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PRC NC.EP-EP.ZZ-0202 000	4	A	1	H	131158
PRC EPIP-TOC-COMMON 000	21	A	1	H	131112
PRC NC.EP-EP.ZZ-0307 000	1	A	1	H	131291
PRC NC.EP-EP.ZZ-0203 000	3	A	1	H	131248
PRC NC.EP-EP.ZZ-0304 000	4	A	1	H	131201

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PSEG NUCLEAR
ONSITE IMPLEMENTING PROCEDURES
March 14, 2002

PSE&G
CONTROL
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CHANGE PAGES FOR
REVISION #21

The Table of Contents forms a general guide to the current revision of each section of the Onsite EPEPs. The changes that are made in this TOC Revision #21 are shown below. Please check that your revision packet is complete and remove the outdated material listed below:

ADD			REMOVE		
Page	Description	Rev.	Page	Description	Rev.
ALL	TOC	21	ALL	TOC	20
NC.EP-EP.ZZ-0202		04	NC.EP-EP.ZZ-0202		03
NC.EP-EP.ZZ-0203		03	NC.EP-EP.ZZ-0203		02
NC.EP-EP.ZZ-0304		04	NC.EP-EP.ZZ-0304		03
NC.EP-EP.ZZ-0307		01	NC.EP-EP.ZZ-0307		00

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EMERGENCY PLAN ONSITE IMPLEMENTING PROCEDURES
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STATION PROCEDURES

		<u>Revision Number</u>	<u>Number Pages</u>	<u>Effective Date</u>
NC.EP-EP.ZZ-0101 (Q)	ACTIONS REQUIRED AT UNAFFECTED STATION	01	15	12/18/2001
NC.EP-EP.ZZ-0102 (Q)	EMERGENCY COORDINATOR RESPONSE	04	22	11/09/2001
NC.EP-EP.ZZ-0201 (Q)	TSC - INTEGRATED ENGINEERING RESPONSE	04	23	02/06/2002
NC.EP-EP.ZZ-0202 (Q)	OPERATIONS SUPPORT CENTER (OSC) ACTIVATION AND OPERATIONS	04	28	03/14/2002
NC.EP-EP.ZZ-0203 (Q)	ADMINISTRATIVE SUPPORT/ COMMUNICATION TEAM RESPONSE - TSC	03	15	03/14/2002
EPIP 204H	EMERGENCY RESPONSE CALLOUT/PERSONNEL RECALL	55	27	02/28/2002
EPIP 204S	EMERGENCY RESPONSE CALLOUT/PERSONNEL RECALL	55	26	02/28/2002
HC.EP-EP.ZZ-0205 (Q)	TSC - POST ACCIDENT CORE DAMAGE ASSESSMENT	03	39	02/06/2002
SC.EP-EP.ZZ-0205 (Q)	TSC - POST ACCIDENT CORE DAMAGE ASSESSMENT	02	82	02/06/2002
HC.EP-EP.ZZ-0301 (Q)	SHIFT RADIATION PROTECTION TECHNICIAN RESPONSE	02	21	05/24/2001

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SC.EP-EP.ZZ-0301 (Q)	SHIFT RADIATION PROTECTION TECHNICIAN RESPONSE	03	35	05/24/2001
NC.EP-EP.ZZ-0302 (Q)	RADIOLOGICAL ASSESSMENT COORDINATOR RESPONSE	04	19	05/24/2001
NC.EP-EP.ZZ-0303 (Q)	CONTROL POINT - RADIATION PROTECTION RESPONSE	01	25	09/14/2000
NC.EP-EP.ZZ-0304 (Q)	OPERATIONS SUPPORT CENTER (OSC) RADIATION PROTECTION RESPONSE	04	20	03/14/2002
NC.EP-EP.ZZ-0305 (Q)	POTASSIUM IODIDE (KI) ADMINISTRATION	00	10	02/29/2000
NC.EP-EP.ZZ-0306 (Q)	EMERGENCY AIR SAMPLING	00	12	02/29/2000
NC.EP-EP.ZZ-0307 (Q)	PLANT VENT SAMPLING	01	13	03/14/2002
NC.EP-EP.ZZ-0308 (Q)	PERSONNEL/VEHICLE SURVEY AND DECONTAMINATION	00	16	02/29/2000
NC.EP-EP.ZZ-0309 (Q)	DOSE ASSESSMENT	02	78	05/24/2001
NC.EP-EP.ZZ-0310 (Q)	RADIATION PROTECTION SUPERVISOR - OFFSITE AND FIELD MONITORING TEAM RESPONSE	03	47	05/24/2001
NC.EP-EP.ZZ-0311 (Q)	CONTROL POINT - CHEMISTRY RESPONSE	01	17	01/09/2001
NC.EP-EP.ZZ-0312 (Q)	CHEMISTRY SUPERVISOR - CP/TSC RESPONSE	02	25	01/09/2001

OPERATIONS SUPPORT CENTER (OSC) ACTIVATION AND OPERATIONS

COPY # EP1P059

USE CATEGORY: II

REVISION SUMMARY:

Biennial Review Performed Yes X No

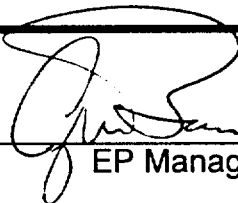
Removed step 1.1.3 in attachment 4 to have planner obtain parts list. This step is not needed.

Attachments 7a and 7b - Added requirement to check phones after set up.

IMPLEMENTATION REQUIREMENTS

Effective Date 03/14/02

APPROVED: _____


EP Manager

3/1/02
Date

APPROVED: _____

N/A
Vice President - Operations

Date

OPERATIONS SUPPORT CENTER (OSC) ACTIVATION AND OPERATIONS

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1.0 PURPOSE

This procedure provides guidance to emergency response personnel for administration of Operations Support Center (OSC) activation and operations during an emergency at Hope Creek or Salem Nuclear Generating Stations.

2.0 PREREQUISITES**2.1 Prerequisites To Be Followed Prior To Implementing This Procedure****2.1.1 Implement this procedure:**

- At the request of the Operations Superintendent (OS) or the Emergency Duty Officer (EDO).
- Upon staffing of your Emergency Response Facility.

2.1.2 Steps within a section may be completed in any order.

3.0 PRECAUTIONS AND LIMITATIONS**3.1 Precautions and Limitations To Be Followed Prior To Implementing This Procedure:**

- 3.1.1 It is recommended that initials be used in the place keeping sign-offs, instead of checkmarks if more than one person may implement this procedure.
- 3.1.2 Personnel who implement this procedure shall be trained and qualified IAW the Emergency Plan.
- 3.1.3 Attachment 6 page 2 of 2 should only be completed if the card readers for the accountability system fail.

4.0 EQUIPMENT REQUIRED

As provided in the Emergency Response Facility.

5.0 PROCEDURE

NOTE

OSC Coordinator responsibility is filled by

Name

Date

Time

5.1 Preparation for Activation

5.1.1 NOTIFY the following OSC support personnel to report to the OSC:

- a. Shift Electrician _____
- b. Shift I&C Technician _____
- c. Radwaste Operator _____
- d. Equipment Operators _____
- e. CALL the Fire Protection Supervisor (ext. 2800) or use the plant page, and direct the Fire Brigade to the OSC. _____

NOTE

The Fire Brigade normally brings equipment to the station that has declared the emergency. Advise the Fire Protection Supervisor of conditions that would not permit leaving equipment in any location

5.1.2 DESIGNATE at least two individuals to set up the OSC IAW Attachment 7, OSC SETUP _____

IF Hope Creek
THEN implement Attachment 7a, OSC Setup, Hope Creek.

IF Salem
THEN implement Attachment 7b, OSC Setup, Salem

- 5.1.3 REPORT to the Control Room (CR) and obtain the following information from the Operations Superintendent (OS): _____
- a. Update of emergency status. _____
 - b. Plant conditions including any known radiological problems. _____
 - c. Status of personnel dispatched into the plant by the CR staff. _____
 - d. **(Salem Only)** Discuss Auxiliary Building Ventilation System Status and ensure that One Supply and Two Exhaust Fans are operating properly. If less than the normal compliment of fans is in service, then request the OS prioritize actions IAW Attachment 2 of the Operating Procedure. Ensure design based auxiliary building temperatures are maintained. The aux. building ventilation system needs to be restored within 2 hours following an accident initiation. _____
- 5.1.4 ENSURE OSC clock time is approximately the same as the CR/SPDS time. _____
- 5.1.5 IMPLEMENT the following steps in any order:
- IMPLEMENT Attachment 2 - Accountability Instructions, when Accountability is called. _____
 - DIRECT one individual to ensure all OSC personnel sign in on the Attachment 6, OSC Sign In Roster. DO NOT have control room personnel sign in at this time on Attachment 6 _____
 - ASSEMBLE available OSC personnel and brief them on the status of the emergency. _____
 - DIRECT non-supervisory OSC personnel who are not assisting in set up of the OSC to assemble in the OSC Ready Room. _____
 - DIRECT the Radiation Protection Supervisor-Exposure Control (RPS-EXP) or Shift Radiation Protection Technician to implement NC.EP-EP.ZZ-0304(Q), OSC – Radiation Protection Response. _____
- 5.1.6 ACTIVATE the OSC as follows: _____
- INFORM the OS and OSC personnel that the OSC is activated, at (time) _____ on (date) ____ / ____ / ____ _____
 - MAKE the following page announcement (Announce Twice): _____

“The OSC is now activated. All Plant Activities should be coordinated thru the OSC.”

NOTE

Each individual's annual limit will automatically be raised to 4500 mRem upon the declaration of an Alert or higher emergency classification provided a completed NRC FORM-4 is on record.

NOTE

The following steps should be completed simultaneously

- 5.2 **Post Activation of the OSC** DIRECT an OSC Supervisor or OSC staff member to periodically brief the OSC READY ROOM on plant conditions and update the EMERGENCY INFORMATION OPS READY ROOM status board in the OSC Ready Room.

5.2.1 WHEN Accountability is called, THEN:

- a. IMPLEMENT Attachment 2, ACCOUNTABILITY INSTRUCTIONS. _____
- b. **(SALEM ONLY)** IF requested
THEN IMPLEMENT Attachment 9, Assembly/Accountability
Instructions for High Noise Areas – OSC (Salem Only). _____

5.2.2 IF directed to perform bomb search activities, THEN
IMPLEMENT Attachment 1, BOMB SEARCH Operations. _____

5.2.3 IF loss of habitability occurs for: _____

- The OSC Ready Room, THEN direct personnel to the Technical Support Center (TSC) or other location as directed by the OS/EDO. _____
- The OSC, THEN direct OSC personnel to the TSC or other location as directed by the OS/EDO. _____

5.2.4 DIRECT Ops, Mechanical, I&C, Fire Protection, and Electrical Supervisors to implement Attachment 5,
OPS/MECH/ELECT/I&C/FIRE PROTECTION DUTIES. _____

- 5.2.5 DIRECT the Planner to implement Attachment 4, PLANNER DUTIES. _____
- 5.2.6 DIRECT the OSC Clerk to: _____
 - a. MAINTAIN the OSC Coordinator's Log. _____
 - b. PROVIDE the log to the OSC Coordinator for periodic review. _____
 - c. MAINTAIN the OSC Team Status Board and Priority Status Board. _____
- 5.2.7 ASSEMBLE available OSC personnel and brief on the emergency. _____
- 5.2.8 DIRECT the OSC Clerk report to the TSC, if conditions degrade where respirators are needed for OSC personnel.
- 5.2.9 ENSURE the OSC priorities and activities are periodically discussed with the OS. _____
- 5.2.10 BRIEF the oncoming OSC Coordinator and conduct the turnover IAW Attachment 3, OSCC TURNOVER LOG. _____
- 5.2.11 IF additional personnel are needed, (e.g. Duty Storekeeper) contact the ADMSS in the TSC. _____

5.3 Restoration

ENSURE the OSC is restored to a ready status. _____

6.0 RECORDS

Return completed procedure, attachments, and or forms to the EP Manager.

7.0 REFERENCES

7.1 References

None

7.2 Cross References

PSEG Nuclear Emergency Plan

ATTACHMENT 1
Page 1 of 3
BOMB SEARCH OPERATIONS

1.0 BOMB SEARCH OPERATIONS

1.1 Perform the following for bomb search operations, as directed by the OS/EDO:

1.1.1 The OSC Coordinator should:

CAUTION

Portable radios and portable phones shall not be used during a bomb search. Radio transmissions may cause an explosive device to detonate.

- A. MAKE the following page announcement TWICE:

 “Attention all personnel, terminate use of all portable radios phones until further notice.”
- B. CALL the Salem OS and request they make the proceeding page announcement.
- C. CALL PSEG Security Supervisor (ext. 2222) and request that a Security Team Leader or Security Technical Analyst reports to the OSC.
- D. OBTAIN a briefing from the OS concerning the requested bomb search to include, as a minimum:
 - ◆ Nature of the bomb threat
 - ◆ Specific areas mentioned in the threat
 - ◆ Current bomb search activities
 - ◆ Restrictions due to radiological concerns
 - ◆ Copy of a completed Bomb Threat Checklist and Report Form if available.
- E. DIRECT the Security Team Leader or Security Technical Analyst, assigned to the OSC, to recommend bomb search areas priorities, in accordance with Security Contingency Procedures.

