

ATTACHMENT 2

DATE 4-18-84

DOCUMENT DISTRIBUTION

TO: Holder of Copy No. 103

Check one:

NAME D.C. Control Plant West (2)

Incorporate the following material into the subject documentation:

- ☐ PM Operability Notification - Complete the action specified on Attachment 6
☐ PM Field Revision
☐ Plant Mod
☒ Procedure
☐ Technical Specifications
☐ FSAR
☐ Other

*PEP-3.7.1	Delete & Return Procedure	
**PEP-3.7.2		4
**PEP-3.7.3		2
*PEP-3.7.4		0
**PEP-3.8.3		3
*PEP-3.8.4		2
**PEP-3.9.2		2
**PEP-3.9.3		2
*PEP-3.9.5	Delete & Return Procedure	
*PEP-3.9.6		2

- * COMPLETE PROCEDURE, INSTRUCTION, OR MOD.
 ** PARTIAL PROCEDURE, INSTRUCTION, OR MOD.

I verify that the revisions/additions/actions stated above have been made as required and that superseded material has been destroyed or marked obsolete, an audit has been made to verify correctness per the applicable revision numbers, and that these changes will be conveyed to those affected.

RETURN THIS FORM TO: BSEP Document Control
 P. O. Box 10429
 Southport, NC 28461-0429

Signed: _____ Date: _____

4045
 1/1

CAROLINA POWER & LIGHT COMPANY
BRUNSWICK STEAM ELECTRIC PLANT

UNIT 0

EMERGENCY PERSONNEL MONITORING AND DOSIMETRY

PLANT EMERGENCY PROCEDURE: PEP-03.7.2

VOLUME XIII

Rev. 004

Recommended By:

Y. C. Boyer
Director - Administrative Support

Date:

4/16/84

Approved By:

C. King
General Manager

Date:

4/18/84

Sup
6405030003

LIST OF EFFECTIVE PAGES

PEP-03.7.2

<u>Page(s)</u>	<u>Revision</u>
1-2	4
3	2
4	4

1.0 Responsible Individual and Objectives

The Personnel Protection and Decontamination Team is responsible to the Radiological Control Director for:

- 1.1 Determining personnel exposures, utilizing the Radiological Information Management Systems (RIMS) or a manual backup system during an emergency.
- 1.2 Maintaining exposure records through the use of the RIMS computer in a real time mode or by using an alternate record keeping system which can later be loaded into the RIMS data base.
- 1.3 Determining need for and issuing special personnel monitoring devices.

2.0 Scope and Applicability

This procedure shall be implemented upon activation of the Personnel Protection and Decontamination Team.

3.0 Actions and Limitations

- 3.1 Members of the Personnel Protection and Decontamination Team, as designated by the team leader, shall perform the following actions:
 - 3.1.1 Set up a dosimetry area in the Operational Support Center (or where designated by Radiological Control Director or Personnel Protection and Decontamination Team Leader) containing the following items:
 - 3.1.1.1 A supply of TLDs.
 - 3.1.1.2 A supply of self-reading pocket dosimeters.
 - 3.1.1.3 A supply of Exposure Record Sheets (E&RC-0425).
 - 3.1.1.4 A supply of pencils and/or pens.
 - 3.1.2 Complete personal dosimetry forms, and issue proper dosimetry at the Operation Support Center (OSC) for incoming personnel. Dosimetry shall be issued in accordance with E&RC-0430, E&RC-0435, and E&RC-0440 whenever possible and if time permits. If an RIMS computer terminal is not available at the OSC, dosimetry issue information should be recorded for later entry into the RIMS computer by qualified dosimetry personnel.
 - 3.1.3 Collect all Exposure Record Sheets and all TLDs for exiting personnel from Security for reading, as directed by the team leader. The information from these forms and TLD readings must be retained for later entry into the RIMS computer by qualified dosimetry personnel.

