETENTION	LOCATION	PROCEDURE
Drill package Documentation (including) <ul style="list-style-type: none"> <li>• Post-Accident Sampling</li> <li>• Health Physics</li> <li>• Radiological Monitoring</li> <li>• Augmentation</li> <li>• Medical</li> </ul>	Vital	6 years	Vault	0PEP-04.3
	Vital	6 years	Vault	0PEP-04.3
	Vital	6 years	Vault	0PEP-04.3
	Vital	6 years	Vault	0PEP-04.3
	Vital	6 years	Vault	0PEP-04.3
	Vital	6 years	Vault	0PEP-04.3
Exercise Documentation	QA	Life	Vault	This procedure
Emergency Planning Information Annual Dissemination Package Documentation	QA	2 years	Vault	0PEP-04.5
Independent Program Audit (50.54(t) Documentation	QA	Life	Vault	This procedure
Media Training Documentation Package	Vital	6 years	Vault	0PEP-04.3
Emergency Plan Activation Documentation	QA	Life + 10 years	Vault	This procedure
Program Self Assessment Documentation	Vital	5 years	Action Tracking (PassPort)	This procedure and CAP-NGGC-0201
Equipment Repair Documentation	Vital	2 years	EP files	0PEP-04.2
Quarterly Pager Test Documentation	Vital	2 years	Vault	0PEP-04.2
Off-Site Training Documentation	Vital	2 years	Vault	0PEP-04.3
Emergency Kit Inventory Documentation	QA	Life + 10 years	Vault	0PEP-04.6

## REVISION SUMMARY

Revision 8 of OPEP-04.1 consists of the following changes:

- Changed CP&L to Progress Energy and deleted reference to Carolina Power & Light Company on Cover Page to reflect company name change.
- Changed "Monthly Pager Test Documentation" to "Quarterly Pager Test Documentation" on Attachment 1, Emergency Preparedness Documentation Requirements Matrix.



PLANT OPERATING MANUAL

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**0PEP-04.2**

***EMERGENCY FACILITIES AND EQUIPMENT***

REVISION 27

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## **1.0 PURPOSE**

This procedure provides guidance for the maintenance of on-site emergency facilities and equipment. This procedure does not address those areas covered under existing programs such as Fire Protection and Diesel/ Ventilation maintenance procedures. The facilities will include the equipment/material needed for the BNP Emergency Response Organization to adequately respond to an emergency.

This procedure is intended to be performed at a frequency specified for the particular equipment/facility or as needed following an emergency drill, exercise, or event. Although equipment testing is specific, items such as office supplies will be checked to ensure an adequate supply and the numbers listed are suggested quantities. This procedure describes when county/state and NRC should be notified of equipment problems.

In order to provide accurate status of EP equipment included in this procedure, Attachment 2 is to be completed for deficiencies that are noted during prescribed testing or those identified in operation.

## **2.0 REFERENCES**

- 2.1 EPL-001, Emergency Phone List
- 2.2 OPEP-04.6, Radiological Emergency Kit Inventories
- 2.3 Motorola - CP&L MOSCAD Siren System Operators Manual
- 2.4 OPEP-03.1.3, Use of Communications Equipment
- 2.5 OPT-48.1, Public Address System Speaker Test
- 2.6 OPT-93.0, EOF/TSC Building Emergency System Test
- 2.7 OPT-94.0, EOF/TSC Emergency Ventilation System Lineup Verification
- 2.8 OPM-ENG505, Covington Diesel Generator, Model 7123-7305
- 2.9 OPM-GEN008, Covington Diesel Generator Electrical Inspections
- 2.10 OOI-01.07, Notifications
- 2.11 OPT-96.0, ERDS Quarterly Test with NRC
- 2.12 IOI-03.4.1, Unit 1 Control Operator Daily Check Sheets

### **3.0 DEFINITIONS**

#### **3.1 Annually**

At least once per 366 days.

#### **3.2 Biweekly**

At least once every other week.

#### **3.3 EOF**

Emergency Operations Facility

#### **3.4 Monthly**

At least once per 31 days.

#### **3.5 Once per Calendar Year**

Once anytime between January 1 and December 31.

#### **3.6 Quarterly**

At least once per 92 days.

#### **3.7 TSC**

Technical Support Center

#### **3.8 JIC**

Joint Information Center

#### **3.9 OSC**

Operational Support Center

## 4.0 RESPONSIBILITIES

### 4.1 Supervisor - Emergency Preparedness

Emergency Preparedness is responsible to ensure adequate and timely maintenance of the Emergency Facilities and equipment.

### 4.2 Telecommunications

Is responsible to maintain on-site equipment, including selective signaling, decision line and siren equipment, at the off-site locations.

### 4.3 State/County/NRC Agencies

Are responsible to maintain their radio equipment.

### 4.4 North Carolina Emergency Management (NCEM) Operations Center

The NCEM Operations Center is responsible to initiate the Decision Line test monthly.

## 5.0 INSTRUCTIONS

**NOTE:** Due to the coordination requirements with State and County agencies that are necessary in Emergency Preparedness Programs, some test/surveillances may not occur within the strict periodicity definitions included in this procedure. Scheduling will be done to minimize this occurrence and any surveillance/test performed that exceeds the procedural definition should be noted with information identifying the reason for the deviation. In any case, the tests/surveillance deviations that occur due to coordination problems should not prevent satisfaction of the 3.25 periodicity requirement.

### 5.1 Monthly Communications Test

Communications testing with off-site agencies will be conducted on a monthly basis to coincide with the State Procedures. This will normally be the first Tuesday of each month but may be adjusted (adjusted annually for holiday conflicts).

## 5.1 Monthly Communications Test

**NOTE:** Steps 5.1.1 through 5.1.14 may be completed out of sequence or in parallel.

- 5.1.1 From the Control Room, utilize the Selective Signaling System to simultaneously activate all warning points (Code 10-22). Conduct a roll call to validate operability and document on Attachment 1.
- 5.1.2 From the Control Room, utilize the Selective Signaling System to simultaneously activate all EOCs (Code 10-33). Conduct a roll call to validate operability and document on Attachment 1.
- 5.1.3 Conduct a VHF radio test from the Control Room to either county. Verify operability and document on Attachment 1. (See OPEP-03.1.3 for use of VHF radios.)

**NOTE:** Contact Emergency Preparedness immediately on failure of selective signaling or VHF radio testing.

- 5.1.4 Complete and sign page 1 of Attachment 1 and forward to Supervisor - Emergency Preparedness.
- 5.1.5 Transmit a test facsimile message (Attachment 5, BNP Fax Test Letter) to all EOCs and warning points and document on Attachment 1. The "Time" should be recorded as time the fax was sent; signature at the completion of the test documents all points acknowledge receipt.
- 5.1.6 From the EOF, contact any EOC using selective signaling and verify operability (numbers located in Attachment 7).
- 5.1.7 From the TSC, contact any EOC using selective signaling and verify operability (numbers located in Attachment 7).
- 5.1.8 From the simulator, contact any EOC using selective signaling and verify operability (numbers located in Attachment 7).
- 5.1.9 On initiation of call by the NCEM Operations Office, answer the State Decision Line phone to support the test. Verify operability and document on Attachment 1.

## 5.1 Monthly Communications Test

- 5.1.10 Conduct a test of the VHF radio(s) from the TSC to New Hanover and Brunswick counties. Verify operability and document on Attachment 1. (See OPEP-03.1.3 for use of VHF radios.)
- 5.1.11 Contact the NRC Region II office from both the EOF and the TSC using the telephone number listed in EPL-001.
- 5.1.12 Contact South Carolina Bureau of Radiological Health using the telephone number listed in EPL-001.
- 5.1.13 Notify the Control Room and inform them that testing of the Emergency Telecommunications System (ETS) is in progress and request that Control Room personnel disregard the Emergency Notification System (ENS) phone in the Control Room until notified testing is complete or the ENS telephone rings more than twice.

**NOTE:** The Environmental Monitoring Team cell phone, stored in the EOF BEN room, can be used for testing the ETS phones on outside lines.

### CAUTION

Do not leave the ENS phone in the simulator plugged into a live ENS jack. When testing of the ENS phone in the simulator is complete, unplug the phone from the live ENS jack and return it to the simulator booth ENS jack.

- 5.1.14 Conduct testing of the ETS telephones in the EOF and TSC. Document results of testing on Attachment 1. Telephone numbers for ETS calls to the NRC are posted on the phones, if phone is permanently located, and in EPL-001. On-Site numbers for calling the ETS telephones are found in Attachment 1 and EPL-001. All calls must use outside lines (i.e., 8-1-XXX-XXXX) for testing.

**NOTE:** On occasion, it may be necessary for the NRC Operations Center Duty Officer to delay calling back on the ENS telephones due to a heavy volume of communications traffic. If the Duty Office cannot call back in a reasonable time, this section of Attachment 1 must be repeated at a later time.

- 5.1.15 Notify the Control Room that testing of the ETS Telephone System is complete and to no longer disregard rings on the ENS telephone.

## 5.1 Monthly Communications Test

- 5.1.16 Report any failures to the Telecommunications Help Desk (see EPL-001 for telephone number). Document each identified equipment problem on a separate Attachment 2.
- 5.1.17 Prior to returning equipment to service, verify operability by testing and document on Attachment 2. Individual telephones in the Selective Signaling System may be tested to determine operability. See Attachment 7, Selective Signaling Individual Location Telephone Numbers, for specific selective signal location numbers.
- 5.1.18 Forward completed documentation to Records Management with "OPEP-04.2" clearly identified on the transmittal form.

## 5.2 Siren Silent Test

**NOTE:** Refer to Attachment 8 for siren troubleshooting and return to service information.

A silent test of the Alert and Notification (Siren) System shall be completed on a biweekly frequency (26 times per year).

- 5.2.1 A silent siren report should printout each day shortly after midnight, if not, demand a report by performing the following:
  - 1. Log onto the siren computer.
  - 2. Click <INTERROGATE> at the bottom of the screen.
  - 3. Click <ALL> to interrogate all sirens.
  - 4. Click <OPERATOR> at the bottom of the screen to initiate commands.
  - 5. Click <MANAGER> on the right side of the screen to obtain report capability.
  - 6. Click <REPORT> on the lower right to print the test report.

## 5.2 Siren Silent Test

- 5.2.2 Evaluate the Silent Report for failures. "Normal" on the printout in the Radio Communication column indicates acceptable test results.

**NOTE:** Refer to 00I-01.07, Notifications, to determine if test results should be reported to the Control Room for reportability to the NRC.

- 5.2.3 Report any failures to Telecommunications Help Desk (see EPL-001 for telephone number) and notify the appropriate county. Document each identified equipment problem on a separate Attachment 2, Equipment Repair Form.

1. Notify counties when siren(s) are placed back in service and complete Attachment 2.

- 5.2.4 Forward the Silent Report printout and copies of Attachment 2 for any failures to Records Management for retention. Clearly identify "OPEP-04.2" on the transmittal form.

## 5.3 Siren Growl Test

A growl test of the Alert and Notification (Siren) System shall be completed quarterly (2nd Monday of January, April, July & October). Variation in test days may occur due to holidays or state/county request.

- 5.3.1 Coordinate with counties on an agreed-to test date; and ensure that a news release has been issued by Site Communications, in advance, announcing the date and time of test.
- 5.3.2 Coordinate with Telecommunications to have a representative present during the test to ensure any siren failing the test can be quickly diagnosed and scheduled for repair; and notify Wilmington South Office of date and time of test.

### 5.3 Siren Growl Test

- 5.3.3 Ensure that each of the following locations have been notified of the test time on the day of the test.
1. Control Room
  2. NRC Resident's Office
  3. Telecommunications Help Desk
  4. Visitors' Center
  5. Site Communications Office
  6. Wilmington South Office
- 5.3.4 On the test date, have both counties select and perform a growl test from their console.
- 5.3.5 Approximately 10 minutes after test initiation, a report should print at the siren computer. If not, demand a report as per Step 5.2.1.
- 5.3.6 Evaluate the Siren Growl Test Report for failures. Acceptable test results will be identified by a check mark (√) in the "Good Activation" column and "Normal" in the "Communication" column. An acceptable alternative is an observer at the siren site who verified that the siren sounded.