ATTACHMENT 1

Page 2 of 3

- F. MODIFY bomb search priorities recommended by the Security Team Leader or Security Technical Analyst as required due to plant operational and/or radiological conditions.
- G. Assemble bomb search teams that should consist of a Plant Operator as the Team Leader and a Security Force Member (SFM).
- ◆ Fire Protection Operators may be utilized if Plant Operators are not available
 - ◆ Radiation Protection Technicians (RPT) should be assigned to bomb search teams in the RCA.
- H. BRIEF the bomb search teams, in conjunction with the Security Team Leader or Security Technical Analyst and the SRPT/RPS – EXP.
- I. OFFER the team leader a copy of Attachment 8, TEAM LEADER BRIEFING SHEET.
- J. BRIEF each bomb search team to include discussion of the following:
- ◆ Information known from the bomb threat.
 - ◆ Assigned search area(s) for each team.
 - ◆ Operational and Radiological concerns such as exposure limits, dosimetry, protective clothing, etc.
 - ◆ Abort conditions.
 - ◆ OSC phone call back numbers for team communications.
 - ◆ Instruct each team member to look for physical evidence of suspected sabotage in addition to the location of destructive device(s).
 1. **Mechanical** (valve alignment, piping, loose ducts, structures, normal running equipment checks).
 2. **Electrical** (checks for any breakers in an off-normal position, open cabinets, open conduit, etc.).
 3. **Physical Barriers** (blocked open doors, misplaced contamination/high radiation areas, etc.).
 4. **Suspicious looking articles** (lunch boxes, tool boxes, packing crates, etc.).
 5. **Abnormal log readings/indications for the area.**
- K. Using the plant page or hard wire phone, inform the OSC Coordinator immediately upon locating a potential bomb or sabotaged area.

ATTACHMENT 1
Page 3 of 3

- L. IF a bomb is discovered, THEN:
 - a. ENSURE that all personnel in the vicinity of the bomb are relocated to a safe area and direct the bomb search team to secure access to the area.
 - b. CONTACT the OS, the OSC coordinator, the OSC Security Force Supervisor and EDO to take appropriate actions.
- M. RECALL, debrief and deactivate the Bomb Search Team when:
 - a. Completion of search with negative results is reported.
 - b. Termination of the bomb threat.

ATTACHMENT 2
Page 1 of 3
ACCOUNTABILITY INSTRUCTIONS - OSC

1.0 ACCOUNTABILITY INSTRUCTIONS

1.1 Upon Hearing the Page Announcement to Implement Accountability, the OSC Coordinator Shall:

Initials

- 1.1.1 ENSURE OSC and Control Room personnel are listed on the Attachment 6, OSC SIGN IN ROSTER (only obtain control room sign-in if back up Accountability method is being used.)

OSCC

NOTE

Personnel who have carded into the Control Room Security Area are not required to pass their photobadges through the OSC accountability station cardreader. This is because Control Room personnel are accounted for automatically by the access door cardreaders into the Control Room.

1.1.2 Upon hearing the page announcement, "All ACCOUNTABILITY STATIONS IMPLEMENT ACCOUNTABILITY":

- A. DIRECT all personnel who are not within the Control Room Security Area to pass their photobadges through the special accountability cardreader located just outside the OSC.

OSCC

- B. DIRECT all OSC teams in the field to verbally accounted for by using an ACCOUNTABILITY EXEMPTION FORM, page 3 of this Attachment.

OSCC

- 1.1.3 MAINTAIN current status of all OSC personnel. This should include name, assignment, time dispatched.

OSCC

ATTACHMENT-2**Page 2 of 3****1.1.4 Upon hearing the page announcement, "All ACCOUNTABILITY STATIONS COMPLETE YOUR 30 MINUTE ACCOUNTABILITY,"**

- A. ENSURE that any personnel arriving at the OSC since the initial call for accountability also have passed their photobadges through the OSC accountability cardreader.

OSCC

- B. ENSURE the badge numbers of personnel listed on page 3 of this attachment (Accountability Exception Form) are called to security at extension 2222. If unable to contact security on 2222, contact the security liaison at NETS 5214 (Hope Creek) or NETS 5217 (Salem)

OSCC**1.1.5 IF personnel arrive at the OSC after 30 minutes have elapsed, THEN:**

- A. NOTIFY security of the badge numbers of the personnel that have reported to the OSC using ext. 2222.

OSCC

- B. DIRECT those personnel to:

1. PASS their photobadge through the accountability cardreader.

OSCC

2. SIGN Attachment 6, OSC SIGN IN ROSTER if not already signed in

OSCC**1.1.6 IF directed, THEN form search teams for unaccounted for personnel.**_____
OSCC**1.1.7 MAINTAIN continuous accountability until the emergency is terminated.**_____
OSCC**2.0 AUTOMATED ACCOUNTABILITY SYSTEM MALFUNCTION:****2.1 Perform the Following Should the Automated Accountability System Malfunction:****2.1.1 PROVIDE a copy of Attachment 6, OSC SIGN IN ROSTER Sheet(s), to the Security Force Member dispatched to the OSC.**_____
OSCC
Rev. 04

ATTACHMENT 2
Page 3 of 3

ACCOUNTABILITY EXEMPTION FORM
OSC _____ STATION

NAME (print)		BADGE NUMBER
LAST	FIRST	

NOTE

Call Security at extension 2222 and provide the badge numbers of the personnel listed above. The personnel listed above have been accounted for verbally. These personnel are involved in actions to mitigate emergency events. If unable to contact security at extension 2222, contact the TSC security liaison at NETS 5214 (Hope Creek) or NETS 5217 (Salem).

 Signature (OSC Coordinator or OS)

_____/_____
 Time Date

ATTACHMENT 3
Page 1 of 1
OSCC TURNOVER LOG

Date: ____ / ____ / ____

1. [UE] [A] [SAE] [GE] was declared @ ____ hrs. on ____ / ____ / ____

Due to: _____

2. The present classification, [A] [SAE] [GE] was declared @ ____ hrs. on ____ / ____ / ____

Due to: _____
 _____3. The Emergency Coordinator (EC) is _____
 in the [EOF] [TSC] [CR] _____ name

4. The Oncoming and Offgoing OSCC should:

	<u>Initials</u>
	On / Off

A. DISCUSS current conditions. Include any problems encountered or anticipated, and any ongoing, or expected actions.

____ / ____

B. REVIEW all applicable documentation including procedures, logs, etc., ensuring they are completed, correct and signed.

____ / ____

C. DISCUSS the OSC's priorities, personnel requirements and any equipment or material needs.

____ / ____

D. DISCUSS any Radiological, Safety, or Environmental concerns.

____ / ____

E. ENSURE that OSC teams in the field are recalled or relieved on the job as necessary.

____ / ____

F. NOTIFY the OS of the change in command in the OSC. Update plant status and priorities as applicable.

(ONCOMING)

G. HOLD a briefing with the OSC staff to ensure a smooth transition between the oncoming and off-going OSC personnel.

(ONCOMING)

ATTACHMENT 4
Page 1 of 1
PLANNER DUTIES

NOTE:

When the OSCC is activated, the Work Control Office becomes an extension of the OSC.

1.0 Planner Duties

1.1 Perform the Following, as Appropriate:

- 1.1.1 LOG on to SAP in Work Control on any available computer with LAN capabilities.
- 1.1.2 SELECT a Personnel Computer in Work Control to run the parts program, if necessary
- 1.1.3 TRACK any items issued and document for post-emergency review
- 1.1.4 PROVIDE current status of repairs in progress.
- 1.1.5 INITIATE Work Order/Notification packages as necessary for jobs originating in the OSC.
 - IF time is not available,
 AND
 at the discretion of the OSCC,
 THEN use a paper work request and follow up with a Work Order/Notification as soon as possible.
- 1.1.6 PROVIDE guidance as to procedures, tools, and time that past repairs required.
- 1.1.7 As requested, obtain spare parts, materials, tools, etc.
- 1.1.8 ASSIST the other OSC staff members as directed by the OSCC including answering phones, page announcements and OSC ready room updates.
- 1.1.9 COLLECT all work orders and paper work for review and documentation after the emergency has been terminated.

ATTACHMENT 5
Page 1 of 4
OPS/MECH/ELECT/I&C/FIRE PROTECTION DUTIES

1.0 OSC DUTIES

1.1 Perform the Following Duties, as Appropriate:

- 1.1.1 PROVIDE corrective action recommendations based on your expertise to the OSCC for accident mitigating activities.
- 1.1.2 MONITOR Oxygen content in the OSC and Control Room every hour.
- 1.1.3 MONITOR Fire Protection System Status and ensure compensatory measures (fire watch) are maintained in accordance with plant conditions.

NOTE

1. An individual, in lieu of a team, may be dispatched by the OSCC. The individual should be in contact with the OSC or the Control Point, via some type of audio communications (page, radio, or telephone), and should check in every 15 minutes with the OSC or the Control Point.
 - A. An individual shall not be used under the following circumstances:
 - An individual's exposure could be expected to exceed 1000 mRem.
 - The task would require entry into a "Harsh Environment Area" (i.e., a steam atmosphere, a heat stress area, unknown, etc.)
 - Acts of sabotage or suspected sabotage.
2. Prompt team dispatch is of the utmost importance. If necessary, a radiological briefing may be conducted on the way to the job.

1.1.4 ASSEMBLE teams and provide team briefings and debriefings in your areas of expertise.

- ENSURE that all OSC teams are made up of at least two people unless a task meets the criteria from the note above.
- ENSURE that teams dispatched from the Control Point are tracked using the OSC Team Status Board.
- ASSEMBLE the Team and designate a Team Leader.
- IF adverse radiological conditions exist, THEN a Radiation Protection Technician (RPT) should be included on the team.
- IF a Personnel Injury/Medical Response incident occurs, THEN a Fire Brigade Member should be included on the team.

ATTACHMENT 5**Page 2 of 4**

- OFFER Attachment 8, Team Leader Briefing Sheet, to each team leader.
- ENSURE all Teams obtain a briefing IAW, Team Briefing Guidelines of this Attachment.

CAUTION

Portable radios are not to be keyed in the vicinity of the Control Room or Relay Room areas.

Any portable radio and cellular phone transmissions are prohibited during bomb search operations.

- IF a Team is dispatched, THEN ENSURE the OSC Team Status Board is updated.
- MONITOR and support dispatched teams (Point of Contact).
- RECALL the Team IF:
 1. The mission or objective is accomplished.
 2. Directed by OS (higher priority, etc.).
 3. Plant conditions degrade to where an individual's exposure to unanticipated changes in radiological conditions:
 - May exceed authorized exposure limit.
 - Life threatening environmental conditions are encountered.
- WHEN the team returns, CONDUCT a general debriefing.
- COLLECT all procedures, attachments, etc. and retain to forward to the Manager CA/EP/IT.
- RELEASE team to RPT/RPS – EXP for a radiological debriefing.
- COORDINATE with the RAC for the transportation of injured person or personnel receiving Emergency Exposures of ≥ 5 REM to the appropriate medical facilities, if necessary.
- Deactivate the team and ensure the OSC Team Status Board is updated.

ATTACHMENT 5
Page 3 of 4

1.1.5 INTERFACE with the TSC Engineers for their support when needed by:

- REQUEST the OSCC to contact the OS for technical support, as needed.
- WHEN TSC Technical support is requested, THEN OBTAIN a copy of the Technical Support Tracking Form from the OSCC for implementing mitigating actions recommended by the engineering staff, which are not addressed in a procedure.
- ENSURE the Technical Support Tracking Form is approved for implementation by the OS.

NOTE

The Work Control Office becomes an extension of the OSC when the OSC is activated

1.1.6 ASSIST the OSC Planner in Work Request/Notification generation IAW the appropriate NAPs.

- Initiate tagging requests in Work Control.
- Request the Operations Supervisor assist in tag request generation.

1.1.7 If acts of sabotage are expected, team safety must be the number one priority. Contact security in the TSC to determine what areas are safe for personnel dispatch. If any area is considered unsafe by security, discuss delaying team dispatch until the area is cleared by security.

ATTACHMENT 5
Page 4 of 4
TEAM BRIEFING GUIDELINES

A. Mission Details	<ol style="list-style-type: none"> 1. Designate a team leader 2. Explain purpose of mission 3. Define work to be performed 4. State expected results 5. Team identifier (team #)
B. Safety	<ol style="list-style-type: none"> 1. Ensure required safety gear is used 2. Equipment C/T for work 3. Review Environmental Concerns: <ul style="list-style-type: none"> ■ Heat stress ■ Oxygen deficient atmosphere ■ Toxic/caustic chemical concerns 4. Fire hazards
C. Communications	<ol style="list-style-type: none"> 1. Establish preferred method <ul style="list-style-type: none"> ■ Portable radios ■ Phones (Dimension) ■ Other (sound pwr'd phones, etc.) 2. Point of contact 3. Check in time cycle 4. Estimated job completion time
D. Equipment	<ol style="list-style-type: none"> 1. Required tools 2. Test equipment 3. Procedures (current copy[s] as required) 4. Availability/location of spare parts 5. Authorization for "cannibalization" of other equipment for parts
E. Radiological	<ol style="list-style-type: none"> 1. Discuss expected dose rates 2. Establish stay times 3. Establish abort conditions criteria 4. Identify desired routes 5. Review rwp with the team including dress out criteria 6. Review exposure limits 7. Obtain high rad. key if required 8. Ensure the control point is notified.
F. Debrief	<ol style="list-style-type: none"> 1. Team is expected to debrief the assigning supervisor when the job is complete or the team is recalled.