- 3.1.4 Issue special dosimetry (e.g., high range dosimeters on finger badges) as specified in PEP-03.3.5, Emergency Radiation Work Permits, or as otherwise directed by the Personnel Protection and Decontamination Team Leader.
 - 3.1.4.1 Record dosimeter numbers and to whom issued on Exhibit 3.7.2-1, Special Dosimetry Log.
 - 3.1.4.2 Instruct personnel issued special dosimetry to have dosimeter numbers recorded on the Radiation Work Permit; either on the printed RWP form or by having a qualified RIMS user enter the information via a computer terminal.
- 3.1.5 Collect specimens and perform bioassay or whole body count for personnel suspected of having internal contamination using the following guidelines.
 - 3.1.5.1 Contamination present in the hair or on the face.
 - 3.1.5.2 Unremovable contamination on the body.
 - 3.1.5.3 Greater than 3 Rem by TLD
 - 3.1.5.4 Respirator filters show contamination greater than 100 mr/hr.
 - 3.1.5.5 As indicated by risk situations, e.g.,:
 - i. Respirator defeated
 - ii. Retrospective recognition or airborne hazard
- 3.1.6 The results of body counts and/or bioassays not directly generated by and/or stored in the RIMS computer will be documented such that these results can readily be entered into the RIMS data files directly from such documentation as time and conditions permit.
- 3.1.7 Place TLDs in various areas within the exclusion area as specified by the Personnel Protection and Decontamination Team Leader to assess the radiological impact on personnel.
 - 3.1.7.1 Record location of TLD on Exhibit 3.7.2-2.
 - 3.1.7.2 Periodically replace TLDs and record readings obtained from removed TLDs on Exhibit 3.7.2-2.

EXHIBIT 3.7.2-2

TLD LOCATION AND LOG SHEET

TLD LOCATION	TLD NO.	TIME/DATE PLACED	TIME/DATE RETRIEVED	READING

CAROLINA POWER & LIGHT COMPANY
BRUNSWICK STEAM ELECTRIC PLANT

UNIT 0

ISSUANCE AND USE OF PROTECTIVE GEAR

PLANT EMERGENCY PROCEDURE: PEP-03.7.3

VOLUME XIII

Rev. 002

Recommended By:

L. L. Bayer
Director - Administrative Support

Date:

4/16/84

Approved By:

C. L. King
General Manager

Date:

4/18/84

LIST OF EFFECTIVE PAGES

PEP-03.7.3

<u>Page(s)</u>	<u>Revision</u>
1-2	2
3	1

1.0 Responsible Individuals and Objectives

1.1 The Personnel Protection and Decontamination Team is responsible to the Personnel Protection and Decontamination Team Leader for:

1.1.1 Issuing necessary protective gear (e.g., survey instruments, respirators, anti-Cs).

1.1.2 Ensuring such gear is properly used.

1.2 Individuals using protective gear are also responsible for its proper use.

2.0 Scope and Applicability

This procedure shall be implemented whenever protective gear is required during a declared emergency.

3.0 Actions and Limitations

3.1 Members of the Personnel Protection and Decontamination Team as designated by the team leader, shall perform the following actions:

3.1.1 Issue protective gear at the Operational Support Center, or other area(s) specified by the Personnel Protection and Decontamination Team Leader.

3.1.1.1 Ask the individual being issued the gear if he is qualified to use such gear.

NOTE: This is a quick verification of user qualification.

3.1.1.2 Place sign(s) indicating a "Typical" set of anti-Cs near the issue point for reference (Example of sign, Exhibit 3.7.3-1).

3.1.1.3 Notify Personnel Protection and Decontamination Team Leader if supplies of protective gear become low.

3.2 All personnel entering radiation areas or high radiation areas are responsible for:

3.2.1 Obtaining protective gear required for entry, prior to entering the area.

- 3.2.2 The proper use of protective gear upon entry.

NOTE: Required gear is that gear indicated on the Radiation Work Permit, or verbally required by the entry team leader, Personnel Protection and Decontamination Team Leader, or the Radiological Control Director.

- 3.2.3 Removing anti-Cs in such a manner as to minimize the spread of contamination (see E&RC-0211) upon exiting the radiation area.

- 3.2.4 Depositing contaminated protective gear in containers and/or areas designated by Personnel Protection and Decontamination Team to minimize the spread of contamination and facilitate decontamination/disposal efforts during recovery from the emergency.

