

LR-N18-0074

ENCLOSURE 2

**EMERGENCY PLAN DOCUMENT REVISIONS
IMPLEMENTED JUNE 25, 2018**

PSEG NUCLEAR L.L.C.
EMERGENCY PREPAREDNESS
NC.EP-EP.ZZ-0102(Q) Rev. 23
EMERGENCY COORDINATOR RESPONSE

USE CATEGORY: II

- A. Biennial review performed: Yes _____ No _____ N/A
- B. Packages and Affected Document Numbers incorporated into this revision: None
- C. The following OTSCs were incorporated into this revision: None
-

REVISION SUMMARY:

- 70196577 - Revised to add communications systems available to EC during ELAP/Blackout event:
 - Added Step 3.1.6 under Precautions and Limitations concerning communications systems availability during a SBO/ELAP. (70196577)
 - Added new Attachments 8, Hope Creek Communications Availability Guidance (70196577)
 - Added new Attachments 9, Salem Communications Availability Guidance (70196577)
- Revised Step 5.2.a 1st and 2nd to assess capability of the TSC to staff and activate and activate at an Alert or higher Eplan Section 9.0, Subsection 1.3 (TSC)
- Revised Step 5.3.a 1st and 2nd to assess capability of the EOF to staff and activate and activate at an Alert or higher Eplan Section 9.0, Subsection 4.0 (EOF)
- Revised Attachments 6 & 7 Note to add information regarding capability to staff and activate at Alert of higher.
- 80120807/0010 – Page 9 step 5.2.a, 3rd step revised from “EDO” to “EC” to be consistent with ERM and to ensure EC notifies SM
- 70198198/0030 – Section 5.2.b & Section 5.3.b - added PAG values for PAR upgrade and scientific notation
- 70195488 0020 & 80120807/0030 – Revised Attachment 4 to provide instructions for optional activation of the ERO at a UE classification
- Revised Step 2.7 of Attachment 10 to provide continuing direction during a security event

**EMERGENCY COORDINATOR RESPONSE
TABLE OF CONTENTS**

<u>Section</u>	<u>Title</u>	<u>Page</u>
1.0	PURPOSE	2
2.0	PREREQUISITES	2
3.0	PRECAUTIONS AND LIMITATIONS.....	2
4.0	EQUIPMENT REQUIRED	3
5.0	PROCEDURE.....	4
	5.1 Shift Manager (SM) Actions	4
	5.2 Emergency Duty Officer (EDO) Actions	9
	5.3 Emergency Response Manager (ERM) Actions	14
6.0	RECORDS.....	18
7.0	REFERENCES	18
8.0	COMMITMENT DOCUMENTS.....	18

ATTACHMENTS:

ATTACHMENT 1	DOCUMENTATION CHECKLIST	19
ATTACHMENT 2	EC EMERGENCY STATUS BRIEFING FORM.....	20
ATTACHMENT 3	ACCOUNTABILITY ACTIONS AND RESULTS	22
ATTACHMENT 4	UNUSUAL EVENT ANNOUNCEMENT	24
ATTACHMENT 5A	ALERT ANNOUNCEMENT	26
ATTACHMENT 5B	SITE AREA EMERGENCY ANNOUNCEMENT.....	27
ATTACHMENT 5C	GENERAL EMERGENCY ANNOUNCEMENT	28
ATTACHMENT 6	ACTIVATION of the TSC	29
ATTACHMENT 7	ACTIVATION of the EOF	32
ATTACHMENT 8	Communications Availability Guidance – Hope Creek	36
ATTACHMENT 9	Communication Availability Guidance – Salem.....	38
ATTACHMENT 10	SECURITY EMERGENCY GUIDELINE (SEG).....	40
ATTACHMENT 11	Allowable Deviations from Normal Work Practices In Emergencies..	45
ATTACHMENT 12	Organization of All-Call Extra Responders.....	47

EMERGENCY COORDINATOR RESPONSE

1.0 PURPOSE

This procedure provides:

- Emergency response instructions to the Emergency Coordinator (EC) after emergency classification.
- Security Emergency Guidelines (SEG is Attachment 10) to the Shift Manager (SM) for use prior to or after emergency classification based on security events.
- SM Instructions while filling the role of EC and after being relieved as the EC and reverting back to the role of SM.
- Instructions to the EDO and ERM on how to activate the TSC and EOF and actions both prior to and after facility activation.

2.0 PREREQUISITES

Initials

2.1 Prerequisites to be Followed Prior to Implementation

2.1.1 ECG Attachment 1, 2, 3, 4 or 24 was completed.

OR

2.1.2 The Security Emergency Guideline, Attachment 10 of this procedure should be implemented immediately if the Shift Manager (SM) judges that security events warrant the implementation of the Operation's Abnormal Procedure for Security Threat or Airborne Threat.

3.0 PRECAUTIONS AND LIMITATIONS

3.1 Precautions and Limitations to be Followed Prior to Implementation

3.1.1 *Initials should be used for place keeping sign-offs.*

3.1.2 Activation of the Emergency Response Organization (ERO) during an Unusual Event is implemented at the discretion of the Emergency Coordinator (EC). If additional support personnel are needed during an Unusual Event, then limited or full staffing of the TSC may be initiated at the discretion of the EC. Limited staffing may be initiated by contacting selected support personnel on an individual basis in lieu of activating the full ERO.

3.1.3 A Loss of Command and Control is defined as either one of the following:

- any event resulting in a situation where a qualified SRO is unable to establish direct control of the reactor from either the Control Room or the Remote Shutdown Panel(s).
- any event resulting in a situation where a qualified SRO is unable to implement the Emergency Plan.

Initials

- 3.1.4 IF circumstances prevent staffing and activation of the TSC, the SM may turnover EC responsibilities directly to the ERM at the EOF, bypassing the TSC. _____
- 3.1.5 IF the "Two-Person Line of Sight Rule" is in effect, the deployment of all teams within the vital area will be done IAW SY-AA-101-108, Attachment 2. _____
- 3.1.6 If the emergency involves a Station Blackout or Extended Loss of AC Power (ELAP) normal communications systems could be significantly degraded. Refer to Attachment 8 (Hope Creek) or Attachment 9 (Salem) for Communications Availability Guidance. _____

4.0 **EQUIPMENT REQUIRED**

As provided in the Control Rooms, TSCs and EOF.

5.0 **PROCEDURE**

Initials/Time

- Shift Manager (SM) shall **IMPLEMENT** section 5.1 of this procedure.
- Emergency Duty Officer (EDO) shall **IMPLEMENT** section 5.2 of this procedure.
- Emergency Response Manager (ERM) shall **IMPLEMENT** section 5.3 of this procedure.

5.1 **Shift Manager (SM) Actions:**

<u>NOTES</u>	
	1. Should the Emergency Classification Level change, the SM shall implement actions based on the new Emergency Classification Level.
	2. After EC turnover to the EDO, the SM shall continue to implement the SM designated steps in Section 5.1.
	3. Since the Rad Alert alarm is located in the Control Room, the SM directs all emergency status change announcements.

Note: Initials/time each block as applicable

5.1.a	SM Emergency Actions – Initial	UE	A	SAE	GE
SM	<p><u>IF</u> EITHER one of the following has or is occurring:</p> <ul style="list-style-type: none"> • Security Based Emergency • Catastrophic Event – large explosion, airliner impact, etc. resulting in a loss of command and control at the other station <p><u>THEN</u></p> <p>IMPLEMENT Attachment 10 - Security Emergency Guideline (SEG), of this procedure</p>	<p>Att 10</p> <p>Init: _____</p> <p>Time: _____</p>	<p>Att 10</p> <p>Init: _____</p> <p>Time: _____</p>	<p>Att 10</p> <p>Init: _____</p> <p>Time: _____</p>	<p>Att 10</p> <p>Init: _____</p> <p>Time: _____</p>
SM	<p>For each change in Emergency Classification Level, DIRECT / MAKE emergency status announcements AND Security notifications as follows:</p> <ul style="list-style-type: none"> • IMPLEMENT Attachment 4 for Unusual Event • IMPLEMENT Attachment 5 for ALERT or Higher (will be requested by EDO if TSC is activated) <p><i>For Security based emergency, SEG may require modifications of associated actions/announcements.</i></p>	<p>Att 4</p> <p>Init: _____</p> <p>Time: _____</p>	<p>Att 5A</p> <p>Init: _____</p> <p>Time: _____</p>	<p>Att 5B</p> <p>Init: _____</p> <p>Time: _____</p>	<p>Att 5C</p> <p>Init: _____</p> <p>Time: _____</p>

Note: Initials/time each block as applicable

5.1.a	SM Emergency Actions – Initial (cont'd)	UE	A	SAE	GE
SM	<p>DIRECT the other station's SM to:</p> <ul style="list-style-type: none"> If not done previously, IMPLEMENT NC.EP-EP.ZZ-0101, Actions Required at Unaffected Station. DIRECT / MAKE a Plant Page announcement per the applicable referenced attachment based on the current emergency level. <p><i>For Security based emergency, SEG may require modifications of associated actions/announcements.</i></p>	<p>EPEP 101</p> <p>UE Att 5</p> <p>Init: _____</p> <p>Time: _____</p>	<p>EPEP 101</p> <p>ASSEMBLY Att 4</p> <p>Init: _____</p> <p>Time: _____</p>	<p>EPEP 101</p> <p>ASSEMBLY Att 4</p> <p>Init: _____</p> <p>Time: _____</p>	<p>EPEP 101</p> <p>ASSEMBLY Att 4</p> <p>Init: _____</p> <p>Time: _____</p>
SM	<p><u>IF</u> not performed previously, <u>THEN DIRECT</u> the OSC Coordinator to Activate the OSC IAW NC.EP-EP.ZZ-0202, OSC Activation and Operations.</p>	<p>Optional (Mandatory for security event)</p>	<p>Init: _____</p> <p>Time: _____</p>	<p>Init: _____</p> <p>Time: _____</p>	<p>Init: _____</p> <p>Time: _____</p>
EC	<p>COMPLETE or DIRECT completion of the NRC Data Sheet IAW ECG Att. 5 and PROVIDE to the Primary and Secondary Communicators (CM1/CM2) to inform the NRC as soon as possible.</p> <p>NOTE: The 60 minute notification requirement is met when the ICMF is read to the NRC IAW EP-SA/HC-111-F6.</p>	<p>Init: _____</p> <p>Time: _____</p>	<p>Init: _____</p> <p>Time: _____</p>	<p>Init: _____</p> <p>Time: _____</p>	<p>Init: _____</p> <p>Time: _____</p>
SM	<p>Prior to TSC activation, <u>IF</u> desired or <u>WHEN</u> required, <u>THEN DIRECT IMPLEMENTATION / IMPLEMENT</u> Accountability IAW Attachment 3 of this procedure.</p> <p><i>For Security based emergency, SEG may require modifications of associated actions/announcements.</i></p>	<p>Optional</p>	<p>Optional</p>	<p>Init: _____</p> <p>Time: _____</p>	<p>Init: _____</p> <p>Time: _____</p>

5.1.b	SM Subsequent Actions	UE	A	SAE	GE
EC	<p>If ERO callout was activated, PREPARE for EC turnover to the EDO OR ERM using the WebEOC EC Status Briefing Board (or Attachment 2 - EC Emergency Status Briefing Form, of this procedure. As time allows, FAX completed Form to TSC.) <i>(Salem fax is NETS 5114 and Hope Creek fax is at NETS 5216)</i></p>	<p>Init: _____</p> <p>Time: _____</p>	<p>Init: _____</p> <p>Time: _____</p>	<p>Init: _____</p> <p>Time: _____</p>	<p>Init: _____</p> <p>Time: _____</p>
EC	<p>If needed, CONTACT unaffected station SM to identify and REQUEST available support personnel.</p>	<p>Init: _____</p> <p>Time: _____</p>	<p>Init: _____</p> <p>Time: _____</p>	<p>Init: _____</p> <p>Time: _____</p>	<p>Init: _____</p> <p>Time: _____</p>