<p><b>NOTE:</b> Refer to 0OI-01.07, Notifications, to determine if test results should be reported to the Control Room for reportability to the NRC.</p>
--

- 5.3.7 Report any failures to the Telecommunications Help Desk (see EPL-001 for telephone number) and the appropriate county. Document each identified equipment problem on a separate Attachment 2, Equipment Repair Form.
1. Notify counties when siren(s) are placed back in service and complete Attachment 2.
- 5.3.8 Forward the Growl Report printout and copies of Attachment 2 for any failures to Records Management for retention. Clearly identify "OPEP-04.2" on the transmittal form.



#### 5.4 Siren Full Volume Test

A full volume test will be conducted on a once per calendar year basis.

- 5.4.1 Coordinate with counties/state to establish an agreed test date. This may be required during the emergency preparedness exercise with the state agencies.
- 5.4.2 Ensure that a news release has been issued by Site Communications, in advance, announcing the date and time.
- 5.4.3 Coordinate with Telecommunications to have a representative present during the test to ensure any siren failing the test can be quickly diagnosed and scheduled for repair; and notify Wilmington South Office of date and time of test.
- 5.4.4 Ensure that on the day of the test each of the following locations have been notified of the test time prior to performing the test.
  - 1. Control Room
  - 2. NRC Resident's Office
  - 3. Telecommunications Help Desk
  - 4. Visitors' Center
  - 5. Site Communications Office
  - 6. Wilmington South Office
- 5.4.5 On the test date, have both counties select and perform one separate full volume test or siren "Alert."
- 5.4.6 Approximately 10 minutes after test initiation, a report should print at the siren computer. If not, demand a report as per Step 5.2.1.

#### 5.4 Siren Full Volume Test

- 5.4.7 Evaluate the Siren Full Volume Test Report for failures. Acceptable test results will be identified by a check mark (✓) in the "Good Activation" column, an X in the "Rotation" column, and "Normal" in the "Communication" column. An acceptable alternative is an observer at the siren site who verified that the siren rotated at least twice and sounded at full volume for approximately three minutes.

**NOTE:** Refer to 00I-01.07, Notifications, to determine if test results should be reported to the Control Room for reportability to the NRC.

- 5.4.8 Report any failures to the Telecommunications Help Desk (see EPL-001 for telephone number) and the appropriate county. Document each identified equipment problem on Attachment 2, Equipment Repair Form.
- 5.4.9 Notify counties when siren(s) are placed back in service and complete Attachment 2.
- 5.4.10 Forward the Alert Report printout and copies of Attachment 2 for any failures to Records Management for retention. Clearly identify "0PEP-04.2" on the transmittal form.
- 5.4.11 In January, prepare and forward to the state of North Carolina and FEMA, a report certifying the successful testing of the Early Warning System sirens in the 10 mile EPZ. The report should state whether or not 90% operability of the system was attained.

#### 5.5 Quarterly Pager Test

- 5.5.1 Contact the Operations Shift Superintendent and request Operations assistance using the PA to notify the site that testing of BEN is in progress.
- 5.5.2 Initiate a quarterly pager test by contacting Security in the SAS and requesting BEN initiation with a code of 8 8 8.

## 5.5 Quarterly Pager Test

- 5.5.3 Approximately two minutes after ERO pagers on group page sound, request the Control Room to make the following announcement:

**"Attention all personnel. This is a drill message. Testing of the Brunswick Emergency Notification System is in progress. All minimum staffing ERO members who have not responded to BEN should call 3333 immediately. This is a drill message."**

**Attention all personnel. This is a drill message. Testing of the Brunswick Emergency Notification System is in progress. All minimum staffing ERO members who have not responded to BEN should call 3333 immediately. This is a drill message."**

- 5.5.4 Verify from the BEN printout that the ERO minimum staffing positions responded within 15 minutes of BEN initiation.
- 5.5.5 Document results and submit to Records Management for retention.
- 5.5.6 Document any pagers identified as not responding to the pager test on Attachment 2, Equipment Repair Form. Contact Information Technology for repair.
- 5.5.7 On the day following the monthly test, a site-wide e-mail should be sent out instructing ERO members not receiving a page during the test to contact EP for remediation.

## 5.6 Quarterly Checklist

- 5.6.1 Complete Attachment 3, OSC/TSC/EOF/JIC Quarterly Checklist, on a quarterly basis to verify operability and availability of equipment and materials. Administrative supplies will be supplemented as necessary.
- 5.6.2 Complete Attachment 9, JIC Telephone Operability Checklist, to verify operability of telephones in the JIC storage bins. Operability is determined by plugging the phone into a jack and successfully completing a call to another phone.
- 5.6.3 Document equipment problems and resolution on Attachment 2, Equipment Repair Form.
- 5.6.4 Retain documentation in EP files in accordance with OPEP-04.1 requirements.

## **5.7 Dose Projection/Environmental Monitoring Cabinet Inventory List**

Complete Attachment 6, Dose Projection/Environmental Monitoring Cabinet Inventory List, on at least a quarterly basis. A "spot check" should be conducted following each drill or event to ensure adequate supplies. Retain documentation in EP files in accordance with OPEP-04.1 requirements.

## **5.8 Miscellaneous Supplies Guide**

Complete Attachment 4, Miscellaneous Supplies Guide (OSC/TSC/EOF/JIC) on at least a quarterly basis to verify necessary supplies are in place. A "spot check" should be conducted following each drill or event to ensure adequate supplies. Retain documentation in EP files in accordance with OPEP-04.1 requirements.

## **5.9 EPL-001 Review**

- 5.9.1 A review of EPL-001 will be conducted on a quarterly basis to verify names, phone numbers and qualification status of ERO members.
- 5.9.2 Individuals should be notified to verify office, home and pager phone numbers.
- 5.9.3 EPL-001 should also be compared to the current ERO Team List.
- 5.9.4 EPL-001 will be revised, as necessary, by Emergency Preparedness and approved by the Supervisor - Emergency Preparedness.
- 5.9.5 The updated Emergency Phone List should then be forwarded to Document Services for distribution.

## **5.10 Other Tests**

- 5.10.1 Schedules for testing at prescribed frequencies defined in this procedure will be maintained by Emergency Preparedness.
- 5.10.2 Public Address units in the TSC and EOF are tested per OPT-48.1 on a quarterly basis by Operations.
- 5.10.3 TSC/EOF emergency diesel generator is tested per PMs, ENG505, and GEN008 at prescribed frequencies by Maintenance.

## 5.10 Other Tests

- 5.10.4 TSC/EOF ventilation is tested per OPT-93.0 and OPT-94.0 by Maintenance at prescribed frequencies. OPT-93.0 is coordinated by the System Engineer. OPT-94.0 is coordinated by Operations.
- 5.10.5 Radiological Emergency Kits are inventoried by E&RC and Operations at prescribed frequencies per OPEP-04.6.
- 5.10.6 ETS ERDS telephone lines are tested on a quarterly basis per OPT-96.0 by Information Technology.
- 5.10.7 Control Room ETS ENS phones are tested monthly per 1OI-03.4.1 by Operations.
- 5.10.8 Test the satellite phone on at least a quarterly basis. Problems experienced should be documented and resolved via Attachment 2, Equipment Repair Form.
- 5.10.9 Verify testing of generators at Telecommunications Building and microwave tower with Telecommunications on a quarterly basis.
- 5.10.10 Perform an annual operability check of telephones located in the TSC, OSC, and EOF, as described in OPEP-02.6.12, OPEP-02.6.26, and OPEP-02.6.27.
- 5.10.11 Verify FIU time at met tower agrees with time on siren computer monitor in EOF on a quarterly basis. Coordinate verification with Telecommunications.

## 6.0 RECORDS

Documentation of the described tests should be retained and sent to Records Management as described in each surveillance.

ATTACHMENT 1  
Page 1 of 4  
**BNP Communications Test**

**1. Communications Testing in Control Room**

AGENCY	METHOD OF CONTACT	PERSON CONTACTED	TIME
Brunswick County WP	Selective Signaling		
New Hanover County WP	Selective Signaling		
State Warning Point	Selective Signaling		
Brunswick County EOC	Selective Signaling		
New Hanover County EOC	Selective Signaling		
NCEM Operations Center	Selective Signaling		
Coast Guard Wilmington MSO/EOC	Selective Signaling		
Coast Guard Ft. Macon EOC	Selective Signaling		
Control Room to either County	VHF Radio		
Comments:			
<p>The communication systems listed above have been tested. Problems have been identified on Attachment 2, Equipment Repair Forms, and documentation assembled for retention.</p> <p>Completed by: _____ Date: _____</p>			

ATTACHMENT 1  
Page 2 of 4  
BNP Communications Test

**2. Communications Testing in EOF and TSC**

AGENCY	METHOD OF CONTACT	PERSON CONTACTED	TIME
Test Fax to all WPs & EOCs	Fax	N/A	
EOF Selective Signaling to any EOC	Selective Signaling		
TSC Selective Signaling to any EOC	Selective Signaling		
Simulator Selective Signaling to any EOC	Selective Signaling		
State/County	Decision Line		
TSC to Brunswick County	VHF Radio		
TSC to New Hanover County	VHF Radio		
NRC (Region II office) from EOF	Bell System		
NRC (Region II office) from TSC	Bell System		
South Carolina Bureau of Radiological Health	Bell System		
Comments:			
<p>The communication systems listed above have been tested. Problems have been identified on Attachment 2, Equipment Repair Forms, and documentation assembled for retention.</p> <p>Completed by: _____ Date: _____</p>			

ATTACHMENT 1  
Page 3 of 4  
BNP Communications Test

3. Emergency Telecommunications System (ETS) Testing

**NOTE:** ENS numbers for contacting the NRC are found in EPL-001 or posted on the telephones. The on-site ENS number for call backs is 919-362-3145.

	Initials / Time
Notified Control Room of start of ENS testing	_____/____
ENS (EOF NRC Room) call to the NRC completed successfully	_____/____
Person contacted: _____	
Call from NRC to ENS (EOF NRC Room) received successfully	_____/____
ENS (TSC Room 144) call to the NRC completed successfully	_____/____
Person contacted: _____	
Call from NRC to ENS (TSC Room 144) received successfully	_____/____

**NOTE:** Calls on the following phones must be made using outside lines (i.e., 8-1-XXX-XXXX) for testing. The Environmental Monitoring cell phone stored in the EOF BEN room is recommended for this use.

**CAUTION**

Do not leave the ENS phone in the simulator plugged into a live ENS jack. When testing of the ENS phone in the simulator is complete, unplug the phone from the live ENS jack and return it to the simulator booth ENS jack.

Call from Simulator ENS completed successfully	_____/____
Call from RSCL (EOF NRC Room) completed successfully	_____/____
Call from HPN (EOF Room 123) completed successfully	_____/____
Call from PMCL* (EOF Room 128) completed successfully	_____/____
Call from HPN* (EOF Room 128) completed successfully	_____/____
Call from ENS* (EOF Room 130) completed successfully	_____/____
Call from OCL* (EOF Room 130) completed successfully	_____/____
Call from MCL* (EOF Room 130) completed successfully	_____/____
Call from PMCL (TSC Room 144) completed successfully	_____/____
Call from HPN (TSC Room 143) completed successfully	_____/____

\* Phone may not be plugged into jack. Phone must be plugged into jack prior to test.



ATTACHMENT 1  
Page 4 of 4  
**BNP Communications Test**

Call from ENS* (TSC Room 149) completed successfully	_____ / _____
Call from HPN* (TSC Room 149) completed successfully	_____ / _____
Call from OCL* (TSC Room 149) completed successfully	_____ / _____
Call from RSCL* (TSC Room 150) completed successfully	_____ / _____
Notified Control Room that ENS testing is complete	_____ / _____

\* Phone may not be plugged into jack. Phone must be plugged into jack prior to test.

**ETS On-Site Phone Numbers:**

Emergency Notification System (ENS)	919-362-3145
Health Physics Network (HPN)	910-457-3061
Management Counterpart Link (MCL)	910-457-3284
Operation Center LAN (OCL)	910-457-3062
Protective Measure Counterpart Link (PMCL)	910-457-3282
Reactor Safety Counterpart Link (RSCL)	910-457-3274

Comments:

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The communication systems listed above have been tested. Problems have been identified on Attachment 2, Equipment Repair Forms, and documentation assembled for retention.