CAROLINA POWER & LIGHT COMPANY
BRUNSWICK STEAM ELECTRIC PLANT

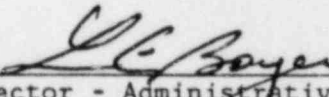
UNIT 0

MONITORING AND SURVEYS FOR PERSONNEL HABITABILITY

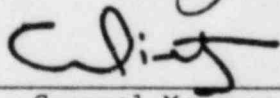
PLANT EMERGENCY PROCEDURE: PEP-03.7.4

VOLUME XIII

Rev. 000

Recommended By: 
Director - Administrative Support

Date: 4/16/84

Approved By: 
General Manager

Date: 4/18/84

LIST OF EFFECTIVE PAGES

PEP-03.7.4

<u>Page(s)</u>	<u>Revision</u>
1-2	0

1.0 Responsible Individuals and Objectives

The Personnel Protection and Decontamination Team is responsible to the Radiological Control Director for ensuring that monitoring and surveys for personnel habitability are conducted at locations on-site (including those outside the protected area), documented, and reported to appropriate personnel.

Releases of radioactivity may lead to excessively high radiation levels in or near the Operational Support Center, the Technical Support Center, Emergency Operations Facility, the machine shops, the counting areas, or other areas within the site boundary, but removed from the reactor. Periodic surveys of such areas are necessary to ensure their continued use.

2.0 Scope and Applicability

This procedure shall be implemented if a Site Emergency or General Emergency is declared during which radioactivity is directly released or suspected to be released into the atmosphere, and as directed by the Radiological Control Director or Site Emergency Coordinator.

NOTE: Where this procedure does not address specific monitoring details refer to existing plant procedures.

3.0 Actions and Limitations

NOTE: Verifying the radiological safety of plant evacuation assembly areas is of first priority.

3.1 Unless otherwise directed by the Radiological Control Director the general criteria for determining that radiation levels are acceptably low for continued habitability are:

3.1.1 < 5 mR/hr direct;

3.1.2 < 1000 dpm/100 cm² β - γ contamination; and

3.1.3 < 0.25 MPC airborne.

3.2 Obtain calibrated monitoring equipment and emergency kits.

3.3 Perform an instrument check including:

3.3.1 Battery check.

3.3.2 Current calibration sticker.

3.3.3 Source check.

- 3.4 Conduct monitoring and surveys for personnel habitability (airborne contamination, dose rate, and smear surveys) using E&RC-0100, Routine/Special Dose Rate Survey; E&RC-0120, Routine/Special Airborne Radioactivity Survey; and E&RC-0111, Routine/Special Surveys for Removable Surface Contamination.
- 3.5 Operate direct radiation monitors continuously while proceeding to requested locations and note any unanticipated high radiation levels, their location, and time and date of reading.
- 3.6 Record (or communicate to one who is recording) pertinent data at each location requested to be monitored:
 - 3.6.1 For dose rate surveys, use forms in E&RC-0100.
 - 3.6.2 For airborne surveys, use forms in E&RC-0120.
 - 3.6.3 For contamination smear surveys, use forms in E&RC-0111.
- 3.7 For general radiation measurement of areas that should remain habitable take portable air samples and direct radiation surveys in the following areas and in other areas, as directed by the Radiological Control Director:
 - 3.7.1 Plant evacuation assembly areas
 - 3.7.2 Counting areas
 - 3.7.3 Operational Support Center
 - 3.7.4 Technical Support Center
 - 3.7.5 Emergency Operations Facility
 - 3.7.6 Machine shops
 - 3.7.7 Administration Building

CAROLINA POWER & LIGHT COMPANY
BRUNSWICK STEAM ELECTRIC PLANT

UNIT 0

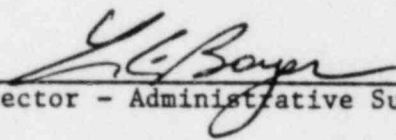
ADMINISTRATION OF RADIOPROTECTIVE DRUGS

PLANT EMERGENCY PROCEDURE: PEP-03.8.3

VOLUME XIII

Rev. 003

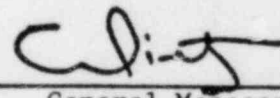
Recommended By:


Director - Administrative Support

Date:

4/16/84

Approved By:


General Manager

Date:

4/18/84

LIST OF EFFECTIVE PAGES

PEP-03.8.3

<u>Page(s)</u>	<u>Revision</u>
1	2
2	3
3-4	2

- 3.1.2 Consult with Company designated physician (see PEP-Appendix A.3). Advise him of projected doses without potassium iodine and elapsed time since exposure.