Note: Initials/time each block as applicable

5.1.b	SM Subsequent Actions (cont'd)	UE	A	SAE	GE
SM	<p>Until relieved by the EDO, <u>IF</u> Remote Response Center (RRC) Guideline, SH.OP-AM.TSC-0002, REMOTE RESPONSE CENTER (RRC) OPERATIONS was implemented per directions in Attachment 10, <u>THEN</u>: [CM-HC.2007-42]</p> <ul style="list-style-type: none"> PROVIDE overall direction (command & control) and support to the RRC Leader (NETS X5135 or DID X2801). PROVIDE periodic briefings to the RRC Leader. TURNOVER command & control of the affected station's emergency response to a qualified SM or EDO from the affected station when the affected station has adequate resources. 	Init:____ Time:____	Init:____ Time:____	Init:____ Time:____	Init:____ Time:____
SM	<p>Until relieved by the EDO, as needed/requested for accident mitigation (25R) or life saving (75R), AUTHORIZE Emergency Dose. <i>(per OSC RP Response, NC.EP-EP.ZZ-0304)</i></p> <ul style="list-style-type: none"> ENSURE RAC works with the OSC and considers dose savings to the public to expedite OSC team dispatch. ENSURE backup actions are being planned; (OSC or TSC engineering staff). ENSURE OSC Coordinator considers pre-staging teams at the control point while plans are being finalized. 	Init:____ Time:____	Init:____ Time:____	Init:____ Time:____	Init:____ Time:____
EC	<p>IAW ECG Attachment 5, NRC Data Sheet and Completion Reference, ENSURE the NRC is notified of:</p> <ul style="list-style-type: none"> Significant changes in emergency or plant status including equivalent or lower EALs exceeded. Implementation of 10CFR50.54x <i>(Refer to OP-AA-101-111-1003, Section 4.7.2 as needed)</i> Non-emergency reportable conditions per RALs 	Init:____ Time:____	Init:____ Time:____	Init:____ Time:____	Init:____ Time:____

SM Continuous Actions on next page

Note: Initials/time each block as applicable

5.1.c	SM Continuous Actions	UE	A	SAE	GE
SM	<p>COORDINATE and PRIORITIZE OSC tasks in conjunction with accident mitigation efforts.</p>	Init:____ Time:____	Init:____ Time:____	Init:____ Time:____	Init:____ Time:____

EC	ENSURE the Station Status Checklist (SSCL) is reviewed and approved for transmission to the states every 30 minutes.	Init: ____ Time: ____	Init: ____ Time: ____	Init: ____ Time: ____	Init: ____ Time: ____
EC	If needed, CONTACT the NRC for Federal assistance or Federal resources.	Init: ____ Time: ____	Init: ____ Time: ____	Init: ____ Time: ____	Init: ____ Time: ____
SM	If needed to address plant conditions during a severe accident not specifically addressed in approved procedures or in the Severe Accident Guidelines, IMPLEMENT/DIRECT implementation of the Supplemental Severe Accident Management Guideline, SH.OP-AM.TSC-0001 and associated Technical Support Center Assist Guidelines, SC/HC.OP-AM.TSC-XXXX.	Init: ____ Time: ____	Init: ____ Time: ____	Init: ____ Time: ____	Init: ____ Time: ____
<p>NOTE</p> <p>When classifying an emergency using the Fission Product Barrier Table, it is possible for conditions to degrade but for the point total to remain in the same classification. For example, a six (6) point SAE degrades to a ten (10) point SAE or a twelve (12) point GE degrades to a thirteen (13) point GE. In these cases, the proper method of informing the states and NRC of the classification update is through the use of an updated Station Status Checklist (SSCL). Init: ____</p>					
SM	<p>REVIEW the ECG for conditions that may require Classification Escalation or PAR Upgrade:</p> <ul style="list-style-type: none"> • <u>IF</u> in the position of EC, and classification level is escalated, <u>THEN</u>, EXIT this procedure and IMPLEMENT the appropriate ECG attachment until directed back to this procedure. • <u>IF</u> in the position of EC, and a General Emergency was previously declared and conditions change such that a PAR Upgrade is needed, <u>THEN</u>, IMPLEMENT a new ECG Attachment 4 and UPGRADE the PAR on the ICMF. • <u>IF</u> EDO/ERM is the EC, <u>THEN</u>, PERFORM classification verification check and FEEDBACK results to EC. 	Init: ____ Time: ____	Init: ____ Time: ____	Init: ____ Time: ____	Init: ____ Time: ____

Note: Initials/time each block as applicable

5.1.c	SM Continuous Actions (cont'd)	UE	A	SAE	GE
SM	When SM relief is required, USE WebEOC or Attachment 2 of this procedure and PROVIDE turnover to oncoming SM.	Init:____ Time:____	Init:____ Time:____	Init:____ Time:____	Init:____ Time:____
SM	PROVIDE a control room crew update when the SM has completed EC turnover to the EDO in the TSC.	Init:____ Time:____	Init:____ Time:____	Init:____ Time:____	Init:____ Time:____
SM	When relieved as the EC: <ul style="list-style-type: none"> • ENSURE all SM steps of this procedure are completed • If emergency is upgraded, PERFORM all SM steps for the new upgraded classification level. 	Init:____ Time:____	Init:____ Time:____	Init:____ Time:____	Init:____ Time:____
SM	IMPLEMENT NC.EP-EP.ZZ-0405 (Q), Emergency Termination/Reduction/Recovery for UE termination as appropriate.	Init:____ Time:____	N/A	N/A	N/A
SM	<u>WHEN</u> the event is terminated, <u>THEN ENSURE</u> appropriate steps in Attachment 1 - Documentation Checklist are completed.	Init:____ Time:____	Init:____ Time:____	Init:____ Time:____	Init:____ Time:____
EC	<u>IF</u> needed, AUTHORIZE deviations from Normal Work Practices In Emergencies. See Attachment 11, Allowable Deviations from Normal Work Practices In Emergencies.	Init:____ Time:____	Init:____ Time:____	Init:____ Time:____	Init:____ Time:____

END – SM Actions

5.2 Emergency Duty Officer (EDO) Actions:

Initials

NOTES	
<p>1. Should the Emergency Classification Level change, the EDO shall implement actions based on the new Emergency Classification Level.</p> <p>2. After EC turnover to the ERM, the EDO shall continue to implement the EDO designated steps in Section 5.2.</p> <p>3. Since the Rad Alert alarm is located in the Control Room, the SM directs all emergency status change announcements.</p> <p>4. DID X5930 can be used to monitor Shift Manager/Security hostile action event communications.</p>	<p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>

Note: Initials/time each block as applicable

5.2.a	EDO Emergency Actions – Initial	UE	A	SAE	GE
EDO	ASSESS <u>capability</u> of the TSC to staff and be ready to activate within 90 minutes of an Alert or higher emergency classification - (NOTE: staffing and activation time could vary if severe weather conditions or acts of nature/terrorism were experienced at the same time as the ERO callout)	Optional	Capable of Activation? Yes / No Init: _____ Time: _____	Capable of Activation? Yes / No Init: _____ Time: _____	Capable of Activation? Yes / No Init: _____ Time: _____
EDO	IMPLEMENT Attachment 6 and ACTIVATE the TSC (required at SAE or higher classification)	Optional	Init: _____ Time: _____	Init: _____ Time: _____	Init: _____ Time: _____
EDO	At the discretion of the EDO, DESIGNATE an ERO member to implement Attachment 12, Organization Of All-Call Extra Responders.	Init: _____ Time: _____	Init: _____ Time: _____	Init: _____ Time: _____	Init: _____ Time: _____
EC	INFORM affected station SM of all changes in emergency level and REQUEST page announcement per appropriate attachment of this procedure.	N/A	Att 5A Init: _____ Time: _____	Att 5B Init: _____ Time: _____	Att 5C Init: _____ Time: _____
EC	COMPLETE or DIRECT completion of the NRC Data Sheet IAW ECG Att. 5 and PROVIDE to the Primary and Secondary Communicators (TSC1/TSC2) to notify the NRC as soon as possible. NOTE: The 60 minute notification requirement is met when the ICMF is read to the NRC IAW EP-SA/HC-111-F6.	Init: _____ Time: _____	Init: _____ Time: _____	Init: _____ Time: _____	Init: _____ Time: _____

<p>EDO</p>	<p><u>IF</u> not previously completed and, <u>IF</u> desired or <u>WHEN</u> required,</p> <ul style="list-style-type: none"> • THEN DIRECT the SM to implement Accountability IAW Attachment 3, Steps 1 thru 4 of this procedure. • At 30 minutes after Accountability was implemented, EDO shall COMPLETE Accountability follow-up actions IAW Attachment 3, Steps 5 of this procedure. <p><i>For Security based emergency, SEG may require modifications of associated actions/announcements.</i></p>	<p>Optional</p>	<p>Optional</p>	<p>Init:____ Time:____</p>	<p>Init:____ Time:____</p>
-------------------	---	-----------------	-----------------	--------------------------------	--------------------------------

Note: Initials/time each block as applicable

5.2.b	EDO Subsequent Actions	UE	A	SAE	GE
EDO	If needed, CONTACT unaffected station SM to identify and REQUEST available support personnel.	Init:____ Time:____	Init:____ Time:____	Init:____ Time:____	Init:____ Time:____
EDO	<p><u>IF</u> Remote Response Center (RRC) Guideline, SH.OP-AM.TSC-0002, REMOTE RESPONSE CENTER (RRC) OPERATIONS was implemented per directions in Attachment 10, <u>THEN</u>,</p> <ul style="list-style-type: none"> • PROVIDE overall direction (command & control) and support to the RRC Leader (NETS X5135 or DID X2801). • PROVIDE periodic briefings to the RRC Leader. • TURNOVER command & control of the affected station's emergency response to a qualified SM or EDO from the affected station when the affected station has adequate resources. 	Init:____ Time:____	Init:____ Time:____	Init:____ Time:____	Init:____ Time:____
EDO	<p>As needed/requested for accident mitigation (25R) or life saving (75R), AUTHORIZE Emergency Dose. <i>(per OSC RP Response, NC.EP-EP.ZZ-0304)</i></p> <ul style="list-style-type: none"> • ENSURE RAC works with the OSC and considers dose savings to the public to expedite OSC team dispatch. • ENSURE backup actions are being planned; (OSC or TSC engineering staff). • ENSURE OSC Coordinator considers pre-staging teams at the control point while plans are being finalized. 	Init:____ Time:____	Init:____ Time:____	Init:____ Time:____	Init:____ Time:____
EC	<p>IAW ECG Attachment 5, NRC Data Sheet and Completion Reference, ENSURE the NRC is notified of:</p> <ul style="list-style-type: none"> • Significant changes in emergency or plant status including equivalent or lower EALs exceeded. • Implementation of 10CFR50.54x <i>(Refer to OP-AA-101-111-1003, Section 4.7.2 as needed)</i> • Non-emergency reportable conditions per RALs 	Init:____ Time:____	Init:____ Time:____	Init:____ Time:____	Init:____ Time:____
EC	<p>After an initial PAR for a General Emergency has been made, IMPLEMENT NC.EP-EP.ZZ-0404(Q), Protective Action Recommendations (PAR) Upgrades. PAGS that require a PAR Upgrade:</p> <ul style="list-style-type: none"> • Projected TEDE Dose >1,000 (1.0E+3) mRem at 5 miles or 10 miles on a MIDAS SSCL page 2 • Projected Thyroid Dose >5,000 (5.0E+3) mRem at 5 miles or 10 miles on a MIDAS SSCL page 2 	N/A	N/A	N/A	Init:____ Time:____

Note: Initials/time each block as applicable

5.2.c	EDO Continuous Actions	UE	A	SAE	GE
EC	If needed, CONTACT the NRC for Federal assistance or Federal resources.	Init:____ Time:____	Init:____ Time:____	Init:____ Time:____	Init:____ Time:____
<p>NOTE</p> <p>When classifying an emergency using the Fission Product Barrier Table, it is possible for conditions to degrade but for the point total to remain in the same classification. For example, a six (6) point SAE degrades to a ten (10) point SAE or a twelve (12) point GE degrades to a thirteen (13) point GE. In these cases, the proper method of informing the states and NRC of the classification update is through the use of an updated Station Status Checklist (SSCL). Init: ____</p>					
EC	REVIEW plant status, radiological release conditions, and the ECG for conditions that may require Classification escalation or PAR upgrade. <u>IF</u> escalation/upgrade is being considered, <u>THEN</u> DIRECT SM and/or ERM to perform a classification/upgrade verification.	Init:____ Time:____	Init:____ Time:____	Init:____ Time:____	Init:____ Time:____
EC	<u>IF</u> classification level is escalated, <u>THEN</u> , EXIT this procedure and IMPLEMENT the appropriate ECG attachment until directed back to this procedure.	Init:____ Time:____	Init:____ Time:____	Init:____ Time:____	Init:____ Time:____
EDO	ENSURE SM and unaffected station's SM or EDO are kept informed of emergency status changes such as: <ul style="list-style-type: none"> • Classification level • Onsite protective actions • Radiological releases • Emergency response facility activations 	Init:____ Time:____	Init:____ Time:____	Init:____ Time:____	Init:____ Time:____
EC	ENSURE the Station Status Checklist (SSCL) is reviewed and approved for transmission to the states approximately every 30 minutes. May be delegated to TSS (page 1) and RAC (page 2) if desired.	Init:____ Time:____	Init:____ Time:____	Init:____ Time:____	Init:____ Time:____
EDO	If ERM is the EC, USE procedure NC.EP-EP.ZZ-0404(Q), Protective Action Recommendations (PAR) Upgrades, for peer checking PAR upgrades.	N/A	N/A	N/A	Init:____ Time:____
EDO	Upon arrival of an NRC emergency response team, PROVIDE a status briefing and COORDINATE the integration of NRC team members within functional areas of the TSC.	Init:____ Time:____	Init:____ Time:____	Init:____ Time:____	Init:____ Time:____

