

CAROLINA POWER & LIGHT COMPANY
BRUNSWICK STEAM ELECTRIC PLANT

UNIT 0

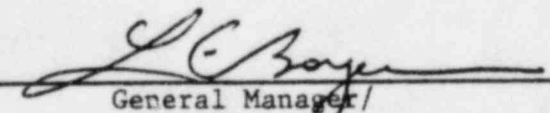
RADIOLOGICAL EMERGENCY KIT INVENTORIES

PLANT EMERGENCY PROCEDURE: PEP-04.6

VOLUME XIII

Rev. 000

Approved By:


General Manager/
Director - Administrative Support

Date:

2/26/85

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LIST OF EFFECTIVE PAGES

PEP-04.6

<u>Page(s)</u>	<u>Revision</u>
1-42	0

1.0 Responsible Individuals and Objectives

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 Scope and Applicability

The emergency kits are maintained at the following locations:

<u>KIT</u>	<u>LOCATION</u>
Control Room Emergency Kit	Control Room
Operational Support Center Emergency Kit	Service Building
Technical Support Center Emergency Kit	Training Building
Emergency Operations Facility Emergency Kit	Training Building
Radiation Control Emergency Kit	Visitors Center
Environmental Monitoring Emergency Kit No. 1	Visitors Center
Environmental Monitoring Emergency Kit No. 2	Visitors Center
Dosher Hospital Emergency Kit	Dosher Hospital

Each of these kits will be inventoried on a semiannual basis and following any emergency or drill in which the kit is utilized. The emergency breathing equipment, monitoring instruments, and dosimetry devices contained in the kits will be checked on a monthly basis. Completion of this procedure's exhibits provides the documentation of these inventories and monthly checks.

3.0 Actions

3.1 List of Exhibits:

- 4.6-1, Control Room Emergency Kit Inventory Log
- 4.6-2, Operational Support Center Emergency Kit Inventory Log
- 4.6-3, Technical Support Center Emergency Kit Inventory Log
- 4.6-4, Emergency Operations Facility Emergency Kit Inventory Log
- 4.6-5, Visitors Center: Radiation Control Emergency Kit Inventory Log
- 4.6-6, Visitors Center: Environmental Monitoring Emergency Kit No. 1 Inventory Log
- 4.6-7, Visitors Center: Environmental Monitoring Emergency Kit No. 2 Inventory Log

- 4.6-8, Doshier Hospital Emergency Kit Inventory Log
 - 4.6-9, Control Room Emergency Kit Monthly Checklist
 - 4.6-10, Operational Support Center Emergency Kit Monthly Checklist
 - 4.6-11, Technical Support Center Emergency Kit Monthly Checklist
 - 4.6-12, Emergency Operations Facility Emergency Kit Monthly Checklist
 - 4.6-13, Visitors Center: Radiation Control Emergency Kit Monthly Checklist
 - 4.6-14, Visitors Center: Environmental Monitoring Emergency Kit No. 1 Monthly Checklist
 - 4.6-15, Visitors Center: Environmental Monitoring Emergency Kit No. 2 Monthly Checklist
 - 4.6-16, Doshier Hospital Emergency Kit Monthly Checklist
- 3.2 Record all inventory and equipment check results on Exhibits 4.6-1 to 4.6-16 as required.
 - 3.3 Submit completed exhibits to the RC Foreman for review.
 - 3.4 After review, transfer the original completed exhibits to the vault to be filed in accordance with applicable records management instructions.
 - 3.5 Each time an inventory or equipment check is made, place a copy of each completed exhibit with the respective emergency kit. (Old copies from previous inventories may be discarded.)
 - 3.6 Upon completion of the monthly checks and semiannual inventories, submit data necessary for updating the current computer schedule on VSPC.

EXHIBIT 4.6-1

CONTROL ROOM EMERGENCY KIT INVENTORY LOG

QUANTITY	ITEM	AMOUNT ON HAND	SHORTAGES
20	Protective clothing packages-- each containing coveralls, shoe covers, gloves, waterproof shoe covers, and head cover		
20	Disposable clothing packages-- each containing disposable coveralls, shoe covers, gloves, waterproof shoe covers, and head cover		
2	Rolls of duct tape		
1	RLF-2A adapter		
8	Scott air packs (at least 30- min capacity)		
5	Full-face particulate respirators		
5	Cleaner sanitizer packages		
8	Dosimetry packages containing: 1 0-5 R self-reading dosimeter 1 0-200 R self-reading dosimeter		
10	TLDs (for special use)		
10	0-500 mR self-reading dosimeters (for special use)		

EXHIBIT 4.6-1 (Cont'd)

QUANTITY	ITEM	AMOUNT ON HAND	SHORTAGES
1	Dosimeter charger with batteries		
1	RM-14 with HP-210 probe		
1	RO-2A		
1	Air sampler		
2	Boxes of Cesco cartridges		
5	Silver zeolite cartridges		
100	Particulate filters, 4"		
1	Filter cutter		
200	Planchets, 2"		
500	Smear papers and coin envelopes		
200	47 mm particulate filters		
10	Flashlights		
40	D-cell batteries		
2	9V transistor batteries		
2	AA penlight batteries		
1	Check source (approximately 8 μ Ci Cs-137)		

EXHIBIT 4.6-1 (Cont'd)

QUANTITY	ITEM	AMOUNT ON HAND	SHORTAGES
1	One-gallon poly bottle		
200	Feet of radiation rope		
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	Inserts, "Keep Out"		
10	Adhesive labels, "Radiation Area"		
10	Adhesive labels, "High Radiation Area"		
10	Adhesive labels, "Airborne Radioactivity"		
10	Adhesive labels, "Contaminated Area"		
10	Adhesive labels, "Contaminated Material"		

EXHIBIT 4.6-1 (Cont'd)

QUANTITY	ITEM	AMOUNT ON HAND	SHORTAGES
10	Adhesive labels, "Contaminated Waste"		
11	Step-off pads		
2	Plant floor plan prints		
1	Roll of poly bags, small		
10	Poly bags, large		
5	Paper pads		
7	Pencils		
2	Grease pencils		
1	Pad of air survey forms		
1	Pad of radiological survey forms		
1	Pad of dosimetry issue forms		
3	Clipboards		
5	Ink pens		

Inventory performed by: _____ Date: _____
RC Technician

Reviewed by: _____ Date: _____
RC Foreman

EXHIBIT 4.6-2

OPERATIONAL SUPPORT CENTER EMERGENCY KIT INVENTORY LOG

QUANTITY	ITEM	AMOUNT ON HAND	SHORTAGES
50	Protective clothing packages-- each containing coveralls, shoe covers, gloves, waterproof shoe covers, and head cover		
1	High volume air sampler		
2	Pads of air survey forms		
2	Boxes of 4" high volume filters		
3	Rolls of duct tape		

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

Inventory performed by: _____ Date: _____
RC Technician

Reviewed by: _____ Date: _____
RC Foreman

EXHIBIT 4.6-3

TECHNICAL SUPPORT CENTER EMERGENCY KIT INVENTORY LOG

QUANTITY	ITEM	AMOUNT ON HAND	SHORTAGES
10	Protective clothing packages-- each containing coveralls, shoe covers, gloves, waterproof shoe covers, and head cover		
3	Rolls of duct tape		
50	0-500 mR self-reading dosimeters		
50	TLDs		
10	0-200 R self-reading dosimeters		
4	Full-face particulate respirators		
20	Scott air packs (at least 30-min capacity)		
1	Continuous air monitor (CAM)		
1	E-520		
1	High volume air sampler		
1	RM-14 with HP-210 probe		
1	RO-2A		
1	Pad of dosimetry issue forms		
1	Pad of air survey forms		

EXHIBIT 4.6-3 (Cont'd)

QUANTITY	ITEM	AMOUNT ON HAND	SHORTAGES
1	Pad of radiological survey forms		
4	Case of potassium iodide (KI) tablets Expiration Date _____ (If the expiration date is less than 8 months in the future, reorder KI tablets.)		
1000	Smear papers with coin envelopes		
2	Boxes of 4" high volume filters		
1	Dosimeter charger with batteries		
1	Check source (approximately 8 μ Ci Cs-137)		

NOTE: Have Security inspect drums and Scott air packs before they are resealed. Security must inspect these containers before they are resealed so that a security seal can be placed on them. Otherwise, Security will have to break into and inspect the containers each time the TSC is activated and placed inside the protected area.

Inventory performed by: _____ Date: _____
RC Technician

Reviewed by: _____ Date: _____
RC Foreman

EXHIBIT 4.6-4

EMERGENCY OPERATIONS FACILITY EMERGENCY KIT INVENTORY LOG

QUANTITY	ITEM	AMOUNT ON HAND	SHORTAGES
10	Protective clothing packages-- each containing coveralls, shoe covers, gloves, waterproof shoe covers, and head cover		
3	Rolls of duct tape		
50	0-500 mR self-reading dosimeters		
50	TLDs		
10	0-5 R self-reading dosimeters		
10	0-200 R self-reading dosimeters		
4	Full-face particulate respirators		
1	E-520		
1	High volume air sampler		
1	RM-14 with HP-210 probe		
1	RO-2A		
1	Pad of dosimetry issue forms		
1	Pad of air survey forms		

EXHIBIT 4.6-4 (Cont'd)

QUANTITY	ITEM	AMOUNT ON HAND	SHORTAGES
1	Pad 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.)		
1000	Smear papers with coin envelopes		
2	Boxes of 4" high volume filters		
1	Dosimeter charger with batteries		
1	Check source (approximately 8 μ Ci Cs-137)		

Inventory performed by: _____ / Date: _____
RC Technician

Reviewed by: _____ / Date: _____
RC Foreman

EXHIBIT 4.6-5

VISITORS CENTER: RADIATION CONTROL EMERGENCY KIT INVENTORY LOG

QUANTITY	ITEM	AMOUNT ON HAND	SHORTAGES
15	Protective clothing packages-- each containing coveralls, shoe covers, gloves, waterproof shoe covers, and head cover		
10	Rolls of duct tape		
30	Dosimetry packages containing: 1 TLD 1 0-500 mR self-reading dosimeter 1 0-5 R self-reading dosimeter 1 0-200 R self-reading dosimeter		
1	Dosimeter charger with batteries		
9	Scott air packs (at least 30-min capacity)		
6	Extra air cylinders (at least 30-min capacity)		
2	RLF-2A adapters		
4	Full-face respirators		
8	Pair of particulate cartridges		

EXHIBIT 4.6-5 (Cont'd)

QUANTITY	ITEM	AMOUNT ON HAND	SHORTAGES
2	Teletector or equivalent high range survey instruments		
2	Air samplers		
3	RO-2A		
1	RM-14 with HP-210 probe		
1	E-520		
1	PRM-7		
100	Particulate filters, 4"		
1	Check source (approximately 8 μ Ci Cs-137)		
2	Filter cutters, 2"		
10	Magic markers		
4	Rain suits		
5	Clipboards		
20	Pads of paper		
2	Pads of radiological survey forms		
2	Pads of air survey forms		

EXHIBIT 4.6-5 (Cont'd)