Completed by: \_\_\_\_\_ Date: \_\_\_\_\_

ATTACHMENT 2  
Page 1 of 1  
**Equipment Repair Form**

Person Identifying Problem: \_\_\_\_\_

Equipment Out of Service: \_\_\_\_\_

Description of Problem: \_\_\_\_\_

Problem Reported To: \_\_\_\_\_

\_\_\_\_\_  
Date/Time

EFFECTED AGENCIES CONTACTED:

Name of Contact/Agency: \_\_\_\_\_

\_\_\_\_\_  
Date/Time

Name of Contact/Agency: \_\_\_\_\_

\_\_\_\_\_  
Date/Time

Name of Contact/Agency: \_\_\_\_\_

\_\_\_\_\_  
Date/Time

Name of Contact/Agency: \_\_\_\_\_

\_\_\_\_\_  
Date/Time

Explanation of Repair: \_\_\_\_\_

Equipment Retested and Restored to Service: \_\_\_\_\_ / \_\_\_\_\_

Signature

Date

Previously Contacted Agencies Notified: \_\_\_\_\_ / \_\_\_\_\_

Signature

Date

**Route to Records Management as specified in this procedure.**

ATTACHMENT 3  
Page 1 of 4  
OSC/TSC/EOF/JIC Quarterly Checklist

**CORRECT DISCREPANCIES WHICH CAN BE CORRECTED AS THIS CHECKLIST IS BEING COMPLETE. DOCUMENT ALL OTHERS.**

1. Emergency Lighting

Test operation of emergency lights by depressing the "Test" button and verifying both lamps illuminate: (See Note)

Initial/Date

-EOF Command Room	<u>          /          </u>
-Room 128 (EOF)	<u>          /          </u>
-TSC Command Room	<u>          /          </u>
-TSC ERFIS Area	<u>          /          </u>
-Room 138 (TSC)	<u>          /          </u>
-Room 139 (TSC)	<u>          /          </u>
-Room 149 (TSC)	<u>          /          </u>
-Room 150 (TSC)	<u>          /          </u>

2. Clocks

Verify the correct time is displayed and check battery (replace if needed)

-EOF Command Room	<u>          /          </u>
-Room 128 (EOF)	<u>          /          </u>
-TSC Command Room	<u>          /          </u>
-TSC ERFIS Area	<u>          /          </u>
-Room 138 (TSC)	<u>          /          </u>
-Room 139 (TSC)	<u>          /          </u>
-Room 149 (TSC)	<u>          /          </u>
-Room 150 (TSC)	<u>          /          </u>

3. Copiers

Fill paper trays and verify copy quality

-EOF	<u>          /          </u>
-TSC	<u>          /          </u>
-JIC (See OPEP-02.6.29 for location of the 4 copiers at BCC)	<u>          /          </u>

ATTACHMENT 3  
Page 2 of 4  
**OSC/TSC/EOF/JIC Quarterly Checklist**

4. Facsimile/Telecopiers

Fill paper trays and verify correct date and time is displayed

-EOF Outgoing	<u>          /          </u>
-EOF Incoming	<u>          /          </u>
-TSC	<u>          /          </u>
-JIC (See OPEP-02.6.29 for locations of the 4 fax machines)	<u>          /          </u>

5. Public Address/Intercom System

Verify operability including volume levels in each room. (Replace batteries, if necessary)

-EOF	<u>          /          </u>
-TSC	<u>          /          </u>
-OSC	<u>          /          </u>
-JIC	<u>          /          </u>

6. Communications Equipment

- Verify operability of automatic ring down phones	
- ERM to SEC	<u>          /          </u>
- CM to CD	<u>          /          </u>
- SEC to Control Room	<u>          /          </u>
- Conduct quarterly test of Satellite Telephone	<u>          /          </u>
- Conduct test of state Environmental Monitoring Team remote radio in the EOF	<u>          /          </u>
- Conduct test of the Site Environmental Monitoring Team radio	<u>          /          </u>
- Conduct test of the phone line from the U1 & U2 Remote Shutdown Panels to the TSC	<u>          /          </u>
- Conduct test of the Environmental Monitoring Team cell phone stored in the EOF BEN room	<u>          /          </u>

ATTACHMENT 3  
Page 3 of 4  
OSC/TSC/EOF/JIC Quarterly Checklist

7. Equipment

- Check the material condition of all communications headsets /
- Replace batteries in PI Specialist headsets (JIC) /
- Check the material condition and readiness of all facility rooms /
- Verify 10 copies of SPDS large sheets are available (TSC and EOF) /
- Verify that televisions, monitors, and radios located in JIC Command Room storage cabinet are operable. /

**NOTE:** Emergency lighting batteries have a 5-year expected lifetime. Replace with "Sure-Lite", Part #026-117-SP, from Cameron & Barkley.

**NOTE:** Communications headsets batteries should be changed out annually.

8. Verify current authentication codes provided by the state are located with the Plant Emergency Procedures in the following facilities:

- EOF /
- TSC /
- Control Room /
- Simulator Control Room /

9. Verify evacuation signs for general public are located as follows:

- Visitors Center Main Entrance /
- Media Center Main Entrance /
- Media Center Auditorium Entrance /
- Fitness Center Entrance /

10. Verify approximately 20 copies of Emergency Notification Forms are located as follows:

- EOF /
- TSC /
- Control Room /
- Simulator Control Room /

ATTACHMENT 3  
Page 4 of 4  
**OSC/TSC/EOF/JIC Quarterly Checklist**

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

The inventories listed above have been completed, discrepancies identified, and actions taken to resolve differences.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

ATTACHMENT 4  
Page 1 of 9  
Miscellaneous Supplies Guide  
(TSC Room 143)

Minimum Quantity	ITEM	Remarks	Verified (Initials)
24	EXPO dry erase markers (various colors)		
12	Black "Flair Type" markers		
12	Red "Flair Type" markers		
15	Highlighters		
2	Staplers		
2 bx	Staples		
3	Staple Removers		
3 bx	Thumb tacks or push pins		
1	Tape dispenser		
4 rls	Transparent Tape		
1 rl	Masking tape		
1 rl	Duct tape		
2 bx	Small binder clips		
2 bx	Medium binder clips		
2 bx	Large binder clips		
2 bx	Regular paper clips		
1 bx	Rubber bands (Various sizes)		
1 pair	Scissors		
75	Black ballpoint pens		
1	Portable First Aid Kit outside TSC Rest Room		
2	Stenographer pads		
12	Lined pads		
10	Telephone message pads		

ATTACHMENT 4  
Page 2 of 9  
**Miscellaneous Supplies Guide**  
**(TSC Room 143)**

Minimum Quantity	ITEM	Remarks	Verified (Initials)
100	Speed SNAP-A-WAY memos		
10	Logbooks		
5	CP&L telephone directories		
15	Telephone operating instructions		
5	Local telephone directories		
1 ream	Copier paper		
12	Flashlights with batteries		
24	D-cell batteries		
5	Radar lights with batteries		
5	Batteries for Radar lights		
8	AA batteries for microphones		

This inventory has been completed, discrepancies noted, and actions have been taken to restore acceptable quantity.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date



ATTACHMENT 4  
Page 3 of 9  
**Miscellaneous Supplies Guide**  
**(EOF Room 122)**

Minimum Quantity	ITEM	Remarks	Verified (Initials)
24	EXPO dry erase markers (various colors)		
12	Black "Flair Type" markers		
12	Red "Flair Type" markers		
15	Highlighters		
2	Staplers		
2 bx	Staples		
3	Staple Removers		
3 bx	Thumb tacks or push pins		
1	Tape dispenser		
4 rls	Transparent Tape		
1 rl	Masking tape		
1 rl	Duct tape		
2 bx	Small binder clips		
2 bx	Medium binder clips		
2 bx	Large binder clips		
2 bx	Regular paper clips		
1 bx	Rubber bands (Various sizes)		
1 pair	Scissors		
75	Black ballpoint pens		
1	Portable First Aid Kit outside EOF Rest Room		
2	Stenographer pads		
12	Lined pads		
10	Telephone message pads		

ATTACHMENT 4  
Page 4 of 9  
Miscellaneous Supplies Guide  
(EOF Room 122)

Minimum Quantity	ITEM	Remarks	Verified (Initials)
100	Speed SNAP-A-WAY memos		
10	Logbooks		
5	CP&L telephone directories		
15	Telephone operating instructions		
5	Local telephone directories		
1 ream	Copier paper		
12	Flashlights with batteries		
24	D-cell batteries		
5	Radar lights with batteries		
5	Batteries for Radar lights		
8	AA batteries for microphones		

This inventory has been completed, discrepancies noted, and actions have been taken to restore acceptable quantity.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

ATTACHMENT 4  
Page 5 of 9  
**Miscellaneous Supplies Guide**  
**(JIC Command Room/Support Room)**

Minimum Quantity	ITEM	Remarks	Verified (Initials)
24	EXPO dry erase markers (various colors)		
12	Black "Flair Type" markers		
12	Red "Flair Type" markers		
15	Highlighters		
2	Staplers		
2 bx	Staples		
3	Staple Removers		
2 bx	Thumb tacks or Push Pins		
1	Tape dispenser		
4 rls	Transparent Tape		
1 rl	Masking tape		
1 rl	Duct tape		
2 bx	Small binder clips		
2 bx	Medium binder clips		
2 bx	Large binder clips		
2 bx	Regular paper clips		
1 bx	Rubber bands (Various sizes)		
1 pair	Scissors		
36	Black pens		
1	Portable first aid kit		
12	Lined pads		
2	Telephone message pads		

ATTACHMENT 4  
Page 6 of 9  
**Miscellaneous Supplies Guide**  
**(JIC Command Room/Support Room)**

Minimum Quantity	ITEM	Remarks	Verified (Initials)
1 each ERO position	Logbooks		
4	CP&L Directory		
1	Local Directory		
5 reams	Copier paper		
12	AA batteries		
2	Surge protectors		
5 pks	Post-it Notes		
1 pk	Chart paper		

This inventory has been completed, discrepancies noted, and actions have been taken to restore acceptable quantity.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

ATTACHMENT 4  
Page 7 of 9  
**Miscellaneous Supplies Guide  
(OSC Command Room)**

Minimum Quantity	ITEM	Remarks	Verified (Initials)
1	Dry erase marker cleaner solution		
1 box	Kim Wipes		
12	Note pads		
6	Logbooks		
6	CP&L Telephone Directories		
12	Pens		
12	Pencils		
1	Stapler		
1	Procedures - Set of Controlled PEPs		
2	Event Classification sign sets (UE, Alert, SAE, GE)		
2	No Eating/Drinking/Smoking signs		
24	Disposable shavers		
2 cans	Shaving cream		
1	Drop cord		
1	Multistrip		
6	Flashlights with batteries		
12	D-cell batteries		
2	Radar lights with batteries		
2	Batteries for Radar lights		

This inventory has been completed, discrepancies noted, and actions have been taken to restore acceptable quantity.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

ATTACHMENT 4  
Page 8 of 9  
**Miscellaneous Supplies Guide  
(Teaching Auditorium)**

Minimum Quantity	ITEM	Remarks	Verified (Initials)
10	Media Handbooks		
1 box	Media Badges		
100	Public Information Brochures		
2	Clipboards		
24	Black Pens		
1 pair	Scissors		
12	Lined Pads		
1	Telephone Message Pad		
12	Dry Erase Markers (various colors)		
8	Highlighters		
2	Staplers		
2 bx	Staples		
2	Staple Removers		
1	Tape Dispenser		
2 rls	Transparent Tape		
1 rl	Duct Tape		
1 bx	Small Binder Clips		
1 bx	Medium Binder Clips		
2 bx	Regular Paper Clips		
1 bx	Rubber Bands		
2	CP&L Directory		
1	Local Directory		
2 reams	Copy Paper		

ATTACHMENT 4  
Page 9 of 9  
**Miscellaneous Supplies Guide  
(Teaching Auditorium)**

Minimum Quantity	ITEM	Remarks	Verified (Initials)
2 pks	Post-it Notes		
1 each ERO position	Logbooks		
1	Event Classification Sign sets (UE, Alert, SAE, GE)		

This inventory has been completed, discrepancies noted, and actions have been taken to restore acceptable quantity.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

ATTACHMENT 5  
Page 1 of 1  
**BNP Fax Test Letter**

DATE \_\_\_\_\_

TO: Brunswick County Warning Point  
New Hanover County Warning Point  
N. C. State Warning Point (NC Highway Patrol Communications Center)  
Brunswick County EOC  
New Hanover County EOC  
NCEM Operations Center, Raleigh EOC  
Coast Guard Fort Macon Station EOC  
Coast Guard MSO, Wilmington EOC

FROM: Progress Energy Brunswick Nuclear Plant

This is a test of the BNP emergency facility telecopier function to off-site agencies. Upon receiving this message, please call \_\_\_\_\_ and leave a voice mail message confirming you received this fax.