Note: Initials/time each block as applicable

5.2.c	EDO Continuous Actions (cont'd)	UE	A	SAE	GE
EDO	Periodically (approximately every 30 – 60 minutes) , CONDUCT TSC facility leads briefings.	Init:____ Time:____	Int:____ Time:____	Init:____ Time:____	Init:____ Time:____
EDO	Periodically (approximately every 60 – 90 minutes), CONDUCT an "ALL FACILITY BRIEFING" by providing the TSC Admin Support Supervisor with a briefing time and DIRECT him/her to setup the "ALL FACILITY BRIEFING" conference call.	Init:____ Time:____	Int:____ Time:____	Init:____ Time:____	Init:____ Time:____
EDO	When EDO relief is required, USE WebEOC or Attachment 2 of this procedure and PROVIDE turnover to oncoming EDO.	Init:____ Time:____	Int:____ Time:____	Init:____ Time:____	Init:____ Time:____
EDO	When relieved as the EC, ENSURE all EDO steps of the EDO Section of this procedure are completed.	Init:____ Time:____	Int:____ Time:____	Init:____ Time:____	Init:____ Time:____
EDO	PROVIDE a TSC Staff update when the EDO has completed EC turnover to the ERM in the EOF.	Init:____ Time:____	Int:____ Time:____	Init:____ Time:____	Init:____ Time:____
EDO	If emergency is upgraded, and the ERM is the EC, PERFORM all EDO steps for the new upgraded classification level.	Init:____ Time:____	Int:____ Time:____	Init:____ Time:____	Init:____ Time:____
EDO	If needed to address plant conditions during a severe accident not specifically addressed in approved procedures or in the Severe Accident Guidelines, IMPLEMENT/DIRECT implementation of the Supplemental Severe Accident Management Guideline, SH.OP-AM.TSC-0001 and associated Technical Support Center Assist Guidelines, SC/HC.OP-AM.TSC-XXXX.	Init:____ Time:____	Int:____ Time:____	Init:____ Time:____	Init:____ Time:____
EC	IMPLEMENT NC.EP-EP.ZZ-0405 (Q), Emergency Termination/Reduction/Recovery, as appropriate.	Init:____ Time:____	Int:____ Time:____	Init:____ Time:____	Init:____ Time:____
EDO	<u>WHEN</u> the event is terminated, <u>THEN</u> ENSURE appropriate steps in Attachment 1 - Documentation Checklist are completed.	Init:____ Time:____	Int:____ Time:____	Init:____ Time:____	Init:____ Time:____
EC	<u>IF</u> needed, AUTHORIZE deviations from Normal Work Practices In Emergencies. See Attachment 11, Allowable Deviations from Normal Work Practices In Emergencies.	Init:____ Time:____	Int:____ Time:____	Init:____ Time:____	Init:____ Time:____

END – EDO Actions

5.3 Emergency Response Manager (ERM) Actions:

Initials

NOTES	
1.	Should the Emergency Classification Level change, the ERM shall implement actions based on the new Emergency Classification Level.
2.	Since the Rad Alert alarm is located in the Control Room, the SM directs all emergency status change announcements.
3.	DID X5930 or can be used to monitor Shift Manager/Security hostile action event communications.

Note: Initials/time each block as applicable

5.3.a	ERM Emergency Actions - Initial	UE	A	SAE	GE
ERM	ASSESS capability of the EOF to staff and be ready to activate within 90 minutes of an Alert or higher emergency classification - (NOTE: staffing and activation time could vary if severe weather conditions or acts of nature/terrorism were experienced at the same time as the ERO callout)	Optional	Capable of Activation? Yes / No Init:____ Time:____	Capable of Activation? Yes / No Init:____ Time:____	Capable of Activation? Yes / No Init:____ Time:____
ERM	IMPLEMENT Attachment 7 and ACTIVATE the EOF (required at SAE or higher classification)	Optional	Optional	Init:____ Time:____	Init:____ Time:____
ERM	At the discretion of the ERM, DESIGNATE an ERO member to implement Attachment 12, Organization Of All-Call Extra Responders.	Init:____ Time:____	Init:____ Time:____	Init:____ Time:____	Init:____ Time:____
EC	INFORM affected station SM of all changes in emergency level and REQUEST page announcement per appropriate attachment of this procedure. INFORM EDO of all changes in emergency level	N/A	Att 5A Init:____ Time:____	Att 5B Init:____ Time:____	Att 5C Init:____ Time:____
EC	COMPLETE or DIRECT completion of the NRC Data Sheet IAW ECG Att. 5 and PROVIDE to the Primary and Secondary Communicators (EOF1/EOF2) to notify the NRC as soon as possible. NOTE: The 60 minute notification requirement is met when the ICMF is read to the NRC IAW EP-SA/HC-111-F6.	Init:____ Time:____	Init:____ Time:____	Init:____ Time:____	Init:____ Time:____
ERM	If the event involves the activation of the Unified Command Center (UCC), DIRECT PSEG ERO personnel to fill the following positions within the UCC IAW EP Aids 60 & 61: <ul style="list-style-type: none"> • Salem - Ops Liaison (off-duty SSM or TSS) • Hope Creek – Ops Liaison (off-duty SSM or TSS) • Security Liaison (Sec. Dir. or off-duty SSC) • RadPro Liaison (off-duty RSM or RAC) 	Optional	Init:____ Time:____	Init:____ Time:____	Init:____ Time:____

Note: Initial each block as applicable

5.3.b	ERM Subsequent Actions	UE	A	SAE	GE
EC	IAW ECG Attachment 5, NRC Data Sheet and Completion Reference, ENSURE the NRC is notified of: <ul style="list-style-type: none"> • Significant changes in emergency or plant status including equivalent or lower EALs exceeded. • Implementation of 10CFR50.54x (Refer to OP-AA-101-111-1003, Section 4.7.2 as needed) • Non-emergency reportable conditions per RALs 	Init: _____ Time: _____	Init: _____ Time: _____	Init: _____ Time: _____	Init: _____ Time: _____
EC	If needed, CONTACT the NRC for needed Federal assistance or Federal resources.	Init: _____ Time: _____	Init: _____ Time: _____	Init: _____ Time: _____	Init: _____ Time: _____
EC	After an initial PAR for a General Emergency has been made, IMPLEMENT NC.EP-EP.ZZ-0404(Q), Protective Action Recommendations (PAR) Upgrades. PAGS that require a PAR Upgrade: <ul style="list-style-type: none"> • Projected TEDE Dose >1,000 (1.0E+3) mRem at 5 miles or 10 miles on a MIDAS SSCL page 2 • Projected Thyroid Dose >5,000 (5.0E+3) mRem at 5 miles or 10 miles on a MIDAS SSCL page 2 	N/A	N/A	N/A	Init: _____ Time: _____

ERM Continuous Actions on next page

Note: Initials/time each block as applicable

5.3.c	ERM Continuous Actions	UE	A	SAE	GE
<p>NOTE</p> <p>When classifying an emergency using the Fission Product Barrier Table, it is possible for conditions to degrade but for the point total to remain in the same classification. For example, a six (6) point SAE degrades to a ten (10) point SAE or a twelve (12) point GE degrades to a thirteen (13) point GE. In these cases, the proper method of informing the states and NRC of the classification update is through the use of an updated Station Status Checklist (SSCL). Init: ____</p>					
EC	<p>REVIEW plant status, radiological release conditions, and the ECG for conditions that may require Classification escalation or PAR upgrade. <u>IF</u> escalation/upgrade is being considered, <u>THEN</u> DIRECT EDO and/or SM to perform a classification/upgrade verification.</p>	Init: ____ Time: ____	Init: ____ Time: ____	Init: ____ Time: ____	Init: ____ Time: ____
EC	<p><u>IF</u> classification level is escalated, <u>THEN EXIT</u> this procedure and IMPLEMENT the appropriate ECG attachment until directed back to this procedure.</p>	Init: ____ Time: ____	Init: ____ Time: ____	Init: ____ Time: ____	Init: ____ Time: ____
EC	<p>ENSURE EDO is kept informed of emergency status changes such as:</p> <ul style="list-style-type: none"> • Classification level • Offsite protective actions • Radiological releases • Emergency response facility activations 	Init: ____ Time: ____	Init: ____ Time: ____	Init: ____ Time: ____	Init: ____ Time: ____
EC	<p>ENSURE the Station Status Checklist (SSCL) is reviewed and approved for transmission to the states every 30 minutes. This may be delegated to SSM (page 1) and RSM (page 2) if desired.</p>	Init: ____ Time: ____	Init: ____ Time: ____	Init: ____ Time: ____	Init: ____ Time: ____
ERM	<p>Upon arrival of an NRC emergency response team, PROVIDE a status briefing and COORDINATE the integration of NRC team members within functional areas of the EOF.</p>	Init: ____ Time: ____	Init: ____ Time: ____	Init: ____ Time: ____	Init: ____ Time: ____
ERM	<p>UPDATE both State Directors regularly and ENSURE data flow is satisfactory. OBTAIN information concerning any Protective Actions implemented by the States.</p> <ul style="list-style-type: none"> • New Jersey EOC Director - NETS x5410 • Delaware EOC Director - NETS x5412 <p>As a minimum, update State Directors of any changes in Emergency Classification, PARs or Radiological Release Status.</p>	Init: ____ Time: ____	Init: ____ Time: ____	Init: ____ Time: ____	Init: ____ Time: ____

Note: Initials/time each block as applicable

5.3.c	ERM Continuous Actions (cont'd)	UE	A	SAE	GE
ERM	<p>NOTIFY PSEG corporate management periodically regarding emergency status.</p> <p><i>(Chairman & CEO @ NETS X5060)</i> <i>(Executive Command Center @ NETS 5057)</i></p>	Init:____ Time:____	Init:____ Time:____	Init:____ Time:____	Init:____ Time:____
ERM	<p>Periodically (approximately every 30-60 minutes), CONDUCT EOF facility leads briefing.</p>	Init:____ Time:____	Init:____ Time:____	Init:____ Time:____	Init:____ Time:____
ERM	<p><u>IF</u> <u>offsite</u> radionuclide concentrations exist OR could potentially exist in excess of 10CFR20 Appendix B limits, THEN RECOMMEND to the States of New Jersey and Delaware that the ingestion pathway be monitored.</p>	Init:____ Time:____	Init:____ Time:____	Init:____ Time:____	Init:____ Time:____
ERM	<p>When ERM relief is required, USE WebEOC or Attachment 2 of this procedure and PROVIDE turnover to oncoming ERM.</p>	Init:____ Time:____	Init:____ Time:____	Init:____ Time:____	Init:____ Time:____
EC	<p>IMPLEMENT NC.EP-EP.ZZ-0405 (Q), Emergency Termination/Reduction/Recovery, as appropriate.</p>	Init:____ Time:____	Init:____ Time:____	Init:____ Time:____	Init:____ Time:____
ERM	<p><u>WHEN</u> the event is terminated, THEN ENSURE appropriate steps in Attachment 1 - Documentation Checklist are completed.</p>	Init:____ Time:____	Init:____ Time:____	Init:____ Time:____	Init:____ Time:____
EC	<p><u>IF</u> needed, AUTHORIZE deviations from Normal Work Practices In Emergencies. See Attachment 11, Allowable Deviations from Normal Work Practices In Emergencies.</p>	Init:____ Time:____	Init:____ Time:____	Init:____ Time:____	Init:____ Time:____

END – ERM Actions

6.0 RECORDS

Refer to Attachment 1, Documentation Checklist.