QUANTITY	ITEM	AMOUNT ON HAND	SHORTAGES
2	Pads of dosimetry issue forms		
30	Pencils		
1	Pencil sharpener		
4	9V transistor batteries		
10	Poly zip-lock bags		
2	Forceps		
2	Boxes of Cesco cartridges		
6	Boxes of surgeon's gloves		
6	Flashlights with batteries		
10	Silver zeolite cartridges		
2	Boxes of 47 mm glass fiber filters		
600	Feet of radiation rope		
10	Rolls of radiation tape		
1	Roll of sheet polyethylene		
1	Roll of absorbent paper		
1	Roll of poly bags, small		

EXHIBIT 4.6-5 (Cont'd)

QUANTITY	ITEM	AMOUNT ON HAND	SHORTAGES
1	Tool kit containing: a Phillips head screwdriver, a flat head screwdriver, and a 6" crescent wrench		
1	Roll of poly bags, large		
8	Pens		
2	Packages of thumbtacks		
2	Rulers		
2	Extension cords, 50'		
1	Folding table		
2	Sets of plant floor plan prints		
1	Logbook		
5	Packages of cleaner sanitizer		
1	Vacuum cleaner with absolute filter		
200	Planchets, 2"		
1	Mariner's compass		
10	Insert style caution signs		
10	Inserts, "Radiation Area"		

EXHIBIT 4.6-5 (Cont'd)

QUANTITY	ITEM	AMOUNT ON HAND	SHORTAGES
10	Inserts, "High Radiation Area"		
10	Inserts, "Airborne Radioactivity Area"		
10	Inserts, "Keep Out"		
10	Inserts, "Contaminated Area"		
10	Adhesive labels, "High Radiation Area"		
10	Adhesive labels, "Airborne Radioactivity Area"		
10	Adhesive labels, "Contaminated Area"		
10	Adhesive labels, "Radiation Area"		
10	Adhesive labels, "Contaminated Water"		
10	Adhesive labels, "Contaminated Waste"		
10	Adhesive labels, "Radioactive Material"		
2	One-gallon bottles for sanitizer		
10	Step-off pads		
2	Grease pencils		

EXHIBIT 4.6-5 (Cont'd)

QUANTITY	ITEM	AMOUNT ON HAND	SHORTAGES
1	Chalkboard		
1	Box of chalk		
2	Chalkboard erasers		
2000	Coin envelopes with smear papers		
20	Broom cloths		
2	AA penlight batteries		
1	Copy of E&RC-0210, Personnel Decontamination, Rev. # _____		
1	<u>Decontamination kit containing:</u> 55-gallon drum		
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		
20	Pounds of laundry detergent		

EXHIBIT 4.6-5 (Cont'd)

QUANTITY	ITEM	AMOUNT ON HAND	SHORTAGES
2	Packages of potassium perman- ganate		
2	Gallon bottles of demineralized water		
2	Bottles of Ivory liquid		
3	Fisher Eradastain		
2	Bars of hand soap		
2	Soft-bristle brushes		
1	Jar of lanolin		
1	Jar of titanic oxide		
2	Packages of cotton swabs		
4	Boxes of tissues		
1	Package of disposable bath towels		
1	Package of disposable wash cloths		
2	Disposable coveralls		
4	Packages of disposable shoe covers		

EXHIBIT 4.6-5 (Cont'd)

QUANTITY	ITEM	AMOUNT ON HAND	SHORTAGES
1	50' water hose		

Inventory performed by: _____ Date: _____
RC Technician

Reviewed by: _____ Date: _____
RC Foreman

EXHIBIT 4.6-6

VISITORS CENTER: ENVIRONMENTAL MONITORING EMERGENCY KIT NO. 1 INVENTORY LOG

QUANTITY	ITEM	AMOUNT ON HAND	SHORTAGES
1	Air sampler		
1	RLF adapter		
1	PRM-7		
1	RO-2A		
1	RM-14 with HP-210 probe		
1	Check source (approximately 8 μ Ci Cs-137)		
2	TLDs		
2	0-500 mR self-reading dosimeters		
20	Plastic petri dishes with covers		
20	4" x 6" poly bags		
1	Bag of surgeon's gloves (> 20 pair)		
10	Air sample survey sheets (particulate)		
10	Air sample survey sheets (iodine)		
10	Silver zeolite cartridges		

EXHIBIT 4.6-6 (Cont'd)

QUANTITY	ITEM	AMOUNT ON HAND	SHORTAGES
2	Magic markers		
2	Pencils		
1	Box of 47 mm air sample filters		
5	Air sample charcoal cartridges		
1	Dosimeter charger with batteries		
1	Flashlight		
10	D-cell batteries		
4	9V transistor batteries		
2	Rolls of duct tape		
2	Respirators (particulate full-face)		
2	Protective clothing packages		
1	One-gallon sample bottle		
10	One-gallon collapsible sample bottles		
10	Shipping boxes for gallon sample bottles		
1	Funnel		

EXHIBIT 4.6-6 (Cont'd)

QUANTITY	ITEM	AMOUNT ON HAND	SHORTAGES
1	Clipboard		
2	Pads paper		
50	12" x 12" zip-lock bags		
1	Portable electric generator		
* 1	Portable 2 channel radio		
1	Pair of tweezers		
1	Map of local area		

*(Stored inside plant)

Inventory performed by: _____ Date: _____
RC Technician

Reviewed by: _____ Date: _____
RC Foreman

EXHIBIT 4.6-7

VISITORS CENTER: ENVIRONMENTAL MONITORING EMERGENCY KIT NO. 2 INVENTORY LOG

QUANTITY	ITEM	AMOUNT ON HAND	SHORTAGES
1	Air sampler		
1	RLF adapter		
1	PRM-7		
1	RO-2A		
1	RM-14 with HP-210 probe		
1	Check source (approximately 8 μ Ci Cs-137)		
2	TLDs		
2	0-500 mR self-reading dosimeters		
20	Plastic petri dishes with covers		
20	4" x 6" poly bags		
1	Bag of surgeon's gloves (> 20 pair)		
10	Air sample survey sheets (particulate)		
10	Air sample survey sheets (iodine)		
10	Silver zeolite cartridges		

EXHIBIT 4.6-7 (Cont'd)

QUANTITY	ITEM	AMOUNT ON HAND	SHORTAGES
2	Magic markers		
2	Pencils		
1	Box of 47 mm air sample filters		
5	Air sample charcoal cartridges		
1	Dosimeter charger with batteries		
1	Flashlight		
10	D-cell batteries		
4	9V transistor batteries		
2	Rolls of duct tape		
2	Respirators (particulate full-face)		
2	Protective clothing packages		
1	One-gallon sample bottle		
10	One-gallon collapsible sample bottles		
10	Shipping boxes for gallon sample bottles		
1	Funnel		

EXHIBIT 4.6-7 (Cont'd)

QUANTITY	ITEM	AMOUNT ON HAND	SHORTAGES
1	Clipboard		
2	Pads paper		
50	12" x 12" zip-lock bags		
1	Portable electric generator		
* 1	Portable 2 channel radio		
1	Pair of tweezers		
1	Map of local area		

*(Stored inside plant)

Inventory performed by: _____ Date: _____
RC Technician

Reviewed by: _____ Date: _____
RC Foreman

EXHIBIT 4.6-8

DOSHER HOSPITAL EMERGENCY KIT INVENTORY LOG

QUANTITY	ITEM	AMOUNT ON HAND	SHORTAGES
10	Disposable clothing packages-- each containing coveralls, shoe covers, gloves, waterproof shoe covers, and head cover		
10	Disposable labcoats		
5	Rolls of duct tape		
4	Full-face particulate respirators		
5	TLDs		
5	0-500 mR self-reading dosimeters		
1	Dosimeter charger with batteries		
1	Air sampler		
1	RM-14 with HP-210 probe		
1	RC-2		
1	Check source (approximately 8 μ Ci Cs-137)		
1	Yellow plastic trash barrel		
1	Decon broom		

EXHIBIT 4.6-8 (Cont'd)

QUANTITY	ITEM	AMOUNT ON HAND	SHORTAGES
1	Roll of absorbent paper		
1	Roll of sheet polyethylene		
1	Roll of yellow poly bags		
2	Five-gallon poly buckets		
1	Pair of tweezers		
2	Magic markers		
5	Pencils		
1	Clipboard		
1	Pad of radiological survey forms		
1	Pad of air survey forms		
1	Pad of dosimetry issue forms		
500	Smear papers in coin envelopes		
10	Planchets, 2"		
2	Boxes of surgeon's gloves		
1	Copy of E&RC-0210, Personnel Decontamination, Rev. # _____		

EXHIBIT 4.6-8 (Cont'd)

QUANTITY	ITEM	AMOUNT ON HAND	SHORTAGES
1	Copy of PEP-03.9.2, First Aid and Medical Care, Rev. # _____		
1	Copy of PEP-03.9.3, Transporting of Contaminated Injured Personnel, Rev. # _____		
10	Step-off pads		
20	Decon cloths		
5	Boxes of tissues		
1	Pair of scissors		
10	Air sample filters, 4"		
2	Rolls of radiation tape		
100	Feet of radiation rope		
10	Insert style caution signs		
10	Inserts, "Keep Out"		
10	Inserts, "Radiation Area"		
10	Inserts, "High Radiation Area"		
10	Adhesive labels, "Radiation Area"		
10	Adhesive labels, "High Radiation Area"		

EXHIBIT 4.6-8 (Cont'd)

QUANTITY	ITEM	AMOUNT ON HAND	SHORTAGES
10	Adhesive labels, "Contaminated Waste"		
10	Adhesive labels, "Contaminated Material"		
10	Adhesive labels, "Caution Radiation"		
10	Adhesive labels, "Contaminated Clothing"		
5	Large yellow poly bags		
2	9V transistor batteries		

Inventory performed by: _____ Date: _____
RC Technician

Reviewed by: _____ Date: _____
RC Foreman

EXHIBIT 4.6-9

CONTROL ROOM EMERGENCY KIT MONTHLY CHECKLIST

Initial

1. Are all seals present on containers? Yes___ No___* _____
2. RM-14 #_____ Response Check Reading_____

Source Used_____** Calib. Due Date_____ _____
3. RC-2A #_____ Response Check Reading_____

Source Used_____** Calib. Due Date_____ _____
4. Air Sampler #_____ Does it run? Yes___ No___

Calib. Due Date_____ _____
5. Check five particulate respirators and change out the inspection tags.

Resp. # P- _____ Resp. # P- _____

Resp. # P- _____ Resp. # P- _____

Resp. # P- _____ _____
6. Check eight SCBA units, change out inspection tags, and complete E&RC-0220, Appendix Q inspection forms.

Unit #___ Mask #___ Unit #___ Mask #___ Unit #___ Mask #___

Unit #___ Mask #___ Unit #___ Mask #___ Unit #___ Mask #___

Unit #___ Mask #___ Unit #___ Mask #___ _____
7. Check ten 0-500 mR dosimeters.

Calib. Due Date_____*** _____
8. Check eight 0-5 R dosimeters.

Calib. Due Date_____*** _____
9. Check eight 0-200 R dosimeters.

Calib. Due Date_____*** _____

* Inventory of containers must be checked.** An approximate 8 μ Ci Cs-137 source is provided.