OSC SIGN IN ROSTER/ACCOUNTABILITY FORM
(PRINT NAME)

POSITION	NAME	BADGE #	POSITION	NAME	BADGE #
OSC COORD			RAD PRO SUPV.		
OSC CLERK			R.P. SUPPORT		
			R. P. SUPPORT		
OPS SUPV			FIRE PROT. SUPV.		
OPERATOR			FIRE BRIG. MBR.		
OPERATOR			FIRE BRIG. MBR		
OPERATOR			FIRE BRIG. MBR		
OPERATOR			FIRE BRIG. MBR		
OPERATOR			FIRE BRIG. MBR		
OPERATOR			FIRE BRIG. MBR		
OPERATOR					
OPERATOR			PLANNER		
MAINT.SUPV. ()			ADDITIONAL OSC SUPPORT PERSONNEL		
MAINT.SUPV. ()			POSTION	NAME	BADGE #
SHIFT ELECT.					
SHIFT I&C TECH					
MAINT.SUPPORT ()					
MAINT.SUPPORT ()					
MAINT.SUPPORT ()					
MAINT.SUPPORT ()					

() INDICATES JOB CLASSIFICATION (i.e. WELD, MACH, BLR, REP, ETC.)

OSC SIGN IN ROSTER/ACCOUNTABILITY FORM
(PRINT NAME)

POSITION	NAME	BADGE #	POSITION	NAME	BADGE #
OS					
CRS					
STA					
SRO 1					
SRO 2					
NCO					
NCO					
NCO					
NCO					
COMMUNICATOR 1					
COMMUNICATOR 2					
OPS ADVISOR					
			COMMENTS		
ADDITIONAL CONTROL ROOM/OSC PERSONNEL					
OSC Coordinator Signature _____					

ATTACHMENT 7a
Page 1 of 3
OSC SETUP - HOPE CREEK

1.0 HOPE CREEK OSC SETUP

1.1 Perform The Following to Setup the OSC:

1.1.1 PROCEED to the OSC storage closet located in the North West corner of the OSC.

- BREAK the glass on the key box located on the wall next to the storage closet and obtain the keys for the closet, if necessary.

1.1.2 OBTAIN equipment and supplies stored in the OSC locker:

- REMOVE cordless phones from chargers.
- DISTRIBUTE OSC cordless phones IAW OSC Setup Diagram found in this Attachment. The setup is for guidance only. Personnel may be relocated around the table as needed or at the discretion of the OSC coordinator.
- PERFORM the following in case of cordless phone failure:
 - A. PLACE the phone strip under the OSC table.
 - B. IMMEDIATELY SETUP NETS and DID phones IAW OSC Setup Diagram found in this Attachment.
- CHECK all phones to ensure proper operation.

1.1.3 PLACE the OSC base radio station in operation as follows:

- TURN the OSC radio's power on. (The **On/Off Switch** is on the front of the unit).
- VERIFY the Control Room radio **TAKEOVER** yellow indicator is illuminated. If **TAKEOVER** green indicator is illuminated depress the **TAKEOVER** push button.
- POSITION the **FREQUENCY BUTTON** to the UP position for frequency #3.
- POSITION the **HEADSET TOGGLE SWITCH** to the DOWN position for headset use or in the UP position for speaker use.
- POSITION **VOLUME CONTROL** to a comfortable level. (**VOLUME CONTROL SWITCH** is on the front of the radio).
- PRESS the **TRANSMIT BAR** on the microphone to transmit a message when the headset **OFF**.
- PRESS the hand held transmit button on the headset cord to transmit, if the headset is **ON**.

ATTACHMENT 7a

Page 2 of 3

- ENSURE OSC hand held radios are selected to the same frequency as the base station radio.
- TEST the base station radio to a hand held radio.

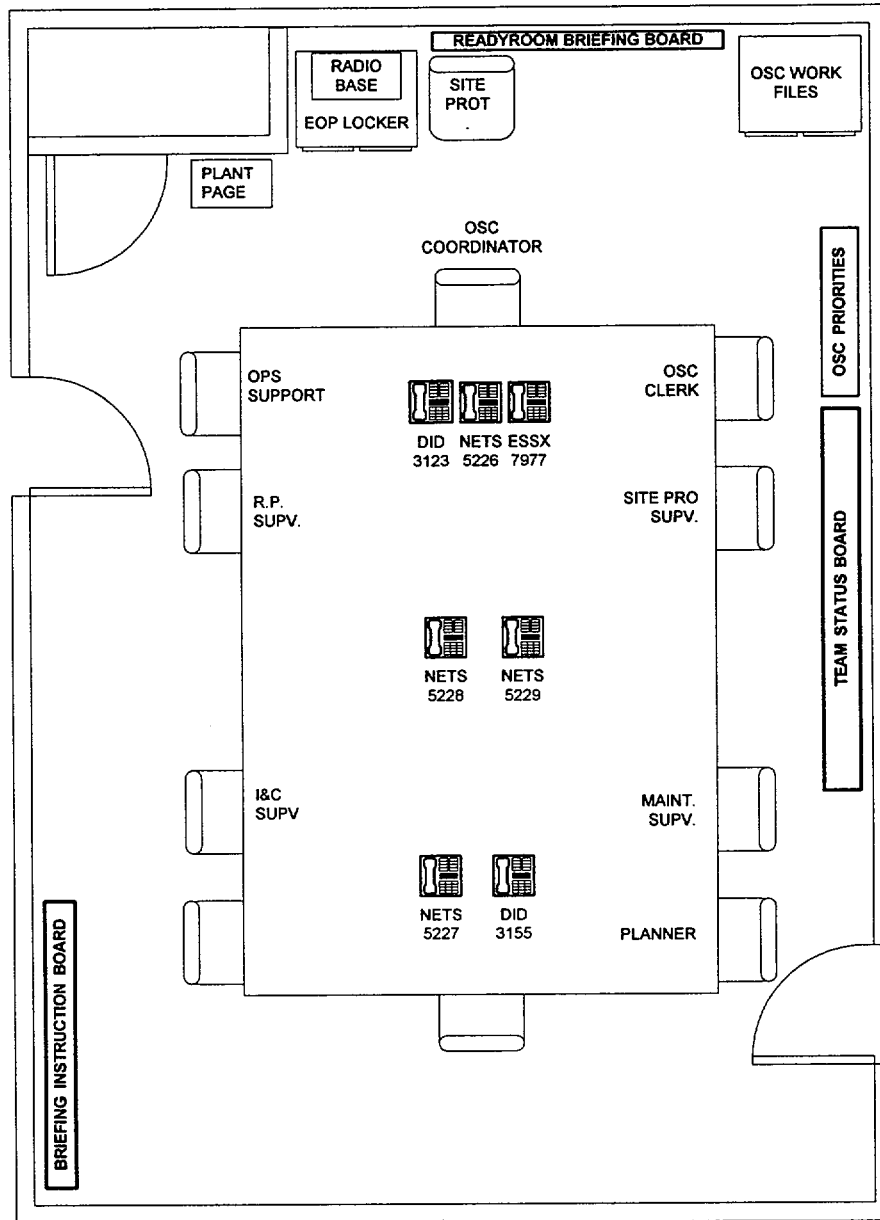
1.1.4 INCREASE or decrease the OSC page volume control to a comfortable level.

1.1.5 POST a clean copy of the OSC TEAM STATUS BOARD in the OSC.

1.1.6 SETUP the OSC Priority Status Board in the Control Room. This board is found in the storage closet in the CRS office area in the Control Room Complex.

ATTACHMENT 7a
Page 3 of 3

HOPE CREEK GENERATING STATION
OSC FLOOR PLAN



OSC

ATTACHMENT 7b
Page 1 of 3
OSC SETUP - SALEM

1.0 SALEM OSC SETUP

1.1 Perform The Following to Setup the OSC:

- 1.1.1 OBTAIN the keys for the OSC cabinets from the Red Key Box on the wall in Work Control. Break the glass if necessary.
- 1.1.2 OBTAIN equipment and supplies stored in the OSC locker and cabinets.
- 1.1.3 SETUP the OSC phones IAW figure found in this Attachment 7b.
Phone connections are located on the underside of the table. The setup is for guidance only. Personnel may be relocated around the table as needed or determined by the OSC coordinator.
- 1.1.4 CHECK all phones to ensure proper operation.

NOTE

The OSC base radio station is permanently set up in the OSC.

1.1.5 PLACE OSC base radio station in operation as follows:

- A. TURN the unit power on. (The **On/Off Switch** is on the front of the unit.)
- B. VERIFY the Control Room radio **TAKEOVER** yellow indicator is illuminated in the affected unit's Control Room.
(IF **TAKEOVER** green indicator is illuminated, THEN depress the **TAKEOVER** push button).
- C. POSITION the **FREQUENCY BUTTON** to the UP position for frequency #1 (Unit #1) or DOWN for frequency #2 (Unit #2).
- D. POSITION the **HEADSET TOGGLE SWITCH** to the DOWN position for headset use or in the UP position for speaker use.
- E. POSITION **VOLUME CONTROL** to a comfortable level.
(**VOLUME CONTROL SWITCH** is on the front of the radio.)
- F. DEPRESS the **TRANSMIT BAR** on the microphone to transmit a message when the headset **OFF**.
- G. DEPRESS the hand held transmit button on the headset cord to transmit, if the headset is **ON**.

ATTACHMENT 7b

Page 2 of 3

H. ENSURE OSC hand held radios are selected to the same frequency as the base station radio.

I. TEST the base station radio to a hand held radio outside of the Control Room/OSC Complex.

1.1.6 DIRECT the OSC Page turned up to a comfortable level.

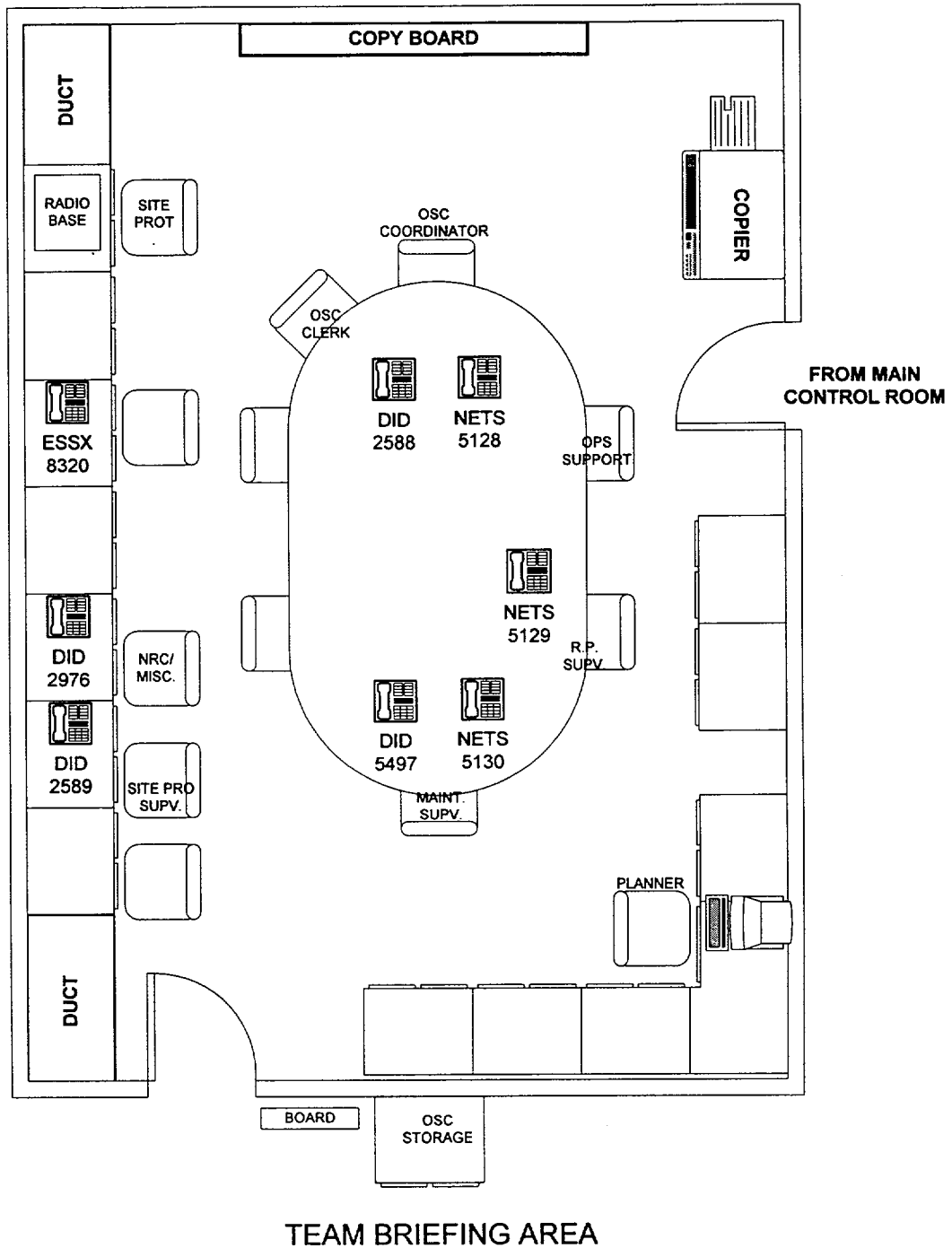
1.1.7 SETUP the OSC TEAM STATUS BOARD.