Thank you

\_\_\_\_\_  
Progress Energy Brunswick Plant  
Emergency Preparedness Unit



**ATTACHMENT 6**

Page 1 of 3

**Dose Projection/Environmental Monitoring Cabinet Inventory List**

Minimum Quantity	ITEM	Remarks	Verified (Initials)
2	Staplers		
2	Staple Removers		
1 box	Staples		
1	Scientific Calculator		
1	Drawing Compass		
12	Pens		
12	Pencils		
4	Dry-Erase Markers		
4	Fine-line Markers		
1 ream	Copier Paper		
6	Lined Pads		
1 box	Carbon Paper		
3	Rulers (long/regular size)		
4 rolls	Transparent Tape		
1 box	Paper Clips		
6	Highlighters		
2	Flashlights		
4	D Cell batteries		
1	Extension Cord		
3	Multi-Outlet Strips		
2	Logbooks (Dose Proj. Coord/EMTL)		
1	Computer Mouse		
1	Computer Keyboard		
1	CPLDOSE Program Diskette		

ATTACHMENT 6

Page 2 of 3

**Dose Projection/Environmental Monitoring Cabinet Inventory List**

REFERENCE MATERIALS	Verified (Initials)
Reg. Guide 1.109 (October 1977)	
Binder containing the following: *NUREG / CR-3011, "Dose Projection Considerations for Emergency Conditions at Nuclear Power Plants" (1983) *Stone and Webster Radiological Conseq. *NRC Accident Source Term	
Technical Basis for CPL Dose (March 1995)	
Meteorology and Atomic Energy (1968)	
Handbook of Health Physics and Radiological Health, Third Edition	
NUREG / CR-2298, USDOE, "Measurement of Release of Rad. Xenon, Krypton, and Iodine from UO <sub>2</sub> at Typical Light Water Reactor Conditions and Comparison with Release Models", November 1981	
Rad. Decay Data Tables (2 copies), 1981	
NUREG / CR-2260, NUS 3854, "Technical Basis for Reg. Guide 1.145, Atmospheric Dispersion Models for Potential Accident Consequence Assessments at Nuclear Power Plants", 1981	
NUREG / CR-2907, "Radioactive Materials Released from Nuclear Power Plants, Annual Report 1993"	
NUREG 0771, "Regulatory Impact of Nuclear Accident Source Term Assumptions" (1981)	
NTIS Workbook of Atmospheric Dispersion Estimates (1970)	
Manual of Protective Action Guides and Protective Actions for Nuclear Incidents - EPA (1992)	
NUREG / CR-1918-ORNL/NUREG-79, "Dose Rate Conversion Factors for External Exposure to Photons and Electrons (August 1981)	
Plant Emergency Procedures (PEPs)	

ATTACHMENT 6

Page 3 of 3

**Dose Projection/Environmental Monitoring Cabinet Inventory List**

REFERENCE MATERIALS	Verified (Initials)
BNP Health Physics Programs Technical Report "Comparison of CPLDOSE and NRC Dose Projection Methodologies," (latest version)	
Brunswick Plant Dose Assessment Source Terms and Old Spent Fuel Assembly Inventories (latest version)	

This inventory has been completed, discrepancies noted, and actions have been taken to restore acceptable quantity.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

ATTACHMENT 7

Page 1 of 1

**Selective Signaling Individual Location Telephone Numbers**

1. Warning Points (WPs)

Brunswick County	10-87
New Hanover County	10-89
State	10-86

2. Emergency Operations Centers (EOCs)

Brunswick County	10-95
New Hanover County	10-96
State Operations Center	10-93
Coast Guard MSO (Wilmington)	10-97
Coast Guard T. Macon	10-92

3. BNP Locations

Control Room	10-82
EOF	10-84
TSC	10-83
PBX Room (Rm 136)	10-85

4. Group Numbers

All Warning Points	10-22
All EOCs	10-33
All Warning Points & EOCs	10-44
All BNP Locations	10-55

# ATTACHMENT 8

Page 1 of 1

## Siren System Guidelines for Troubleshooting and Restoration

On receipt of various alarms, completion of repair work, or restoration to service for other reasons, the following should be used as a guideline for appropriate testing to determine if the siren is fully operable and available.

**NOTE:** The appropriate county Emergency Management Agency should be notified and give approval prior to any growl testing or daytime rotation testing.

Indication	Comments	Required Test
<b>Sensor Alarms</b>		
Master Current Sensor	Indicates the chopper motor has no power. The siren will not produce sound.	Growl Test
Master Current Sensor with False Activation	If these alarms occur together with no other indications of problems, the alarm is probably due to local electromagnetic interference (nearby radios, thunderstorms, etc.). No damage to the siren is likely to have occurred.	Interrogation (Silent Siren) Test
Rotation	This could indicate the siren did not rotate or it has a bad rotation sensor. Required testing following repair is the same in either case.	Rotation Test
Pressure	This alarm indicates the siren failed to produce sound or has a bad pressure sensor. Required testing following repair is the same in either case.	Growl Test
<b>Siren Alarms</b>		
Activation Failure	This alarm could indicate any of several problems from communications failure to equipment failures. Other alarms may indicate what caused the failure.	Growl Test Rotation Test
Partial Failure	This alarm will be associated with one or more of the Siren Sensor Alarms. Test as required by the Sensor Alarms.	Test for appropriate Sensor Alarms
False Activation	This alarm will be associated with one or more of the Siren Sensor Alarms. Test as required by the Sensor Alarms.	Test for appropriate Sensor Alarms
Intrusion	Indicates MOSCAD cabinet has been opened, usually for work on siren. <b>Note:</b> Unauthorized opening could be vandalism.	None
Site AC Voltage No damage to siren	Site power has failed. Power is lost due to a loss of power to the surrounding area with no reason to suspect damage to the siren.	Interrogation Test
Site AC Voltage with other Alarms	Site power has failed. Other parts of the system are indicating problems or power loss due to nearby lightening strike, high winds, or other severe weather.	Growl Test Rotation Test
<b>MOSCAD Alarms</b>		
RTU AC Voltage No other alarms	AC power to the MOSCAD cabinet has failed. No other damage to the siren is suspected.	Interrogation Test
RTU AC Voltage With other alarms	AC power to the MOSCAD cabinet has failed. Other alarms are present prior to power failure or do not clear after.	Growl Test Rotation Test
RTU Communication No other alarms	Communication between the Field Interrogation Unit (FIU) and the siren Remote Terminal Unit (RTU) has failed.	Interrogation Test
RTU Communication With other alarms	Communication between the Field Interrogation Unit (FIU) and the siren Remote Terminal Unit (RTU) has failed.	Test for appropriate Sensor or other alarm
RTU Battery	The MOSCAD Backup battery has failed. This battery does not affect operability as site AC power is required to activate the siren. The battery only maintains the MOSCAD components.	None required or, if desired, Interrogation Test

ATTACHMENT 9  
Page 1 of 2  
**JIC Telephone Operability Checklist**

Location (per OPEP-02.6.29)	Phone	Comments	Verified (Initial)
A. JIC Command Room			N/A
Table A	754-9741		
	754-9721		
	754-9742		
Table B	754-8766		
	754-6319		
	754-8781		
	Polycom Speakerphone (Soundstation)		
Table C	754-8753		
Table D	754-9784		
	754-9795		
	754-9833		
	754-9730		
	754-9842		
	754-9778		
	754-8813		
	754-8785		
Table E	754-9765		
Table F	754-9949		
	754-9933		
	754-9912		
	754-9906		
	754-9827		
	754-9820		
	755-6459		
	755-6462		

ATTACHMENT 9  
Page 2 of 2  
**JIC Telephone Operability Checklist**

Location (per OPEP-02.6.29)	Phone	Comments	Verified (Initial)
Table G	754-8824		
Table H	754-9677		
	754-9667		
	754-9688		
	754-9668		
Table J	754-9664		
	754-9665		
	754-9661		
	754-9662		
Table K	754-8745		
	754-8720		
	754-8702		
	754-8707		
Cell Phones	619-0747		
	619-0745		
B. Teaching Auditorium			N/A
	755-7409		
	755-6468		
	754-9966		

This operability checklist has been completed, discrepancies noted, and actions have been taken to restore acceptable quantity.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

## REVISION SUMMARY

Revision 27 of OPEP-04.2 consists of the deletion of the "Switchboard Operator" from the list of individuals who are notified prior to siren tests in Sections 5.3.3 and 5.4.4 due to phone switch replacement project and changes in Switchboard Operator duties.





PLANT OPERATING MANUAL

VOLUME XIII

PLANT EMERGENCY PROCEDURE

UNIT  
0

**0PEP-04.6**

***RADIOLOGICAL EMERGENCY KIT INVENTORIES***

REVISION 25

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## **1.0 PURPOSE**

The Radiation Control group is responsible for ensuring that the emergency kits are maintained properly to provide necessary supplies and equipment during an emergency. This procedure provides the mechanism for validating the emergency kit inventories.

## **2.0 REFERENCES**

- 2.1 HPS-NGGC-0013, Personnel Contamination Monitoring, Decontamination and Reporting
- 2.2 OE&RC-0220, Respiratory Protection Program
- 2.3 OPEP-03.7.6, Emergency Exposure Controls
- 2.4 OPEP-03.7.7, Onsite Radiological Controls
- 2.5 OPEP-03.9.2, First Aid and Medical Care
- 2.6 OPEP-03.9.3, Transport of Contaminated Injured Personnel
- 2.7 DOS-NGGC-0002, Dosimetry Issuance
- 2.8 DOS-NGGC-0009, Thermoluminescent Dosimeter (TLD) Badge Exchange
- 2.9 OE&RC-0292, SCBA Use and Maintenance

## **3.0 DEFINITIONS**

- 3.1 **Monthly**  
At least once per 31 days.
- 3.2 **Quarterly**  
At least once per 92 days.
- 3.3 **TSC**  
Technical Support Center
- 3.4 **OSC**  
Operational Support Center

## 4.0 RESPONSIBILITIES

### 4.1 Manager - E&RC

- 4.1.1 The Manager of Environmental & Radiation Control is responsible for inventorying the emergency kits maintained at the following locations.

<u>KIT</u>	<u>LOCATION</u>
Control Room Emergency Kit	Control Room
Operational Support Center Emergency Kit	O&M Bldg.
Technical Support Center Emergency Kit	TSC/EOF Building
Emergency Operations Facility Emergency Kit	TSC/EOF Building
PASS Sampling Emergency Kit	Service Building/ Chemistry Area
Environmental Monitoring Emergency Kit No.1	EOF Rm 165
Environmental Monitoring Emergency Kit No. 2	EOF Rm 165
Dosher Hospital Emergency Kit	Dosher Hospital
Vehicle Decon Kit	LLRW Building

- 4.1.2 Each of these kits will be inventoried on a quarterly basis and following any emergency or drill in which the kit is utilized. The monitoring instruments and dosimetry devices contained in the kits will be checked on a quarterly basis. The emergency breathing equipment (particulate respirators) contained in the kits will be checked on a monthly basis. Completion of this procedure's attachments provides the documentation of these inventories and checks.