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

EXHIBIT 4.6-9 (Cont'd)

CONTROL ROOM EMERGENCY KIT MONTHLY CHECKLIST

Initial

10. Change out all TLDS in accordance with E&RC-0494.

11. Seal all containers and SCBA cases.

12. Update cardex (respirator cards, EK cards).

13. Submit data to update computer schedule.

Comments:

Reviewed by:

RC Foreman

Date:

EXHIBIT 4.6-10

OPERATIONAL SUPPORT CENTER EMERGENCY KIT MONTHLY CHECKLIST

- | | <u>Initial</u> |
|---|----------------|
| 1. Are all seals present on containers? Yes___ No___* | _____ |
| 2. High Volume Air Sampler #_____ | |
| Calib. Due Date_____ Does it run? Yes___ No___ | _____ |
| 3. Seal all containers. | _____ |
| 4. Update cardex (EK cards). | _____ |
| 5. Submit data to update computer schedule. | _____ |

Comments: _____

Reviewed by: _____ Date: _____
RC Foreman

*Inventory of containers must be checked.

EXHIBIT 4.6-11

TECHNICAL SUPPORT CENTER EMERGENCY KIT MONTHLY CHECKLIST

Initial

1. Are all seals present on containers? Yes ___ No ___ *
2. RM-14 # _____ Response Check Reading _____
Source Used _____ ** Calib. Due Date _____
3. E-520 # _____ Response Check Reading _____
Source Used _____ ** Calib. Due Date _____
4. RO-2A # _____ Response Check Reading _____
Source Used _____ ** Calib. Due Date _____
5. High Volume Air Sampler # _____
Calib. Due Date _____ Does it run? Yes ___ No ___
6. Continuous Air Monitor # _____
Calib. Due Date _____ Does it run? Yes ___ No ___
7. Check fifty 0-500 mk dosimeters.
Calib. Due Date _____ ***
8. Check ten 0-200 R dosimeters.
Calib. Due Date _____ ***
9. Check four particulate respirators and change out inspection tags.
Resp. # P- _____ Resp. # P- _____
Resp. # P- _____ Resp. # P- _____
10. Change out all TLDS in accordance with E&RC-0494.

* Inventory of containers must be checked.** An approximate 8 μ Ci Cs-137 source is provided.

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

EXHIBIT 4.6-11 (Cont'd)

TECHNICAL SUPPORT CENTER EMERGENCY KIT MONTHLY CHECKLIST

Initial

11. Check twenty SCBA units, change out inspection tags, and complete E&RC-0220, Appendix Q inspection forms.

Unit #___ Mask #___ Unit #___ Mask #___ Unit #___ Mask #___

Unit #___ Mask #___ Unit #___ Mask #___ Unit #___ Mask #___

Unit #___ Mask #___ Unit #___ Mask #___ Unit #___ Mask #___

Unit #___ Mask #___ Unit #___ Mask #___ Unit #___ Mask #___

Unit #___ Mask #___ Unit #___ Mask #___ Unit #___ Mask #___

Unit #___ Mask #___ Unit #___ Mask #___ Unit #___ Mask #___

Unit #___ Mask #___ Unit #___ Mask #___

12. Have Security inspect all containers and SCBA cases before sealing containers.

13. Seal all containers and SCBA cases.

14. Update cardex (respirator cards, EK cards).

15. Submit data to update computer schedule.

Comments:

Reviewed by: _____ Date: _____

RC Foreman

EXHIBIT 4.6-12

EMERGENCY OPERATIONS FACILITY EMERGENCY KIT MONTHLY CHECKLIST

	<u>Initial</u>
1. Are all seals present on containers? Yes___ No___*	_____
2. RM-14 #_____ Response Check Reading_____	
Source Used_____** Calib. Due Date_____	_____
3. E-520 #_____ Response Check Reading_____	
Source Used_____** Calib. Due Date_____	_____
4. RO-2A #_____ Response Check Reading_____	
Source Used_____** Calib. Due Date_____	_____
5. High Volume Air Sampler #_____	
Calib. Due Date_____ Does it run? Yes___ No___	_____
6. Check fifty 0-500 mR dosimeters.	
Calib. Due Date_____***	_____
7. Check ten 0-5 R dosimeters.	
Calib. Due Date_____***	_____
8. Check ten 0-200 R dosimeters.	
Calib. Due Date_____***	_____
9. Check four particulate respirators and change out inspection tags.	
Resp. # P-_____ Resp. # P-_____	
Resp. # P-_____ Resp. # P-_____	_____
10. Change out all TLDS in accordance with E&RC-0494.	_____

* Inventory of containers must be checked.

** An approximate 8 μ Ci Cs-137 source is provided.

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

EXHIBIT 4.6-12

EMERGENCY OPERATIONS FACILITY EMERGENCY KIT MONTHLY CHECKLIST

Initial

11. Seal all containers.

12. Update cardex (respirator cards, EK cards).

13. Submit data to update computer schedule.

Comments:

Reviewed by:

RC Foreman

Date:

EXHIBIT 4.6-13

VISITORS CENTER: RADIATION CONTROL EMERGENCY KIT MONTHLY CHECKLIST

		<u>Initial</u>
1.	Are all seals present on containers? Yes___ No___ *	_____
2.	PRM-7 #_____ Response Check Reading_____	
	Source Used_____ ** Calib. Due Date_____	_____
3.	E-520 #_____ Response Check Reading_____	
	Source Used_____ ** Calib. Due Date_____	_____
4.	RM-14 #_____ Response Check Reading_____	
	Source Used_____ ** Calib. Due Date_____	
	RM-14 #_____ Response Check Reading_____	
	Source Used_____ ** Calib. Due Date_____	_____
5.	Teletector or equivalent #_____ Resp. Ck. _____	
	Source Used_____ ** Calib. Due Date_____	
	Telectector or equivalent #_____ Resp. Ck. _____	
	Source Used_____ ** Calib. Due Date_____	_____
6.	RO-2A #_____ Response Check Reading_____	
	Source Used_____ ** Calib. Due Date_____	
	RO-2A #_____ Response Check Reading_____	
	Source Used_____ ** Calib. Due Date_____	
	RO-2A #_____ Response Check Reading_____	
	Source Used_____ ** Calib. Due Date_____	_____

* Inventory of containers must be checked.

** An approximate 8 μ Ci Cs-137 source is provided.

EXHIBIT 4.6-13 (Cont'd)

VISITORS CENTER: RADIATION CONTROL EMERGENCY KIT MONTHLY CHECKLIST

Initial

7. Air Sampler #_____ Does it run? Yes___ No___

Calib. Due Date_____

Air Sampler #_____ Does it run? Yes___ No___

Calib. Due Date_____

8. Check four particulate respirators and change out inspection tags.

Resp. # P-_____

Resp. # P-_____

Resp. # P-_____

Resp. # P-_____

9. Check nine SCBA units and six spare bottles, change out inspection tags, and complete E&RC-0220, Appendix Q inspection forms.

Unit #___ Mask #___ Unit #___ Mask #___ Unit #___ Mask #___

Unit #___ Mask #___ Unit #___ Mask #___ Unit #___ Mask #___

Unit #___ Mask #___ Unit #___ Mask #___ Unit #___ Mask #___

10. Check thirty 0-500 mR dosimeters.

Calib. Due Date_____***

11. Check thirty 0-5 R dosimeters.

Calib. Due Date_____***

12. Check thirty 0-200 R dosimeters.

Calib. Due Date_____***

13. Change out all TLDS in accordance with E&RC-0494.

14. Seal all containers and SCBA cases.

15. Update cardex (respirator cards, EK cards).

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

EXHIBIT 4.6-13 (Cont'd)

VISITORS CENTER: RADIATION CONTROL EMERGENCY KIT MONTHLY CHECKLIST

Initial

16. Submit data to update computer schedule.

Comments: _____

Reviewed by: _____

RC Foreman

Date: _____

EXHIBIT 4.6-14

VISITORS CENTER: ENVIRONMENTAL MONITORING EMERGENCY KIT NO. 1 MONTHLY CHECKLIST

Initial

1. Is seal present on door? Yes___ No___* _____
2. Air Sampler #_____ Does it run? Yes___ No___
Calib. Due Date_____ _____
3. Check two 0-500 mR dosimeters.
Calib. Due Date_____*** _____
4. RO-2A #_____ Response Check Reading_____
Source Used_____** Calib. Due Date_____ _____
5. Check two particulate respirators and change out inspection tags.
Resp. # P-_____ Resp. # P-_____ _____
6. PRM-7 #_____ Response Check Reading_____
Source Used_____** Calib. Due Date_____ _____
7. RM-14 #_____ Response Check Reading_____
Source Used_____** Calib. Due Date_____ _____
8. Change out all TLDs in accordance with E&RC-0494. _____
9. Seal door. _____
10. Update cardex (respirator cards, EK cards). _____
11. Submit data to update computer schedule. _____

Comments: _____

Reviewed by: _____ Date: _____
RC Foreman

- * Inventory of kit must be checked.
- ** An approximate 8 μ Ci Cs-137 source is provided.
- *** All dosimeters of the same range should be due for recalibration in the same month.

EXHIBIT 4.6-15

VISITORS CENTER: ENVIRONMENTAL MONITORING EMERGENCY KIT NO. 2 MONTHLY CHECKLIST

Initial

1. Is seal present on door? Yes___ No___* _____
2. Air Sampler #_____ Does it run? Yes___ No___
Calib. Due Date_____ _____
3. Check two 0-500 mR dosimeters.
Calib. Due Date_____*** _____
4. RO-2A #_____ Response Check Reading_____
Source Used_____** Calib. Due Date_____ _____
5. Check two particulate respirators and change out inspection tags.
Resp. # P-_____ Resp. # P-_____ _____
6. PRM-7 #_____ Response Check Reading_____
Source Used_____** Calib. Due Date_____ _____
7. RM-14 #_____ Response Check Reading_____
Source Used_____** Calib. Due Date_____ _____
8. Change out all TLDs in accordance with E&RC-0494. _____
9. Seal door. _____
10. Update cardex (respirator cards, EK cards). _____
11. Submit data to update computer schedule. _____

Comments: _____

Reviewed by: _____ Date: _____
RC Foreman

- * Inventory of kit must be checked.
- ** An approximate 8 μ Ci Cs-137 source is provided.
- *** All dosimeters of the same range should be due for recalibration in the same month.

EXHIBIT 4.6-16

DOSHER HOSPITAL EMERGENCY KIT MONTHLY CHECKLIST

	<u>Initial</u>
1. Are all seals present on containers? Yes ___ No ___ *	_____
2. RM-14 # _____ Response Check Reading _____	
Source Used _____ ** Calib. Due Date _____	_____
3. RO-2 # _____ Response Check Reading _____	
Source Used _____ ** Calib. Due Date _____	_____
4. Air Sampler # _____	
Calib. Due Date _____ Does it run? Yes ___ No ___	_____
5. Check five 0-500 mR dosimeters.	
Calib. Due Date _____ ***	_____
6. Check four particulate respirators and change out inspection tags.	
Resp. # P- _____ Resp. # P- _____	
Resp. # P- _____ Resp. # P- _____	_____
7. Change out all TLDs in accordance with E&RC-0494.	_____
8. Seal all containers.	_____
9. Update cardex (respirator cards, EK cards).	_____
10. Submit data to update computer schedule.	_____

Comments: _____

Reviewed by: _____ Date: _____
 RC Foreman

* Inventory of containers must be checked.