1.1.8 PROVIDE the Control Room with one of the OSC PRIORITY STATUS BOARDS.

1.1.9 SETUP the other OSC PRIORITY STATUS BOARD in the OSC near the OSCC.

ATTACHMENT 7b
Page 3 of 3

SALEM GENERATING STATION
OSC FLOOR PLAN



ATTACHMENT 8
Page 1 of 1
TEAM LEADER BRIEFING SHEET

TEAM LEADER _____ TIME DISPATCHED _____

TEAM MEMBERS

TASK

PURPOSE/EXPECTED RESULTS

TEAM NUMBER _____

SAFETY EQUIPMENT NEEDED/ENVIRONMENTAL CONCERNS

BY RADIO, PLANT PAGE OR DID PHONE # _____ CONTACT _____
EVERY _____ MIN.

SPECIAL INSTRUCTIONS/EQUIPMENT

BACK OUT DOSE _____ REM

EXPECTED RADIOLOGICAL CONDITIONS
INDICATE DOSE RECEIVED NEXT TO NAME ABOVE AND INFORM RP SUPERVISOR

DEBRIEF INFORMATION

INDICATE WHAT WAS OBSERVED IN THE FIELD/TEAM RESULTS. DEBRIEF THE
ASSIGNING SUPERVISOR ON FINDINGS/RESULTS

ATTACHMENT 9**Page 1 of 1****ASSEMBLY/ACCOUNTABILITY INSTRUCTIONS FOR HIGH NOISE AREAS - OSC
(SALEM ONLY)****NOTE**

This ATTACHMENT shall be implemented upon request by Security Force Supervision to support implementation of **ASSEMBLY** or **ACCOUNTABILITY** for high noise areas.

1.0 HIGH NOISE AREA INSTRUCTIONS FOR ACCOUNTABILITY/ASSEMBLY**1.1 THE OSC COORDINATOR SHALL:****NOTE**

Acceptable methods that should be used to check on high noise areas are:

- Physical Observation.
- Verification of Key Control.
- Card Reader Record of Entry (requested from Security).

1.1.1 IF requested by the Security Force Supervision, THEN form teams to check the areas listed below. **(EP97-001)**

- All Trailers within the Protected Area
- Salem Containment (priority during outages)
- Outer Penetrations (Salem U1/U2)
- Inner Penetrations (Salem U1/U2)
- Check all rooms on Aux Building 84' elevation (Salem U1/U2)
- Check all rooms on 45' elevation (Salem U1/U2).
- Salem Service Water Intake Pump Bays
- Salem Circulating Water Intake Structure
- Salem Turbine Bldg. (U1/U2)(el. 88' and 100')

1.1.2 IF any personnel are observed still onsite in any of these high noise areas, THEN INSTRUCT them to either leave site or report to their Accountability Station.

PSEG Internal Use Only

PSEG NUCLEAR LLC

NC.EP-EP.ZZ-0203 (Q) Rev. 03

PSE&G
CONTROL
COPY #

Page 1 of 1

EP12059

ADMINISTRATIVE SUPPORT/COMMUNICATION TEAM RESPONSE - TSC

USE CATEGORY: II

REVISION SUMMARY:

Biennial Review Yes X No


Added an additional step in 5.1.3 (B) in setting the digital wall clock according to Safety Parameters Display System (SPDS) time, AND MAKE AN ANNOUNCEMENT TO THE ERO MEMBERS IN THE FACILITY.

Revised first step in Attachment 1, Administrative Support Supervisor Checklist to indicate other facility-related keys are now located inside the TSC's in a lock box located above Security's desk.

IMPLEMENTATION REQUIREMENTS

Effective Date 03/14/02

APPROVED: _____


Emergency Preparedness Manager

3/1/02
Date

APPROVED: _____

N/A
Vice President - Operations

N/A
Date

ADMINISTRATIVE SUPPORT/COMMUNICATION TEAM RESPONSE - TSC**TABLE OF CONTENTS**

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1.0 PURPOSE

To provide direction for the emergency actions of the Administrative Support Supervisor (ADMSS), Administrative Support Team, Emergency Preparedness Advisor (EPA), and Communications Team in the Technical Support Center (TSC).

2.0 PREREQUISITES**2.1 Prerequisites To Be Followed Prior To Implementing This Procedure**

- 2.1.1 An emergency has been declared at Salem or Hope Creek Nuclear Generating Station and the TSC is required to be staffed or activated.

3.0 PRECAUTIONS AND LIMITATIONS**3.1 Emergency Staffing/Relief:**

- 3.1.1 It is expected that the two duty TSC Communicators will implement this procedure until the arrival of the ADMSS or EPA. Upon arrival, the ADMSS and EPA are expected to continue with implementation of this procedure.
- 3.1.2 The Administrative Support Supervisor (ADMSS) in the Technical Support Center (TSC) should coordinate the assessment and completion of minimum staffing of the Emergency Response Facilities (ERFs) with the Administrative Support Manager (ASM) in the Emergency Operations Facility (EOF).
- 3.1.3 After completion of initial staffing, the ADMSS and ASM should begin to assess and arrange relief staffing in order to continue 24-hour minimum staffing of ERFs.

4.0 EQUIPMENT REQUIRED

As provided in the Emergency Response Facility.

5.0 PROCEDURE**NOTE**

The two duty TSC Communicators are expected to implement this procedure until the arrival of the ADMSS or EPA. Upon arrival, the ADMSS and/or EPA are expected to continue with implementation of this procedure.

5.1 Administrative Support Supervisor and Emergency Preparedness Advisor (TSC1/TSC2 until arrival of the ADMSS/EPA) Duties

- | | | |
|-------|--|--------------------|
| 5.1.1 | INITIATE and MAINTAIN a chronological log of activities and events. | _____
ADMSS/EPA |
| 5.1.2 | INFORM Emergency Duty Officer of arrival and when prepared to assume functional duties. | _____
ADMSS/EPA |
| 5.1.3 | DIRECT staff to verify operation of the following: | |
| | A. Telephone lines and Telecopiers | _____
ADMSS/EPA |
| | B. Set clocks to SPDS time, and make an announcement to the ERO members in the facility. | _____
ADMSS |
| | C. Reprographic equipment | _____
ADMSS |
| 5.1.4 | COORDINATE mobilization of additional support personnel with the ASM. | _____
ADMSS |
| 5.1.5 | IMPLEMENT Attachment 1. | _____
ADMSS |
| 5.1.6 | IMPLEMENT Attachment 2 of this procedure. | _____
EPA |

6.0 RECORDS

6.1 The Administrative Support Supervisor Should Ensure The Following

- 6.1.1 All written communications and documentation produced during an emergency are important for recording actions taken and reconstruction of events and should not be discarded.
- 6.1.2 The ADMSS should ensure that TSC Administrative Support Team captures and controls all material received and generated throughout the emergency including all logbooks and original data forms. Attachment 3, Emergency Response Team - Telecopy Log, should be used for all data sent or received over the emergency telecopier network.
- 6.1.3 All attachments, forms, appendices, and logs are to be retained in accordance with NAP-1 and sent to the Emergency Preparedness Manager, who will ensure all materials are retained.

7.0 REFERENCES

7.1 References

7.1.1 PSEG Nuclear Emergency Plan

7.2 Cross-References

7.2.1 Emergency Response Callout/Personnel Recall EPIP 204H(C)

7.2.2 Emergency Response Callout/Personnel Recall EPIP 204S(C)

ATTACHMENT 1

Page 1 of 2

ADMINISTRATIVE SUPPORT SUPERVISOR (ADMSS) CHECKLIST**1.0 Prior to Activation of the Facility:**

ENSURE emergency response lockers are unlocked; (other facility-related keys are maintained in the lock box inside the facility above Security's desk.).

ADMSS

ASSIST Emergency Response Team members with distribution of workstation supplies.

ADMSS

RUN test copy through copy machine, then, MAKE copies of any data sheets found in Telecopier tray for distribution.

ADMSS

ENSURE data sheets are properly date-stamped and initialed prior to distribution.

ADMSS

RUN telecopier test to insure proper operation of equipment at the direction of Communications Team.

ADMSS

DESIGNATE Administrative Support Team Member to report to the Operations Support Center (OSC) to be the OSC Administrative Clerk if requested by the OSC Coordinator.

ADMSS

DESIGNATE Administrative Support Team member to perform telecopier and copy machine duties (i.e. – receive and stamp incoming forms and make sufficient copies for distribution). Utilize Attachment 3, Emergency Response Team - Telecopy Log, to keep track of all forms received and sent. The sequential log number shall be recorded on Attachment 3 and placed in the upper left corner of each telecopied form.

ADMSS

DESIGNATE Administrative Support Team member to distribute copies to staff and to properly log completed deliveries.

ADMSS

DESIGNATE an Administrative Support Team member to initiate and maintain Emergency Duty Officer's log book and Attachment 5, EDO clerk guidelines.

ADMSS

DESIGNATE another Administrative Support Team member to assist in updating key status boards.

ADMSS

ATTACHMENT 1
Page 2 of 2

2.0 Post Activation of Facility

1. When requested by the EDO to arrange for shift relief, **CONTACT** the Admin Support Manager (ASM) in the EOF and request implementation of "Shift Relief Callout" as per instructions in EPEP 0701. **PROVIDE** the following information:
 - Time of shift relief (12 hour rotation)
 - Any special access instructions
2. IF automated callout system fails or will not be used, AND EOF requests assistance, **UTILIZE** Attachment 4, Onsite Shift Relief Schedule Manning Chart, as needed.
3. **DISTRIBUTE** copies of forms as appropriate to each area. **PLACE** 1 copy in each basket. The originals should be maintained in sequential order.
4. **MAINTAIN** 5 file copies of each procedure and attachment for use within the facility.
5. **DETERMINE** the needs for food, lodging, equipment, and transportation. **COORDINATE** these needs with the Administrative Support Manager in the EOF when it is activated.
IF catering services are not available during emergencies/severe weather conditions
THEN DISTRIBUTE as needed, emergency food packets which are stored in the food bin lockers located in
Salem: Food storage bins are located in the TSC kitchen area
Hope Creek: Food storage bins are located inside the TSC entry door
6. **OBTAIN** additional administrative supplies as needed.
7. **COORDINATE** with the Materials Supervisor in the EOF for accessing vendor lists and for providing any needed support for the station emergency response team. The EP Emergency Phone Directory, commercial phone books, and internet are all good information sources.

ADMSS

ADMSS

ADMSS

ADMSS

ADMSS

ADMSS

ADMSS

EVENT TERMINATION/CLOSEOUT

1. **RESTORE** the Facility to its original state in. Refer to NC.EP-DG.ZZ-0002(Z) Maintenance of Emergency Response Facilities.
2. **FORWARD** all completed forms to the Emergency Preparedness Manager . **ATTACH** any referenced and completed EPEPs and appendices.

ADMSS

ADMSS

ATTACHMENT 2
Page 1 of 2
EMERGENCY PREPAREDNESS ADVISOR (EPA) CHECKLIST

Prior to Activation of Facility:

Initials

1. **VERIFY** or have TSC Communicators **VERIFY** communication capabilities with other Emergency Response Facilities using NETS, ESSX, and DID systems.
2. **VERIFY** or have TSC Communicators **VERIFY** operability of telecopiers (may **COORDINATE** with Admin Support Team).
3. **OBTAIN** anticipated ECG Communicator Attachments located in work file drawer.
4. **OBTAIN** a turnover briefing from Control Room Communicators to include the following information:
 - Current ECG attachment being implemented.
 - Status of notifications being made.
 - Due time for next station Status Checklist (SSCL).
SSCLs are due every 30 minutes.
 - Request copy of Initial Contact Message Form (ICMF), if necessary.
 - Note any special communication problems, number changes, or contacts.
 - Further note any relevant operational status.
 - Give Communicator your name, phone extension and advise that you will notify him when your facility is activated to assume Communicator duties.
 - Status of the NRC Data Sheet.
 - Status of NRC notification.
5. **DESIGNATE** Communicator 1 for voice notification duties and Communicator 2 for form preparation/ coordination and status board maintenance. **IF** a third Communicator is available, **ASSIGN** to NRC-ENS telephone duty.

 EPA

 EPA

 EPA

 EPA

 EPA

ATTACHMENT 2
Page 2 of 2
EMERGENCY PREPAREDNESS ADVISOR (EPA) CHECKLIST

Post Activation of Facility:

Initials

1. **ASSUME** all emergency communications functions when Facility is declared activated.
2. **IMPLEMENT** Event classification Guide Attachments only as directed by the Emergency Duty Officer (EDO).
3. **MONITOR** all Telecopier activity including transmissions and malfunctions. Ensure all data forms are initialed or signed off.
4. **ESTABLISH** timetable for telecopier transmissions of critical data forms ensuring deadlines are met.
5. **ENSURE** all notifications and procedural requirements are completed accurately and on time.
6. **MONITOR** status boards ensuring accuracy and timely updates.
7. **BRIEF** the EDO on communication status and carry out EDO requests.
8. **REVIEW** Communicator ECG attachments ensuring completeness and accuracy.