7.0 REFERENCES

7.1 References

- PSEG Nuclear Emergency Plan
- NUREG-0654, Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants.
- NRC Security Advisory Basis Document, Notification - 20080626
- Safeguards Advisory (SA-04-07) dated 6/18/04
- Safeguards Advisory (SA-05-02) dated 1/26/05
- NRC Bulletin 2005-02, EP and Response Actions for Security-Based Events
- CM-HC.2007-42 – B.5.b Commitment (70067198)
- INPO IER L1-13-10, Nuclear Accident at the Fukushima Daiichi Nuclear Power Plant

7.2 Cross References

- NC.EP-EP.ZZ-0405(Q), Emergency Termination/Reduction/Recovery
- Hope Creek/Salem Event Classification Guide (ECG)
- HC.OP-AB.SEC-0001(Q) & SC.OP-AB.CR-0004(Q), Security Event
- HC.OP-AB.SEC-0002(Q) & SC.OP-AB.CR-0005(Q), Airborne Threat
- SH.OP-AM.TSC-0002, Remote Response Center (RRC) Operations
- SH.OP-AM.TSC-0001, Supplemental Severe Accident Management Guidelines (SSAMG)
- SY-AA-101-108, Response to Suspicious Activity and Events Maliciously Directed at Plant Safety or Security
- NC.EP-EP.ZZ-0101(Q), Actions Required at Unaffected Station
- NC.EP-EP.ZZ-0202(Q), Operations Support Center (OSC) Activation and Operations
- NC.EP-EP.ZZ-0901(Q), Onsite Security Response
- NC.EP-EP.ZZ-0902(Q), Assembly/Accountability/Evacuation
- NC.EP-EP.ZZ-0903(Q), Opening of Emergency Operations Facility (EOF)
- EP Aid #060, Unified Command Center (UCC) Activation Checklist
- EP Aid #061, Unified Command Center (UCC) Responsibilities

8.0 COMMITMENT DOCUMENTS

CM-HC.2007-42 – B.5.b Commitment (70067198)

**ATTACHMENT 1
DOCUMENTATION CHECKLIST
Page 1 of 1**

Initials

1. **ENSURE** a Notification is created and the basis for the Termination/Recovery is included in the notification.

Notification #: _____

SM

2. **COORDINATE** with the station EP Manager (or designee) and **COMPLETE** the Event Review Checklist per EP-AA-120-F2

SM

3. **COLLECT, REVIEW** and **FORWARD** all completed ECG Attachments, Procedures, T&RMs, Forms, Logbooks, etc. and any supporting documentation to the Manager EP (MEP).

SM/EDO/ERM

4. **REVIEW** forwarded emergency documentation and any other relevant information for correct classification of event and corrective actions taken.

Station EPM/MEP

5. **FORWARD** the following documents to Record Retention:

- Final Report IAW EP-AA-120 – Emergency Plan Administration
- EP-AA-120-F2 - Event Review Checklist
- EP-AA-125-1002-F01-DEP Observation Checklist,
- Copies of ECG Emergency Attachments implemented by the ECs and communicators in all Emergency Response Facilities.
- NC.EP-EP.ZZ-0102 - EC Response procedure completed by all ECs.
- NC.EP-EP.ZZ-0405 - Emergency Termination procedure
- Log books maintained by the SM, EDO and ERM (If used instead of WebEOC).
- All ICMFs, NRC Data Sheets, and SSCLs transmitted during the emergency.
- Other documents as per MEP discretion.

MEP

**ATTACHMENT 2
EC EMERGENCY STATUS BRIEFING FORM
Page 1 of 2**

NOTE

Completion of this Attachment is optional. However, the information listed is useful for providing a thorough turnover to the oncoming EC. WebEOC EC Status Briefing Board is the preferred format for this information, but use of this form is acceptable. If conditions/time allows, fax this briefing form to the oncoming EC prior to starting a turnover briefing.

Plant: HC _____ S1 _____ S2 _____

1. EAL that is the basis for the emergency classification:

		Unusual Event	Alert	Site Area Emergency	General Emergency
a.	EAL(s)#	_____	_____	_____	_____
b.	Time declared	_____	_____	_____	_____
c.	PAR	_____ Yes	___RPSA – EVAC All, 0-5 miles, downwind 5-10 +/- one sector and shelter remaining 5-10 miles.		
	Wind direction (from):	_____ No	___HAB – SHELTER All, 0-5 miles, and MONITOR and PREPARE All 5-10 miles		
	_____		___Default – EVAC All, 0-5 miles and MONITOR and PREPARE All 5-10 miles		
d.	Accountability called?	_____ Yes	Time completed: _____		
	Results:	_____ No			

2. Status of important safety systems:

3. Status of fuel cladding, reactor coolant system, and containment integrity:

4. Unusual radiological conditions currently existing:

ATTACHMENT 2
EC EMERGENCY STATUS BRIEFING FORM
Page 2 of 2

5. OSC activated? (YES NO) Time Activated _____ OSC Coord. _____
In-Plant emergency actions underway (OSC priorities):

6. Identification of "out-of-service" equipment that needs repair: (not on priority list)

7. Offsite emergency actions underway: (Did a release occur? Have field-monitoring teams been dispatched? State's PADs, etc.)

8. Prognosis for the situation to improve or worsen:

9. Adequacy of current Control Room staffing: (Is an additional person needed to assist with communications?)

10. Emergency Operating Procedures (EOPs) being implemented:

11. Security Event details, were SEG Attachment 10 actions completed and what onsite protective actions have been implemented?

12. Status of NRC Data Sheet and Station Status Checklist (SSCL) update times:

13. Other:

**ATTACHMENT 3
ACCOUNTABILITY ACTIONS AND RESULTS**

Page 1 of 2

The SM should **PERFORM** steps 1 through 4 to Implement Accountability:

Initials/Time

1. For an UNUSUAL EVENT, **DIRECT** Security Shift Manager (X2223) at the Security Center to implement procedure NC.EP-EP.ZZ-0902, Sections:

- 4.2, Automated Accountability
- 4.3, Accountability Report Generation

/_____
SM

OR

For an ALERT or higher, **DIRECT** Security Shift Manager (X2223) at the Security Center to implement procedure NC.EP-EP.ZZ-0902, Sections:

- 4.2, Automated Accountability
- 4.3, Accountability Report Generation
- 4.5, Evacuation

/_____
SM

2. **DIRECT** the other station's SM to implement NC.EP-EP.ZZ-0101, ACCOUNTABILITY, Attachment 3.

Hope Creek (NETS X5234 or DID X3027) / Salem (NETS X5142 or DID X5200)

/_____
SM

NOTE

Accountability Implementation Time (AIT) is defined as the time that the below page announcement to "implement accountability" is made.

/_____
SM

3. **DIRECT** the following: (AIT +0 Min)

SOUND the Radiation Alert Alarm

/_____
SM

AND

ANNOUNCE TWICE

/_____
SM

"ATTENTION ALL PERSONNEL, ATTENTION, ALL PERSONNEL, ALL ACCOUNTABILITY STATIONS IMPLEMENT ACCOUNTABILITY"

4. 20 minutes later, **DIRECT** the following: (AIT +20 Min after above announcement was made)

SOUND the Radiation Alert Alarm

/_____
SM

AND

ANNOUNCE TWICE

/_____
SM

"ATTENTION ALL PERSONNEL, ATTENTION, ALL PERSONNEL, ALL ACCOUNTABILITY STATIONS COMPLETE ACCOUNTABILITY"

**ATTACHMENT 3
ACCOUNTABILITY ACTIONS AND RESULTS
Page 2 of 2**

The EDO (SM if TSC not yet activated) should **PERFORM** step 5 to Complete Accountability:

Initials/Time

NOTE

IF the TSC has not yet been manned by the TSC security liaison, THEN Security will report the results of the accountability immediately to the Shift Manager (SM) at both stations.

EDO/SM

5. After 30 minutes has passed from the initial "Implement Accountability" announcement, **COMPLETE** the following Accountability followup actions:(AIT+30 min)

- **OBTAIN** from Security a list of unaccounted personnel. IF Security has not supplied results of the accountability within 30 minutes of the first accountability announcement, THEN CONTACT the affected station's TSC Security Liaison and **REQUEST** accountability results.

EDO/SM

Hope Creek - NETS X5214 or DID X3252
Salem - NETS X5117 or DID X2707

- **DESIGNATE** an individual to attempt to locate unaccounted personnel as follows:
 - Page individuals over the plant page.
 - Obtain feedback from unaccounted person's co-workers/supervisors on last known location/job assignment.
 - Call individual's home to verify work schedule.
 - Request Security's assistance in locating unaccounted personnel.

EDO/SM

- **UPDATE** Security as missing personnel are located.

EDO/SM

- **INITIATE** search and rescue operations in accordance with NC.EP-EP.ZZ-0202, OSC Activation and Operations, as appropriate.

EDO/SM

- IF Accountability was directed while in an Unusual Event (no OCA evacuation was directed) and the emergency is later upgraded to an ALERT or higher, THEN, DIRECT Security Shift Manager (X2223) at the Security Center to implement NC.EP-EP.ZZ-0902, Section 4.5, Evacuation.

EDO/SM

- As the situation dictates and/or as radiological conditions permit and IF all onsite Emergency Response Facilities are completely staffed, THEN RELEASE/EVACUATE extra personnel who reported to the OSC, TSC, CP or Maintenance Shop for accountability.

EDO/SM

**ATTACHMENT 4
UNUSUAL EVENT ANNOUNCEMENT
Page 1 of 2**

- | | |
|---|----------------------|
| | <u>Initials/Time</u> |
| A. ERO NOT ACTIVATED – IF the ERO is <u>NOT</u> activated, THEN Perform steps A, 1-4 | ____/____ |
| 1. SOUND the Radiation Alert Alarm | ____/____ |
| <u>AND</u> | |
| 2. ANNOUNCE Twice | ____/____ |

“ATTENTION ALL PERSONNEL. ATTENTION ALL PERSONNEL.
(HOPE CREEK – SALEM Unit 1 – SALEM Unit 2) IS (ARE) IN AN
CIRCLE CORRECT UNIT(S)

UNUSUAL EVENT

DUE TO: _____

- | | |
|---|-----------|
| 3. REPEAT the Above Emergency Announcement over the Radio | ____/____ |
| 4. NOTIFY Security Shift Manager (X2223) at the Security Center of the UNUSUAL EVENT | |
| B. ERO ACTIVATED - If the ERO is <u>ACTIVATED</u> , THEN perform steps B, 1-4 | ____/____ |
| 1. SOUND the Radiation Alert Alarm | ____/____ |
| <u>AND</u> | |
| 2. ANNOUNCE Twice | ____/____ |

“ATTENTION ALL PERSONNEL. ATTENTION ALL PERSONNEL.
(HOPE CREEK – SALEM Unit 1 – SALEM Unit 2) IS (ARE) IN AN
CIRCLE CORRECT UNIT(S)

UNUSUAL EVENT

DUE TO: _____

ALL PSEG PERSONNEL REPORT TO YOUR ASSIGNED ASSEMBLY AREA.
 ALL CONTRACTORS LEAVE THE SITE IMMEDIATELY.

- | | |
|--|-----------|
| 3. REPEAT the Above Emergency Announcement over the Radio | ____/____ |
| (Continued Next Page) | |

UNUSUAL EVENT ANNOUNCEMENT
Page 2 of 2

4. If NOT performed previously, **DIRECT** Security Shift Manager (X2223) at the Security Center to Implement the following procedures:

- NC.EP-EP.ZZ-0901, Onsite Security Response
- NC.EP-EP.ZZ-0902, Section 4.1 Assembly, DUE TO:
(read "DUE TO:" from above message) _____
- NC.EP-EP.ZZ-0903, Opening of Emergency Operations
Facility (EOF). _____/_____

ATTACHMENT 5A
ALERT ANNOUNCEMENT
Page 1 of 1

Initials/Time

1. **SOUND** the Radiation Alert Alarm

____ / ____

AND

2. **ANNOUNCE** Twice

____ / ____

“ATTENTION ALL PERSONNEL. ATTENTION ALL PERSONNEL.
(HOPE CREEK – SALEM Unit 1 – SALEM Unit 2) IS (ARE) IN AN
CIRCLE CORRECT UNIT(S)

ALERT

DUE TO:

ALL PSEG PERSONNEL REPORT TO YOUR ASSIGNED ASSEMBLY AREA.
ALL CONTRACTORS LEAVE THE SITE IMMEDIATELY.

3. **REPEAT** the Above Emergency Announcement over the Radio

____ / ____

4. If NOT performed previously, **DIRECT** Security Shift Manager (X2223) at the Security Center to Implement the following procedures:

- NC.EP-EP.ZZ-0901, Onsite Security Response
- NC.EP-EP.ZZ-0902, Section 4.1 Assembly, DUE TO:
(read “DUE TO:” from above message) _____
- NC.EP-EP.ZZ-0903, Opening of Emergency Operations Facility (EOF).

____ / ____

ATTACHMENT 5B
SITE AREA EMERGENCY ANNOUNCEMENT
Page 1 of 1

Initials/Time

1. **SOUND** the Radiation Alert Alarm

____/____

AND

2. **ANNOUNCE Twice**

____/____

“ATTENTION ALL PERSONNEL. ATTENTION ALL PERSONNEL.
(HOPE CREEK – SALEM Unit 1 – SALEM Unit 2) IS (ARE) IN A
CIRCLE CORRECT UNIT(S)
SITE AREA EMERGENCY

DUE TO:

ALL PSEG PERSONNEL REPORT TO YOUR ASSIGNED ASSEMBLY
 AREA. ALL CONTRACTORS LEAVE THE SITE IMMEDIATELY.