** An approximate 8 μ Ci Cs-137 source is provided.

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

CAROLINA POWER & LIGHT COMPANY
BRUNSWICK STEAM ELECTRIC PLANT

UNIT 0

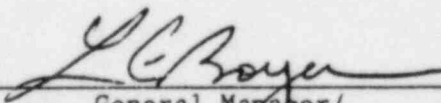
RECORD KEEPING AND DOCUMENTATION

PLANT EMERGENCY PROCEDURE PEP-04.1

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Director - Administrative Support

Date:

2/26/85

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1.0 Responsible Individuals and Objectives

- 1.1 The Emergency Planning Coordinator is responsible for collecting and maintaining records following an emergency.
- 1.2 The Emergency Communicator is the record keeper for the Site Emergency Coordinator and Emergency Response Manager and shall maintain records throughout an emergency.
- 1.3 Functional team leaders, supervisors, managers, and/or directors are responsible for assuring that records of all completed actions during an emergency are maintained (e.g., completed checklists, etc.) and that these records are supplied to the Emergency Planning Coordinator following an emergency.

2.0 Scope and Applicability

This procedure shall be used to maintain site records of emergency preparedness and to compile records following an emergency.

3.0 Actions and Limitations

- 3.1 The Emergency Planning Coordinator shall perform the following actions to support this procedure:

- 3.1.1 Make arrangements, interfacing with corporate authorities, for an annual independent audit of emergency preparedness, including but not limited to:

- The Emergency Response Plan
- The Plant Emergency Procedures
- Training
- Readiness testing
- Facilities and equipment
- Interfaces with state and local governments

NOTE: An independent audit shall be performed by any competent organization, either internal or external to CP&L, not directly responsible for plant emergency preparedness.

- 3.1.1.1 Results of the audit shall be reviewed and incorporation of comments/corrections initiated as appropriate.

- 3.1.1.2 Results of the audit shall be documented and reported to appropriate CP&L corporate personnel, plant management personnel, and involved Federal organizations.

- 3.1.1.3 Results of the audit shall be retained for five years at a minimum (in accordance with plant or corporate record keeping procedures).

- 3.1.2 Following an emergency, collect and maintain the following records of emergency operations and completed actions:
 - 3.1.2.1 Emergency communications
 - 3.1.2.2 Sequence of events
 - 3.1.2.3 Radiation records, if applicable
 - 3.1.2.4 Security accountability records
 - 3.1.2.5 Emergency Operations Facility (EOF) and Technical Support Center (TSC) logs
- 3.1.3 Following the full-scale or small-scale annual emergency exercise, collect and maintain the following records of emergency operations and completed actions:
 - 3.1.3.1 Emergency Notification Forms from the TSC and EOF communicators
 - 3.1.3.2 The exercise plan
 - 3.1.3.3 The exercise scenario
 - 3.1.3.4 Technical Support Center Log and Emergency Operations Facility Log
- 3.1.4 Ensure availability of logbooks for the Site Emergency Coordinator, each Technical Support group member, and the Emergency Response Manager.
- 3.1.5 Ensure the Technical Support Center, Emergency Operations Facility, Operational Support Center, and Control Room have an up-to-date listing of telephone numbers.
- 3.1.6 Ensure that corrective items derived from drills or exercises are followed through and completed within the specified time or note reason why items are not complete.
- 3.2 Plant and corporate personnel on site responsible for maintaining records during an emergency shall provide a copy of those records to the Emergency Planning Coordinator following an emergency.
- 3.3 Maintain letters of agreement with those support agencies required to assist in response to an emergency in support of the Brunswick Steam Electric Plant Emergency Response Plan.
- 3.4 Maintain records of the review of emergency action levels conducted annually with state and local authorities.

CAROLINA POWER & LIGHT COMPANY
BRUNSWICK STEAM ELECTRIC PLANT

UNIT 0

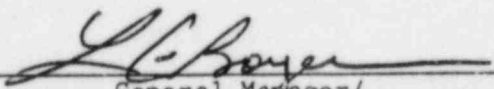
FIRST AID AND MEDICAL CARE

PLANT EMERGENCY PROCEDURE: PEP-03.9.2

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- 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 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.

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UNIT 0

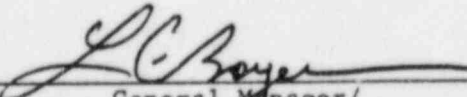
ADMINISTRATION OF RADIOPROTECTIVE DRUGS

PLANT EMERGENCY PROCEDURE: PEP-03.8.3

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PEP-03.8.3

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1.0 Responsible Individuals and Objectives

The purpose of this procedure is to provide guidelines on the use of medical treatment to mitigate the consequences of inhalation of radioactive materials during an accident.

The Site Emergency Coordinator (the Emergency Response Manager after the Emergency Operations Facility is activated) is responsible for advising off-site authorities whenever it is estimated that plant releases of radioactivity such as I-131, may be of such levels that administration of radioprotective drugs may be appropriate (Federal Radiation Council Report No. 7, May 1965, Background Material for the Development of Radiation Protection Standards). Any actual decision to administer such drugs to non-CP&L personnel will be the responsibility of the Department of Human Resources.

The Radiological Control Director is responsible for consulting with the Company designated physician (PEP-Appendix A.3) as to the need for medical treatment to CP&L personnel, either preventive or therapeutic. The Radiological Control Director shall advise the Site Emergency Coordinator of any recommendation based on the consultation regarding the administration of radioprotective drugs to radiation workers as a preventive measure. A recommendation by the physician shall be conclusive regarding any therapeutic needs.

2.0 Scope and Applicability

This procedure is applicable when a release of radioactivity to the atmosphere, in addition to noble gases, occurs, or is likely to occur, and projected doses are greater than 10 rem. The guidelines set forth in this procedure are applicable only to the administration of radioprotective drugs to CP&L employees and vendor employees where CP&L is responsible as set forth in the Brunswick operating license.

NOTE: There are two locations of potassium iodine (KI) at the Brunswick plant. The KI is stored with the emergency kits in the TSC and EOF.

3.0 Actions

3.1 Actions of the Radiological Control Director

- 3.1.1 Have direct removal of unnecessary personnel from areas of high radiation concentration (as advisable, considering personnel and plant safety).

CAUTION: PERSONNEL REQUIRED FOR EMERGENCY REPAIRS OR SEARCH AND RESCUE SHOULD BE DIRECTED TO WEAR APPROPRIATE PROTECTIVE BREATHING APPARATUS.

CAROLINA POWER & LIGHT COMPANY
BRUNSWICK STEAM ELECTRIC PLANT

UNIT 0

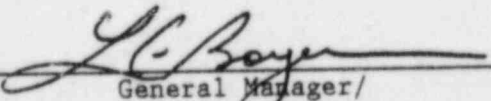
EXPANDED ENVIRONMENTAL MONITORING

PLANT EMERGENCY PROCEDURE: PEP-03.5.2

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PEP-03.5.2

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1.0 Responsible Individual and Objectives

The Environmental Monitoring Team is responsible to the Radiological Control Director (the Radiological Control Manager after the Emergency Operations Facility is activated) for conducting environmental surveys and the placement and collection of environmental samplers in the event of an accidental release of radioactive material from the plant. The surveying and sampling will be greater in extent and frequency than during routine operations.

2.0 Scope and Applicability

This procedure includes all CP&L environmental monitoring at and beyond the protected area fence. This procedure should be implemented in parallel with PEP-03.5.1, "Confirmation of Off-site Dose Projections." Where manpower resources are limited, implementation of this procedure may be deferred until PEP-03.5.1 has been completed. This procedure is not intended to replace any state- or county-directed efforts to determine levels of radioactivity in the environment, although it may provide the basis for initial assessments by public agencies.

NOTE: This procedure should be performed in conjunction with the appropriate sections of E&RC-3110.

3.0 Actions and Limitations

3.1 The Environmental Monitoring Team shall, as directed:

3.1.1 Place additional TLDs approximately every 10 meters around the exclusion area perimeter in the sector within 45° of the plume centerline.

3.1.2 Place TLDs along the road surrounding the site in the sector within plus or minus 22.5° of the plume centerline (a total of sampling arc of 45°).

NOTE: The spacing of these TLDs should be placed about 50 meters apart to permit improved assessment of the concentrations of radioactivity in the environment and provide an important baseline for verifying source term estimates.

3.1.3 Remove, replace, and supplement these as directed by the Radiological Control Director (the Radiological Control Manager after the Emergency Operations Facility is activated).

- 3.1.4 As soon as practicable, and thereafter as directed by the Radiological Control Director (the Radiological Control Manager after the Emergency Operations Facility is activated), remove and change all routine air particulate and charcoal filters and all routine TLDs. Location of these samples are included in E&RC-3101, Appendices D and E.

CAUTION: IN COLLECTING ANY ENVIRONMENTAL SAMPLES, TAKE CARE TO PREVENT CROSS-CONTAMINATION OF SAMPLES.

- 3.1.5 Where releases of materials other than noble gas are known or are believed to have occurred, collection of vegetation, milk, or other substances may be appropriate. Any sampling of such media shall be coordinated with and be under the general direction of responsible state officials at the State Emergency Response Team Headquarters.

- 3.2 In the event of liquid releases to the discharge canal, collect samples as per routine environmental sampling procedures but with frequencies as directed by the Radiological Control Director (the Radiological Control Manager after the Emergency Operations Facility is activated).

- 3.3 Unless otherwise specified by the Radiological Control Director (the Radiological Control Manager after the Emergency Operations Facility is activated), samples should be collected in accordance with existing usual procedures.

CAROLINA POWER & LIGHT COMPANY
BRUNSWICK STEAM ELECTRIC PLANT

UNIT 0

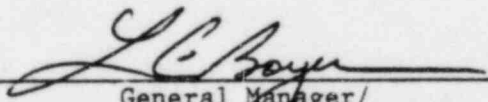
CONFIRMATION OF OFF-SITE DOSE PROJECTIONS

PLANT EMERGENCY PROCEDURE: PEP-03.5.1

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1.0 Responsible Individual and Objectives

The initial calculations of the consequences of an accidental release are necessarily based on estimated release rates and atmospheric dispersion. Uncertainties in these estimates can result in calculations which differ by an order of magnitude from the actual off-site consequences. Confirmation and/or modification of the dose projections may be required before a decision is made to notify the public or initiate off-site protective actions.

The Environmental Monitoring Team is responsible to and shall report to the Radiological Control Director until the Emergency Operations Facility is activated and fully staffed. At this time, the Radiological Control Manager in the Emergency Operations Facility shall assume all responsibility for the Environmental Monitoring Teams, the interpretation of off-site data, and its comparisons with dose projections.

When Corporate Monitoring Teams arrive and are able to assume the environmental monitoring functions, the Plant Environmental Monitoring Team may then return to the plant under the direction of the Radiological Control Director or remain in active support of EOF personnel if so directed by the Radiological Control Director.

2.0 Scope and Applicability

This procedure provides guidelines for the location of environmental measurements, the measurements to be taken and the comparison of measured radiation levels with the dose projections developed by the Dose Projection Team.

This procedure should be implemented immediately upon declaration of any emergency class where a release of radioactivity to the atmosphere has occurred or is believed to have occurred. It may be used to confirm that meteorological dispersion estimates are valid, where more detailed consequences have been developed.

3.0 Actions and Limitations

3.1 The Environmental Monitoring Team shall:

Note: Wind direction data is normally reported as direction from which the wind is blowing, so that off-site surveys are in the opposite direction and downwind. Confirm wind direction.

3.1.1 Consult with the Environmental Monitoring Team Leader and obtain the current wind direction data or areas to be surveyed. Upon activation, this information should be obtained from the Radiological Control Manager.