### 4.2 Superintendent - RC Programs

The Superintendent - RC Programs is responsible for inventory and maintaining SCBAs contained in the kits. The emergency breathing equipment (SCBAs) contained in the following kits will be checked on a monthly basis in accordance with OE&RC-0292:

<u>EMERGENCY KIT</u>	<u>KIT LOCATION</u>	<u>MINIMUM # SCBA UNITS</u>
Control Room Kit	Control Room (2 in CAS)	15
TSC Kit	TSC/EOF Bldg Rm 141	10
EOF Kit	TSC/EOF Bldg Rm 135	15
OSC Kit	O&M Bldg 1 <sup>st</sup> Floor	24
PASS Sampling Kit	Service Bldg / Chemistry Area	8

#### **4.3 Supervisor - Emergency Preparedness**

The Supervisor - Emergency Preparedness should monitor this activity and shall ensure that it is performed at the prescribed frequency.

#### **5.0 PROCEDURE**

- 5.1 Record all inventory and equipment check results on Attachments 1 through 9 as required.
- 5.2 Complete Attachment 10 to reorder Potassium Iodide if the expiration date is less than eight months in the future.
- 5.3 Use Attachment 11 for monthly Respiratory Protection Equipment inspections. Attachments 1 through 9 are not to be used for inspections of breathing equipment.
- 5.4 Complete Attachment 12, Emergency Kit Replacements, to document equipment and supplies replaced in the Emergency Kits between required inspections.
- 5.5 Submit completed attachments to the Responsible Supervisor for review.
- 5.6 Notify the Supervisor - Emergency Preparedness immediately of any deficiencies found that are not easily corrected.
- 5.7 After review, transfer the original completed attachments to be filed in accordance with applicable records management instructions.
- 5.8 Notify the Supervisor - Emergency Preparedness when inventories have been completed.
- 5.9 Each time an inventory or equipment check is made, place a copy of each completed attachment with the respective emergency kit. (Old copies from previous inventories should be discarded.)
- 5.10 Upon completion of the monthly checks of the Emergency Breathing Equipment and quarterly inventories and checks, submit data necessary for updating the current computer schedule.

ATTACHMENT 1  
Page 1 of 5  
Control Room Emergency Kit

MONTH/YEAR \_\_\_\_\_

Minimum Quantity	Equipment/Supplies	Remarks	Verified (Initial)
N/A	Container Seals	Are all seals present on containers? Yes ___ No ___	
1	RM-14 with pancake type G-M probe or Equivalent	#_____. Response Check Reading ____ Calib. Due Date _____	
1	RO-2A or Equivalent	#_____. Response Check Reading ____ Calib. Due Date _____	
1	Air Sampler with combination filter holder	#_____. Does it run? Yes ___ No ___ Calib. Due Date _____	
10	0-500 mR dosimeters (for special use)	Calib. Due Date _____**	
8	Dosimetry packages containing: 1 0-5 R self-reading dosimeter 1 0-200 R self-reading dosimeter	Calib. Due Date _____** Calib. Due Date _____**	
10	TLDs (for special use)	Inventory and/or change out all TLDs in accordance with DOS-NGGC-0009, Thermoluminescent Dosimeter (TLD) Badge Exchange.	
1	Copy of DOS-NGGC-0002, Dosimetry Issuance	Current Revision No. ____.	

\*Inventory of containers must be checked.

\*\*All dosimeters of the same range should be due for recalibration in the same month.

ATTACHMENT 1  
Page 2 of 5  
Control Room Emergency Kit

MONTH/YEAR \_\_\_\_\_

Minimum Quantity	Equipment/Supplies	Remarks	Verified (Initial)
1	Case of potassium iodide (KI) tablets	Expiration date _____. (If expiration date is less than 8 months in the future, reorder KI tablets using Attachment 10.)	
10	Copies of OPEP-03.7.6, Emergency Exposure Controls, Attachments 3 and 4	Current Revision No. _____.	
1	Copy of OPEP-03.7.7, Onsite Radiological Controls.	Current Revision No. _____.	
10	Size X-large protective clothing packages—each containing coveralls, shoe covers, gloves, waterproof shoe covers, and head cover		
15	Size large protective clothing packages—each containing coveralls, shoe covers, gloves, waterproof shoe covers, and head cover		
5	Size medium protective clothing packages—each containing coveralls, shoe covers, gloves, waterproof shoe covers, and head cover		
5	Size X-large disposable clothing packages—each containing coveralls, shoe covers, gloves, waterproof shoe covers, and head cover		

ATTACHMENT 1  
Page 3 of 5  
Control Room Emergency Kit

MONTH/YEAR \_\_\_\_\_

Minimum Quantity	Equipment/Supplies	Remarks	Verified (Initial)
15	Size large disposable clothing packages—each containing coveralls, shoe covers, gloves, waterproof shoe covers, and head cover		
2	Rolls of duct tape		
*15	Scott air packs		
7	Full-face particulate respirators		
1	Dosimeter charger with batteries		
2	Boxes of charcoal cartridges	Expiration date _____.	
5	Silver zeolite cartridges	Expiration date _____.	
200	Planchets, 2"		
1	Smear holder slide tray		
500	Paper or cloth smears		
500	Coin envelopes		
2	Boxes of 47 mm particulate filters (sealed)		
10	Flashlights		
48	D-cell batteries	Expiration date _____.	
12	9-volt transistor batteries	Expiration date _____.	
12	C-cell batteries	Expiration date _____.	
1	Check source (approximately 8 $\mu$ Ci Cs-137)	#_____.	
1	Roll of radiation rope		

\*Two of the fifteen Scott air packs are stored in the Central Alarm Station (CAS).



ATTACHMENT 1  
Page 4 of 5  
Control Room Emergency Kit

MONTH/YEAR \_\_\_\_\_

Minimum Quantity	Equipment/Supplies	Remarks	Verified (Initial)
2	Rolls of radiation tape		
10	Insert style caution signs		
10	Inserts, "Radiation Area"		
10	Inserts, "High Radiation Area"		
10	Inserts, "Airborne Radioactivity"		
10	Inserts, "Contaminated Area"		
10	Adhesive labels, "Caution - Radioactive Materials"		
10	Adhesive labels, "Contaminated Waste"		
10	Step-off pads		
1	Roll of poly bags, small		
10	Poly bags, large		
5	Paper pads		
> 25	Ample supply of air survey forms		
> 25	Ample supply of radiological survey forms		
3	Clipboards		
1	Box of Ink pens		
N/A	* All instruments were left in the Off Position		

\* Ludlum model 177 must be "on" for charging.

ATTACHMENT 1  
Page 5 of 5  
Control Room Emergency Kit

MONTH/YEAR \_\_\_\_\_

**NOTE:** If deemed necessary to install a seal on the Control Room emergency kit cabinet, install a breakaway seal to ensure quick and easy access in the event of an emergency.

Initials

Seal all containers. \_\_\_\_\_

Submit data to update computer schedule. \_\_\_\_\_

Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inventory Performed By: \_\_\_\_\_ Date: \_\_\_\_\_

E&RC Technician

Reviewed By: \_\_\_\_\_ Date: \_\_\_\_\_

E&RC Supervisor or Designee

ATTACHMENT 2  
Page 1 of 4  
Operational Support Center Emergency Kit

MONTH/YEAR \_\_\_\_\_

**NOTE:** The radiation control equipment routinely stored in the Service Building is available for use in the Operational Support Center.

Minimum Quantity	Equipment/Supplies	Remarks	Verified (Initial)
N/A	Container seals	Are all seals present on containers? Yes ___ No ___ *	
1	Air Sampler with combination filter holder	#_____. Does it run? Yes ___ No ___ Calib. Due Date _____	
3	RM-14 with pancake type G-M probe or Equivalent	#_____. Response Check Reading _____ Calib. Due Date _____	
		#_____. Response Check Reading _____ Calib. Due Date _____	
		#_____. Response Check Reading _____ Calib. Due Date _____	

\* Inventory of containers must be checked.

ATTACHMENT 2  
Page 2 of 4  
Operational Support Center Emergency Kit

MONTH/YEAR \_\_\_\_\_

Minimum Quantity	Equipment/Supplies	Remarks	Verified (Initial)
3	RO-2A or Equivalent	#_____. Response Check Reading ____ Calib. Due Date _____	
		#_____. Response Check Reading ____ Calib. Due Date _____	
		#_____. Response Check Reading ____ Calib. Due Date _____	
3	Teletector or Equivalent	#_____. Response Check Reading ____ Calib. Due Date _____	
		#_____. Response Check Reading ____ Calib. Due Date _____	
		#_____. Response Check Reading ____ Calib. Due Date _____	
1	RO-7 or Equivalent with low and mid-range detectors	#_____. Response Check Reading ____ Calib. Due Date _____	

ATTACHMENT 2  
Page 3 of 4  
Operational Support Center Emergency Kit

MONTH/YEAR \_\_\_\_\_

Minimum Quantity	Equipment/Supplies	Remarks	Verified (Initial)
50	Protective clothing packages – each containing coveralls, shoe covers, gloves, waterproof shoe covers, and head cover		
24	Scott Air Packs		
20	Full-face particulate respirators		
> 25	Ample supply of air survey forms		
3	Rolls of duct tape		
2	Boxes of 47 mm particulate filters (sealed)		
1	Box of charcoal filters	Expiration date _____.	
1	Case of potassium iodide (KI) tablets	Expiration Date _____ (If the expiration date is less than 8 months in the future, reorder KI tablets using Attachment 10.)	
1000	Paper or cloth smears		
1000	Coin envelopes		
36	C-cell batteries	Expiration date _____.	
12	9-volt transistor batteries	Expiration date _____.	
2	30-volt batteries		

ATTACHMENT 2  
Page 4 of 4  
Operational Support Center Emergency Kit

MONTH/YEAR \_\_\_\_\_

Minimum Quantity	Equipment/Supplies	Remarks	Verified (Initial)
1	Check source (approximately 8 $\mu$ Ci Cs-137	# _____	
N/A	* All instruments were left in the off position		

\* Ludlum model 177 must be "on" for charging.

Initials

Seal all containers.

\_\_\_\_\_

Submit data to update computer schedule.

\_\_\_\_\_

Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inventory Performed By: \_\_\_\_\_ Date: \_\_\_\_\_

E&RC Technician

Reviewed By: \_\_\_\_\_ Date: \_\_\_\_\_

E&RC Supervisor or Designee

ATTACHMENT 3  
Page 1 of 6  
Technical Support Center Emergency Kit

MONTH/YEAR \_\_\_\_\_

Minimum Quantity	Equipment/Supplies	Remarks	Verified (Initial)
N/A	Container Seals	Are all seals present on containers? Yes ___ No ___	
3	RM-14 with pancake type G-M probe or Equivalent	#_____. Response Check Reading ____ Calib. Due Date _____	
		#_____. Response Check Reading ____ Calib. Due Date _____	
		#_____. Response Check Reading ____ Calib. Due Date _____	
1	Bicron Micro R or Equivalent	#_____. Response Check Reading ____ Calib. Due Date _____	

- Inventory of containers must be checked.

ATTACHMENT 3  
Page 2 of 6  
Technical Support Center Emergency Kit

MONTH/YEAR \_\_\_\_\_

Minimum Quantity	Equipment/Supplies	Remarks	Verified (Initial)
3	RO-2A or Equivalent	#_____. Response Check Reading ____ Calib. Due Date _____	
		#_____. Response Check Reading ____ Calib. Due Date _____	
		#_____. Response Check Reading ____ Calib. Due Date _____	
1	RO-7 or Equivalent with low and mid-range detectors	#_____. Response Check Reading ____ Calib. Due Date _____	
1	Air Sampler with combination filter holder	#_____. Calib. Due Date ____ Does it run? Yes __ No __	



ATTACHMENT 3  
Page 3 of 6  
Technical Support Center Emergency Kit

MONTH/YEAR \_\_\_\_\_

Minimum Quantity	Equipment/Supplies	Remarks	Verified (Initial)
1	Continuous Air Monitor	#_____ Calib. Due Date _____ Does it run? Yes ___ No ___	
50	Check 0-500 mR self-reading dosimeters.	Calib. Due Date _____**	
10	Check 0-200 R self-reading dosimeters.	Calib. Due Date _____**	
50	TLDs	Inventory and/or change out all TLDs in accordance with DOS-NGGC-0009, Thermoluminescent Dosimeter (TLD) Badge Exchange.	
1	Copy of DOS-NGGC-0002, Dosimetry Issuance,	Current Revision No. _____.	
10	Copies of OPEP-03.7.6, Emergency Exposure Controls, Attachments 3 and 4.		
1	Check source (approximately 8 $\mu$ Ci Cs-137)	#_____	
4	Cases of potassium iodide (KI) tablets.	Expiration date _____. (If expiration date is less than 8 months in the future, reorder KI tablets using Attachment 10.)	
1	Copy of OPEP-03.7.7, Onsite Radiological Controls.	Current Revision No. _____	

\*\*All dosimeters of the same range should be due for recalibration in the same month.