EPA

EPA

EPA

EPA

EPA

EPA

EPA

EPA

Event Termination/Closeout:

1. **ASSIST** in restoration of facility to its original state.
2. **FORWARD** all completed EPEPs, forms, and attachments to the EP Manager.

EPA

EPA

ATTACHMENT 3
Page 1 of 1
EMERGENCY RESPONSE TEAM – TELECOPY LOG

STATION/UNIT: _____

PAGE ____ OF ____

DATE: _____

No.*	Time	Rec'd (R) Sent (S)	Subject (Refer to Legend)	Initials

❖ Assign a sequential number to all documents except for test transmittals.

LEGEND:

ARR = Activity Report Roster
ERFR = Integrated ERF Roster
MEES = Major Equip. & Elec Status
OPS = Operational Status Board
RADS = Radiological Assessment Data Sheet
SRS = Shift Relief Schedule (2 pgs.)

DADS = Dose Assessment Data Sheet
ICMF = Initial Contact Message Form
NRCD = NRC Data Sheet (2 pgs.)
PDL = Plant Display Locations (2 pgs.)
RE = Reduction in Event
SSCL = Station Status Checklist (2 pgs.)

ATTACHMENT 4
Page 1 of 4
ONSITE SHIFT RELIEF SCHEDULE MANNING CHART

Date: _____

Technical Support Center (TSC)

POSITION	TITLE	SHIFT #1	SHIFT #2
		(__ : __ to __ : __) (Current shift)	(__ : __ to __ : __) (Relief shift)
A-03	EDO		
E-01	RAC		
E-02	RP SUPERVISOR OFFSITE		
E-03	RP TECH		
F-01	TSS		
F-02	TSTL		
F-05	CONTROLS ENG		
F-06A	CORE THERMAL ENGR.		
F-03	ELECTRICAL ENGR		
F-04	MECHANICAL ENGR		
F-07	EPA		
F-08	CM1		
F-08	CM2		
F08B	OPERATIONS ADVISOR		
I-01	SECURITY LIAISON		
J-03	ADMIN SUPPORT SUPV		
J-04	ADMIN STAFF		
J-04	ADMIN STAFF		
J-04	ADMIN STAFF		
J-04a	ADMIN STAFF (TDR CLERK)		

ATTACHMENT 4
Page 2 of 4
ONSITE SHIFT RELIEF SCHEDULE MANNING CHART

Date: _____

Operations Support Center (OSC)

POSITION	TITLE	SHIFT #1	SHIFT #2
		(__ : __ to __ : __) (Current shift)	(__ : __ to __ : __) (Relief shift)
C-01	OSC COORDINATOR		
C-10	OSC CLERK		
C-04A	SHIFT SUP SUPERVISOR		
C-05A	RAD WASTE OPERATOR		
B-05	EO		
B-05	EO		
B-05	EO		
C-04B	MECH SUPV		
C-04C	CONTROLS SUPV		
C-05E	I&C TECH		
C-05E	I&C TECH		
C-05D	ELEC TECH		
C-05D	ELEC TECH		
C-05B	MACHINIST		
C-08	PLANNER		
E-02	RP SUPV EXP CONT		

ATTACHMENT 4
Page 3 of 4
ONSITE SHIFT RELIEF SCHEDULE MANNING CHART

Date: _____

Operations Support Center (OSC) - Continued

POSITION	TITLE	SHIFT #1	SHIFT #2
		(__ : __ to __ : __) (Current shift)	(__ : __ to __ : __) (Relief shift)
C-06	SITE PROT SUPERVISOR		
C-06A	FIRE BRIGADE		
C-06A	FIRE BRIGADE		
C-06A	FIRE BRIGADE		
C-06A	FIRE BRIGADE		
C-06A	FIRE BRIGADE		

Date: _____

Control Room Staff

POSITION	TITLE	SHIFT #1	SHIFT #2
		(__ : __ to __ : __) (Current shift)	(__ : __ to __ : __) (Relief shift)
A-04	OS		
B-04	CR CM1		
B-04	CR CM2		
B-02	CRS		
B-01	NSTA		
B-03	NCO		
B-03	NCO		

ATTACHMENT 4
Page 4 of 4
ONSITE SHIFT RELIEF SCHEDULE MANNING CHART

Date: _____

Control Point Staff (CP)

POSITION	TITLE	SHIFT #1 (__ : __ to __ : __) (Current shift)	SHIFT #2 (__ : __ to __ : __) (Relief shift)
E-02	RP SUPERVISOR IN PLANT		
E-03/04	RP TECH		
E-03/04	RP TECH		
E-03/04	RP TECH		
E-03/04	RP TECH		
E-03/04	RP TECH		
E-03/04	RP TECH		
E-03/04	RP TECH		
E-05	CHEM SUPERVISOR		
E-06	CHEM TECH		
E-06	CHEM TECH		

EXTRAS

<u>Position</u>	<u>Title</u>	<u>Shift #1</u>	<u>Shift #2</u>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

ATTACHMENT 5
Page 1 of 1
EDO CLERK GUIDELINES

EDO CLERK - CHECKLIST

The following guidelines provide suggested tasks that the EDO Clerk should perform if agreed upon with the EDO.

GUIDELINES:

- **MAINTAIN** EDO logbook. **ENTER** key information as announced or as directed by the EDO. Ensure the EDO reviews the log periodically.
- **TRACK** EDO facility briefings and **PROVIDE** the EDO with a 5-minute warning before the next scheduled briefing (usually every 30 - 45 minutes).
- **MAINTAIN** the facility activation section of the Emergency Status Information Board.
- **ANSWER** unattended phones of the EDO, TSS, or RAC. **TAKE** message or **INTERRUPT** personnel if the caller says the information is urgent.
- **UPDATE** OSC priority board every 30 minutes by **CONTACTING** the OSC Clerk and **ENSURING** that the TSC board reflects the OSC priority board. **INFORM** EDO when priority board is updated.
- **OBTAIN** procedures for the EDO/TSS/RAC as requested from the working file cabinet.
- **ENSURE** EDO/TSS/RAC have administrative supplies.
- **ADJUST** volume of plant page desk speaker (Salem only) to maximum.

OPERATIONAL SUPPORT CENTER (OSC) RADIATION PROTECTION RESPONSE

USE CATEGORY: **II**

PSE&G

CONTROL

COPY # EP1P059

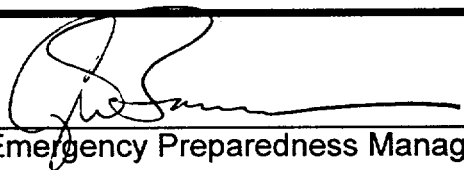
REVISION SUMMARY:

1. This revision satisfies the requirement for a biennial review.
2. Added clarification to the instructions in Attachment 1 (Steps 1.1 and 1.2) by indentifying the phone number is a NETS phone number.

IMPLEMENTATION REQUIREMENTS

Implementation Date: 03/14/02

APPROVED: _____


Emergency Preparedness Manager

3/1/02
Date

APPROVED: _____

N/A
Vice President – Operations

N/A
Date

OPERATIONAL SUPPORT CENTER (OSC) RADIATION PROTECTION RESPONSE

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1.0 **PURPOSE**

- To outline and describe the duties Radiological Protection Supervisor – Exposure Control (RPS-EXP).
- To provide guidance to emergency response personnel for administration of Radiation Protection Team Response for the Operational Support Center (OSC) during an emergency at Hope Creek or Salem Nuclear Generating Station.

2.0 **PREREQUISITES**

2.1 **Prerequisites To Be Followed Prior To Implementing This Procedure.**

Implement this procedure at:

- The OS' discretion.
- The manning of the OSC.
- The declaration of an Alert.

3.0 **PRECAUTIONS AND LIMITATIONS**

3.1 **Precautions and Limitations To Be Followed Prior To Implementing This Procedure.**

3.1.1 **SALEM ONLY**

Dose Rates in the 78' Electrical Penetration Area could be higher than what is indicated on the R47 ARM. The R47 ARM is located across the room from the PASS lines.
CAUTION should be exercised when entering this area.

3.1.2 It is recommended that initials be used in the place-keeping sign-off, instead of checkmarks, if more than one person may implement this procedure.

3.1.3 Personnel who implement this procedure shall be trained and qualified in accordance with (IAW) the Emergency Plan.

4.0 **EQUIPMENT REQUIRED**

As provided In the Emergency Response Facility.

5.0 PROCEDURE

5.1 The Radiation Protection Supervisor – Exposure Control Should Perform The Following:

- 5.1.1 DIRECT habitability to be performed every 30 minutes and the results logged on Form 2, Habitability Log. _____
- 5.1.2 COMPARE habitability results to Attachment 4, Onsite Protective Action Guidelines, and perform appropriate actions. _____
- 5.1.3 OBTAIN current status of the emergency from the OSCC. _____

NOTE

- An individual's yearly dose limit is to be automatically raised to 4500 mrem upon the declaration of an Alert or higher classification. The dose extension to 4500 mrem may be entered into the PRORAD system, but is not required.
- An authorization needs to be placed into the system before a person's dose can be raised to 4500 mrem in PRORAD. Refer to Attachment 1 for instructions on how to accomplish this task and return a person's dose limit to normal upon the termination of an Emergency.
- No dose extension shall be allowed, if a person does not have a completed NRC Form 4 on record. The person's dose limit will be 400 mrem.

- 5.1.4 IF persons in the OSC do not have a TLD,
THEN ensure one is issue and log it on Form 1, TLD Log. _____

NOTE

Dose Tracking may be performed using the PRORAD System instead of Attachment 1, Individual Radiation Exposure Record, if PRORAD is operational

- 5.1.5 ENSURE 1.0 of Attachment 1 is completed for the onsite emergency response personnel assigned to the OSC and Control Point. _____
- 5.1.6 ENSURE control of Attachment 1 is maintained in order to expedite and provide a tracking mechanism for OSC/CP personnel activities and exposures. _____

- 5.1.7 NOTIFY the OSCC prior to any CP teams being sent out into the plant and ensure they are tracked on the OSC Team Status Board.

NOTE

An individual, in lieu of a team, may be dispatched by the OSCC. The individual should be in contact with the Control Point or OSC via some type of audio communications (page, radio, or telephone) and should check-in every 15 to 30 minutes with the OSC or Control Point.

An individual should not be dispatched under the following circumstances:

- An individual's exposure is expected to exceed 1000 mrem External Dose Equivalent (EDE).
- The task would require entry into a "Harsh Environment Area", (i.e., steam atmosphere, a heat stress area, etc.).
- Acts of sabotage or suspected sabotage.

- 5.1.8 DIRECT all OSC and CP teams to be made up of at least two people, unless a task meets the criteria from the note above for dispatching an individual.

- 5.1.9 IF travel path dose rates, or dose rates at destination are ≥ 1000 mR/hr EDE,
THEN **COMPLETE** Attachment 2, ALARA Analysis Form.

- 5.1.10 IF travel path dose rates, or dose rates at destinations are ≤ 1000 mR/hr EDE,
THEN Attachment 2 does **NOT** have to be completed.

- 5.1.11 PROVIDE job status information to the Radiological Assessment Coordinator (RAC) concerning completed and ongoing jobs.

NOTE

- Radiological briefings of teams should take place during pre-job briefing. Two separate briefings (pre-job and radiological) is not the proper method of performing OSC briefings, in the majority of cases. No duplicate radiological briefings should take place at the Control Point prior to the OSC team entering the Radiological Control Area (RCA).
- Pre-job briefings should try to meet a goal of not going longer than 20 minutes. Circumstances may arise that make meeting this goal impossible, but the 20 minute target should be tried to be met.

5.1.12 BRIEF all team members on appropriate radiological conditions. _____

5.1.13 DEBRIEF all teams and ensure 2.0 of Attachment 1 is completed. _____

5.1.14 OBTAIN plant status updates from the OSCC. _____

5.1.15 OBTAIN current RMS status from the most appropriate location listed below:

(HOPE CREEK ONLY)

- the VAX LA120 utilizing Attachment 5, Operation of the VAX LA120. _____
- Control Point personnel. _____
- TSC Radiological Assessment personnel. _____

(SALEM ONLY)

- Shift Radiation Protection Technician (SRPT) _____
- TSC Radiological Assessment personnel. _____

NOTE

Noble Gas Technical Specification Radiological Release Limits are:

- Hope Creek = $1.20\text{E}+04$ uCi/Second
- Salem = $2.42\text{E}+05$ uCi/Second

5.1.16 ESTABLISH contamination controls (no eating, no drinking, no smoking, proper postings, setting up step off pads and friskers) when any of the following have occurred. _____

- A radiological release \geq Noble Gas technical specification limits is in progress. _____
- The potential of a radiological release \geq Noble Gas technical specification limit is in progress. _____
- Normal RCA boundaries have been breached. _____
- At the RAC's discretion. _____

5.1.17 NOTIFY the RAC or SRPT of the changing conditions as determined from step 5.1.16. _____

NOTE

It is part of the RAC's responsibilities to establish best routes and ways in and out of the Owner Controlled Area if step 5.1.17 has been implemented.