- 3.1.2 If the area to be surveyed is not specified, the following guidelines apply:

<u>WIND DIRECTION BETWEEN:</u>	<u>SURVEY LOCATION</u>
270° and 0° (between W and N)	NCSR 1527 to River Road to NCSR 1528
0° and 45° (between N and NE)	NCSR 1526 to Old River Road to NCSR 1527
45° and 90° (between NE and E)	NC87 to NCSR 1526
90° and 135° (between E and SE)	NC87 to NC133 (towards Wilmington)
135° and 180° (between SE and S)	NC133 to NCSR 1525
180° and 225° (between S and SW)	NCSR 1525
225° and 270° (between SW and W)	<u>Primary:</u> Land vehicle at about 1300 meters. <u>Secondary:</u> Cape Fear River from Snow Marsh north along Sunny Point Army Terminal

These are shown on the Operations map.

- 3.1.3 If weather conditions do not permit monitoring at ground level or on the river, advise Radiological Control Director (Radiological Control Manager after Emergency Operations Facility has been activated) that helicopter assistance may be needed.
- 3.1.4 Once the initial survey location is identified, pick up survey gear from environmental kits located at the Visitors Center.
- 3.1.5 Request, from the Radiological Control Director, (Radiological Control Manager after Emergency Operations Facility has been activated) information on expected radiation conditions to be encountered and on any special protective gear required.
- 3.1.6 Provide the Environmental Monitoring Team Leader with the name and dosimeter serial number of each team member.

- 3.1.7 Proceed to the survey vehicle, load the survey equipment, establish communications with the Environmental Monitoring Team Leader, and start radiation survey.
 - 3.1.8 Proceed to the survey location.
 - 3.1.9 Perform dose rate surveys to assess noble gas release.
 - 3.1.10 Perform survey in accordance with guidelines outlined in E&RC-3215, Field Estimate of Airborne I-131 Concentration, or E&RC-3217, Field Estimate of Airborne Particulate Concentration.
 - 3.1.11 Proceed as directed, to the site to return the samples for analysis or to other survey locations.
- 3.2 The Environmental Monitoring Team Leader (in consultation with the Dose Projection Coordinator) shall:

NOTE: The actual meteorological dispersion values, for any given meteorological stability class, may vary by a factor of five or even more as compared with the values based on standard tables or figures. Where the observed dose rates are within a factor of five of the calculated dose rates it may be assumed that the initial dose projections are reasonably representative of the consequences of the release.

- 3.2.1 Compare the maximum off-site dose rate readings to the projected whole body doses based on plant measurements of noble gas releases and estimated meteorological conditions.
- 3.2.2 If survey meters held against the samples indicate activity has been retained on the filters, this may be evidence that iodine has been released. If the activity on both filters at the second reported reading are within 25% of the first reading it should be presumed, pending isotopic analysis, that iodine is present.
- 3.2.3 Silver zeolite should be used for air sampling; however, in an emergency situation in the absence of silver zeolite cartridges, a charcoal cartridge may be used with the following precaution.
 - 3.2.3.1 Noble gases will be retained to some extent on charcoal cartridges. It will slowly off-gas. Rb-88, with a 17-minute half-life, may be the predominant activity on paper filters. Thus activity on air samples may be the result of a noble gas release. The above step is an attempt to quickly determine whether iodine has also been released.

3.2.4 Each of the emergency sirens throughout the counties has an electrical outlet which can be used to run air samplers. Each of these sirens is numbered.

3.3 If requested, the Environmental Monitoring Team shall brief state monitoring teams regarding conditions found prior to their activation.

NOTE: It is very important to identify whether there was confirmation of the presence or of the absence of radio iodine in the environment.

CAROLINA POWER & LIGHT COMPANY
BRUNSWICK STEAM ELECTRIC PLANT

UNIT 0

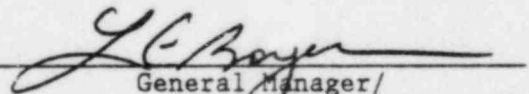
RADIOLOGICAL CONTROL DIRECTOR

PLANT EMERGENCY PROCEDURE: PEP-02.6.4

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EXHIBIT 2.6.4-1
RADIOLOGICAL EMERGENCY TEAM PROCEDURES

Plant Monitoring Team Procedures

PEP-02.6.7 Plant Monitoring Team Leader
PEP-03.3.1 In-Plant Monitoring and Surveys
PEP-03.3.5 Emergency Radiation Work Permits
PEP-03.8.4 Access Control

Plant Sampling and Analysis Team Procedures

PEP-02.6.24 Plant Sampling and Analysis Team Leader
PEP-03.6.3 Estimate of the Extent of Core Damage Under Accident Conditions
PEP-03.6.5 Collection and Analysis of Very High Level Radioactive Samples

Dose Projection Team Procedures

PEP-02.6.20 Dose Projection Coordinator
PEP-03.4.1 Initial Dose Projections
PEP-03.4.2 Whole Body Dose Projections
PEP-03.4.3 Thyroid Dose Projections
PEP-03.4.5 Automation of Dose Projection Procedures (HP-9830A)
PEP-03.4.7 Automation of Dose Projection Procedures (IBM-PC)
PEP-03.6.1 Release Estimates Based Upon Stack/Vent Readings

Environmental Monitoring Team Procedures

PEP-02.6.6 Environmental Monitoring Team Leader
PEP-03.5.1 Confirmation of Off-Site Dose Projections
PEP-03.5.2 Expanded Environmental Monitoring
PEP-03.5.3 Plume Tracking by Actual Measurement

Personnel Protection and Decontamination Team Procedure

PEP-02.6.8 Personnel Protection and Decontamination Team Leader
PEP-03.7.2 Emergency Personnel Monitoring and Dosimetry
PEP-03.7.3 Issuance and Use of Protective Gear
PEP-03.7.4 Monitoring and Surveys for Personnel Habitability
PEP-03.8.1 Evacuation
PEP-03.8.3 Administration of Radioprotective Drugs
PEP-03.8.4 Access Control
PEP-03.9.2 First Aid and Medical Care
PEP-03.9.3 Transporting of Contaminated Injured Personnel
PEP-03.9.6 Search and Rescue
PEP-04.6 Radiological Emergency Kit Inventories

Radiological Control Communicator Procedure

PEP-02.6.25 Radiological Control Communicator

CAROLINA POWER & LIGHT COMPANY
BRUNSWICK STEAM ELECTRIC PLANT

UNIT 0

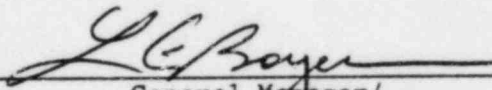
LOGISTICS SUPPORT DIRECTOR

PLANT EMERGENCY PROCEDURE: PEP-02.6.3

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PEP-02.6.3

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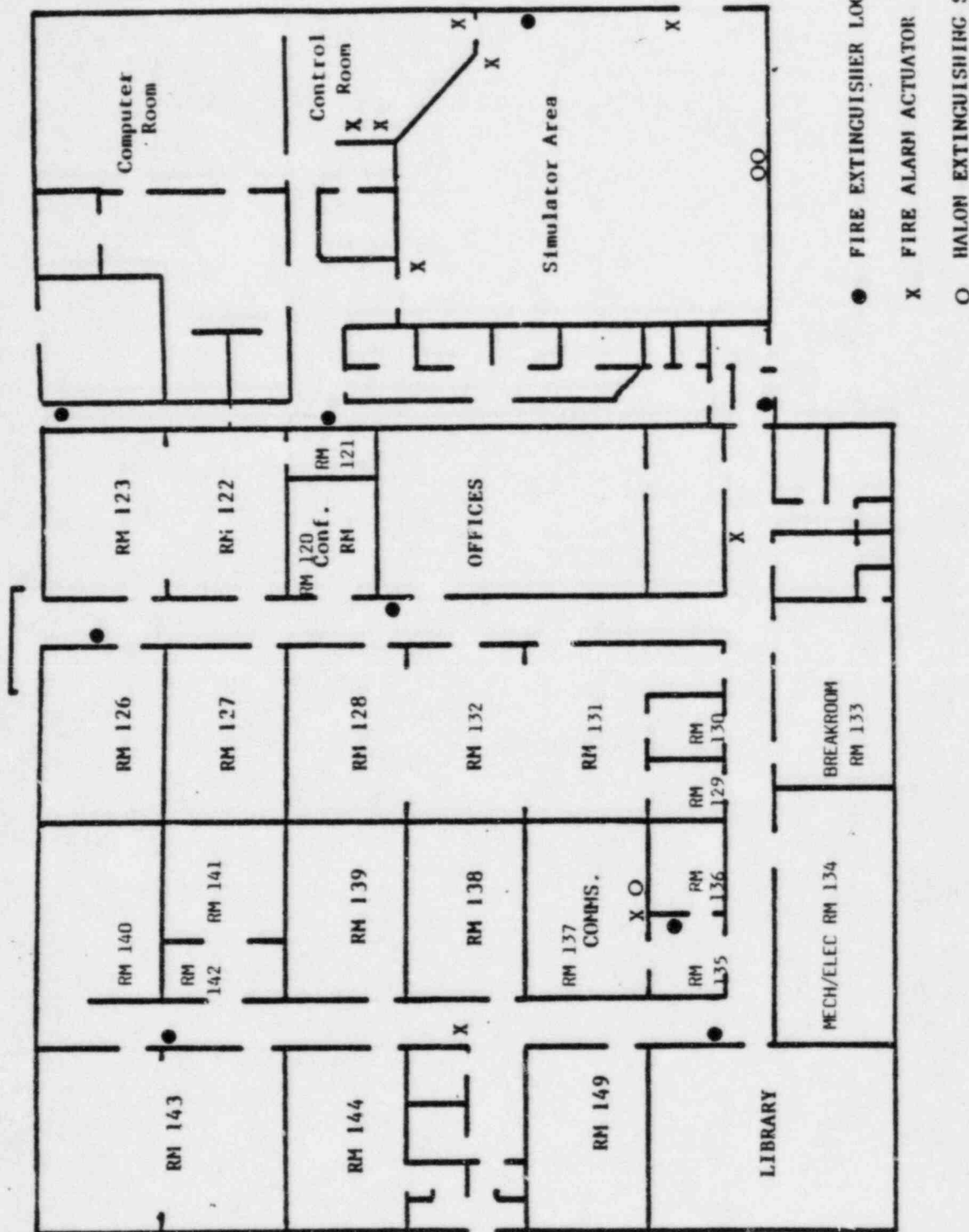
- 3.1.6 Ensure communications equipment is used to support the emergency and that all nonemergency communications are terminated.
- 3.2 Upon request for activation, render the Technical Support Center (TSC) and/or the Emergency Operations Facility (EOF) operational by following the Guidance in Exhibit 2.6.3-1.
- 3.3 Upon the decision to activate the plant Media Center, prepare the plant Media Center by directing appropriate personnel to set it up with the necessary tables, phones, etc.
- 3.4 Arrange for additional personnel upon a Technical Support group member's request.
- 3.5 Notify the Emergency Security Team Leader of the names and affiliations of all individuals requested to come to the site, and where they should report.
- 3.6 Arrange for additional equipment upon a Technical Support group member's request.
- 3.7 Arrange for additional services as required.
- 3.8 Provide new and/or modified contracts for services to be procured.
- 3.9 Coordinate with the Manager - Administrative and Logistics as required after the Emergency Operations Facility is activated.