NOTE: This consultation shall include a request for the physician, to be followed by a written recommendation to the plant General Manager for administration of radioprotective drugs. Note the following information in the Radiological Control Director's log:

Name of Physician Making
Recommendations: _____

Recommendations Made: _____

Physician Consulted By: _____
Initials Time

- 3.1.3 Decide whether to administer radioprotective drugs.

— Radioprotective drugs not recommended nor administered, including select individuals who should not be given radioprotective drugs.

— Radioprotective drugs should be administered (go to Step 3.1.4).

- 3.1.4 If a thyroid blocking agent is to be administered, direct the Personnel Protection and Decontamination Team Leader to administer single doses to potentially affected individuals as soon as possible.

- 3.1.5 Consult the Company designated physician (phone number in PEP-Appendix A.3) for determination of daily continuance for those persons identified on Exhibit 3.8.3-1. Note completion of this step in the Radiological Control Director's log.

CAUTION: A MAXIMUM OF 130 MILLIGRAMS PER DAY (A SINGLE DOSE) FOR NO MORE THAN 10 DAYS IS THE MAXIMUM ALLOWABLE DOSE CONTINUATION.

IF CONTINUED DOSES ARE DETERMINED TO BE NECESSARY, THEY ARE TO BE FROM SERIALIZED BOTTLES WITH APPROPRIATE PRECAUTIONARY LABELS.

- 3.2 Actions of the Personnel Protection and Decontamination Team Leader when administering doses of radioprotective drugs:

- 3.2.1 Instruct each recipient of the radioprotective drugs to read the statement of risks involved with taking radioprotective drugs, as indicated on Exhibit 3.8.3-1.

CAROLINA POWER & LIGHT COMPANY
BRUNSWICK STEAM ELECTRIC PLANT

UNIT 0

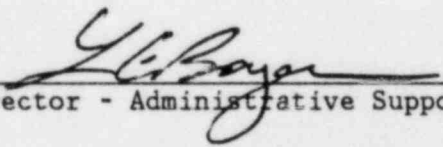
ACCESS CONTROL

PLANT EMERGENCY PROCEDURE: PEP-03.8.4

VOLUME XIII

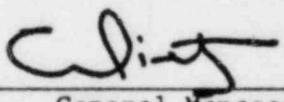
Rev. 2

Recommended By:


Director - Administrative Support

Date: 4/16/84

Approved By:


General Manager

Date: 4/18/84

LIST OF EFFECTIVE PAGES

Page(s)

Revision

1 - 4

2

ACCESS CONTROL

1.0 Responsible Individual and Objectives

The Site Emergency Coordinator is responsible for directing activities on site during an emergency. The Operational Support Center Leader, Technical Support group, and Emergency Security Team Leader are responsible to the Site Emergency Coordinator for controlling the movement of personnel on site, thus ensuring the safety of personnel and allowing efficient mobilization of emergency resources. The Emergency Response Manager is responsible for the movement of personnel in the Emergency Operations Facility after activation.

2.0 Scope and Applicability

This procedure shall be implemented by the Emergency Security Team, the Plant Monitoring Team and Personnel Protection and Decontamination Team upon declaration of a Site Evacuation or as directed by the Site Emergency Coordinator.

3.0 Actions and Limitations

3.1 The Emergency Security Team members shall control access to the plant site as follows:

3.1.1 Guards on patrol and stationary watch persons shall report via terryphone or radio to the Security Center for further instructions.

3.1.2 Designated Team members shall establish a Security Control Point on the main access road to the plant in order to:

- (1) Permit entrance only to those personnel required to aid in the emergency (see Appendix A).
- (2) Permit exit only to those personnel cleared by Personnel Protection and Decontamination Team member, at the control point, for release.
- (3) Aid in Traffic Control.

NOTE: When specifically directed by the Site Emergency Coordinator, the Emergency Security Team is authorized to by-pass the provisions of this procedure in order to expedite the arrival of essential personnel.