HOPE CREEK ONLY

Movements of teams outside the Emergency Response facilities (ERFs) and Power Block should be coordinated with the RAC.

SALEM ONLY

Movements of teams outside the ERFs and Turbine Buildings, Auxiliary Buildings, Containments, Diesel Buildings, and the Main Guard House should be coordinated with the RAC.

5.1.18 COORDINATE with the OSCC and the RAC, transportation of injured person(s) or person(s) receiving exposures of 5 rem acute EDE dose, or greater to appropriate medical facilities.

5.2 **Perform The Following Steps If Emergency Exposure Is Required:**

NOTE

- Voluntary consent, pre-job briefings, and EDO authorization for Life Saving Tasks, that require Emergency Exposure, should done verbally prior to, or during, the OSC Team being dispatched.
- Attachment 3 should be completed as soon as possible, after the return of the OSC Life Saving Team's return.
- Attachment 3 contains instructions for making Emergency Exposure Authorizations and filling out necessary documentation.

5.2.1 IMPLEMENT Attachment 3, Selection and Authorization for Emergency Exposures.

6.0 **RECORDS**

Return completed procedure, original copies of Attachments to the Emergency Preparedness Manager.

7.0 REFERENCES

7.1 References

- 7.1.1 EPA 400-R-92-001: October 1991
- 7.1.2 Roger E. Linneman, M.D., Correspondence Dated November 24, 1993
- 7.1.3 10CFR20, Standards for Protection against Radiation, December 31, 1992.
- 7.1.4 Nuclear Business Unit Emergency Plan

7.2 Cross References

- 7.2.1 NC.EP-EP.ZZ-0302(Q), Radiological Assessment Coordinator Response
- 7.2.2 NC.EP-EP.ZZ-0301(Q), Shift Radiation Protection Response

7.3 Closing Documents

Closing Document-027Z (CD-027Z) NRC Inspection Item 354/85-44-01

**ATTACHMENT 1
PAGE 1 OF 1**

INDIVIDUAL RADIATION EXPOSURE RECORD

DATE/TIME: ____ - ____ - ____ / ____:____

1.0 INDIVIDUAL INFORMATION

Name: _____ Badge Number: _____

NOTE

Dose tracking may be performed using the PRORAD system, if PRORAD is operational, instead of this attachment.

- 1.1 REQUEST the RAC for permission to contact the Nuclear IT Network Operations person located at NETS x7200 to execute the SQL script titled "**Emergency Exposure Limits – Increase**" to have Emergency Responder's dose limits raised to 4500 mRem in PRORAD.
- 1.2 REQUEST the RAC for permission to contact the Nuclear IT Network Operations person located at NETS x7200 to execute the SQL script titled "**Emergency Exposure Limits – Normal**" to have Emergency Responder's dose limits returned to normal in PRORAD upon termination of the emergency.

2.0 OBTAIN the following information and fill in the appropriate blanks if PRORAD is not being used.

2.1 NAME: _____ BADGE NUMBER: _____

2.2 CURRENT YEARLY DOSE: _____ (mRem)

2.3 Job Specific Information

Team Number	Dose Rec'd (mRem)	Yr. Remaining Dose (mRem)*	Initial When Entered into PRORAD
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

*Year Remaining Dose (mRem) = [(4500 mRem – Current Year Dose) – Dose Received]

ATTACHMENT 2

Page 1 of 2

ALARA ANALYSIS FORM

NOTE

Planned exposure to an individual that is projected to result in dose to an individual ≥ 4500 mrem(EDE) in this calendar year requires emergency exposure authorization and should meet the criteria of accident mitigation or life saving tasks as outlined in Attachment 3.

1.0 Projected Dose Analysis:1.1 Entry Route: _____1.1.1 Time Required to reach job site: _____ (hours)1.1.2 Dose Rate(s) in areas that need to be traversed: _____ (rem/hr)1.1.3 Calculated Dose (individual dose): _____ (rem)
(1.1.1 * 1.1.2 = 1.1.3)1.2 Tasks to be Performed: _____1.2.1 Time required to perform job: _____ (hours)1.2.2 Dose rate in job areas: _____ (rem/hr)1.2.3 Calculated Dose (individual dose): _____ (rem)
(1.2.1 * 1.2.2 = 1.2.3)1.3 Exit Routes: _____1.3.1 Time Required to exit area: _____ (hours)1.3.2 Dose Rate(s) in areas that need to be traversed: _____ (rem/hr)1.3.3 Calculated Dose (individual dose): _____ (rem)
(1.3.1 * 1.3.2 = 1.3.3)1.4 Total Individual External Dose Equivalent: _____ (rem)
[(1.1.3 + 1.2.3 + 1.3.3 = 1.4) Total Individual EDE]

ATTACHMENT 2 (cont)
Page 2 of 2

2.0 Team Briefing

2.1 Information Covered During Briefing: _____

2.2 Personnel Attending Briefing:

Name	Signature	Badge #	Name	Signature	Badge #

ATTACHMENT 3

Page 1 of 4

SELECTION AND AUTHORIZATION FOR EMERGENCY EXPOSURES

1.0 Effects Of Exposure To Radiation on the Human Body1.1 The Following Information Is Based on ACUTE EDE Exposure to Radiation.

RANGE	0 to 100 (rem)	100 to 200 (rem)	200 to 600 (rem)	600 to 1000 (rem)	1000 to 5000 (rem)	1000 to 5000 (rem)
Vomiting	None	5 to 50%	> 300 rem 100%	100%	100%	100%
Delay Time	-----	3 hr.	2 hr.	1 hr.	30 minutes	
Leading Organ	None	Bone Marrow			GI Tract	Central Nervous System
Characteristic Signs	None	Moderate leukopenia	Severe leukopenia, hemorrhage, infection, purpura, epilation at > 300 rem		Diarrhea, fever, electrolyte loss	Convulsions tremor, ataxia
Therapy	Reassurance	Blood Monitoring	Blood Transfusion Antibiotics	Marrow transplant? Growth factors?	Maintain electrolytes	Sedatives
Prognosis	Excellent	Excellent	Good	Guarded	Grave to Hopeless	
Incidence of Death	None	None	0 to 80%	80% to 90%	90 to 100%	

Leukopenia – drop in leukocyte (white blood cell) count.

Purpura – formation of small splotchy red or purple spots on the skin caused by rupture of a capillary with leakage of a small amount of blood under the skin layers.

Epilation – loss of hair. Will generally grow back within a month.

Ataxia – loss of muscular coordination.

2.0 GENERAL INFORMATION

- Voluntary consent, pre-job briefings, and EDO authorization for Life Saving Tasks, that require Emergency Exposure, should be done verbally prior to, or during, the OSC Team being dispatched.
- This attachment (Attachment 3) should be completed as soon as possible, after the return of the OSC Life Saving Team's return.

ATTACHMENT 3**Page 2 of 4**

- Emergency exposure should only be authorized by the Emergency Duty Officer (EDO) and cannot be delegated. The OS has this responsibility until the EDO assumes his responsibilities.
- Emergency exposure authorization may be done via telephone.
- Emergency exposure should be voluntary.
- Individual who do volunteer should:
 - ◆ Have attended and passed Radiation Worker Training
 - ◆ Be above age 45 if available and physically qualified for the task
 - ◆ Not have previously received Emergency exposure.
- Emergency exposures received should be added to the individual's current occupational radiation exposure history.
- An individual's exposure is not considered to be an Emergency exposure if his/her total exposure for the year is 4.5 rem or less upon finishing an accident mitigation or life saving task and may still volunteer to receive Emergency exposure.
- Declared pregnant women **SHALL NOT** be allowed to volunteer for Emergency exposure.

3.0 EXPOSURE CRITERIA LIFE SAVING EMERGENCY

- Any and all actions necessary to preserve life, including, but not limited to:
 - ◆ Removal of injured personnel
 - ◆ Providing medical treatment/first aid
 - ◆ Providing ambulance service to injured personnel
- Planned Emergency Exposure Limit (PEEL) for life saving is 75 rem EDE.

4.0 ACCIDENT MITIGATION EMERGENCY EXPOSURE CRITERIA

- Any and all actions necessary to mitigate an accident, including, but not limited to:
 - ◆ Performance of actions to prevent immediate deterioration of the plant status.

ATTACHMENT 3**Page 4 of 4****6.0 VOLUNTARY CONSENT****I, the under signed, volunteer for Emergency Exposure:**

PEEL (REM)	NAME	SIGNATURE	BADGE #

7.0 EMERGENCY EXPOSURE AUTHORIZATION

I hereby authorize the planned Emergency Exposure(s) for the individual(s) listed in Section 6 of (Voluntary Consent) of this Attachment.

Emergency Exposure Authorized by: (EDO) _____

DATE/TIME: ____ - ____ - ____ / ____ : ____

8.0 ACTUAL EDE DOSE RECEIVED

Badge #	Name (Print)	Current Yr. Dose (REM)	Dose Received (REM)	Total Dose (REM)

Initial when entered into PRORAD: _____ DATE/TIME: ____ - ____ - ____ / ____ : ____

ATTACHMENT 4
Page 1 of 1
ONSITE PROTECTIVE ACTION GUIDELINES

1.0 RADIATION LEVELS

Dose Rate (mR/hr) ≥ 100	<u>Location</u> Onsite	<u>Action</u> Evacuation of all nonessential personnel. Consider evacuation of other personnel.
-------------------------------	---------------------------	---

Dose Rate (mR/hr) ≥ 100	<u>Location</u> Control Room OSC TSC Control Point	<u>Action</u> Consider evacuation within one hour, and/or relocation as appropriate.
-------------------------------	--	--

Dose Rate (mR/hr) ≥ 1000	<u>Location</u> Onsite	<u>Action</u> Evacuation of all nonessential personnel Consider immediate evacuation of remaining personnel.
--------------------------------	---------------------------	---

Dose Rate (mR/hr) ≥ 1000	<u>Location</u> Control Room OSC TSC Control Point	<u>Action</u> Consider immediate evacuation, and/or relocation upwind of the plume.
--------------------------------	--	---

2.0 RADIOIODINE

If the Iodine-131 equivalent is calculated or measured in concentrations greater than or equal to 5.0E-7 uCi/cc, consider the use of Potassium Iodide for thyroid blocking. This section is to be applied to areas, in which personnel are working or are planning to work. Refer to NC EP-EP.ZZ-0305(Q), Potassium Iodine (KI) Administration, for additional information.

ATTACHMENT 5

Page 1 of 3

OPERATION OF THE VAX LA120 TERMINAL

1.0 METEOROLOGICAL DATA1.1 Perform The Following to Obtain Current 15 Minute Average Meteorological Data:

1.1.1 DEPRESS the RETURN key. (USERNAME should be displayed). _____

1.1.2 ENTER MET and depress the RETURN key _____

1.1.3 ENTER MET and depress the RETURN key. _____

NOTE

The most current meteorological data should be printed out followed by the Main Meteorological Menu. If no other keys are depressed, the current 15 minute average data will be printed out every 15 minutes

1.1.4 ENTER Option 3 (Disable Automatic Display of MET Data Every 15 minutes) and depress the RETURN key to stop the VAX LA120 from printing out meteorological data every 15 minutes. _____

1.1.5 ENTER Option 1 (Display Current Meteorological Data) and depress the RETURN key to receive the current 15 meteorological data print out. _____

1.1.6 ENTER Option 1 (Display Current Meteorological Data) and depress the RETURN key to receive the current 15 meteorological data print out. _____

1.2 Perform The Following Steps to Obtain Archived Meteorological Data:

1.2.1 DEPRESS the RETURN key. (USERNAME should be displayed) _____

1.2.2 ENTER MET and depress the RETURN key. (The most current meteorological data should be printed out followed by the Main Meteorological Menu). _____

ATTACHMENT 5

Page 2 of 3

- 1.2.3 ENTER Option 2 (Display Meteorological Data From Data Base) and depress the RETURN key. (Current system Date and Time will be displayed). _____
- 1.2.4 IF this is the data you want, THEN depress the RETURN key. (Your option will be printed out). _____
- 1.2.5 IF you want data from an another date and time, THEN go to Step 1.2.6. _____
- 1.2.6 ENTER start date and time as shown below and depress the RETURN key. (For December 27, 1989 at 0130 enter 27-DEC-1989 "depress the space bar once" and enter 01:30). _____
- 1.2.7 ENTER "Y" if the information is correct or "N" if the information is not correct and reenter it as shown in Step 1.2.6. _____
- 1.2.8 ENTER the end date and time as shown below and depress the RETURN key. (For December 28, 1989 at 0230 enter 28-DEC-1989 "depress the space bar once" and enter 02:30). _____
- 1.2.9 ENTER "Y" if the information is correct or "N" if the information is not correct and re-enter it as shown in Step 2.1.8. _____

2.0 **RMS AND MET DATA (FOR HOPE CREEK ONLY)**2.1 **Perform The Following Steps To Obtain Current Instantaneous RMS And MET Data:**

- 2.1.1 DEPRESS the RETURN key. (USERNAME should be displayed). _____
- 2.1.2 ENTER EOF and depress the RETURN key. (A prompt should be displayed asking for PASSWORD). _____
- 2.1.3 ENTER EOFUSER and depress the RETURN key. (The EOF Plant Menu should be displayed.) _____
- 2.1.4 SELECT Option 1 for Hope Creek. _____
- 2.1.5 DEPRESS the RETURN key. (The EOF Report Options Menu will be displayed). _____

ATTACHMENT 5

Page 3 of 3

- 2.1.6 ENTER Option 1 (Current RMS Status) and depress the RETURN key. (The most current instantaneous RMS and 15 minute MET data will be printed out.) _____
- 2.2 **Perform The Following Steps To Obtain 15 Minute Average RMS Data:**
- 2.2.1 DEPRESS the RETURN key. (USERNAME should be displayed). _____
- 2.2.2 ENTER EOF and depress the RETURN key. (A prompt should be displayed asking for PASSWORD). _____
- 2.2.3 ENTER EOFUSER and depress the RETURN key. (The EOF Plant Menu should be displayed). _____
- 2.2.4 SELECT option 1 for Hope Creek. _____
- 2.2.5 DEPRESS the RETURN key. (The EOF Report Options Menu should be displayed). _____
- 2.2.6 SELECT and enter option number 6 (15 Minute Historical Data). (Current system date and time should be displayed. A prompt should be displayed for start date and time) _____
- 2.2.7 DEPRESS the RETURN key for 15 minute average RMS and MET data. (Your selection will be printed). _____

FORM - 1

TLD LOG

Name _____

Date _____ TLD Number _____ Badge Number _____

To the best of my knowledge, my current annually exposure is _____mrem.