EXHIBIT 2.6.3-1

- 1.0 The floor plan for the TSC/EOF is shown in Attachment 1. The designations for specific room numbers are shown on Attachment 2.
- 2.0 As security begins its TSC activation procedure, make Room 143 ready for use.
 - 2.1 Arrange Room 143 as indicated on Attachment 3.
 - 2.2 Plug the numbered Rolm phone for Room 143B into its respective jack and place on tables as shown on Attachment 3; each phone has the jack number printed on it.
 - 2.3 The file cabinet in room 143 has supplies needed for each director (logbooks, blank forms, etc.).
 - 2.3.1 Remove the supplies and place on tables with respective directors phone.
 - 2.4 Room 141 contains additional supplies which may be needed in the TSC (i.e., extra SPDS sheets, logbooks, pens, paper, phone directories, etc.).
 - 2.4.1 Mylars for the SPDS sheets are stored in the vault in Document Control. Have additional copies made as needed.
- 3.0 After room 143 is ready for use, begin installing phones and radios in the remaining TSC rooms as indicated on Attachment 4.
 - 3.1 Phones and radios for individual rooms are stored as follows:
 - 3.1.1 Phones for Rooms 138 and 149 are stored in the rolling cabinet in Room 138.
 - 3.1.2 Phones and radios for Rooms 139 and 144 are stored in the rolling cabinet in Room 139.
 - 3.1.3 Phones for Room 140 are stored in Room 141.
 - 3.2 Plug each phone and radio into its respective jack as indicated on Attachment 4.
- 4.0 Notify Wilmington Area Transmission Substation Maintenance personnel to report to the plant to maintain communications systems, as needed.
- 5.0 If necessary, begin activation of the EOF by removing required items from Room 121.

- 5.1 Arrange tables in Rooms 122/123 as shown in Attachment 5.
- 5.2 Lift ceiling tile in the center of Room 122 marked with tape and lower cables.
- 5.3 Attach cable to board with numbered jacks.
- 5.4 Plug each phone into its respective jack as shown on Attachment 5.
- 5.5 Plug NRC red phone (ENS) into the cable stored in ceiling in Room 123.
 - 5.5.1 Ceiling tile is marked by tape.
- 5.6 Arrange wall display as shown on Attachment 5.
- 6.0 Install remaining phones and radios in Rooms 126, 127, 131 and 132 as shown on Attachments 6 and 7.
 - 6.1 The phones and radios for Rooms 126 and 127 are stored in the rolling cabinet in room 126. Arrange Room 126 as shown on Attachment 7 as time permits.
 - 6.2 The phones for Rooms 131 and 132 are stored in Room 136.
 - 6.2.1 The NRC red phone (ENS) cable and HF radio cable are stored above the ceiling tile marked with tape in Room 131.
- 7.0 Notify Security to post a guard at doors to EOF.

ATTACHMENT 1
EXHIBIT 2.6.3-1
TECHNICAL SUPPORT CENTER (TSC)/
EMERGENCY OPERATIONS FACILITY (EOF)



ATTACHMENT 2
EXHIBIT 2.6.3-1

EOF/TSC ROOM DESIGNATIONS

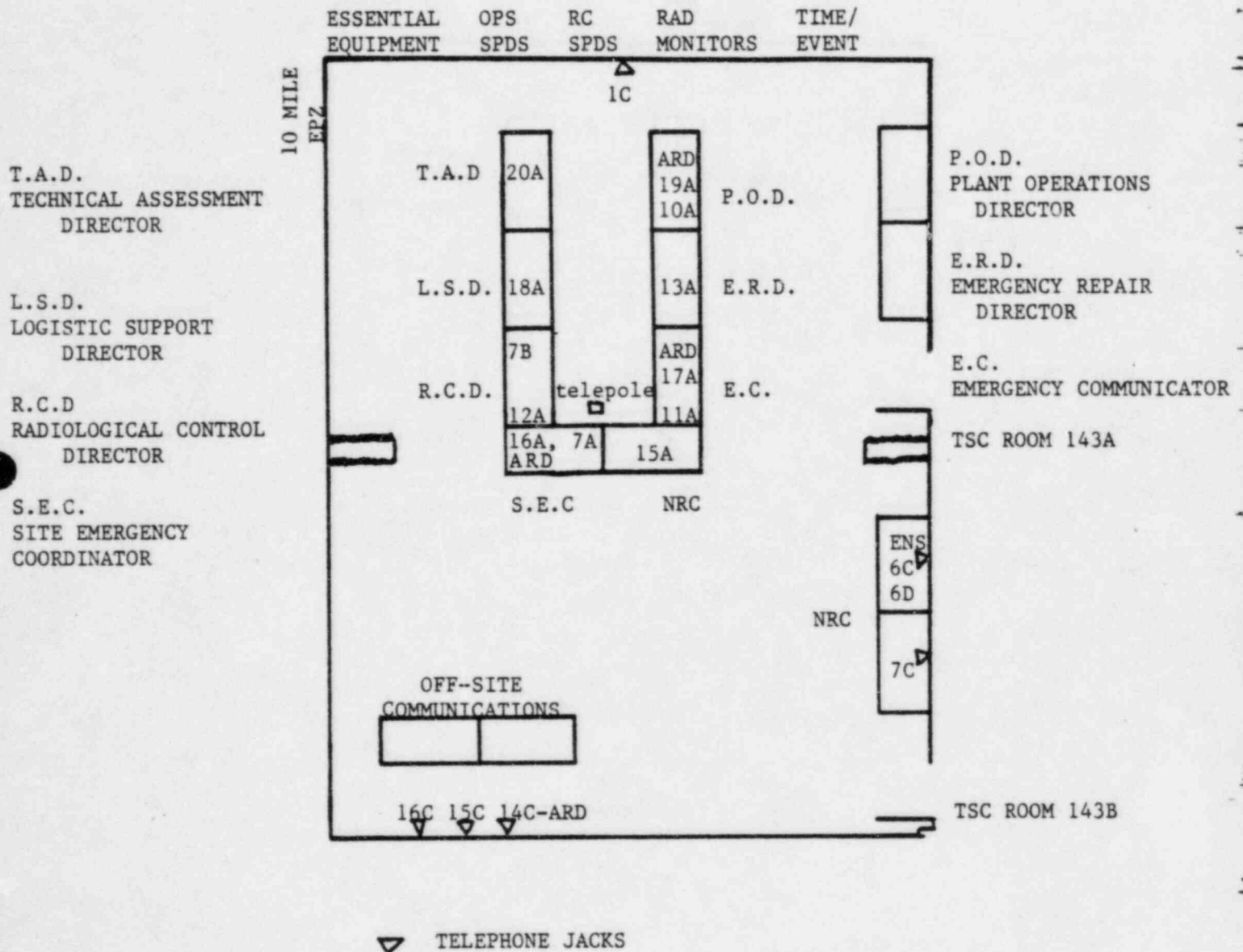
EOF ROOMS

120 Conference room
121 Storeroom
122 Command room
123 Communications area/NRC room
126 Dose projection/environmental monitoring
127 Technical Support area
129/130 Storage
131 NRC work area
132 Outside agencies
135 Attendant console
136 Communications work area
137 CBX room

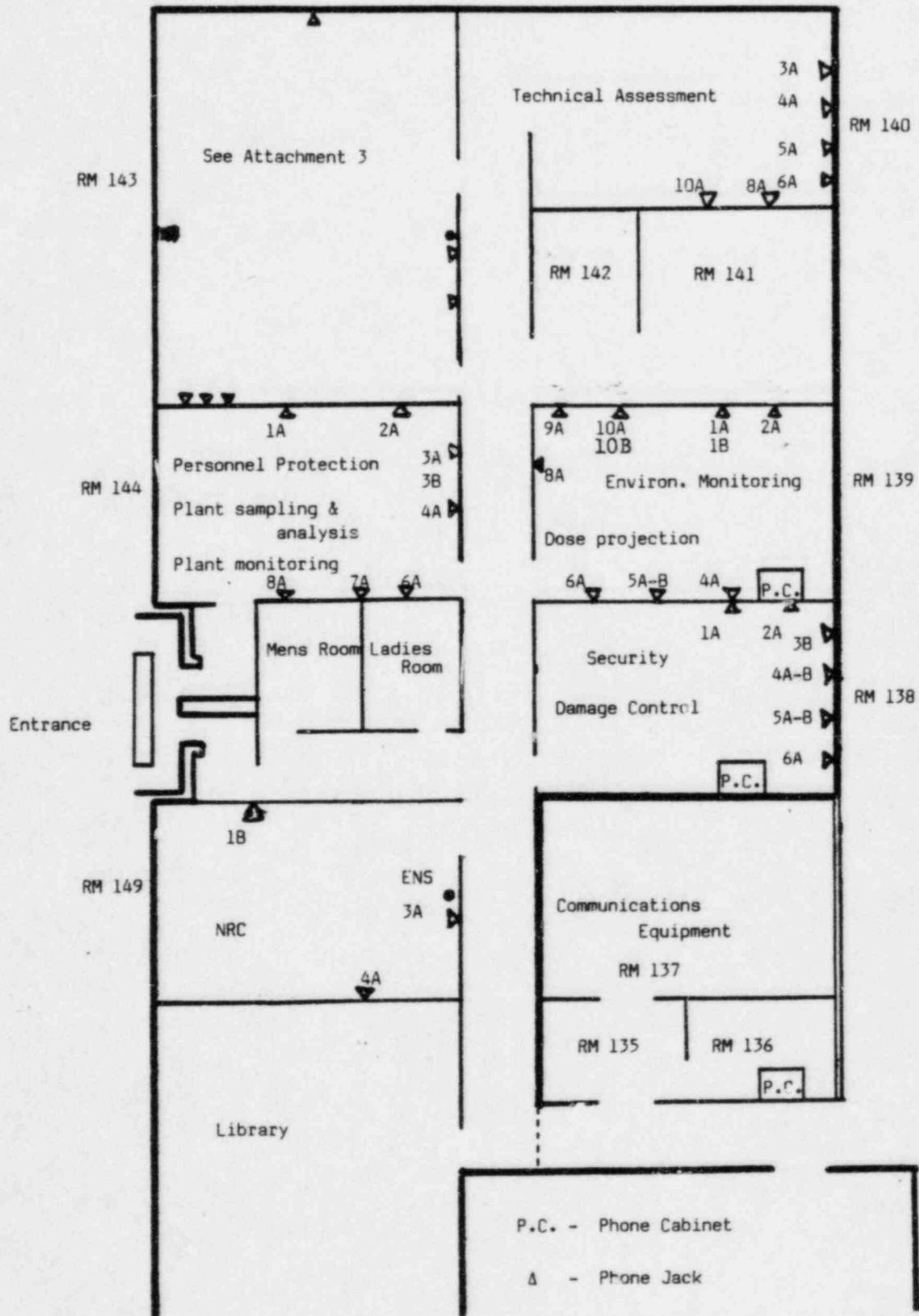
TSC ROOMS

138 Security/damage control
139 Dose projection/environmental monitoring
140 Accident assessment
141 Dose projection computer/TSC supplies
142 Whole body count room
143 Command room
144 Plant monitoring/personnel protection/plant sampling
149 NRC work area