3. **REPEAT** the Above Emergency Announcement over the Radio

____/____

4. If NOT performed previously, **DIRECT** Security Shift Manager (X2223) at the Security Center to Implement the following procedures:

- NC.EP-EP.ZZ-0901, Onsite Security Response
- NC.EP-EP.ZZ-0902, Section 4.1 Assembly, DUE TO:
(read “DUE TO:” from above message) _____
- NC.EP-EP.ZZ-0903, Opening of Emergency Operations Facility (EOF).

____/____

ATTACHMENT 5C
GENERAL EMERGENCY ANNOUNCEMENT
Page 1 of 1

Initials/Time

1. **SOUND** the Radiation Alert Alarm

____/____

AND

2. **ANNOUNCE** Twice

____/____

“ATTENTION ALL PERSONNEL. ATTENTION ALL PERSONNEL.
(HOPE CREEK – SALEM Unit 1 – SALEM Unit 2) IS (ARE) IN A
CIRCLE CORRECT UNIT(S)

GENERAL EMERGENCY

DUE TO:

ALL PSEG PERSONNEL REPORT TO YOUR ASSIGNED ASSEMBLY
 AREA. ALL CONTRACTORS LEAVE THE SITE IMMEDIATELY.

3. **REPEAT** the Above Emergency Announcement over the Radio

____/____

4. If NOT performed previously, **DIRECT** Security Shift Manager (X2223) at the Security Center to Implement the following procedures:

- NC.EP-EP.ZZ-0901, Onsite Security Response
- NC.EP-EP.ZZ-0902, Section 4.1 Assembly, DUE TO:
(read “DUE TO:” from above message) _____
- NC.EP-EP.ZZ-0903, Opening of Emergency Operations Facility (EOF). ____/____

ATTACHMENT 6
ACTIVATION of the TSC
Page 1 of 2

Initials/Time

<p>NOTE</p> <p>The TSC must be <u>capable</u> of staffing and activating within 90 minutes of an Alert or higher emergency classification . Staffing and activation time could vary if severe weather conditions or acts of nature/terrorism were experienced at the same time as the ERO callout.</p> <p>ACTIVATION of the TSC is REQUIRED at a SAE or higher classification.</p>
--

1.0 Prior To TSC Activation (i.e., Before Assuming Emergency Coordinator Duties):

1. **ESTABLISH** and **MAINTAIN** a chronological log of activity and events using WebEOC or a logbook. (If needed, **OBTAIN** TSC Administrative staff member to maintain the log.) ___ / ___

2. If not already done, **OBTAIN** a briefing on the status of the emergency from the Shift Manager (SM). **REFER** to WebEOC EC Status Briefing Board or Attachment 2, EC Emergency Status Briefing Form for turnover points of discussion. ___ / ___

3. **DIRECT/ENSURE** TSC section leads are making preparations to assume emergency response functions while ensuring adequate staffing:
 - Radiological Assessment Coordinator (RAC)
 - Technical Support Supervisor (TSS)
 - Administrative Support Supervisor
 - EPA or CM-1
 - Security___ / ___

4. **PERFORM** initial briefing of the TSC staff on emergency conditions and the following issues: (Full TSC staff briefing should be done after TSC has activated)
 - Plant/emergency conditions – Why are we here?
 - **ESTABLISH** TSC Activation target time – Should be within 90 minutes of Alert or higher classification.___ / ___

5. **PREPARE** to activate the TSC and **ASSUME** the duties and responsibilities of the Emergency Coordinator as follows:

ENSURE key roles/funtions for TSC activation are covered:

 - TSC has either an EDO or TSS to provide command & control
 - TSC has at least one qualified communicator
 - TSC can support Radiological and Engineering assessment___ / ___

ATTACHMENT 6

ACTIVATION of the TSC
Page 2 of 2

Initials/Time

6. **ACTIVATE** the TSC as follows: (Communicator, RP and EC turnovers should be done coincident with each other)

- **DIRECT** TSC communicators to “take turnover” from the Control Room Communicators. Communications turnover **does not** have to be completed prior to TSC activation but should be in progress.
- **DIRECT** RAC to “take turnover” of dose assessment from the SRPT
- **CONTACT** the Shift Manager and **COMPLETE** EC turnover:
 - **VERIFY** current plant/emergency status.
 - **DETERMINE** which EDO/EC steps in Section 5.2.a and 5.2.b, of this procedure are completed and which steps will be turned over for completion.
 - **ENSURE** timing and responsibility for next SSCL and/or NRC data sheet are coordinated.
 - With SM concurrence, **ASSUME** the EC function and **DECLARE** TSC activated.

___ / ___
 ___ / ___
 ___ / ___
 ___ / ___
 ___ / ___

2.0 Upon Assuming Emergency Coordinator Duties, the EDO Should:

1. **ANNOUNCE** to the TSC staff that the TSC is activated, the effective time and that you are the emergency coordinator.
2. **ANNOUNCE** (over the plant page) “THE TSC IS ACTIVATED AND _____ IS THE EMERGENCY COORDINATOR”
3. **NOTIFY** ERM of TSC activation and **PROVIDE** a brief status update.
4. **IMPLEMENT** Sections 5.2, EDO Actions, of this procedure.

___ / ___
 ___ / ___
 ___ / ___
 ___ / ___

**ATTACHMENT 7
ACTIVATION of the EOF
Page 1 of 3**

Initials/Time

NOTE

The EOF must be capable of staffing and activating within 90 minutes of an **Alert or higher** emergency classification. Staffing and activation time could vary if severe weather conditions or acts of nature/terrorism were experienced at the same time as the ERO callout.

ACTIVATION of the EOF is **REQUIRED** at a SAE or higher classification.

____ / ____

1.0 Prior To EOF Activation (i.e., Before Assuming Emergency Coordinator Duties):

1. **ESTABLISH** and **MAINTAIN** a chronological log of activity and events using WebEOC or a logbook. ____ / ____
2. **DIRECT** Emergency Preparedness Coordinator (EPC) to implement NC.EP-EP.ZZ-0401, EPC Response. ____ / ____
3. **OBTAIN** a briefing on the status of the emergency from the Emergency Duty Officer (EDO). **REFER** to WebEOC EC Status Briefing Board or Attachment 2, Emergency Status Briefing Form for points of discussion. ____ / ____
4. **ENSURE** that EOF section leads are making preparations to assume emergency response functions while ensuring adequate staffing:
 - Radiological Support Manager (RSM)
 - Site Support Manager (SSM)
 - Technical Support Manager (TSM)
 - Administrative Support Manager (ASM)____ / ____
5. **ENSURE** the Public Information Liaison (PIL) is provided with plant and emergency status information both prior to and after EOF activation. ____ / ____
6. **PROVIDE** initial briefing to the EOF staff on emergency conditions and the following issues:
 - Plant conditions
 - Introduce section leads (SSM, RSM, TSM, ASM, NJ & DE Leads)
 - Noise control
 - ASM provides administrative and IT services
 - **REQUEST** staff to synchronize all EOF clock and personnel watches with SPDS data time____ / ____

**ATTACHMENT 7
ACTIVATION of the EOF
Page 2 of 3**

- | | Initials/Time |
|---|---------------|
| 7. PERFORM periodic EOF leads briefings to exchange information IAW, "EOF Briefing Checklist." | ___ / ___ |
| 8. PERFORM periodic summary briefings for the entire EOF staff regarding current emergency events/status changes following a leads briefing. | ___ / ___ |
| 9. PROVIDE an emergency status briefing and COORDINATE the integration of NRC team members within functional areas of the EOF upon arrival of an NRC emergency response team. | ___ / ___ |
| 10. PROVIDE and OBTAIN status updates from the EDO to include the status of unaffected units/station, Onsite Protective actions implemented, and Corrective Actions in progress and their priorities. | ___ / ___ |
| 11. DIRECT ASM to request assistance from federal, state, local, and private support agencies as required. | ___ / ___ |
| 12. DIRECT ASM to assure continuity of personnel and resources for 24-hour operation of all (onsite and offsite) emergency response facilities. | ___ / ___ |
| 13. PREPARE to activate the EOF and ASSUME the duties and responsibilities of the Emergency Coordinator as follows: | |
| • ENSURE each functional group at the EOF has received a detailed briefing from their counterpart in the TSC and are ready to support EOF activation. (i.e., ERM/EDO, SSM/TSS, RSM/ RAC, TSM/TSTL, ASM/AS-SUP, EPC EOF/EPA TSC). | ___ / ___ |
| • ENSURE EOF Communicators and Radiological Assessment Staff are ready to assume communications and notification responsibilities from the TSC. This includes coordination of requirements for the "Station Status Checklist", NRC Updates, and Offsite Dose Assessment. | ___ / ___ |
| 14. ACTIVATE the EOF as follows: (Communicator, RP and EC turnovers should be done coincident with each other) | |
| • DIRECT EOF communicators to "take turnover" from the TSC Communicators. Communications turnover does not have to be completed prior to EOF activation but should be in progress. | ___ / ___ |
| • DIRECT RSM to "take turnover" of dose assessment from the RAC. | ___ / ___ |

(Continued on next page)

ATTACHMENT 7
ACTIVATION of the EOF
Page 3 of 3

- | | Initials/Time |
|---|---------------|
| • CONTACT the EDO and TAKE EC turnover. | ___ / ___ |
| • VERIFY current plant/emergency status. | ___ / ___ |
| • DETERMINE which EC steps in Section 5.3.a and Section 5.3.b, of this procedure are completed and which steps will be turned over for completion. | ___ / ___ |
| • ENSURE timing and responsibility for next SSCL and/or NRC data sheet are coordinated | ___ / ___ |
| • With EDO concurrence, ASSUME the EC function and DECLARE the EOF activated. | ___ / ___ |
| • DIRECT the EDO to announce (over the plant page):
"THE EOF IS ACTIVATED AND
_____ IS THE EMERGENCY
COORDINATOR" | ___ / ___ |

2.0 Upon Assuming Emergency Coordinator Duties, the ERM Should:

- | | |
|--|-----------|
| 1. ANNOUNCE to the EOF staff that the EOF is activated, the effective time and that you are the EC. | ___ / ___ |
|--|-----------|

<u>NOTE</u>
New Jersey has responsibility for notification and communications with the contiguous (ingestion pathway) States of Pennsylvania and Maryland.

- | | |
|--|-----------|
| 2. NOTIFY state directors of EOF activation and PROVIDE a brief status update.
(NJ Director - NETS X5410; DE Director - NETS X5412) | ___ / ___ |
| 3. IMPLEMENT Sections 5.3, ERM Actions, of this procedure. | ___ / ___ |

**ATTACHMENT 8
COMMUNICATIONS AVAILABILITY GUIDANCE - HOPE CREEK
Page 1 of 2**

Background: A Beyond Design Basis External Event (BDBEE) such as a Flood, Hurricane, Tornado, or Earthquake resulting in a Station Blackout (SBO) or Extended Loss of AC Power (ELAP) will result in significant communication systems challenges. The below guidance provides a summary of potential communication systems availability and usage guidance.

NOTE

Many/most of the PSEG Nuclear communication systems have multiple power supplies to increase reliability. Continued system availability after a BDBEE resulting in an ELAP will depend on the type of damage inflicted by the BDBEE. Do not assume the loss of a communications system without first checking system operation.

COMMO SYSTEM	PRI POWER	B/U POWER	FLEX PWR?	PRIMARY USAGE	NOTES
HC UHF Radio	Non 1E (1BJ484) fed by 10B313 MCC - Class 1E	Battery backed - Non 1E 125 VDC Switchgear 10D486	Yes – FLEX Power from 10B222 after Section 5.3 of HC-OP-EO.ZZ-0401 is complete.	Onsite communications between CR and in-plant/OSC personnel.	The portions of the UHF Radio System outside the HC power block will be disabled per Att. 10B of HC.OP-AB.ZZ-0135 when the UHF Control Room radio console is transferred to DC Remote mode.
HC Public Address (Gaitronics)	1E panel 10J496 fed by 10B411 MCC – Class 1E	Battery backed – Class 1E 125 VDC Switchgear 10D410	Yes – FLEX Power from 10B411 feeds 10J496 per HC-OP-EO.ZZ-0401, Section 5.2	Onsite communications between CR and in-plant/OSC personnel and Security Personnel	Portions of this system may be OOS based on damage from the BDBEE.
HC Satellite Phones in CR, OSC, TSC, EOF	1E Instrument Panel 1BJ481 EOF Sat phones powered by non-vital EERC power	11E Instrument Panel 1BJ481 backed by inverter 1BD481 EEOF Sat phones powered by non-vital EERC power that is UPS backed and has Emergency Diesel if available. based on BDBEE affects.	Yes – FLEX Power from 10B421 feeds 1BD481 inverter per HC-OP-EO.ZZ-0401, Section 5.2 No FLEX power for EOF Sat phones	1. Communications with Offsite Response Organization (OROs) 2. Between Salem & Hope Creek Stations 3. Between Emergency Response Facilities (ERFs)	4. In an ELAP, Satellite phones may be the only methods for the Salem and Hope Creek SMs at to communicate to ensure actions are coordinated. 5. All ERF Satellite phone #s are on NETS Quick Reference Directory - EP Aid - 004 (This includes NJ and DE) 6. Each ERF has at least one portable satellite phone
900MHz Radio system	Non-1E 120VAC panel SC230-1DISCMMAIN1Y	Panel SC230-1DISCMMAIN1Y is UPS and diesel backed (SCCM-1GENCME70)	No	Used for onsite and offsite field monitoring teams to talk with TSC and EOF	Major components in MET Tower building in OCA.