Signature _____

Date _____

Name _____

Date _____ TLD Number _____ Badge Number _____

To the best of my knowledge, my current annually exposure is _____mrem.

Signature _____

Date _____

Name _____

Date _____ TLD Number _____ Badge Number _____

To the best of my knowledge, my current annually exposure is _____mrem.

Signature _____

Date _____

FORM - 2

Page 1 of 1

HABITABILITY LOG

DATE: / /

TIME	LOCATION	DOSE RATE (mR/hr)	CONTAMINATION (CPM)	INITIALS

IF other means are used to ensure habitability, THEN list: _____

PSEG Internal Use Only

PSE&G NUCLEAR BUSINESS UNIT

NC.EP-EP.ZZ-0307 (Q) - REV. 01

PLANT VENT SAMPLING

PSE&G
PAGE 1 OF 1
CONTROL
COPY # _____

USE CATEGORY: II

REVISION SUMMARY:

1. Step 5.2.7 was clarified concerning where to locate the flow rate rotameter. This is considered an editorial revision.
2. Added the word 'reading' to step 5.2.8. This is considered an editorial revision.
3. This revision satisfies the requirement for a biennial review.

IMPLEMENTATION REQUIREMENTS

Implementation Date: 03/14/02

APPROVED: _____


Emergency Preparedness Manager

3/1/02
Date

APPROVED: _____

N/A
Vice President - Operations

N/A
Date

PLANT VENT SAMPLING TABLE OF CONTENTS

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1.0 PURPOSE

This procedure provides guidance to emergency response personnel for sampling the Plant Vent.

2.0 PREREQUISITES**2.1 Prerequisites to be followed prior to implementing this procedure.**

Implement this procedure at the discretion of:

- The Operations Superintendent (OS).
- Radiation Protection Supervisor (RPS)
- The Radiological Assessment Coordinator (RAC)

3.0 PRECAUTIONS AND LIMITATIONS**3.1 Precautions and Limitations to be followed prior to implementing this procedure:**

- 3.1.1 It is recommended that initials be used in the place-keeping sign-off, instead of checkmarks, if more than one person may implement this procedure.
- 3.1.2 Personnel who implement this procedure shall be trained and qualified in accordance with (IAW) the Emergency Plan.
- 3.1.3 Steps listed in this procedure may be performed in the order deemed appropriate for the emergency situations. Only steps applicable to the specific emergency need be performed.

4.0 **EQUIPMENT REQUIRED**

As provided in the Emergency Response Facilities (Control Point (CP), Technical Support Center (TSC), Control Room (CR), & Operational support Center (OSC).

5.0 **PROCEDURE**

NOTE

Refer to HC.RP-TI.SP-0002(Q), Operation of the FRVSV Skid, to perform sampling of the FRVS skid. The remainder of this procedure is not applicable to the Hope Creek Nuclear Generating Station.

5.1 **The Radiation Protection Technicians Should:**

CAUTION

- Good ALARA and contamination control practices should be used in all aspects of sampling and transporting of sample to its designation.
- The R-45 Sampling Skid Team should secure sampling, leave the R-45 Shed, and contact Radiation Protection Supervision (RPS), if the general area dose rate is, or becomes, 10R/hr in the R45 Shed.

NOTE

- Refer to Section 5.1 to perform change out of the SA-16 Sample.
- Refer to Section 5.2 to perform R45 Plant Vent Grab Sampling, which includes Iodine, Noble Gas, and Particulate samples.
- The SA-16 sample holder is a small, shielded cask attached to the Grab Sample Pallet by quick disconnections. See Attachment 1, Figure 2, R-45 Pallet Assembly, for further clarification.

5.1 **Perform The Following to Obtain a SA-16 Sample:**

- 5.1.1 OBTAIN a working Copy of EPIP 307S, Plant Vent Sampling and the replacement SA-16 Assembly located in the CP Emergency Locker. Ensure the Assembly has a Silver Zeolite Iodine Cartridge and a Particulate Filter in the holder.

- 5.1.2 REFER to Attachment 2, R-45 Shed Location Map, for location of the appropriate R-45 Shed. _____
- 5.1.3 TRANSPORT the SA-16 Sampling Assembly to the appropriate R-45 Shed. _____
- 5.1.4 ENTER the R-45 Shed using the front door. To the right for Unit 1, left for Unit 2, is the Local Data Acquisition Module 4 (DAM-4). _____

NOTE

The SA-16 Sample Assembly may be purged from the Control Room IAW SA.EP-EP.ZZ-0301(Q)/EPIP 301S, Shift Radiation Protection Technician Response, Attachment 5, Operating Instructions for the R-45 Control Terminal.

- 5.1.5 LOCATE SA-16 skid equipment by referring to Attachment 1, R-45 Skid (Pallet Assembly), as necessary. _____
- 5.1.6 LOCATE the SA-16 Flow Indicator on the R-45 Sample Pallet and document the Flow Rate on Attachment 3, Section II. _____
- 5.1.7 PURGE the SA-16 Sample Assembly by depressing the FLUSH button located on the DAM-4 and document the Date and Time on Attachment 3, Section I. _____
- 5.1.8 VERIFY the V2 Valve is OPEN and the V1 Valve is CLOSED by observing the indicator lights on the R-45 Pallet. _____
- 5.1.9 FLUSH the SA-16 Sample Assembly for approximately one minute prior to changing out the Sample Assembly. _____
- 5.1.10 BRING in the replacement SA-16 Sample Assembly through the front door for Unit 1 and the side R-45 Shed door for Unit 2. _____
- 5.1.11 REMOVE the SA-16 Sample Assembly from the cart. _____
- 5.1.12 CLOSE the V4 and V5 valves. This should stop the airflow through the SA-16 Sample Assembly. _____
- 5.1.13 DISCONNECT the coaxial cable from the GM tube. _____

- 5.1.14 DISCONNECT the sample lines from the SA-16 by pulling the body of the quick disconnect Fittings away from the SA-16 Sample Assembly. _____
- 5.1.15 RELEASE the SA-16 Sample Assembly from the Pallet by lifting the lever portion of the four toggle clamps. _____
- 5.1.16 REMOVE the SA-16 Sample Assembly from the pallet and place it on the SA-16 Sample Assembly transportation cart. _____
- 5.1.17 PLACE the replacement SA-16 Sample Assembly on the pallet. _____
- 5.1.18 CONNECT the SA-16 Sample Assembly to the Pallet by pushing the lever portion of the four toggle clamps down until they lock in place. _____
- 5.1.19 RECONNECT the sample lines to the SA-16 Sample Assembly by pushing quickly disconnect fittings toward the SA-16 Sample Assembly. _____
- 5.1.20 RECONNECT the coaxial cable to the GM tube. _____
- 5.1.21 OPEN the V4 and V5 Valves. This should start the airflow through the SA-16 Sample Assembly. _____
- 5.1.22 DEPRESS the FLUSH button to stop the purging. _____
- 5.1.23 VERIFY Valve V1 is OPEN and Valve V2 is CLOSED by observing the indicator lights on the pallet. _____
- 5.1.24 CONFIRM the flow rate on the SA-16 Flow Indicator is 100 cc/minute. Adjust the Flow Indicator to 100 cc/minute if this is not the case. _____

5.1.25 RECORD the following information on Attachment 3, Section I:

- A. FLUSH OFF DATE _____
- B. FLUSH OFF Time _____
- C. FLUSH OFF Flow Rate _____
- D. Contact Dose Rate on SA-16 Sample Assembly that has
been removed from the pallet. _____
- E. 30 cm Dose Rate on SA-16 Sample Assembly that has
been removed from the pallet. _____

5.1.26 NOTIFY the RAC the SA-16 Sample Assembly has been
changed out. _____

5.1.27 INFORM RPS of the contact and 30-cm dose rates on the
Sample Assembly. _____

5.1.28 REQUEST the RAC where to take the SA-16 Sample Assembly
and record this information on Attachment 3, Section II. _____

NOTE

Use of lead blankets placed on the SA-16 Sample Assembly should be considered, prior to transporting the Sample Assembly, if the contact dose rate is greater than 100 mR/hr.

5.1.29 TRANSPORT the SA-16 Sample Assembly to it's destination. _____

5.1.30 COMPLETE Attachment 3, Section I. _____

5.1.31 DELIVER Attachment 3 to the Count Room, if the sample was
transported there. _____

5.1.32 DELIVER Attachment 3 to RAC, if the Sample was transported to
another location, for retention and review as needed. _____

CAUTION

The R-45 Skid Sampling Team should secure sample collection, leave the R-45 Shed, and contact RPS if the general area dose rate is or becomes greater than 10 R/hr in the R-45 Shed.

5.2 Perform The Following Steps To Obtain An.R-45 Grab Sample:

- 5.2.1 OBTAIN a Working Copy of NC.EP-EP.ZZ-0307(Q)/EPIP 307S, Plant Vent Sampling. _____
- 5.2.2 OBTAIN the R-45 Grab Sampling Rig from the Emergency Locker at the Control Point. _____
- 5.2.3 PREPARE the R-45 Grab Sampling Rig for Sample Collection IAW Attachment 1 (Sampling Rig), R-45 Skid. Ensure that the filter holder contains both a particulate and Silver Zeolite Cartridge. _____
- 5.2.4 OPEN the Petcocks on the Johnson Bomb, (J-Bomb). _____
- 5.2.5 LOCATE the appropriate R-45 Shed by referring to Attachment 2, R-45 Shed Location map. _____
- 5.2.6 ENTER the appropriate R-45 Shed through the front door. _____
- 5.2.7 VERIFY there is an indication of flow at the skid by referring to the flow rate rotameter located immediately to the lower right of the front door. _____
- 5.2.8 IF the the rotameter is not reading approximately 6 liters/minute, THEN exit the R-45 Shed and contact RP Supervision. _____
- 5.2.9 VERIFY the Purge Valve V2 is CLOSED and the Sample Inlet Valve V1 is OPEN. _____
- 5.2.10 LOCATE the appropriate R-45 Grab Sample Apparatus and equipment items by referring to Attachment 1. _____
- 5.2.11 CONNECT the R-45 Grab Sampling Rig to the Pallet. _____
- 5.2.12 OPEN fully the Valves V7 and V8. _____
- 5.2.13 CLOSE Valve V6. _____
- 5.2.14 ADJUST the flow regulating valve on the R-45 Grab Sampling Rig to obtain a sample flow rate of 800 cc/minute for 2 minutes. _____
- 5.2.15 RECORD the following information on ATTACHMENT 3, Sample Data Sheet, Section II: _____

- Start Date _____
- Start Time _____
- Start Flow Rate _____

5.2.16 CLOSE the J-Bomb Petcocks. _____

5.2.17 OPEN Valve V6. _____

5.2.18 CLOSE Valves V7 and V8. _____

5.2.19 DISCONNECT the R-45 Grab Sampling Rig from the R-45 Sample Skid. _____

5.2.20 RECORD the following information on ATTACHMENT 3, Section II:

- End Date _____
- End Time _____
- End Flow Rate _____
- Contact and 30 cm Dose Rate on the J-Bomb and Silver Zeolite Cartridge. _____
- Sample Storage Location (if applicable) _____
- Air Sample Number (when known) _____
- Who Collected the Sample _____

5.2.21 NOTIFY the RAC the R-45 Grab Samples have been taken. _____

5.2.22 INFORM RPS of the contact and 30 cm dose rates on the J-Bomb and Silver Zeolite Cartridge. _____

5.2.23 ASK RAC where to take the R-45 Grab Samples and record this information on ATTACHMENT 3, Section II. _____

NOTE

Lead blankets or some type of shield container should be considered to transport the R-45 Grab Samples, if the contact dose rate is 100 mR/hr or greater.