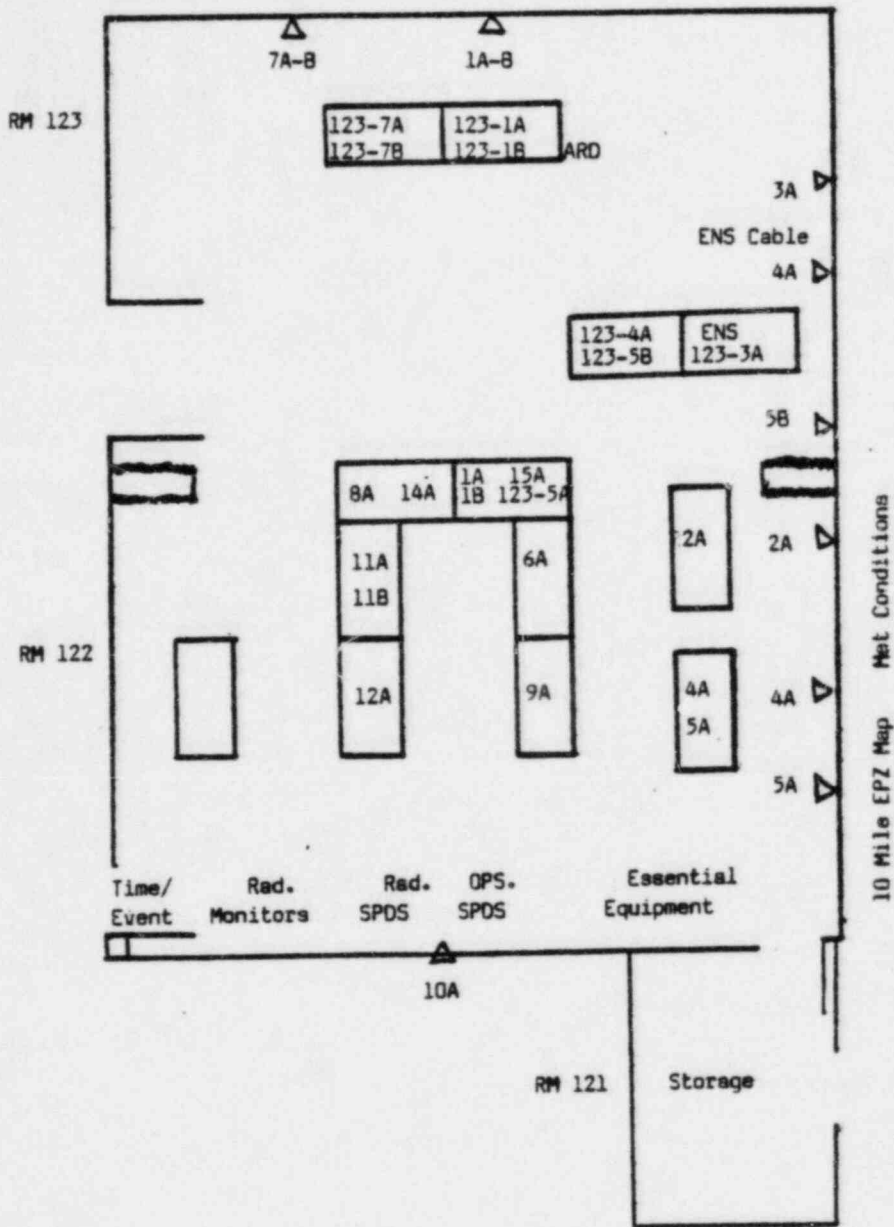
ATTACHMENT 3
EXHIBIT 2.6.3-1



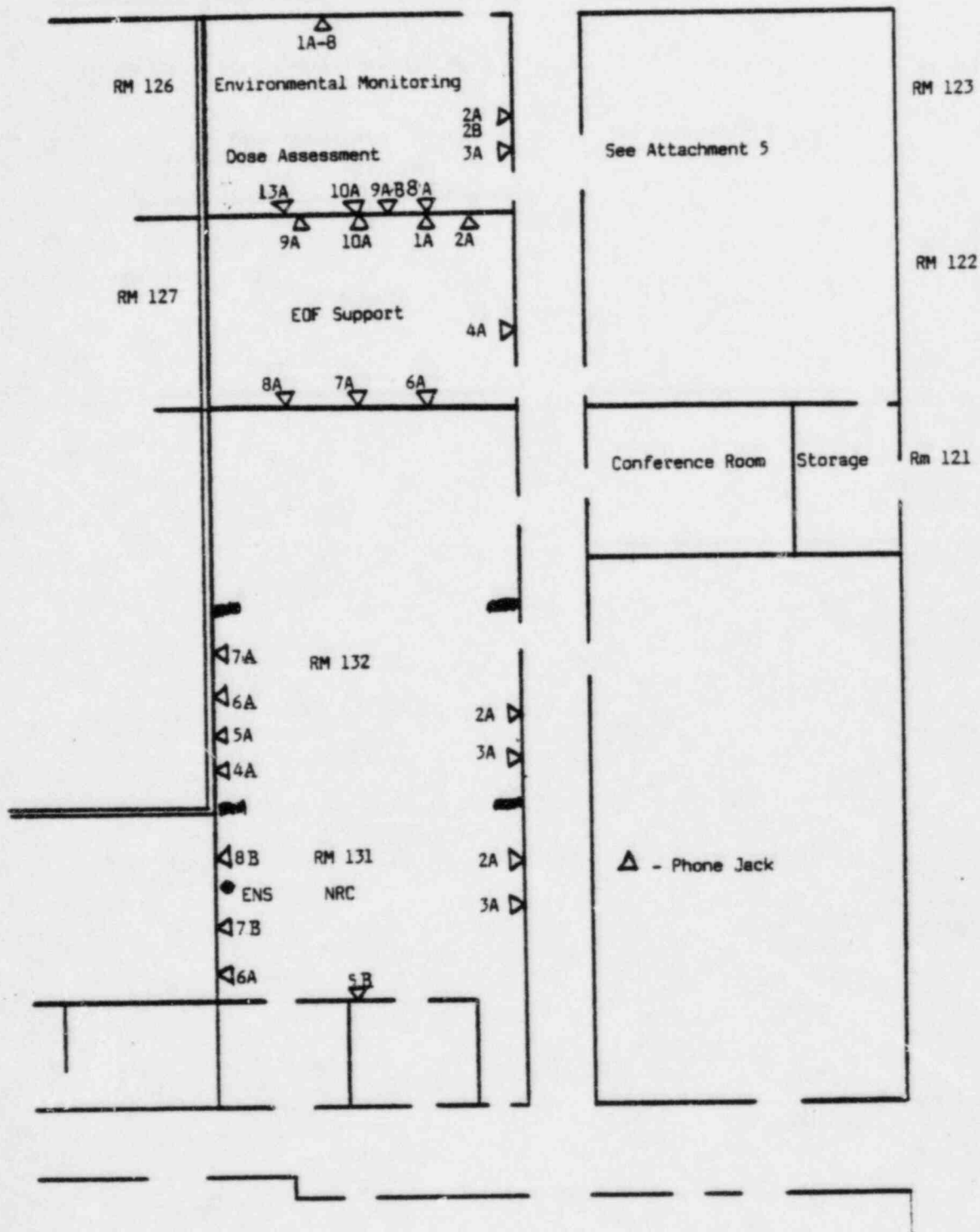
ATTACHMENT 4
EXHIBIT 2.6.3-1



ATTACHMENT 5
EXHIBIT 2.6.3-1

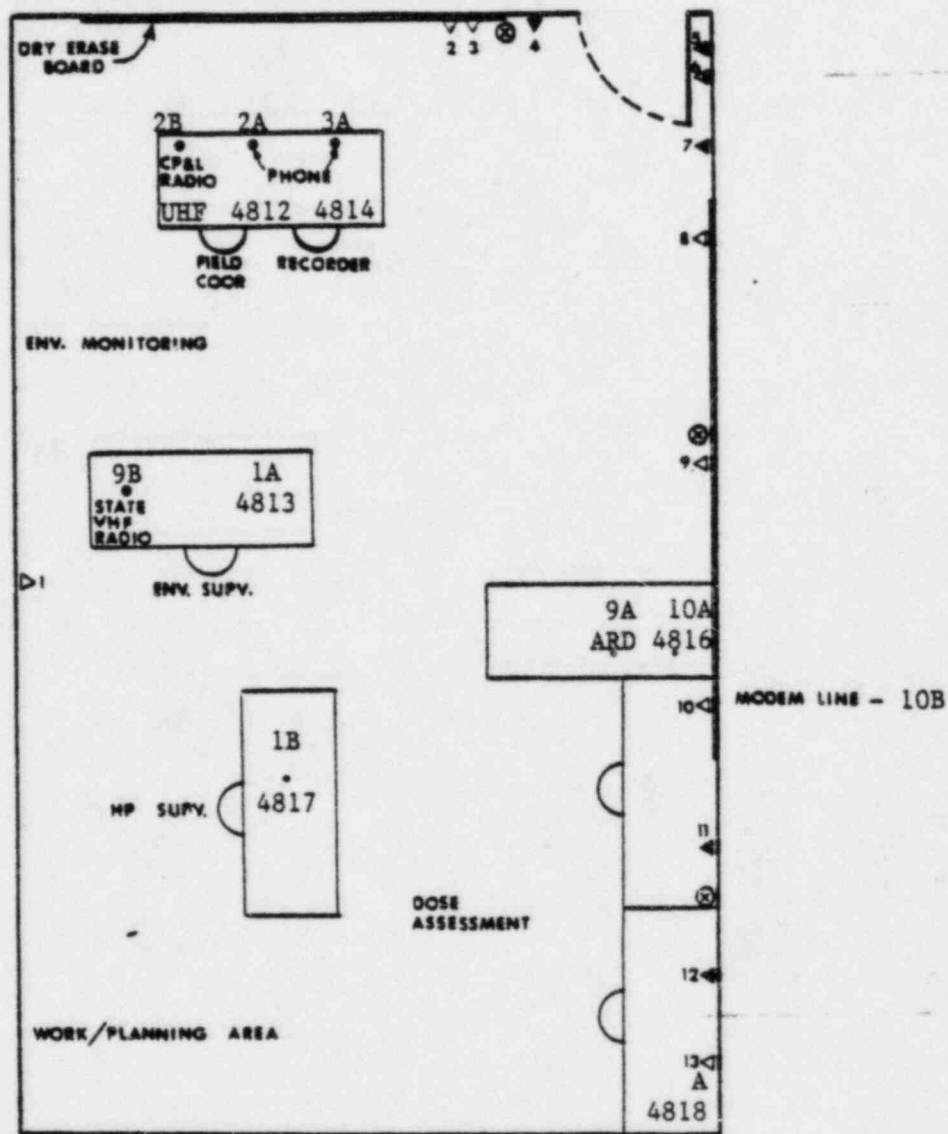


ATTACHMENT 6
EXHIBIT 2.6.3-1



ATTACHMENT 7
EXHIBIT 2.6.3-1

ROOM 126 - EOF



△ PHONE
⊙ ELECTRICAL OUTLET

▲ No Phone Connected

CAROLINA POWER & LIGHT COMPANY
BRUNSWICK STEAM ELECTRIC PLANT

UNIT 0


PLANT EMERGENCY PROCEDURES INTRODUCTION

PLANT EMERGENCY PROCEDURE: PEP-01.0

VOLUME XIII.