ATTACHMENT 3  
Page 4 of 6  
Technical Support Center Emergency Kit

MONTH/YEAR \_\_\_\_\_

Minimum Quantity	Equipment/Supplies	Remarks	Verified (Initial)
10	Protective clothing packages – each containing coveralls, shoe covers, gloves, waterproof shoe covers, and head cover		
3	Rolls of duct tape		
10	Full-face particulate respirators		
10	Scott air packs		
> 25	Ample supply of air survey forms		
> 25	Ample supply of radiological survey forms		
1000	Paper or cloth smears		
1000	Coin envelopes		
1	Dosimeter charger with batteries		
10	Inserts, "High Radiation Area"		
10	Inserts, "Airborne Radioactivity Area"		
10	Inserts, "Contaminated Area"		
10	Adhesive labels, "Radioactive Material"		

ATTACHMENT 3  
Page 5 of 6  
Technical Support Center Emergency Kit

MONTH/YEAR \_\_\_\_\_

Minimum Quantity	Equipment/Supplies	Remarks	Verified (Initial)
10	Inserts, "Radiation Area"		
10	Step-off pads		
10	Insert style caution signs		
2	Boxes of surgeon's gloves		
1	Roll of radiation rope		
5	Rolls of radiation tape		
1	Roll of sheet polyethylene		
1	Roll of poly bags, small		
1	Roll of poly bags, large		
2	Grease pencils		
1	Package of Decon cloths		
5	Pair of rubber gloves		
5	Pair of glove liners		
10	Pair of disposable coveralls (size X-large)		
10	Pair of plastic shoe covers		
2	Bottles of liquid soap		
2	Soft-bristle brushes		
2	Bottles of hand lotion with Lanolin		
12	D-cell batteries	Expiration date _____.	
36	9-volt transistor batteries	Expiration date _____.	
24	C-cell batteries	Expiration date _____.	
2	30-volt batteries		

ATTACHMENT 3  
Page 6 of 6  
Technical Support Center Emergency Kit

MONTH/YEAR \_\_\_\_\_

Minimum Quantity	Equipment/Supplies	Remarks	Verified (Initial)
1	Package of cotton swabs		
2	Boxes of tissues		
10	Bath towels		
2	Packages of disposable shoe covers		
2	Boxes of Charcoal filters		
2	Boxes of 47 mm Particulate filters (sealed)		
N/A	* All instruments were left in the Off Position.		

\* Ludlum model 177 must be "on" for charging.

Initials

Seal all containers.

\_\_\_\_\_

Submit data to update computer schedule.

\_\_\_\_\_

Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inventory Performed By: \_\_\_\_\_ Date: \_\_\_\_\_

E&RC Technician

Reviewed By: \_\_\_\_\_ Date: \_\_\_\_\_

E&RC Supervisor or Designee

ATTACHMENT 4  
Page 1 of 9  
Emergency Operations Facility Emergency Kit

MONTH/YEAR \_\_\_\_\_

Minimum Quantity	Equipment/Supplies	Remarks	Verified (Initial)
N/A	Container Seals	Are all seals present on containers? Yes ___ No ___*	
4	RM-14 with pancake type G-M probe or Equivalent	#_____. Response Check Reading _____ Calib. Due Date _____	
		#_____. Response Check Reading _____ Calib. Due Date _____	
		#_____. Response Check Reading _____ Calib. Due Date _____	
		#_____. Response Check Reading _____ Calib. Due Date _____	
3	Bicron Micro R or Equivalent	#_____. Response Check Reading _____ Calib. Due Date _____	
		#_____. Response Check Reading _____ Calib. Due Date _____	
		#_____. Response Check Reading _____ Calib. Due Date _____	

\*Inventory of containers must be checked.

ATTACHMENT 4  
Page 2 of 9  
Emergency Operations Facility Emergency Kit

MONTH/YEAR \_\_\_\_\_

Minimum Quantity	Equipment/Supplies	Remarks	Verified (Initial)
4	RO-2A or Equivalent	#_____. Response Check Reading ____ Calib. Due Date _____	
		#_____. Response Check Reading ____ Calib. Due Date _____	
		#_____. Response Check Reading ____ Calib. Due Date _____	
		#_____. Response Check Reading ____ Calib. Due Date _____	
2	Teletector or Equivalent	#_____. Response Check Reading ____ Calib. Due Date _____	
		#_____. Response Check Reading ____ Calib. Due Date _____	

ATTACHMENT 4  
Page 3 of 9  
Emergency Operations Facility Emergency Kit

MONTH/YEAR \_\_\_\_\_

Minimum Quantity	Equipment/Supplies	Remarks	Verified (Initial)
3	Air Sampler with combination filter holder	#_____ Does it run? Yes ___ No ___ Calib. Due Date _____	
		#_____ Does it run? Yes ___ No ___ Calib. Due Date _____	
		#_____ Does it run? Yes ___ No ___ Calib. Due Date _____	
80	Check 0-500 mR self-reading dosimeters.	Calib. Due Date _____**	
40	Check 0-5 R self-reading dosimeters.	Calib. Due Date _____**	
40	Check 0-200 R self-reading dosimeters.	Calib. Due Date _____**	
80	TLDs	Inventory and/or change out all TLDs in accordance with DOS-NGGC-0009, Thermoluminescent Dosimeter (TLD) Badge Exchange.	
1	Copy of DOS-NGGC-0002, Dosimetry Issuance	Current Revision No. _____.	
1	Continuous Air Monitor with combination holder	#_____ Calib. Due Date _____ Does it run? Yes ___ No ___	

\*\*All dosimeters of the same range should be due for recalibration in the same month.

ATTACHMENT 4  
Page 4 of 9  
Emergency Operations Facility Emergency Kit

MONTH/YEAR \_\_\_\_\_

Minimum Quantity	Equipment/Supplies	Remarks	Verified (Initial)
10	Copies of OPEP-03.7.6, Emergency Exposure Controls, Attachments 3 and 4.	Current Revision No. _____	
1	Copy of HPS-NGGC-0013, Personnel Contamination, Monitoring, Decontamination, and Reporting	Current Revision No. _____.	
1	Copy of OPEP-03.7.7, Onsite Radiological Controls	Current Revision No. _____.	
25	Protective clothing packages—each containing coveralls, shoe covers, gloves, waterproof shoe covers, and head cover		
12	Rolls of duct tape		
16	Full-face particulate respirators		
> 25	Ample supply of air survey forms		
> 25	Ample supply of radiological survey forms		
1	Case of potassium iodide (KI) tablets	Expiration date _____.(If the expiration date is less than 8 months in the future, reorder KI tablets using Attachment 10.)	



ATTACHMENT 4  
Page 5 of 9  
Emergency Operations Facility Emergency Kit

MONTH/YEAR \_\_\_\_\_

Minimum Quantity	Equipment/Supplies	Remarks	Verified (Initial)
3000	Paper or cloth smears		
3000	Coin envelopes		
2	Dosimeter charger with batteries		
1	Check source (approximately 8 $\mu$ Ci Cs-137)	# _____	
15	Scott air packs		
2	Boxes of particulate cartridges (respirator)		
10	Magic markers		
4	Rain suits		
20	Pads of paper		
1	55-gallon drum		
10	Poly zip-lock bags		
2	Forceps		
2	Boxes of Charcoal cartridges (Air Sampler)	Due Date _____	
6	Boxes of surgeon's gloves		
6	Flashlights		
10	Silver zeolite cartridges	Due Date _____	
2	Boxes of 47 mm glass fiber filters		
1	Roll of radiation rope		
1	Roll of sheet polyethylene		

ATTACHMENT 4  
Page 6 of 9  
Emergency Operations Facility Emergency Kit

MONTH/YEAR \_\_\_\_\_

Minimum Quantity	Equipment/Supplies	Remarks	Verified (Initial)
1	Roll of poly bags, small		
1	Tool kit containing: a Phillips head screwdriver, a flat head screwdriver, and a 6" crescent wrench		
1	Roll of poly bags, large		
2	Boxes of Pens		
2	Rulers		
2	Extension cords, 50'		
1	Folding table		
1	Logbook		
1	Vacuum cleaner with absolute filter		
200	Planchets, 2"		
1	Smear holder slide tray		
10	Insert style caution signs		
10	Inserts, "Radiation Area"		
10	Inserts, "High Radiation Area"		
10	Inserts, "Airborne Radioactivity Area"		
10	Inserts, "Contaminated Area"		
10	Adhesive labels, "Caution Radiation Material"		

ATTACHMENT 4  
Page 7 of 9  
**Emergency Operations Facility Emergency Kit**

MONTH/YEAR \_\_\_\_\_

Minimum Quantity	Equipment/Supplies	Remarks	Verified (Initial)
10	Step-off pads		
2	Grease pencils		
5	Clipboards		
2	Packs of Broom cloths		
36	C-cell batteries	Expiration date _____.	
36	9-volt transistor batteries	Expiration date _____.	
48	D-cell batteries	Expiration date _____.	
10	Pairs of rubber gloves		
10	Pairs of work gloves		
10	Pairs of glove liners		
5	Pairs of coveralls		
10	Pairs of plastic shoe covers		
1	Decon broom		
1	Box of laundry detergent		

ATTACHMENT 4  
Page 8 of 9  
Emergency Operations Facility Emergency Kit

MONTH/YEAR \_\_\_\_\_

Minimum Quantity	Equipment/Supplies	Remarks	Verified (Initial)
2	Packages of potassium permanganate (KMnO <sub>4</sub> )		
2	Gallon bottles of demineralized water		
2	Bottles of liquid soap		
3	Fisher Eradastain (or equivalent)		
2	Bars of hand soap		
2	Soft-bristle brushes		
2	Bottles of hand lotion with lanolin		
2	Packages of cotton swabs		
4	Boxes of tissue		
10	Cotton bath towels		
12	Disposable coveralls (X-large)		
4	Packages of disposable shoe covers		
1	50' water hose		
1	Hose adapter for connecting to rest room sink faucet		
N/A	* All instruments were left in the Off Position.		

- Ludlum model 177 must be "on" for charging.

ATTACHMENT 4  
Page 9 of 9  
Emergency Operations Facility Emergency Kit

MONTH/YEAR \_\_\_\_\_

Initials

Seal all containers. \_\_\_\_\_

Submit data to update computer schedule. \_\_\_\_\_

Comments: \_\_\_\_\_

Inventory Performed By: \_\_\_\_\_ Date: \_\_\_\_\_  
E&RC Technician

Reviewed By: \_\_\_\_\_ Date: \_\_\_\_\_  
E&RC Supervisor or Designee

ATTACHMENT 5  
Page 1 of 2  
Pass Sampling Emergency Kit

MONTH/YEAR \_\_\_\_\_

Minimum Quantity	Equipment/Supplies	Remarks	Verified (Initial)
7	Check 0-200 R self-reading dosimeters.	Calib. Due Date _____**	
7	Multi-badge protective clothing packages—each containing coveralls, shoe covers, gloves, waterproof shoe covers, and head cover		
2	Rolls of duct tape		
8	Scott air packs		
3	SCBA Speaker Phones	Check for satisfactory operation and battery corrosion.	
8	Extra air cylinders		
2	AV-2000 SCBA Masks - Small		
4	AV-2000 SCBA Masks - Large		
2	AV-2000 Masks - X Large		
5	Dressout Packs containing (3) 5 R/hr dosimeters, (3) TLDs	Calib. Due Date _____**	
4	Dressout Packs containing (11) 5 R/hr dosimeters, (11) TLDs	Calib. Due Date _____**	

\*\*All dosimeters of the same range should be due for recalibration in the same month.