- 5.2.24 TRANSPORT the R-45 Grab Samples to their destination. _____
- 5.2.25 COMPLETE Attachment 3, Section II. _____
- 5.2.26 DELIVER Attachment 3 to the Count Room or appropriate location where the sample has been delivered. _____
- 5.2.27 IF the sample was delivered to another location other than the Count Room,
THEN deliver Attachment 3 to the RAC., if the Sample was transported to another location, for retention and review. _____

6.0 RECORDS

Return completed procedure, original copies of Sample Data Sheet to the Manager – CA, EP, & IT.

7.0 REFERENCES

7.1 References
None

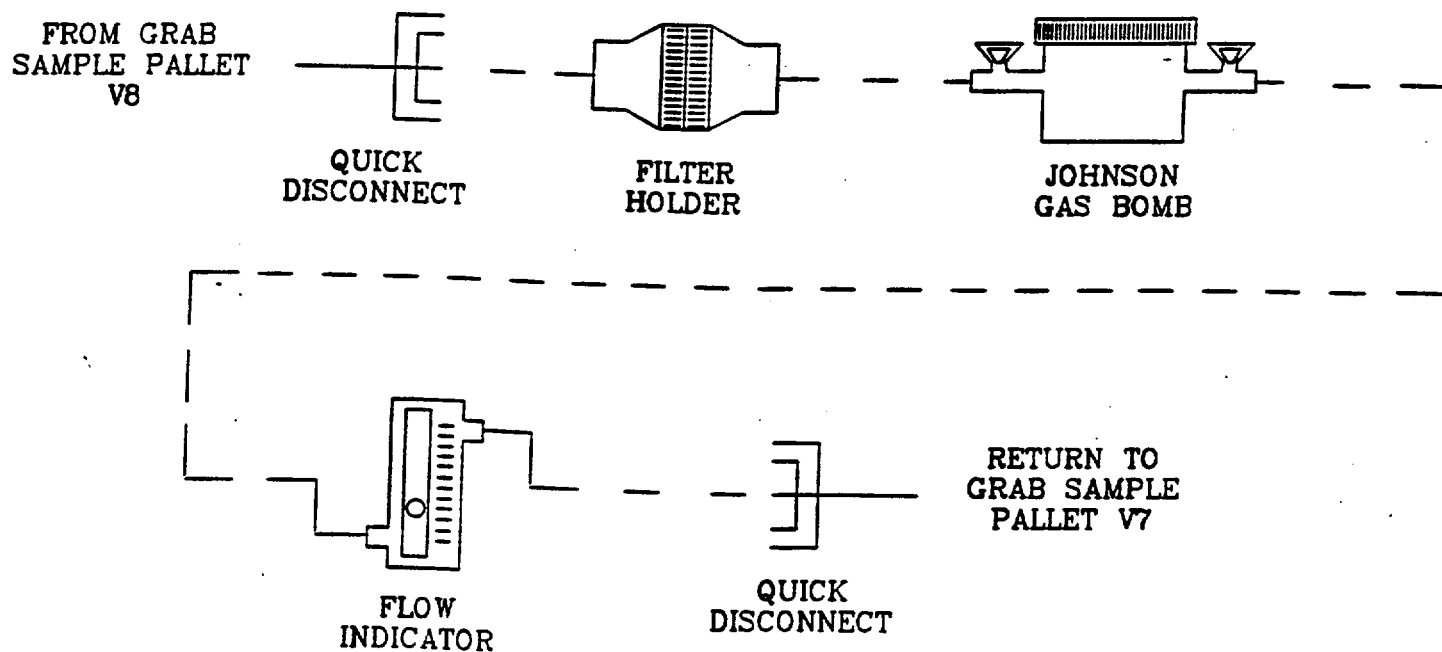
7.2 Cross References
Nuclear Business Unit Emergency Plan

ATTACHMENT 1

PAGE 1 OF 2

R-45 SKID

(SAMPLING RIG)

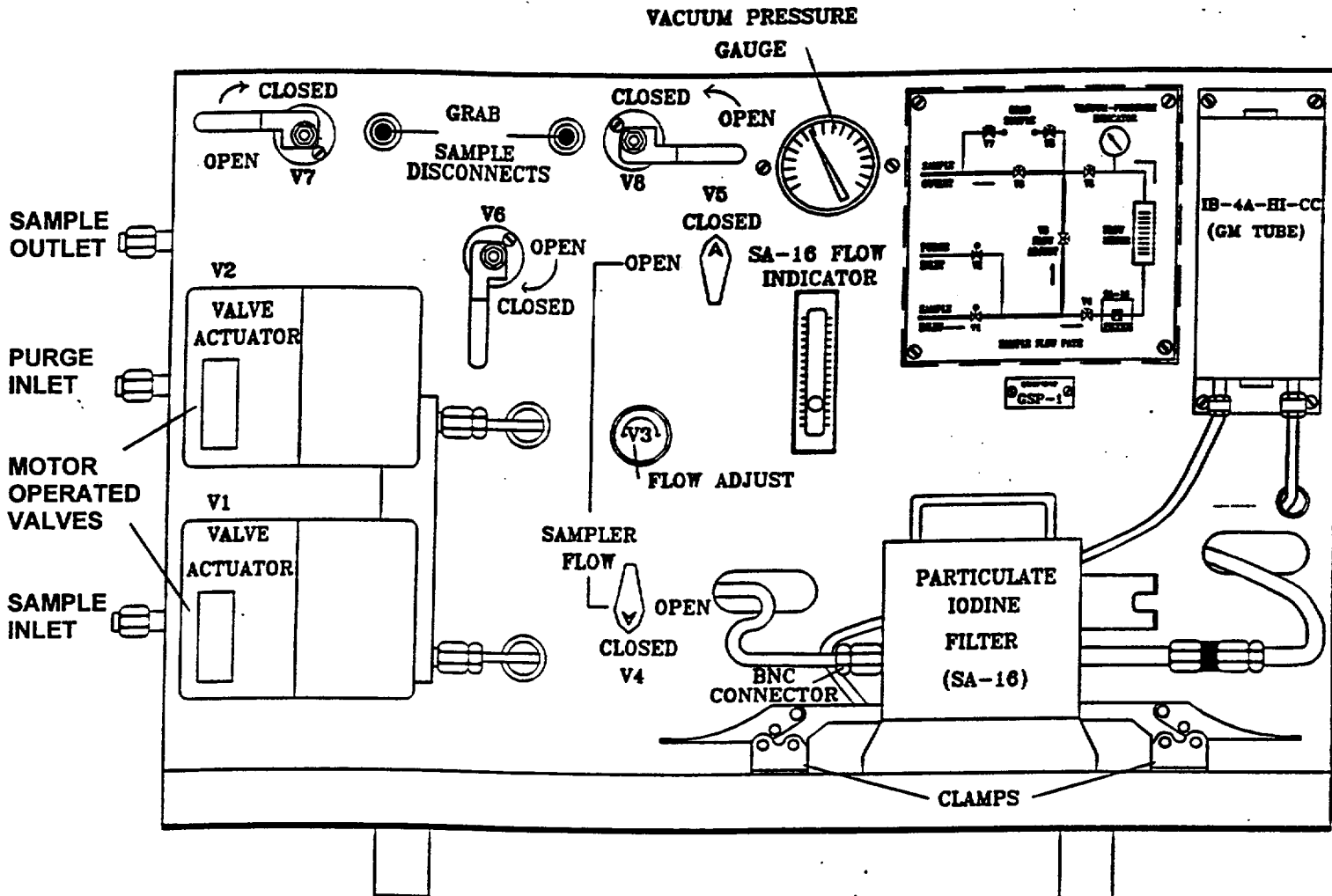


DASHED LINES INDICATE TYGON TUBING.
NOTE: TUBING USED ON SAMPLE RIG
SHOULD BE FREE OF KINKS.

ATTACHMENT 1

PAGE 2 OF 2

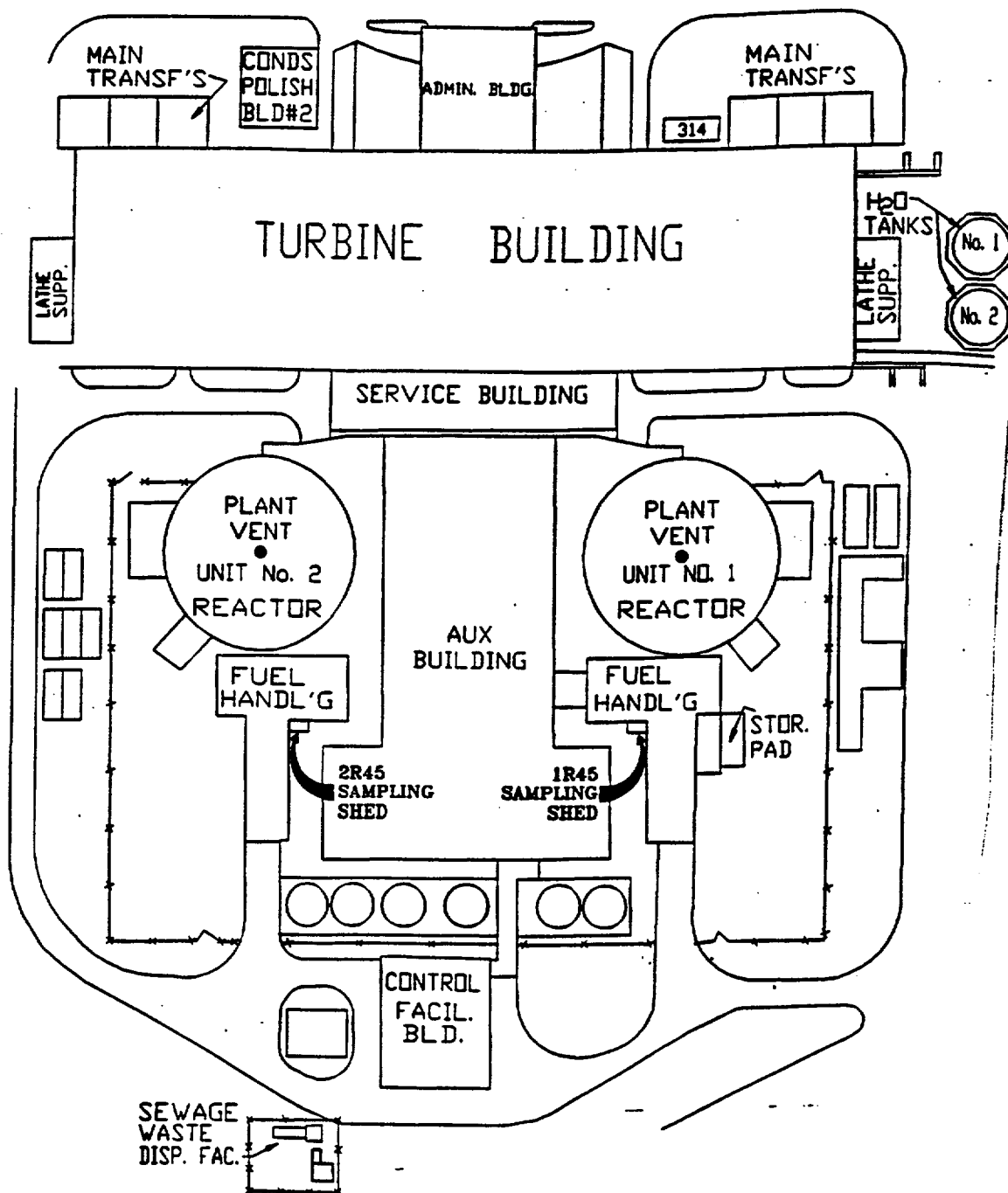
(PALLET ASSEMBLY)



ATTACHMENT 2

PAGE 1 OF 1

R-45 SHED LOCATION MAP



ATTACHMENT 3

PAGE 1 OF 1

SAMPLE DATA SHEET

SECTION I: SA-16 GRAB SAMPLE:A. FLUSH START

1. Time: _____
2. Date: _____
3. *Flow Rate: _____ cc/min.
4. Contact Dose Rate: _____ mR/hr
5. 30 cm Dose Rate: _____ mR/hr
6. Sample Storage Location: _____ Date/Time: _____ / _____
7. Sample Collected By: _____

Air Sample Number: _____

B. FLUSH STOP

1. Time: _____
2. Date: _____
3. **Flow Rate: _____ cc/min.

SECTION II: R-45 GRAB SAMPLE:A. START SAMPLING

1. Time: _____
2. Date: _____
3. *Flow Rate: _____ cc/min.
4. Contact Dose Rate (J-Bomb): _____ mR/hr
5. 30 cm Dose Rate (J-Bomb): _____ mR/hr
6. Contact Dose Rate (Cartridge): _____ mR/hr
7. 30 cm Dose Rate (Cartridge): _____ mR/hr
8. Sample Storage Location (J-Bomb): _____ Date/Time: _____ / _____
9. Sample Storage Location (Cartridge): _____ Date/Time: _____ / _____
10. Sample Collected By: _____
11. Air Sample Number: _____

B. STOP SAMPLING

1. Time: _____
2. Date: _____
3. **Flow Rate: _____ cc/min.

*Flow Rate should be taken prior to FLUSHING SA-16 Sample Assembly.

**Flow Rate should be taken after FLUSHING SA-16 Sample Assembly.