3.1.2.1 Do not allow non-CP&L personnel not on EXHIBIT 3.8.4-1, "Plant Emergency Access List," to enter the plant site unless so directed by the Site Emergency Coordinator or his designee.

- 3.1.2.2 If known, provide specific destinations to arriving personnel and vehicles required within the controlled area. Direct personnel already badged at Brunswick to report to their destination.
- 3.1.2.3 Escorts shall ensure that incoming personnel obtain dosimetry in accordance with PEP-03.7.2, "Emergency Personnel Monitoring and Dosimetry."
- 3.1.3 Team Member(s) stationed at the Security Control Centers (Service Building entrance and Construction access) shall:
- 3.1.3.1 Expedite the exit of plant personnel and visitors from the Protected Area and ensure that each person properly punches out using his Card Reader Card.
- NOTE: Card Reader Cards and Photo I.D. badges shall be returned to their appropriate locations in the badge rack in the Security Control Center.
- 3.1.3.2 Compile and provide the Emergency Security Team Leader with a list of personnel still in the Protected Area and their last known location in accordance with PEP-03.8.2, "Personnel Accountability."
- 3.1.4 Team Member(s) designated to direct traffic shall:
- 3.1.4.1 Station themselves at the exit point of the parking lots designated by the Emergency Security Team Leader.
- 3.1.4.2 Prohibit all traffic from exiting the parking lots until cleared for release (except emergency vehicles, emergency monitoring teams, or other CP&L emergency personnel).
- 3.1.4.3 Release traffic, at the direction of the Emergency Security Team Leader, and direct the vehicles to the radiation monitoring point established by the Personnel Protection and Decontamination Team.
- NOTE: Traffic is to be released in a single lane, assuring that an access route for emergency personnel and equipment is continuously available.
- 3.1.4.4 Direct traffic and personnel found to be contaminated to the decontamination area.
- 3.1.4.5 Release traffic found to be radiologically "clean" by the Personnel Protection and Decontamination Team member.

- 3.2 The Plant Monitoring Team shall establish and maintain personnel contamination monitoring points at or near the plant exits and wherever else necessary.
- 3.3 The Personnel Protection and Decontamination Team shall, as necessary:
 - 3.3.1 Establish and maintain any necessary vehicle contamination monitoring checkpoints.
 - 3.3.2 Establish a decontamination area to facilitate any vehicles found to be contaminated when exiting the plant site.

EXHIBIT 3.8.4-1

Plant Emergency Access List (1)

List of Individuals Called to the Site	Special Instructions

(1) All CP&L personnel shall be permitted access

CAROLINA POWER & LIGHT COMPANY
BRUNSWICK STEAM ELECTRIC PLANT

UNIT 0

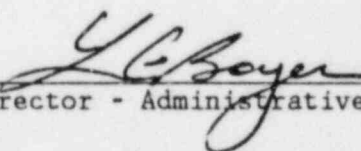
FIRST AID AND MEDICAL CARE

PLANT EMERGENCY PROCEDURE: PEP-03.9.2

VOLUME XIII

Rev. 2

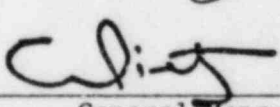
Recommended By:


Director - Administrative Support

Date:

4/16/84

Approved By:


General Manager

Date:

4/18/84

LIST OF EFFECTIVE PAGES

<u>Page(s)</u>	<u>Revision</u>
1 - 2	2
3 - 4	1
5	2

FIRST AID AND MEDICAL CARE

1.0 Responsible Individuals and Objectives

The Personnel Protection and Decontamination Team Leader is responsible for the coordination of treatment of any victims of an accident. This procedure provides guidelines to be used for the administration of first aid and medical care.

Depending upon the severity of the injury sustained, injured personnel shall be treated by one or more of the following:

- 1) Individuals trained in first aid;
- 2) A physician who has agreed to provide medical services at the plant site when required;
- 3) Doctors on staff at hospitals who have agreed to provide medical assistance for contaminated patients; and/or
- 4) Hospital staffs who have agreed to provide medical assistance.

NOTE: The authorities, responsibilities and limits on the actions of the contractor, private organizations and local service support groups are delineated in the agreements appended to the Brunswick Radiological Emergency Plan.