ATTACHMENT 5  
Page 2 of 2  
Pass Sampling Emergency Kit

MONTH/YEAR \_\_\_\_\_

Initials

Seal all containers. \_\_\_\_\_

Submit data to update computer schedule. \_\_\_\_\_

Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inventory Performed By: \_\_\_\_\_ Date: \_\_\_\_\_  
E&RC Technician

Reviewed By: \_\_\_\_\_ Date: \_\_\_\_\_  
E&RC Supervisor or Designee

ATTACHMENT 6  
Page 1 of 4  
Environmental Monitoring Emergency Kit No. 1

MONTH/YEAR \_\_\_\_\_

Minimum Quantity	Equipment/Supplies	Remarks	Verified (Initial)
N/A	Container Seals	Is seal present on door? Yes ___ No ___*	
1	Air Sampler with combination filter holder	#_____. Does it run? Yes ___ No ___ Calib. Due Date _____	
1	Portable generator	Does it run? Yes ___ No ___ Is fuel available? Yes ___ No ___ Oil level - SAT ___ UNSAT___	
2	Check 0-500 mR self-reading dosimeters.	Calib. Due Date _____**	
10	Check 0-5 R self-reading dosimeters.	Calib. Due Date _____**	
1	RO-2A or Equivalent	#_____. Response Check Reading _____ Calib. Due Date _____	
1	Bicron Micro R Meter	#_____. Response Check Reading _____ Calib. Due Date _____	
1	RM-14 with pancake type G-M probe or Equivalent	#_____. Response Check Reading _____ Calib. Due Date _____	
1	Teletector or Equivalent	#_____. Response Check Reading _____ Calib. Due Date _____	

\*Inventory of kit must be checked.

\*\*All dosimeters of the same range should be due for recalibration in the same month.



ATTACHMENT 6  
Page 2 of 4  
Environmental Monitoring Emergency Kit No. 1

MONTH/YEAR \_\_\_\_\_

Minimum Quantity	Equipment/Supplies	Remarks	Verified (Initial)
27	TLDs (2 for team members) (25 for environmental monitoring)	Inventory and/or change out all TLDs in accordance with DOS-NGGC-0009, Thermoluminescent Dosimeter (TLD) Badge Exchange.	
2	Bottles of potassium iodide (KI) tablets.	Expiration Date _____. (If the expiration date is less than 8 months in the future, reorder KI using Attachment 10.)	
2	Copies of OPEP-03.7.6, Emergency Exposure Controls, Attachments 3 and 4.	Current Revision No. ____.	
1	Check source (approximately 8 $\mu$ Ci Cs-137)	# _____	
20	Plastic petri dishes with covers		
20	Poly ziplock bags, small		
1	Box of surgeon's gloves		
1	Siren key		
10	Silver zeolite cartridges	Expiration date ____.	
2	Magic markers		
1	Box of pens		
1	Box of 47 mm air sample filters		
5	Air sample charcoal cartridges	Expiration date ____.	
1	Dosimeter charger with batteries		

ATTACHMENT 6  
Page 3 of 4  
Environmental Monitoring Emergency Kit No. 1

MONTH/YEAR \_\_\_\_\_

Minimum Quantity	Equipment/Supplies	Remarks	Verified (Initial)
1	Flashlight		
12	D-cell batteries	Expiration date _____.	
12	9-volt transistor batteries	Expiration date _____.	
12	C-cell batteries	Expiration date _____.	
2	Rolls of duct tape		
2	Protective clothing packages		
1	Log book		
10	One-gallon collapsible sample bottles		
10	Shipping boxes for gallon sample bottles		
1	Funnel		
1	Hand shovel or trowel		
1	Large Tri-pour beaker (800 ml)		
1	Clipboard		
2	Pads paper		
50	Poly zip-lock bags, medium		
1	Portable 2 channel radio w/charger		
1	Pair of tweezers		
1	Map of local area		
1	Book - Brunswick County Maps		

ATTACHMENT 6  
Page 4 of 4  
Environmental Monitoring Emergency Kit No. 1

MONTH/YEAR \_\_\_\_\_

Minimum Quantity	Equipment/Supplies	Remarks	Verified (Initial)
6	Bottles of drinking water		
N/A	* All instruments were left in the Off Position.		

\* Ludlum model 177 must be "on" for charging.

Initials

Seal kit.

\_\_\_\_\_

Submit data to update computer schedule.

\_\_\_\_\_

Comments: \_\_\_\_\_

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\_\_\_\_\_

\_\_\_\_\_

Inventory Performed By: \_\_\_\_\_  
E&RC Technician

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

Reviewed By: \_\_\_\_\_  
E&RC Supervisor or Designee

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

ATTACHMENT 7  
Page 1 of 4  
Environmental Monitoring Emergency Kit No. 2

MONTH/YEAR \_\_\_\_\_

Minimum Quantity	Equipment/Supplies	Remarks	Verified (Initial)
N/A	Container Seals	Is seal present on door? Yes ___ No ___ *	
1	Air Sampler with combination filter holder	# _____. Does it run? Yes ___ No ___ Calib. Due Date _____	
1	Portable generator	Does it run? Yes ___ No ___ Is fuel available? Yes ___ No ___ Oil level - SAT ___ UNSAT ___	
2	Check 0-500 mR self-reading dosimeters.	Calib. Due Date _____ **	
10	Check 0-5 R self-reading dosimeters.	Calib. Due Date _____ **	
1	RO-2A or Equivalent	# _____. Response Check Reading ____ Calib. Due Date _____	
1	Bicron Micro R Meter	# _____. Response Check Reading ____ Calib. Due Date _____	
1	RM-14 with pancake type G-M probe or Equivalent	# _____. Response Check Reading ____ Calib. Due Date _____	
1	Teletector or Equivalent	# _____. Response Check Reading ____ Calib. Due Date _____	

\*Inventory of kit must be checked.

\*\*All dosimeters of the same range should be due for recalibration in the same month.

ATTACHMENT 7  
Page 2 of 4  
Environmental Monitoring Emergency Kit No. 2

MONTH/YEAR \_\_\_\_\_

Minimum Quantity	Equipment/Supplies	Remarks	Verified (Initial)
27	TLDs (2 for team members) (25 for environmental monitoring)	Inventory and/or change out all TLDs in accordance with DOS-NGGC-0009, Thermoluminescent Dosimeter (TLD) Badge Exchange.	
2	Bottles of potassium iodide (KI) tablets.	Expiration Date _____. (If the expiration date is less than 8 months in the future, reorder KI using Attachment 10.)	
2	Copies of OPEP-03.7.6, Emergency Exposure Controls, Attachments 3 and 4.	Current Revision No. ____.	
1	Check source (approximately 8 $\mu$ Ci Cs-137)	# _____	
20	Plastic petri dishes with covers		
20	Poly ziplock bags, small		
1	Box of surgeon's gloves		
1	Siren key		
10	Silver zeolite cartridges	Expiration date ____.	
2	Magic markers		
1	Box of pens		
1	Box of 47 mm air sample filters		
5	Air sample charcoal cartridges	Expiration date ____.	
1	Dosimeter charger with batteries		

ATTACHMENT 7  
Page 3 of 4  
Environmental Monitoring Emergency Kit No. 2

MONTH/YEAR \_\_\_\_\_

Minimum Quantity	Equipment/Supplies	Remarks	Verified (Initial)
1	Flashlight		
12	D-cell batteries	Expiration date _____.	
12	9-volt transistor batteries	Expiration date _____.	
12	C-cell batteries	Expiration date _____.	
2	Rolls of duct tape		
2	Protective clothing packages		
1	Log book		
10	One-gallon collapsible sample bottles		
10	Shipping boxes for gallon sample bottles		
1	Funnel		
1	Hand shovel or trowel		
1	Large Tri-pour beaker (800 ml)		
1	Clipboard		
2	Pads paper		
50	Poly zip-lock bags, medium		
1	Portable 2 channel radio w/charger		
1	Pair of tweezers		
1	Map of local area		
1	Book - Brunswick County Maps		

ATTACHMENT 7  
Page 4 of 4  
Environmental Monitoring Emergency Kit No. 2

MONTH/YEAR \_\_\_\_\_

Minimum Quantity	Equipment/Supplies	Remarks	Verified (Initial)
6	Bottles of drinking water	Expiration date _____.	
N/A	* All instruments were left in the Off Position.		

\* Ludlum model 177 must be "on" for charging.

Initials

Seal kit.

Submit data to update computer schedule.

Comments: \_\_\_\_\_

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

Inventory Performed By: \_\_\_\_\_ Date: \_\_\_\_\_  
E&RC Technician

Reviewed By: \_\_\_\_\_ Date: \_\_\_\_\_  
E&RC Supervisor or Designee

ATTACHMENT 8  
Page 1 of 5  
Doshier Hospital Emergency Kit

MONTH/YEAR \_\_\_\_\_

Minimum Quantity	Equipment/Supplies	Remarks	Verified (Initial)
N/A	Container Seals	Are all seals present on containers? Yes ___ No ___*	
3	RM-14 with pancake type G-M probe or Equivalent	#_____. Response Check Reading ____ Calib. Due Date _____	
		#_____. Response Check Reading ____ Calib. Due Date _____	
		#_____. Response Check Reading ____ Calib. Due Date _____	
1	RO-2 or Equivalent	#_____. Response Check Reading ____ Calib. Due Date _____	
1	Air Sampler with combination filter holder	#_____. Does it run? Yes ___ No ___ Calib. Due Date _____	
20	Check 0-500 mR dosimeters	Calib. Due Date _____**	
5	Check Five (5) 0-5 R Dosimeters.	Calib. Due Date _____**	
5	Check Five (5) 20 R Dosimeters.	Calib. Due Date _____**	

\*Inventory of containers must be checked.

\*\*All dosimeters of the same range should be due for recalibration in the same month.



ATTACHMENT 8  
Page 2 of 5  
Doshier Hospital Emergency Kit

MONTH/YEAR \_\_\_\_\_

Minimum Quantity	Equipment/Supplies	Remarks	Verified (Initial)
20	TLDs	Inventory and/or change out all TLDs in accordance with DOS-NGGC-0009.	
1	Copy of DOS-NGGC-0002	Current Revision No. _____.	
1	Copy of OPEP-03.9.2, First Aid and Medical Care	Current Revision No. _____.	
1	Copy of HPS-NGGC-0013, Personnel Contamination Monitoring, Decontamination, and Reporting	Current Revision No. _____.	
1	Copy of OPEP-03.9.3, Transport of Contaminated Injured Personnel.	Current Revision No. _____.	
10	Disposable clothing packages—each containing coveralls, shoe covers, gloves, waterproof shoe covers, and head cover		
1	Utility knife		
5	Rolls of duct tape		
1	HEPA filtration unit $\geq$ 250 scfm		
1	Dosimeter charger with batteries		
1	Check source (approximately 8 $\mu$ Ci Cs-137)	# _____	

ATTACHMENT 8  
Page 3 of 5  
Doshier Hospital Emergency Kit

MONTH/YEAR \_\_\_\_\_

Minimum Quantity	Equipment/Supplies	Remarks	Verified (Initial)
1	Storage receptacle		
1	Decon broom		
1	Smear holder slide tray		
1	Roll of sheet polyethylene		
1	Roll of yellow poly bags		
2	Five-gallon poly buckets		
1	Pair of tweezers		
2	Magic markers		
1	Box of Pens		
1	Clipboard		
> 25	Ample supply of radiological survey forms		
> 25	Ample supply of air survey forms		
500	Paper or cloth smears		
500	Coin envelopes		
50	Planchets, 2"		
2	Boxes of surgeon's gloves		
10	Step-off pads		
4	Packages of Broom cloths		
1	Box of tissues		
1	Pair of scissors		
2	Rolls of radiation tape		
1	Roll of radiation rope		
10	Insert style caution signs		
5	Large yellow poly bags		

ATTACHMENT 8  
Page 4 of 5  
Doshier Hospital Emergency Kit

MONTH/YEAR \_\_\_\_\_

Minimum Quantity	Equipment/Supplies	Remarks	Verified (Initial)
10	Inserts, "Keep Out"		
10	Inserts, "Radiation Area"		
10	Inserts, "High Radiation Area"		
10	Inserts, "Radioactive Material Area"		
50	Adhesive labels, "Caution Radioactive Material"		
12	9-volt transistor batteries	Expiration date _____.	
12	D-cell batteries	Expiration date _____.	
12	C-cell batteries	Expiration date _____.	
8	Stanchions		
10	Charcoal filter cartridges	Expiration date _____.	
2	Boxes of 47 mm Particulate Filters (sealed)		
N/A	* All instruments were left in the Off Position		

- Ludlum model 177 must be "on" for charging.