Rev. 010

Approved By:


General Manager/
Director - Administrative Support

Date:

2/26/85

LIST OF EFFECTIVE PAGES

PEP-01.0

<u>Page(s)</u>	<u>Revision</u>
1	10
2	3
3-8	10

1.1 Manual Purpose and Use

The purpose of this manual is to implement the emergency actions described in the Radiological Emergency Plan for the Brunswick Steam Electric Plant (BSEP) and provide the BSEP staff and supporting agencies with specific instructions, forms, and data to ensure prompt actions, proper notifications, and effective communications during potential and actual emergency conditions. It also denotes the means by which emergency preparedness is maintained by periodic training, exercises, and equipment inventories and checks. During and subsequent to an emergency, this manual will provide a record of the actions completed in fulfillment of established emergency response requirements.

The Plant Emergency Procedures Manual is organized to facilitate immediate use by both on-site and off-site emergency response personnel. The basic contents of sections are shown on EXHIBIT 1.1-1, USE OF THE PEP MANUAL.

Section 1 is the Introduction and Emergency Organization. This section describes the proper use of the manual and the organization of the key emergency response personnel.

Sections 2 and 3 are the action sections to be implemented during the emergency or potential emergency. Section 2 consists of step-by-step immediate action procedures and the classification scheme used by plant personnel in reporting potential emergency events; evaluating their extent; classifying them as an Unusual Event, Alert, Site Emergency, General Emergency, or as an event of lesser safety significance; and controlling the situation. Also included are management guides for key personnel.

Section 3 contains the specific procedures required to monitor, control, and mitigate the consequences of classified emergencies. This section provides step-by-step instructions to direct specific personnel activities during an emergency.

Section 4 of this manual includes the supplemental procedures required to assure the appropriate emergency personnel and equipment are prepared for the onset of emergency conditions.

Appendix A lists emergency response resources and their suggested channels for access in emergency communications.

The controlled copies of this manual are indexed with color-coded tabs to facilitate use in emergencies.

Red Tabs	Precede portions of the manual which may be required for immediate action or approximately within the first hour after an event is reported to the Control Room.
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EXHIBIT 1.1-1

USE OF THE PEP MANUAL

SECTION 1.0	MANUAL PURPOSE AND USE; EMERGENCY ORGANIZATION
SECTION 2.0	EMERGENCY CONTROL AND MANAGEMENT; IMMEDIATE ACTIONS TO EVALUATE EVENT AND CLASSIFY
SECTION 3.0	EMERGENCY ACTIONS TO CONTROL, MITIGATE, AND TERMINATE AN EMERGENCY
SECTION 4.0	ACTIVITIES TO ASSURE EMERGENCY PREPAREDNESS
APPENDIX A	EMERGENCY RESPONSE RESOURCES
APPENDIX B	

1.2 Emergency Response Organization

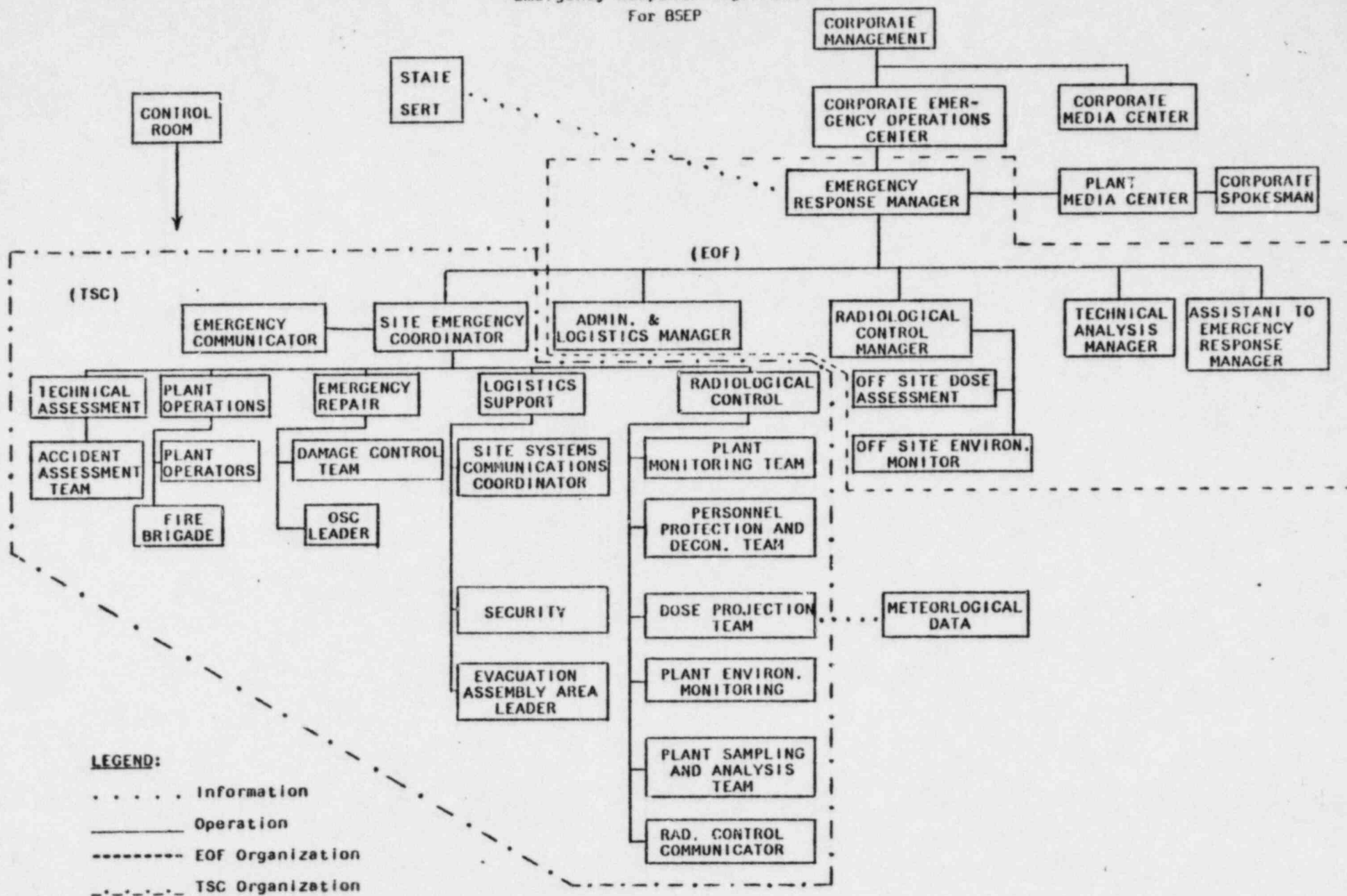
The Emergency Response Organization has been defined to quickly and effectively bring an emergency condition under control. The organization is compatible with, and integrated into, the normal mode of operation. The position of Site Emergency Coordinator will be activated upon declaration of any emergency level from an Unusual Event to General Emergency. Dependent upon the level of the emergency, other members of the emergency organization will be activated as needed.

EXHIBIT 1.2-1 shows the Emergency Response Organization for BSEP. The organization consists of the Site Emergency Coordinator with the Technical Support Group reporting to him. This group consists of a plant Operations Director, an Emergency Repair Director, a Logistics Support Director, a Radiological Control Director, a Technical Assessment Director, and an Emergency Communicator. Each of these positions directs one or more teams. The Site Emergency Coordinator is the primary interface with the Emergency Response Manager, who interfaces with off-site organizations and individuals, including the Corporate Emergency Operations Center, the Site Public Information Coordinator, the Corporate Spokesman, the State Emergency Response Team (SERT) Headquarters, and other state and federal agencies. Upon activation of the Emergency Operations Facility (EOF), off-site dose assessment and off-site environmental monitoring responsibilities shift from the Site Emergency Coordinator to the Emergency Response Manager. The EOF organization, under the direction of the Emergency Response Manager, consists of the Technical Analysis Manager, the Radiological Control Manager, the Administration & Logistics Manager, and their supporting staffs.

Current telephone numbers are maintained in controlled copies of this Manual in the Technical Support Center, the Operational Support Center, and the Control Room.

Outside support agencies, and the means of contacting each, are also listed in PEP-Appendix A.

CAROLINA POWER & LIGHT COMPANY
Emergency Response Organization
For BSEP



OPERATING MANUAL
VOLUME XIII, BOOK 2
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1.2 Emergency Response Organization

2.0 EMERGENCY CLASSIFICATIONS AND CONTROL PROCEDURES

2.1 Initial Emergency Actions

2.2 Emergency Control - Unusual Event

2.3 Emergency Control - Alert

2.4 Emergency Control - Site Emergency

2.5 Emergency Control - General Emergency

2.6 Emergency Management Guides

- 2.6.1 Plant Operations Director
- 2.6.2 Emergency Repair Director
- 2.6.3 Logistics Support Director
- 2.6.4 Radiological Control Director
- 2.6.5 Representative to the State Emergency Response Team
- 2.6.6 Environmental Monitoring Team Leader
- 2.6.7 Plant Monitoring Team Leader
- 2.6.8 Personnel Protection and Decontamination Team Leader
- 2.6.9 Fire Brigade Leader
- 2.6.10 Emergency Security Team Leader
- 2.6.11 Damage Control Team Leader
- 2.6.12 Operational Support Center
- 2.6.13 Site Public Information Coordinator
- 2.6.14 Site Systems Communications Coordinator
- 2.6.15 Emergency Response Manager
- 2.6.16 Administrative and Logistics Manager
- 2.6.17 Technical Analysis Manager
- 2.6.18 Radiological Control Manager
- 2.6.19 Dose Projection Coordinator
- 2.6.20 Emergency Communicator
- 2.6.21 Technical Assessment Director
- 2.6.22 Assistant to the Emergency Response Manager
- 2.6.23 Plant Sampling and Analysis Team Leader
- 2.6.24 Radiological Control Communicator

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(continued)

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3.4.2 Whole Body Dose Projections

3.4.3 Thyroid Dose Projections

3.4.4 (Reserved)

3.4.5 Automation of Dose Projection Procedures using the
HP-9830A Table-top Computer

3.4.6 (Reserved)

3.4.7 Automation of Dose Projection Procedures using the IBM
Personal Computer

3.5 Environmental Monitoring Procedures

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3.6.5 Collection and Analysis of Very High Level Radioactive
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3.7 Radiation Control Procedures

3.7.2 Emergency Personnel Monitoring and Dosimetry

3.7.3 Issuance and Use of Protective Gear

3.7.4 Monitoring and Surveys for Personnel Habitability

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3.8 Protective Action Procedures

- 3.8.1 Evacuation
- 3.8.2 Personnel Accountability
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- 3.8.4 Access Control

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- 3.9.1 (Reserved)
- 3.9.2 First Aid and Medical Care
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- 3.9.4 (Reserved)
- 3.9.6 Search and Rescue

4.0 SUPPLEMENTAL PROCEDURES

- 4.1 Record Keeping and Documentation
- 4.2 Emergency Facilities and Equipment
- 4.3 Performance of Training, Exercises and Drills
- 4.4 (Reserved)
- 4.5 Public Education and Information
- 4.6 Radiological Emergency Kit Inventories

APPENDIX A EMERGENCY RESPONSE RESOURCES

- A.1 BNP Personnel
- A.2 Federal, State, and County Agencies
- A.3 Fire and Medical Assistance
- A.4 Other Emergency Response Contacts