2.0 Scope and Applicability

This procedure shall be implemented during emergencies requiring first aid and/or medical care for victims of an accident.

NOTE: First aid and medical care will normally be administered in the First Aid Room (or in secondary medical facilities for more severe injuries), except in cases where on-the-spot first aid is required before the patient can be transported to the First Aid Room. (See PEP-3.9.6, "Search and Rescue.") 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.

Exhibit 3.9.2-3 provides guidelines for basic first aid.

3.0 Actions and Limitations

3.1 Personnel Protection and Decontamination Team Leader shall:

- 3.1.1 Determine (or estimate) the following data for overall assessment of necessary medical aid:
- 1) Number of injured personnel;
 - 2) Nature and severity of injuries;

- 3) Locations of injured personnel;
 - 4) Contamination levels and dose rates;
 - 5) Number of First Aid Team members on hand.
 - 3.1.2 Notify the Site Emergency Coordinator of any outside assistance needed and obtain approval to notify the Emergency Communicator.
 - 3.1.3 Notify Emergency Communicator of outside assistance needed.
 - 3.2 A Personnel Protection and Decontamination Team member in the field shall perform the following actions:
 - 3.2.1 Determine (or estimate) and report the following data to Personnel Protection and Decontamination Team Leader for assessment of necessary medical aid:
 - 1) Number of injured personnel;
 - 2) Nature and severity of injuries;
 - 3) Locations of injured personnel;
 - 4) Contamination levels and dose rates;
 - 5) Any special medical needs;
 - 6) Injured persons names;
 - 7) Cause of injuries.
 - 3.2.2 Administer life-saving first aid and treatment of severe injuries, e.g., trauma and shock, hemorrhage, etc., such actions shall take precedence over decontamination procedures.
 - 3.2.3 Evaluate all other possibly contaminated individuals in accordance with RC&T-0610 and administer necessary treatment.
- NOTE: All injuries in a controlled area are to be considered as potentially contaminated. Removal of clothing usually removes approximately 90% of contamination.
- 3.3 If time permits, record first aid steps taken, dose rates, etc., per "Patient Radiation and Medical Status" form (EXHIBIT 3.9.2-1 and 3.9.2-2).
 - 3.4 Contact Personnel Protection and Decontamination Team Leader to request transportation for patients requiring immediate hospitalization, communicating any special treatments patients may require enroute or upon arrival.

EXHIBIT 3.9.2-3

BASIC FIRST AID GUIDELINES

First aid shall be administered using the following guidelines:

I. Categorize patients into the following priorities for treatment:

- A. Major injuries, but can be saved
- B. Minor injuries requiring minimal care
- C. Terminal, for supportive care

II. Priorities of Injuries and Treatments:

A. Unconscious

- 1. Check airway and pulse
- 2. Begin CPR, if necessary
- 3. Keep warm
- 4. Decontaminate

B. Shock

- 1. Keep warm
- 2. Keep flat
- 3. Administer sips of water, if conscious
- 4. Decontaminate

C. Bleeding (arterial or venous origin)

- 1. Apply direct pressure
- 2. Apply tourniquet (only in a life or death situation)
- 3. Decontaminate

D. Fractures

- 1. Splint
- 2. Cover compound wounds
- 3. Decontaminate

CAROLINA POWER & LIGHT COMPANY
BRUNSWICK STEAM ELECTRIC PLANT

UNIT 0

TRANSPORTING OF CONTAMINATED INJURED PERSONNEL

PLANT EMERGENCY PROCEDURE: PEP-03.9.3

VOLUME XIII

Rev. 002

Recommended By:

Y. C. Bayer
Director - Administrative Support

Date:

4/16/84

Approved By:

C. Ling
General Manager

Date:

4/18/84

LIST OF EFFECTIVE PAGES

PEP-03.9.3

<u>Page(s)</u>	<u>Revision</u>
1-3	2
4-5	1

1.0 Responsible Individuals and Objectives

The person(s) assigned from the Personnel Protection and Decontamination Team is responsible to that Team Leader for ensuring that proper radiological control measures are effected during the transport of any contaminated injured personnel.