ATTACHMENT 8
COMMUNICATIONS AVAILABILITY GUIDANCE - HOPE CREEK
 Page 2 of 2

COMMO SYSTEM	PRI POWER	B/U POWER	FLEX PWR?	PRIMARY USAGE	NOTES
NETS - Nuclear Emergency Telephone System - Privately controlled PSEG telephone exchange	Commercial 120V EERC House Power	UPS and EERC Diesel Generator	No	Emergency Communications with OROs and between ERFs	1. Most onsite NETS circuits run through telephone building next to Sallyport. . 2. System used diverse pathways such as fiber, microwave, & buried cable, 3. Main system components housed in EERC 4. All NETS #s can be found on NETS Quick Reference Directory - EP Aid - 004 (This includes NJ and DE)
CENTREX - (also referred to as ESSX) --	Non-1E Telephone Bldg AC Dist Panel S1230-DIS1F6XL20Y fed from Telephone Bldg UPS Power Panel SCCM-1DIS1F6XLHAYB	Telephone Bldg UPS Power Panel SCCM-1DIS1F6XLHAYB has manual Xfer switch to select an alternate power source and is also Diesel Gen backed (SCCM-1CME53)	No	Backup to NETS	1. Verizon controlled PSEG exchange - draws dial tone (973)from Newark, NJ area. 2. Major onsite components in Telephone Bldg next to Sallyport. 3. . All CENTREX #s can be found on NETS Quick Reference Directory - EP Aid - 004
DID (Direct Inward Dial)	Same as CENTREX	Same as CENTREX	No	Backup to NETS and CENTREX	1. Verizon controlled local exchange - draws dial tone (856) from Salem Area. 2. Major components in Telephone Bldg next to Sallyport 3. . DID emergency response position #s can be found on NETS Quick Reference Directory - EP Aid - 004
NAWAS (National Attack Warning & Alert System)	Same as CENTREX	Same as CENTREX	No	Backup method for contacting State of Delaware	Owned and maintained by DEMA - Delaware Emergency Management Agency
EMRAD (Emergency Radio)	Non- 1E 120VAC	None	No	Backup method for contacting State of New Jersey	Owned and maintained by NJSP - New Jersey State Police, Office of Emergency Management.
FTS - Federal Telecommunications System - Dedicated NRC phone system	DC Power	Diesel Generator and battery backed 0 non-1E	No	PSEG uses to communicate emergency info to NRC. NRC uses to communicate between different functional areas.	1. Major components in Telephone Bldg next to Sallyport 2. NRC contact #s in ECG Attachment 6, Communicators Log. 3. Uses Verizon microwave
Sound Powered Phones	None (Voice Powered)	None (Voice Powered)	N/A	Backup system only in select areas of power block	Portions of this system may be OOS based on damage from the BDBEE

ATTACHMENT 9
COMMUNICATIONS AVAILABILITY GUIDANCE - SALEM
 Page 1 of 2

Background: A Beyond Design Basis External Event (BDBEE) such as a Flood, Hurricane, Tornado, or Earthquake resulting in a Station Blackout (SBO) or Extended Loss of AC Power (ELAP) will result in significant communication systems challenges. The below guidance provides a summary of potential communication systems availability and usage guidance.

NOTE

Many/most of the PSEG Nuclear communication systems have multiple power supplies to increase reliability. Continued system availability after a BDBEE resulting in an ELAP will depend on the type of damage inflicted by the BDBEE. Do not assume the loss of a communications system without first checking system operation.

COMMO SYSTEM	PRI POWER	B/U POWER	FLEX PWR?	PRIMARY USAGE	NOTES
Salem UHF Radio	Manual Xfer Switch: Normal - Class 1E UPS 115V supplied power from 1A/2A Vital Inst Bus Emergency - Class 1E 115V 1/2 ASDS distribution panel supplied from ASDS Inverter	1A/2A 125V battery bus power is supplied to the 1A/2A Vital Instrument Bus Inverter, 1INV1A5YB / 2INV2A5YB	Yes – FLEX Power from FLEX 230V MCC to the 1A/2A 125V battery bus which then supplies power to Class 1E UPS and converted to 115V AC power for the 1A/2A Vital Instrument Bus per S1.OP-FS.FLX-0005	Onsite communications between CR and in-plant/OSC personnel.	For a predicted Hurricane Storm Surge > 3 feet above site grade, the portions of the UHF Radio System outside the Units power block will be disabled per SC.OP-AM.FLX-0050 when the UHF Control Room radio is transferred to DC Remote.
Salem Public Address (Gaitronics)	Class 1E UPS 115V supplied power to 12/22 MAC panels.	1C/2C 125V battery bus power is supplied to the Unit 1 / Unit 2 Essential Controls Inverters 1INV1C6YC / 2INV2C6YC	Yes – FLEX Power from FLEX 230V MCC to the 1C/2C 125V battery bus which then supplies power to the Essential Controls Inverters and converted to 115V AC for 12/22 MAC panels per S1.OP-FS.FLX-0005	Onsite communications between CR and in-plant/OSC personnel and Security Personnel	Portions of this system may be OOS based on damage from the BDBEE.
Salem Satellite Phones in CR, OSC, TSC, EOF	For Control Room and OSC phones - 1A 115V Vital Inst Bus For TSC Sat phones – Non-Vital 120VAC power from panel CFBB6 in "B" Building. EOFSat phones powered by non-vital EERC power	For Control Room and OSC phones - 1A 115V Vital Inst Bus backed by inverter 1INV1A5YB TSC Sat phones – TSC Emerg Diesel will feed Panel CFBB6 if available EOF Sat phones powered by UPS backed EERC power. Has Emerg Diesel if available based on BDBEE affects.	Yes – For Control Room and OSC phones. FLEX Power from FLEX 230V MCC to the 1A/2A 125V battery bus which then supplies power to Class 1E UPS and is converted to 115V AC power for the 1A/2A Vital Instrument Bus per S1.OP-FS.FLX-0005 No FLEX power for TSC or EOF Sat phones	1. Communications with Offsite Response Organization (OROs) 2. Between Salem & Hope Creek Stations 3. Between Emergency Response Facilities (ERFs)	7. In an ELAP, Satellite phones may be the only methods for the Salem and Hope Creek SMS to communicate to ensure actions are coordinated. 8. All ERF Satellite phone #s are on NETS Quick Reference Directory - EP Aid - 004 (This includes NJ and DE) 9. Each ERF has at least one portable satellite phone

**ATTACHMENT 9
COMMUNICATIONS AVAILABILITY GUIDANCE - SALEM
Page 2 of 2**

COMMO SYSTEM	PRI POWER	B/U POWER	FLEX PWR?	PRIMARY USAGE	OTES
900MHz Radio system	Non-1E 120VAC panel SC230-1DISCMMAIN1Y	Panel SC230-1DISCMMAIN1Y is UPS and diesel backed (SCCM-1GENCME70)	No	Used for onsite and offsite field monitoring teams to talk with TSC and EOF	Major components in MET Tower building in OCA.at base of MET Tower.
NETS - Nuclear Emergency Telephone System - Privately controlled PSEG telephone exchange	Commercial 120V EERC House Power	UPS and EERC Diesel Generator	No	Emergency Communications with OROs and between ERFs	<ol style="list-style-type: none"> 1. Most onsite NETS circuits run through telephone building next to sallyport. . 2. System used diverse pathways such as fiber, microwave, & buried cable, 3. Main system components housed in EERC, non-1E structure. 4. All NETS #s can be found on NETS Quick Reference Directory - EP Aid - 004 (This includes NJ and DE)
CENTREX - (also refered to as ESSX) - -	Non-1E Telephone Bldg AC Dist Panel S1230-DIS1F6XL20Y fed from Telephone Bldg UPS Power Panel SCCM-1DIS1F6XLHAYB	Telephone Bldg UPS Power Panel SCCM-1DIS1F6XLHAYB has manual Xfer switch to select an alternate power source and is also Diesel Gen backed (SCCM-1CME53)	No	Backup to NETS	<ol style="list-style-type: none"> 1. Tele Building power fed from #1 or #2 Misc 2. Yard Equip Control Center. Verizon controlled 2. PSEG exchange - draws dial tone (973)from Newark, NJ area. 2. Major onsite components in Telephone Bldg next to Sallyport. 3. . All CENTREX #s can be found on NETS Quick Reference Directory - EP Aid - 004
DID (Direct Inward Dial)	Same as CENTREX	Same as CENTREX	No	Backup to NETS and CENTREX	<ol style="list-style-type: none"> 1. Verizon controlled local exchange - draws dial tone (856) from Salem Area. 2. Major components in Telephone Bldg 3. DID ERO position #s can be found on NETS Quick Reference Directory - EP Aid - 004
NAWAS (National Attack Warning & Alert System)	Same as CENTREX	Same as CENTREX	No	Backup method for contacting State of DE.	1, Owned and maintained by DEMA - Delaware Emergency Management Agency
EMRAD (Emergency Radio)	Non- 1E 120VAC	None	No	Backup method for contacting State of NJ	1, Owned and maintained by NJSP - New Jersey State Police, Office of Emergency Management.
FTS - Federal Telecommuincations System - Dedicated NRC phone system	DC Power	Diesel Generator and battery backed 0 non-1E	No	PSEG uses to communicate emergency info to NRC. NRC uses to communicate between different functional areas.	<ol style="list-style-type: none"> 1. Major components in Telephone Bldg next to Sallyport 2. NRC contact #s in ECG Attachment 6, Communicators Log. 3. Uses Verison microwave
Sound Powered Phones	None (Voice Powered)	None (Voice Powered)	N/A	Backup system only in select areas of power block	Portions of this system may be OOS based on damage from the BDBEE

**ATTACHMENT 10
SECURITY EMERGENCY GUIDELINE (SEG)
Page 1 of 5**

Initials/Time

CAUTION

The Shift Manager (SM) should ensure actions specified in this attachment are immediately implemented for any actual or imminent attack (Hostile Action). For any actual or imminent attack, prompt actions specified below should not be delayed but should be performed immediately even if an emergency has not yet been classified or declared.

____/____

NOTE

During an actual or imminent hostile action, a security posture will be implemented which includes a "Take Cover and Shelter-in-Place" action by all ONSITE personnel. This will inhibit many individuals from reporting to ERO positions/locations and Accountability Stations until safe passage(s) can be established.

____/____

NOTE
(Important Security Contact Phone #s)

Security Center – Security Shift Manager:	NETS 5136	DID 2223
SAS - Secondary Alarm Station:	NETS 5138/5177	DID 2255
CAS - Central Alarm Station:	NETS 5063/5033	DID 2648
Unified Command Center (@ EERC):	NETS 5090	DID 3737
SAS/CAS open conference line	NETS 4-5930	DID 5930

____/____

1. ENTRY CONDITIONS

Security based emergency is occurring or imminent. (**CONTINUE** these actions until the security threat is averted or other specific direction is provided in response to the event).

____/____

NOTE

As practical and as time allows, both Salem and Hope Creek SMs should concur on protective actions and emergency classification levels for security events.

____/____

2. PROMPT ACTIONS

2.1. IF not previously done; **CALL** Communicators to the Control Room AND (Salem Only), **CALL** SRPT to the Control Room.