ATTACHMENT 8  
Page 5 of 5  
Doshier Hospital Emergency Kit

Initials

Seal all containers.

\_\_\_\_\_

Submit data to update computer schedule.

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Comments: \_\_\_\_\_

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\_\_\_\_\_

Inventory Performed By: \_\_\_\_\_ Date: \_\_\_\_\_

E&RC Technician

Reviewed By: \_\_\_\_\_ Date: \_\_\_\_\_

E&RC Supervisor or Designee

ATTACHMENT 9  
Page 1 of 3  
Vehicle Decon Kit

MONTH/YEAR

Minimum Quantity	Equipment/Supplies	Remarks	Verified (Initial)
N/A	Container Seals	Are all seals present on containers? Yes ___ No ___ *	
2	RM-14 with pancake type G-M probe or Equivalent	#_____. Response Check Reading ____ Calib. Due Date _____	
		#_____. Response Check Reading ____ Calib. Due Date _____	
1	Bicron Micro R or Equivalent	#_____. Response Check Reading ____ Calib. Due Date _____	
1	RO-2A or Equivalent	#_____. Response Check Reading ____ Calib. Due Date _____	
1	Check source (approximately 8 $\mu$ Ci Cs-137)	#_____.	
1	Copy of OPEP-03.7.7, Onsite Radiological Controls	Current Revision No. _____	
300	Feet water hose		
2	Water hose nozzle		
1	Decon towels		
1	Case soap, liquid		
4	5 gallon plastic buckets		
6	Scrub brush		
1	Case maslin cloth		

\*Inventory of containers must be checked.

ATTACHMENT 9  
Page 2 of 3  
Vehicle Decon Kit

MONTH/YEAR \_\_\_\_\_

Minimum Quantity	Equipment/Supplies	Remarks	Verified (Initial)
1	Roll radiation rope		
25	Plastic step-off pad		
20	Insert style caution signs (3 pocket)		
20	"Contaminated Area" inserts		
20	"Radioactive Material" inserts		
15	"Enter @ SOP" inserts		
12	Stanchions		
1	Roll green Herculite (or equivalent)		
1	Roll yellow Herculite (or equivalent)		
10	PC sets (coveralls, plastic booties, rubber boots, cotton liners, rubber gloves, head cover (hood), rainsuit, face shield, tape		
2	RM-14 smear counter holder		
2	Spare HP 210 probes		
2000	Paper or cloth smears		
2000	Coin envelopes		
150	Feet 110 V elec. extension cord		
> 25	Ample supply of Radiological Survey Forms		
20	Mop heads		
2	Mop handles		

**ATTACHMENT 9**  
**Page 3 of 3**  
**Vehicle Decon Kit**

MONTH/YEAR \_\_\_\_\_

Minimum Quantity	Equipment/Supplies	Remarks	Verified (Initial)
1	Mop bucket w/wringer		
1	110 V elec. water pump w/10' suction and 20' discharge hoses		
5	55 gallon drums w/lids, rings, bolts (or equivalent)		
1	15/16" socket wrench		
20	Large plastic bags - yellow		
10	Black ink pens		
5	Black marker pens		
12	9-volt transistor batteries	Expiration date _____.	
24	D-cell batteries	Expiration date _____.	
12	C-cell batteries	Expiration date _____.	
2	Flashlight		
N/A	* All instruments were left in the Off Position.		

\* Ludlum model 177 must be "on" for charging.

Initials

Seal all containers.

\_\_\_\_\_

Submit data to update computer schedule.

\_\_\_\_\_

COMMENTS \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inventory Performed By: \_\_\_\_\_

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

E&RC Technician

Reviewed By: \_\_\_\_\_

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

E&RC Supervisor or Designee

ATTACHMENT 10  
Page 1 of 1  
**Notification to Reorder Potassium Iodide**

Brunswick Nuclear Plant

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

MEMORANDUM TO:      Supervisor - Emergency Preparedness  
FROM:                    E&RC Supervisor  
SUBJECT:                Expiration of Potassium Iodide (KI)

This letter is notifying you that the Potassium Iodide in Emergency Kit(s) is going to expire as follows:

<u>KIT</u>	<u>DATE</u>	<u>QUANTITY</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

This is your official notification to reorder an appropriate quantity of Potassium Iodide.

\_\_\_\_\_  
E&RC Technician

\_\_\_\_\_  
E&RC Supervisor



ATTACHMENT 11  
Page 1 of 4  
**Checklist for Respiratory Protection Equipment**

MONTH/YEAR \_\_\_\_\_

Initials

1. Control Room Kit

- a. Check seven (7) particulate respirators (1 small, 5 medium, 1 large); eight (8) SCBA masks (5 X-large, 3 small); and update the inspection tags.

Resp. (S) # \_\_\_\_\_ Scott \_\_\_\_\_ (XL) Scott \_\_\_\_\_ (S)

Resp. (M) # \_\_\_\_\_ Scott \_\_\_\_\_ (XL) Scott \_\_\_\_\_ (S)

Resp. (M) # \_\_\_\_\_ Scott \_\_\_\_\_ (XL) Scott \_\_\_\_\_ (S)

Resp. (M) # \_\_\_\_\_ Scott \_\_\_\_\_ (XL)

Resp. (M) # \_\_\_\_\_ Scott \_\_\_\_\_ (XL)

Resp. (M) # \_\_\_\_\_

Resp. (L) # \_\_\_\_\_

2. Technical Support Center Kit

- a. Check ten (10) particulate respirators (1 small, 8 medium, 1 large); six (6) SCBA masks (4 X-large and 2 small); and update the inspection tags.

Resp. (S) # \_\_\_\_\_ Resp. (M) # \_\_\_\_\_ Scott \_\_\_\_\_ (XL) Scott \_\_\_\_\_ (S)

Resp. (M) # \_\_\_\_\_ Resp. (M) # \_\_\_\_\_ Scott \_\_\_\_\_ (XL) Scott \_\_\_\_\_ (S)

Resp. (M) # \_\_\_\_\_ Resp. (M) # \_\_\_\_\_ Scott \_\_\_\_\_ (XL)

Resp. (M) # \_\_\_\_\_ Resp. (L) # \_\_\_\_\_ Scott \_\_\_\_\_ (XL)

Resp. (M) # \_\_\_\_\_

Resp. (M) # \_\_\_\_\_

ATTACHMENT 11  
Page 2 of 4  
**Checklist for Respiratory Protection Equipment**

MONTH/YEAR \_\_\_\_\_

Initials

3. Emergency Operations Facility Kit

- a. Check sixteen (16) particulate respirators (1 small, 14 medium, 1 large); six (6) Scott masks (4 X-large and 2 small); and update the inspection tags.

Resp. (S) # \_\_\_\_\_ Resp. (M) # \_\_\_\_\_ Scott \_\_\_\_\_ (XL)

Resp. (M) # \_\_\_\_\_ Resp. (M) # \_\_\_\_\_ Scott \_\_\_\_\_ (XL)

Resp. (M) # \_\_\_\_\_ Resp. (M) # \_\_\_\_\_ Scott \_\_\_\_\_ (XL)

Resp. (M) # \_\_\_\_\_ Resp. (M) # \_\_\_\_\_ Scott \_\_\_\_\_ (XL)

Resp. (M) # \_\_\_\_\_ Resp. (M) # \_\_\_\_\_ Scott \_\_\_\_\_ (S)

Resp. (M) # \_\_\_\_\_ Resp. (M) # \_\_\_\_\_ Scott \_\_\_\_\_ (S)

Resp. (M) # \_\_\_\_\_ Resp. (L) # \_\_\_\_\_

Resp. (M) # \_\_\_\_\_

Resp. (M) # \_\_\_\_\_

ATTAC4MENT 11  
Page 3 of 3  
**Checklist for Respiratory Protection Equipment**

MONTH/YEAR \_\_\_\_\_

Initials

4. PASS Kit

- a. Check twelve (12) AV-2000 SCBA masks (4 X-large; 4 large; and 4 small); and update the inspection tags.

_____ (XL)	_____ (L)	_____ (S)
_____ (XL)	_____ (L)	_____ (S)
_____ (XL)	_____ (L)	_____ (S)
_____ (XL)	_____ (L)	_____ (S)

\_\_\_\_\_

ATTACHMENT 11  
Page 4 of 4  
**Checklist for Respiratory Protection Equipment**

MONTH/YEAR \_\_\_\_\_

Initials

5. Operational Support Center Kit

- a. Check twenty (20) particulate respirators (1 small, 17 medium, 2 large); six (6) Scott masks (4 X-large and 2 small): and update the inspection tags.

Resp. (S) # \_\_\_\_\_ Resp. (M) # \_\_\_\_\_ Scott \_\_\_\_\_(XL)

Resp. (M) # \_\_\_\_\_ Resp. (M) # \_\_\_\_\_ Scott \_\_\_\_\_(XL)

Resp. (M) # \_\_\_\_\_ Resp. (M) # \_\_\_\_\_ Scott \_\_\_\_\_(XL)

Resp. (M) # \_\_\_\_\_ Resp. (M) # \_\_\_\_\_ Scott \_\_\_\_\_(XL)

Resp. (M) # \_\_\_\_\_ Resp. (M) # \_\_\_\_\_ Scott \_\_\_\_\_(S)

Resp. (M) # \_\_\_\_\_ Resp. (M) # \_\_\_\_\_ Scott \_\_\_\_\_(S)

Resp. (M) # \_\_\_\_\_ Resp. (M) # \_\_\_\_\_

Resp. (M) # \_\_\_\_\_ Resp. (M) # \_\_\_\_\_

Resp. (M) # \_\_\_\_\_ Resp. (L) # \_\_\_\_\_

Resp. (M) # \_\_\_\_\_ Resp. (L) # \_\_\_\_\_

Performed By: \_\_\_\_\_ Date \_\_\_\_\_  
E&RC Technician

Reviewed By: \_\_\_\_\_ Date \_\_\_\_\_  
E&RC Supervisor or Designee

**ATTACHMENT 12**  
**Page 1 of 1**  
**Emergency Kit Replacements**

[illegible]

**Note: Kits must be resealed after equipment is replaced.**

**Comments:**

Performed By: \_\_\_\_\_ Date: \_\_\_\_\_  
E&RC Technician

Reviewed By: \_\_\_\_\_ Date: \_\_\_\_\_  
E&RC Supervisor or Designee

## REVISION SUMMARY

Revision 25 of OPEP-04.6 consists of the following changes::

- Added expiration date for charcoal and zeolite cartridges, and batteries in emergency kit inventories described in Attachments 1-4 and 6-9.
- Deleted pencils from Attachment 1, Control Room Emergency Kit.
- Added reminder at bottom of each emergency kit inventory checklist that Ludlum Model 177 must be kept in the "on" position for charging.
- Deleted "with batteries" after references to flashlights in Attachment 4, Emergency Operations Facility Emergency Kit, and Attachment 9, Vehicle Decon Kit, because batteries are located in emergency kits as a separate inventory item; and added extra D-cell batteries to Control Room emergency kit, EOF emergency kit, and vehicle decon kit inventories to ensure spare batteries are available.
- Relocated references to 9-volt transistor batteries and 55-gallon drum to different sections of EOF emergency kit inventory for consistency with other checklists.
- Added AV-2000 SCBA masks and dressout packs to PASS kit in Attachment 5.
- Corrected typographical error in Attachment 9.
- Added SCBA masks to Control Room, TSC, EOF, PASS, and OSC kits described in Attachment 11, Checklist for Respiratory Protection Equipment.