2.0 Scope and Applicability

This procedure gives the guidelines to be used to protect injured personnel during emergency transfer while still preventing the spread of radioactive contamination and protecting the persons effecting the transfer. This procedure is applicable to emergency movement on site and transfer from on-site treatment areas of any contaminated or injured personnel.

NOTE: This procedure should be accomplished in conjunction with E&RC-0610.

3.0 Actions and Limitations

3.1 The Personnel Protection and Decontamination Team members shall perform the following actions for preparation and transportation of contaminated injured personnel:

3.1.1 Discontinue decontamination procedures if the Personnel Protection and Decontamination Team Leader directs team to prepare the patient for transport.

3.1.2 Prepare the patient for transport as follows:

3.1.2.1 Spread an open blanket(s) or sheet(s) over the stretcher.

3.1.2.2 Place the patient on top of blanket(s) or sheet(s) and wrap the patient in the blanket(s) or sheet(s).

NOTE: If unable to move the patient, request assistance from the Personnel Protection and Decontamination Team Leader.

3.1.2.3 Transport the patient to the area designated by the Personnel Protection and Decontamination Team Leader.

3.1.2.4 Inform the Personnel Protection and Decontamination Team Leader/Radiological Control Director when the patient is ready to be transported.

- 3.1.2.5 If available, obtain a completed Patient Radiation and Medical Status form, EXHIBITS 3.9.2-1 and 3.9.2-2 (PEP-03.9.2).
- 3.1.2.6 Contain any residual contamination that may exist on the patient by the use of blankets, sheets, etc.
- 3.1.2.7 Report the extent of the patient's injuries, first aid measures taken and current status to the receiving personnel.

3.2 A Team member shall accompany the patient to the medical facility to assist medical personnel.

NOTE: If qualified personnel are available, a second technician and a professional health-physicist should be sent (via a vehicle other than the emergency vehicle) to the medical facility to assist with contamination control and liaison with medical personnel.

- 3.2.1 Direct the ambulance/transportation personnel to the Radiological Emergency Room at the appropriate hospital (Doshier Memorial Hospital).
- 3.2.2 Use EXHIBIT 3.9.3-1, Transporting of Contaminated Injured Personnel for maintaining a record of actions taken and personnel involved.
- 3.2.3 Direct ambulance/transportation personnel to remain with the transport vehicle until cleared by the Personnel Protection and Decontamination Team Leader or his designee in accordance with PEP-02.6.8, Personnel Protection and Decontamination Team Leader.
- 3.2.4 Inform the attending physician of the patient's medical and radiological status and any radiological hazards that may be encountered.
- 3.2.5 Ensure that all personnel present in the Radiation Emergency Room are:
 - 3.2.5.1 Dressed in Anti-Cs, as conditions warrant.
 - 3.2.5.2 Wearing dosimetry (TLDs, dosimeters).
- 3.2.6 Notify the Personnel Protection and Decontamination Team Leader of arrival at destination and of any additional requirements (e.g., monitoring and decontamination for ambulance/transportation personnel, etc.).

- 3.2.7 Ensure a control point has been established and the controlled area is adequately protected and/or guarded.
- 3.2.8 Ensure waste containers have been properly set up.
- 3.2.9 Provide recommendations and assistance to the attending physician, upon request, with regard to the contamination of the patient and other radiological hazards.
- 3.2.10 Monitor all tissue specimens for residual contamination.
- 3.2.11 Assist in decontamination of the patient, as directed by the attending physician (refer to E&RC-0210, Personnel Decontamination).
- 3.2.12 Monitor the patient periodically and inform the physician of the success/failure of any decontamination performed.
- 3.2.13 Supervise and regulate protection of personnel in or egressing from the area.
- 3.2.14 Maintain accountability and control of all equipment in or egressing from the area.
- 3.3 When the patient(s) has been adequately decontaminated and removed from the Radiological Emergency Room, the Personnel Protection and Decontamination actions:
 - 3.3.1 Collect dosimetry and applicable records.
 - 3.3.2 Collect any and all contaminated materials and waste and arrange for packaging and return to the Brunswick plant for laundering and/or disposal.
 - 3.3.3 Perform and/or arrange for monitoring and decontamination of hospital equipment as required.
 - 3.3.4 Notify the Personnel Protection and Decontamination Team Leader when the Radiological Emergency Room is decontaminated and ready to be reopened and request approval for reopening.
 - 3.3.5 When approval from the Personnel Protection and Decontamination Team Leader has been received, open the Radiological Emergency Room for uncontrolled access.
 - 3.3.6 Inventory all CP&L emergency kits used at the medical facility and make arrangements for replacement of used or missing items.
 - 3.3.7 Return all dosimetry devices and applicable records concerning injuries, contamination and exposures to the Personnel Protection and Decontamination Team Leader.