____/____

2.2. If response is not possible, **IDENTIFY** personnel presently in the Control Room to be used as Communicators.

____/____

(Prompt Actions are continued on next page)

**ATTACHMENT 10
SECURITY EMERGENCY GUIDELINE (SEG)
PAGE 2 OF 5**

Initials/Time

2.3. **ENSURE** radio in the Control Room is monitoring security radio channel(s). _____/____

2.4. **ENSURE** CRS is implementing appropriate abnormal procedure "SECURITY EVENT or AIRBORNE THREAT" which will provide specific directions on when to Trip/Scram the units (if needed) as well as page announcements associated with specific onsite protective actions. _____/____

2.5. Owner Controlled Area (OCA) Evacuation OR Shelter-In-Place:

2.5.1. IF OCA Evacuation is needed or desired, THEN, in coordination with other station's SM, **DIRECT** Security in SAS to implement OCA Evacuation per NC.EP-EP.ZZ-0902, Section 5.5, Evacuation. _____/____

OR

2.5.2. IF personnel in the OCA have not been evacuated and IF needed for their protection, THEN, in coordination with other station's SM, **DIRECT** Security in SAS to make the following page announcement using the OCA siren system page announcement capability:

"Attention all personnel, Attention all personnel. A credible security threat exists at the station. All personnel take immediate cover and shelter in place until further notice" (Repeat) _____/____

2.6. IF notified by security or by fire protection of a loss of the command and control function (defined in PRECAUTIONS AND LIMITATIONS section) at the other (affected) station due to a catastrophic security event, THEN **DECLARE** a General Emergency IAW EAL HG4.1 and **ENSURE** ICMF specifies that a "Hostile Action has resulted in a Loss of Facility Control at the other station". _____/____

2.7. **EXIT** this procedure and **CLASSIFY** the security event in coordination with other station's SM. **WHEN** Security event **CLASSIFICATION** is complete, **PROCEED** to the next section - **3. SUBSEQUENT ACTIONS.** _____/____

**ATTACHMENT 10
SECURITY EMERGENCY GUIDELINE (SEG)
Page 3 of 5**

3. SUBSEQUENT ACTIONS

3.1. IF events at the other station have resulted in a loss of command and control at that station, as defined in PRECAUTIONS AND LIMITATIONS section,

THEN

DIRECT an SRO (work control SRO or STA) to report to the Fire Department Office in the NOSF and **ACTIVATE** the RRC per Guideline titled, Remote Response Center (RRC) Operations, SH.OP-AM.TSC-0002. ___ / ___

3.2. **CONSULT** with the security supervisor and as the security events change and in coordination with the other Stations SM:

- **MODIFY** onsite protective action page announcements made from the Security Threat or Airborne Threat ABs as needed. ___ / ___

- **ENSURE** any onsite page announcements regarding personnel movement are modified as needed based on the ongoing Security Threat or Events. ___ / ___

3.3. As needed, **DIRECT** that onsite protective action page announcements made IAW abnormal procedure "SECURITY EVENT or AIRBORNE THREAT", be periodically re-broadcast over the station page system. ___ / ___

3.4. During a security event, **DIRECT** security to periodically re-broadcast the OCA protective action page announcement IAW Attachment 10 Step 2.5.2 ___ / ___

3.5. IF/WHEN, Assembly or Accountability and Evacuation is required by Section 5.1 or 5.2 of this procedure, THEN **CONSIDER** delaying or modifying associated page announcements or actions based on the type of security event that is in progress and based on the protective actions already taken:

- **COORDINATE** revised or new onsite protective action announcements with the other station's SM. ___ / ___

- **CONSULT** with Security to determine if Assembly, Accountability, or Evacuation can or should be implemented. ___ / ___

- **CONSIDER** use of alternate assembly locations (e.g., Hope Creek Unit 2 Reactor Building, Material Center, "B" Building). ___ / ___

- **CONSIDER** leaving personnel in their current office / shop areas. ___ / ___

Continued on next page

**ATTACHMENT 10
SECURITY EMERGENCY GUIDELINE (SEG)
Page 4 of 5**

(Continued)

- **CONSIDER** potential alternate evacuation routes for EXITING SITE:
 - Via the Material Center
 - Via the South Sally Port
 - Via water/aircraft ___ / ___
- **MODIFY** plant page announcements for both stations as needed to maximize the safety of the plant and plant personnel. ___ / ___

3.6. (Salem Only) **START** Unit 3 if needed to provide additional backup power. ___ / ___

3.7. (HOPE CREEK ONLY) WHEN the OSC is staffed, THEN DIRECT the OSCC to have the Hope Creek TSC ventilation system place in Recirculation Mode. (NC.EP-EP.ZZ-0201(Q), Attachment 1) ___ / ___

3.8. (SALEM ONLY) WHEN the OSC is staffed, THEN DIRECT the OSCC to have the Salem TSC ventilation placed in the "Operations During Toxic or Chemical Release" lineup. (SC.OP-SO.TSC-0051) ___ / ___

3.9. IF Onsite personnel have been directed to, "take cover and shelter-in-place" THEN, DIRECT the following page announcement be made every two (2) hours while "sheltering-in-place";

Attention All Personnel Sheltering in Place, If you have a phone available at your location, contact extension 3030 and leave a message with your name, present location and phone number. ___ / ___

Continued on next page

ATTACHMENT 10
SECURITY EMERGENCY GUIDELINE (SEG)
Page 5 of 5

NOTE

The area adjacent to the EOF at the EERC in Salem City is designated as the Alternative Emergency Response Facility (AERF) for onsite ERO Responders if the site is not accessible.

____/____

3.10. IF a HOSTILE ACTION is occurring or has occurred as reported by Security THEN, in coordination with the other station's SM,

DIRECT the Security Supervisor in SAS to request LAC Police to:

- Block off the access road
- **DIRECT** all PSEG Emergency Responders to report to the EOF at the EERC (Environmental & Energy Resource Center) in Salem City.

____/____

____/____

AND

REQUEST LAC Police to have offsite emergency responders such as law enforcement, fire fighters and emergency medical personnel **STAGE** support equipment and personnel at the LAC municipal complex or other offsite location as selected by the offsite Incident Commander or designee.

____/____

3.11. IMPLEMENT / RETURN to Section 5.1, SM Actions, of this procedure.

____/____

Attachment 11
ALLOWABLE DEVIATIONS FROM NORMAL WORK PRACTICES IN EMERGENCIES
Page 1 of 2

1. The Shift Manager or Emergency Coordinator may authorize deviations from normal work practices in a declared Emergency. These deviations are authorized in existing PSEG Nuclear procedures and are summarized in page 1 of this Attachment.

2. When a **Site Area Emergency** or **General Emergency** is declared, deviations from normal processes outside of existing PSEG Nuclear procedures may be authorized by the Shift Manager or Emergency Coordinator, or designee, in order to take action to **restore core cooling, mitigate an off-site release in progress, or maintain spent fuel pool cooling**, using page 2 of this Attachment.

Process Area	Allowed Deviations	Applicable Procedure
Deviation from Technical Specifications or License Condition	Deviation from Technical Specifications or license condition to protect the public health and safety – use of 10CFR50.54(X): The SRO with overall command and control shall make the decisions to deviate from a procedure or Technical Specification to protect the public health and safety. Such departures shall meet the following criteria: <ul style="list-style-type: none"> • No equivalent action consistent with the license conditions or Technical Specifications is immediately apparent. • Action is immediately required • The departure is reasonable based on the information available at the time • The departure is the minimum necessary to protect the public health and safety • The departure is taken only for the duration of the emergency situation 	OP-AA-101-111-1003
Work Planning / Priorities	For “(1)” priority emergency work (as determined by the Shift Manager or Designee) it is permissible to have the work in progress, under the direction of the First Line Supervisor using approved Procedures / Processes where possible, while the Work Order Package is being prepared. Additional supervision / oversight is required to ensure adequate control of the work activities in the absence of a work package: <u>Work Priority (1) - Emergency:</u> <ul style="list-style-type: none"> • Work having an immediate and direct impact on the health and safety of the general public or plant personnel, • Pose a significant industrial hazard, • Require immediate attention to prevent the deterioration of plant condition to a possible unsafe or unstable level, • Unit reliability related work during Maximum Emergency Generation Alert Condition. • Loss of Site FLEX Capability 	WC-AA-106
Conduct of Maintenance Work in an Emergency	Maintenance Planning Performance of Work During Emergency or Abnormal Operating Conditions: Mitigation of an emergency, where immediate attention is required to protect the health and safety of the general public, to correct a significant industrial safety hazard, or to prevent the deterioration of plant conditions to a possible unsafe or unstable level, shall always allow work to begin before the generation of documentation (notifications, minor work order, or a normal work order). <ul style="list-style-type: none"> • Planning, reviews, and documentation activities will normally be performed in parallel with corrective actions or as soon as plant conditions allow. • Where maintenance activities are directed as an emergency, those activities shall be documented after the fact and receive the same degree of review as if they had been preplanned. • The Plant Manager or Shift Manager may direct maintenance activities to be performed without a Work Document. 	MA-AA-716-010
Equipment / Component Control	Utilize Abnormal Component Position Sheet (ACPS) to document approval, positioning and restoration of abnormally positioned components.	OP-AA-108-101
Emergency Tagging Boundary Control	In an emergency, the On-Duty Shift Manager (SM) can authorize the repositioning of a tagged component if it presents an immediate challenge to the safety of personnel or plant equipment. Prior to component operation, all personnel shall be verified clear of affected equipment, and, following component manipulation, all personnel signed on the WCD shall be notified	OP-AA-109
Radiation Protection Emergency Exposures	Emergency Exposures above normal Administrative Limits can be authorized per E-Plan Procedure: <ul style="list-style-type: none"> • Up to 25 Rem TEDE to mitigate the accident • Up to 75 Rem TEDE to save-a-life 	RP-AA-203 & NC.EP-EP.ZZ-0304
Industrial Safety	No deviations specified	NONE

Attachment 11
ALLOWABLE DEVIATIONS FROM NORMAL WORK PRACTICES IN EMERGENCIES
 Page 2 of 2

When a **Site Area Emergency** or **General Emergency** is declared, deviations from normal processes outside of existing PSEG Nuclear procedures may be authorized by the Shift Manager or Emergency Coordinator, or designee, in order to take action **to restore core cooling, mitigate an off-site release in progress, or maintain spent fuel pool cooling**, using this Attachment.

Consider the use of 10CFR50.54(x) when using this Attachment (refer to OP-AA-101-111-1003).

Task being performed: _____

Date/Time: _____

<input checked="" type="checkbox"/> Indicates deviations from normal work processes	
Configuration Control	Work Process
<input type="checkbox"/> Clearance/Equipment Tagging <input type="checkbox"/> Procedure (used as status control mechanism) <input type="checkbox"/> Boundary Control <input type="checkbox"/>	<input type="checkbox"/> Work Order Process <input type="checkbox"/> Manual Process <input type="checkbox"/>
Radiation Protection	Industrial Safety
<input type="checkbox"/> RP Job Coverage <input type="checkbox"/> Dose Limits <input type="checkbox"/> Turn Back Dose/Dose Rate <input type="checkbox"/> Protective Clothing/Contamination Control <input type="checkbox"/>	<input type="checkbox"/> Working at heights <input type="checkbox"/> Working over or near water <input type="checkbox"/> Heat Stress <input type="checkbox"/> PPE <input type="checkbox"/> Electrical Safety <input type="checkbox"/>
List minimum requirements required for each deviation indicated:	
Approved by SM/EC _____	
Post-job debrief (for example: describe the as-found plant conditions, actions taken, as-left plant conditions):	
Reviewed by OSCC/SM/EC _____	

Attachment 12
ORGANIZATION OF ALL-CALL EXTRA RESPONDERS
Page 1 of 2

On-Site Facilities

1. Once all on-site positions have been staffed **DIRECT** remaining personnel to mustering area(s). Below are some suggestions:
 - Hope Creek Cafeteria (Capacity: 90)
 - Hope Creek General Purpose Room (Capacity: 84)
 - Salem Cafeteria (Capacity: 79)
 - Salem Lobby Conference Room (Capacity: 46)
 - Processing Center Auditorium (Capacity: 294)
 - NHQ/LDC Cafeteria (Capacity: 207)

2. **CONTACT** the OSC (Hope Creek ext. 3123; Salem ext. 2518) to inform them of the mustering location for their extra responders.

3. **CONTACT** the Control Point (Hope Creek ext. 3490; Salem ext. 2608) to inform them of the mustering location for their extra responders.

4. **DIRECT** the individuals in the mustering area(s) to sign-in on Page 2 of this attachment.

5. **PROVIDE** completed Mustering Area Sign-In sheet(s) to the Emergency Operations Facility (EOF) (call Ext. 2375 for further instructions).

EOF

1. Once all EOF positions have been staffed **DIRECT** remaining personnel to mustering area(s). Below are some suggestions:
 - Alternative Emergency Response Facility (Capacity: 62)
 - Unified Command Center (Capacity: 60)
 - EERC Auditorium (Capacity: 132)
 - EERC Cafeteria (Capacity: 84)

2. **DIRECT** the individuals in the mustering area(s) to sign-in on Page 2 of this attachment.