CAROLINA POWER & LIGHT COMPANY
BRUNSWICK STEAM ELECTRIC PLANT

UNIT 0

SEARCH AND RESCUE

PLANT EMERGENCY PROCEDURE: PEP-03.9.6

VOLUME XIII

Rev. 002

Recommended By: _____

LL Bayer
Director - Administrative Support

Date: _____

4/16/84

Approved By: _____

W. J. King
General Manager

Date: _____

4/18/84

LIST OF EFFECTIVE PAGES

<u>Page(s)</u>	<u>Revision</u>
1-3	2

1.0 Responsible Individuals and Objectives

The purpose of this procedure is to assure that search and rescue operations are performed by individuals who are competent, knowledgeable, and properly equipped.

The plant Operations Director and the Radiological Control Director are responsible to the Site Emergency Coordinator for safe and effective search and rescue operations.

NOTE: Search and rescue personnel are to be chosen from personnel trained to perform the following:

1. Search for unaccounted personnel
2. Rescue injured and/or trapped personnel
3. Determine the need for and administer immediate first aid
4. Transport injured personnel

2.0 Scope and Applicability

This procedure provides guidelines to be used for search and rescue operations that are necessary to remove injured personnel from a radiation area and will be implemented or directed by the Site Emergency Coordinator.

3.0 Actions and Limitations

Search and rescue personnel shall:

3.1 As necessary, obtain the following equipment:

- 3.1.1 Appropriate protective gear
- 3.1.2 First aid bag
- 3.1.3 Survey meter and dosimetry
- 3.1.4 Stretcher and blanket

3.2 Conduct their search and rescue mission in accordance with planned routes and actions.

3.3 Perform a quick assessment of the radiological hazards in the area.

3.4 Establish and maintain constant (if possible) communications with the Personnel Protection and Decontamination Team Leader and provide the following:

- 3.4.1 Location of injured persons
- 3.4.2 Number of injured persons
- 3.4.3 Extent of injuries
- 3.4.4 Injured persons names
- 3.4.5 Dose rates and contamination levels
- 3.4.6 Cause of injuries

CAUTION: EXERCISE CARE NOT TO AGGRAVATE ANY INJURY.

3.5 For each person found:

- 3.5.1 Perform an analysis (triage) of radiological hazard and injuries to determine when removal of injured personnel to a lower radiation dose rate area is necessary.

CAUTION: IF ANY INJURY IS SEVERE, RADIOLOGICAL CONDITIONS ARE CONSIDERED SECONDARY TO IMMEDIATE MEDICAL TREATMENT UNLESS ACUTE RADIATION HAZARD FOR CASUALTY EXCEEDS INJURY HAZARD. FOR LIFESAVING PURPOSES, 100R IS THE MAXIMUM EXPOSURE ALLOWED.

- 3.5.2 Administer first aid (in accordance with PEP-03.9.2, First Aid and Medical Care) as necessary to ensure breathing and stoppage of excessive bleeding.

NOTE: Treatment for trauma and shock, hemorrhage, and respiratory arrest always takes precedence over decontamination procedures and treatment of possible symptoms from irradiation. When possible, however, external and internal contamination should be diminished or eliminated promptly.

- 3.5.3 Remove the injured person from any high radiation area as soon as possible.

3.6 If injured personnel are contaminated, remove contaminated clothing by cutting with scissors and decontaminate per E&RC-0210.

NOTE: All injuries in a controlled area are to be considered as potentially contaminated. Proper removal of clothing usually removes about 90% of contamination.

- 3.7 Transport all patients to the First Aid Room in accordance with PEP-03.9.3, Transporting of Contaminated Injured Personnel.

NOTE: If unable to move the patient, request assistance from the Personnel Protection and Decontamination Team Leader.