3. **PROVIDE** completed Mustering Area Sign-In sheet(s) to the Administrative Support Manager (ASM) in the Emergency Operations Facility (EOF).

PSEG NUCLEAR L.L.C
PSEG Nuclear Common
EMERGENCY PREPAREDNESS
NC.EP-EP.ZZ-0309(Q) - Rev. 16

DOSE ASSESSMENT (MIDAS) INSTRUCTIONS

ADHERENCE LEVEL: LEVEL 2 - REFERENCE USE

Biennial Review Performed: Yes No

Configuration Change Packages and Affected Document Numbers incorporated into this revision:

- None

OTSCs incorporated into this revision:

- None

Operational Experience (OPEX) incorporated into this revision:

- None

Revision Summary	
Location	Description of Change
Entire Procedure	<ul style="list-style-type: none"> • Converted to new procedure format.
Section 2.1	<ul style="list-style-type: none"> • Deleted Original Step 3.1.5 as individuals that would be in the emergency facilities during an event would be qualified.
Step 2.1.4	<ul style="list-style-type: none"> • Added clarification to indicate that NC.EP-EP.ZZ-0313(Q) is used at the EOF.
Step 2.2.2	<ul style="list-style-type: none"> • Added information to reference EP-Aid-025 for obtaining meteorological data when automatic meteorological data acquisition is not operational. (SAP #70196625/0010)
Step 4.4.18	<ul style="list-style-type: none"> • Added new step concerning Time of Trip and renumbered remaining steps.
Section 4.5.1	<ul style="list-style-type: none"> • Revised to remove mention of recommended radiological protective action recommendations (RAD PARs) (SAP #70196625/0020)
Step 4.6.1	<ul style="list-style-type: none"> • Updated diagram of the Teletector/Telepole Rad Monitor Location.
Step 4.6.1 and Attachment 1	<ul style="list-style-type: none"> • Added reference to telepole instrumentation for performing dose assessment calculations using Main Steam Line Teletector Readings.
Attachment 1, Page 3	<ul style="list-style-type: none"> • Deleted information for Hope Creek Containment Leakage "What If" calculations which was printed twice. (SAP #80120090/0180)

DOSE ASSESSMENT (MIDAS) INSTRUCTIONS

TABLE OF CONTENTS

SECTION	PAGE
1.0 PURPOSE AND SCOPE	3
2.0 PRECAUTIONS AND LIMITATIONS	3
3.0 PREREQUISITES.....	5
4.0 INSTRUCTIONS	6
4.1 Start-Up Instructions For MIDAS	6
4.2 Auto Quick Dose Projection (MENU G) Mode Instructions	7
4.3 Manual Quick Dose Projection (MENU A) Mode Instructions	9
4.4 Manual Isotopic Entry on Spreadsheet (MENU M) Mode Instructions	11
4.5 Dose Assessment Guidance - Effluent Monitors Increase By A Factor Equal To Or Greater Than 10	14
4.6 Preplanned Alternative Guidance.....	15
4.7 Additional Guidance and Instructions for MIDAS.....	16
5.0 REFERENCES AND COMMITMENTS	17
6.0 RECORDS	18
Attachment 1, Salem/Hope Creek Dose Assessment Guidance.....	19

DOSE ASSESSMENT (MIDAS) INSTRUCTIONS

Rev: 16

1.0 PURPOSE AND SCOPE**1.1 Purpose**

- 1.1.1. This procedure provides guidance and operating instructions concerning performing basic dose assessment using the MIDAS dose assessment program.

1.2 Scope

- 1.2.1. None

2.0 PRECAUTIONS AND LIMITATIONS**2.1 Precautions**

- 2.1.1. Sections/Steps in this procedure may be **PERFORMED** in the order deemed appropriate for the emergency situation. Only Sections/Steps that are applicable to the specific MIDAS dose assessment mode of operation that is being **PERFORMED** need to be followed. _____
- 2.1.2. Initials should be used in the place keeping sign-offs next to the step being **PERFORMED**. Place keeping may be suspended for simple and repetitive steps, after first use, if approved by supervisor in accordance with HU-AA-104-101. _____
- 2.1.3. This procedure is limited to performance of basic dose assessment calculations; Automatic/Manual "Quick Dose Projection", "Isotopic Entry on Spreadsheet" and guidance if instantaneous monitor values increase \geq a factor of 10 (Section 4.5). (If the reactor has been shut down \geq 90 minutes use Enhanced Dose Projection, instead of the Quick Dose Projection mode found in NC.EP-EP.ZZ-0313(Q), used at the EOF. _____
- 2.1.4. **IF** there are concurrent multiple releases from Salem and Hope Creek

THEN REFER to NC.EP-EP.ZZ-0313(Q), Advanced Dose Assessment (MIDAS) Instructions, to **PERFORM** dose assessment at the EOF(necessary if the combined releases could exceed the EPA Protective Action Guideline (PAG) of \geq 1,000 mRem TEDE or \geq 5000 mRem Thyroid CDE beyond the Site Boundary). _____
- 2.1.5. **IF** a "Release is in Progress"

THEN continue each subsequent run using the **Run Next Time Step** or **Save Without Exiting** options in order to integrate previous cumulative dose, if possible. If **Run Next Time Step** is not possible the dose projection is still accurate but previous assessments will not be part of the cumulative dose. (**IF** changing pathways in the middle of a MIDAS run **THEN** MIDAS should be restarted). _____

DOSE ASSESSMENT (MIDAS) INSTRUCTIONS

Rev: 16

- 2.1.6. The R-46 Main Steam Line Monitor should only be used as an effluent monitor for dose assessment if a primary to secondary leak is occurring and the Steam Generator is releasing directly to atmosphere through the safety relief valve(s) (SRV) or through the atmospheric vent (MS-10). If the R-46 monitor is changing, verification of an atmospheric pathway should be obtained. _____
- 2.1.7. LAN 2.5 computers should be left running at all times. When done running MIDAS leave the computer on but turn off the monitor. _____

2.2 Limitations

- 2.2.1. Dose Assessment should be performed using 10 or 15 minute average radiation monitor system (RMS) and meteorological (MET) data, UNLESS circumstances in Section 4.5 are met (instantaneous monitor readings increase > a factor of 10). Auto data collection captures average data values so it is not appropriate to run in Auto when running dose assessment for rapid monitor increases. _____
- 2.2.2. Use references: EP Aid-018, Salem SPDS Instructions for MET and Radiological Data, EP Aid-019, Hope Creek CRIDS/SPDS - Instructions for MET and Radiological Data and EP Aid-090, HC EOF RM-11 Instructions for Radiological and Flow Data (EOF ONLY) for directions concerning functions of the SPDS radiological screens. EP Aid-025 can be utilized to obtain meteorological data when automatic meteorological data acquisition is not operational. _____
- 2.2.3. Use references: EP Aid-048, Salem Radiation Monitoring System Summary and EP Aid-049, Hope Creek Radiation Monitoring System Summary when information is needed concerning specific radiation monitors (i.e. units, detector location, alarm set points). _____
- 2.2.4. Prior to starting dose assessment activities determine the active effluent pathways by checking for effluent flow:
1. Hope Creek - NPV, SPV, FRVS and HTV. _____
 2. Salem - Plant Vent (Steam Generator to Atmosphere must be determined by visual observations). _____
- 2.2.5. Process Flow and Radiation Readings for the HTV can be obtained in four locations. (Detailed directions for HTV dose assessment are found in NC.EP-EP.ZZ-0313[Q]).
1. RM11: Low Range HTV Gaseous Radiation Concentration (9RX516) in $\mu\text{Ci/cc}$ and HTV vent flow (9RX519) in CFM are available while still on scale and not saturated. _____
 2. SPDS: Use 15 Min RMS Report Point ID AA519 for HTV Flow in CFM and Point ID R9516T3 for HTV Low Range Gaseous Radiation in $\mu\text{Ci/cc}$. _____

DOSE ASSESSMENT (MIDAS) INSTRUCTIONS

Rev: 16

NOTE

To obtain HTV High Range Radiation data and HTV Flow rate data from the POS or ROS, work with the EOF - OPS Advisor or the Nuclear Shift Tech Advisor (NSTA) in the Control Room.

3. HTV Primary Operating Station (POS): High Range Radiation Monitoring and HTV vent flow data are available at the POS in Room 3576 (Remote Shutdown Panel) of the Unit 1 Auxiliary Building / Rad Waste Area on EL 137'-0". The POS panel has key-lock switches for controlling the vent valves, indicating lights for valve position indication, a graphic recorder displaying the HTV flow rate (CFM on 1SPFR-11542A) (max 25000 cfm) and radiation dose rate (R/hr on 1SPRR-11542A) from the High Range HTV monitor.
4. HTV Remote Operating Station (ROS): The ROS is located in Room 5301, the electrical chase on EL102' 0" of the Control/Diesel (Auxiliary) Building. The Process Indicator Panel (PIP), H1GS-10-C-101, displays the process flow rate (in milliamps on 1SPFI-11542A) with CFM conversion chart available below on page 7 of 7 of this attachment) and dose rate (R/hr on 1SPRI-11542A) from the High Range HTV monitor.

2.2.6. A blank SSCL page 2 can be found in the Event Classification Guide (ECG), Attachment 8 or from Communicator Number 2.

3.0 PREREQUISITES**3.1 IMPLEMENT this procedure:**

- 3.1.1. Upon the declaration of an Unusual Event or higher emergency classification.
- 3.1.2. At the request of the Shift Manager (SM).
- 3.1.3. At the request of the Radiation Protection Duty Supervisor (RPDS) or Shift Radiation Protection Technician (SRPT).
- 3.1.4. In accordance with (IAW) Salem and Hope Creek applicable station procedures.
- 3.1.5. MIDAS Dose Assessment software is loaded on the hard drive of each computer connected to the LAN 2.5 Network, in all emergency facilities. While MIDAS will run independent of the network, the automatic data collection (auto mode) will not function without the network and dose assessment will have to be run in manual mode. Salem SPDS, Hope Creek CRIDS/SPDS and the "EOF RM-11" also reside on the LAN 2.5 network and is a source of data for running MIDAS dose assessment software. (EOF RM-11 only resides on the EOF Dose Assessment Area computers.)

DOSE ASSESSMENT (MIDAS) INSTRUCTIONS

4.0 **INSTRUCTIONS**

4.1 **Start-Up Instructions For MIDAS**

4.1.1. **ENSURE** the computer and monitors are both turned on. **IF** necessary, **PRESS** the "Power" button to turn them on. (If the computer was off, turning it on will boot the LAN 2.5 to the desktop where the MIDAS Accident Calcs icon can be seen.)

4.1.2. **IF** the monitor screen is blank

THEN MOVE the mouse to "wakeup" the monitor.

4.1.3. **POSITION** the cursor on the **MIDAS Accident Calcs** icon and double left click the mouse. (The Sheet # 1 screen will be displayed).

4.1.4. **SELECT** Unit (**Hope Creek, Salem Unit 1, or Salem Unit 2**).

4.1.5. **SELECT** the appropriate Section for type of dose assessment mode, from the list below:

- **REFER to Section 4.2 for instructions on how to **PERFORM** Dose Assessment in Automatic QUICK DOSE PROJECTION (MENU G).**

- **REFER to Section 4.3 for instructions on how to **PERFORM** Dose Assessment in Manual QUICK DOSE PROJECTION (MENU A).**

- **REFER to Section 4.4 for instructions on how to **PERFORM** Dose Assessment in ISOTOPIC ENTRY ON SPREADSHEET (MENU M).**

- **REFER to Section 4.5 to **PERFORM** Dose Assessment When Plant Vent Effluent Monitor(s) Increase By A Factor of 10 or greater.**

- **REFER to Section 4.6 for Preplanned Alternative Guidance to **PERFORM** Dose Assessment.**

- **REFER to Section 4.7 for Additional Guidance and Instructions for MIDAS concerning:**
 - Screen print or print an additional station status checklist (SSCL),

 - Print a map,

 - Additional map guidance,

DOSE ASSESSMENT (MIDAS) INSTRUCTIONS

Rev: 16

4.2 Auto Quick Dose Projection (MENU G) Mode Instructions

- 4.2.1. **SELECT** AUTOMATIC. _____
- 4.2.2. **SELECT** AUTO QUICK DOSE PROJECTION (MENU G) using the down arrow located in the Accident Run Menu Selection box. _____
- 4.2.3. **SELECT** OK (MIDAS will calculate a dose assessments for all monitored pathways that auto data collection has a current radiation monitor reading and flow indication. If a normal effluent pathway monitor is out of service MIDAS will NOT calculate that pathway and will need to be done in manual. Automatic dose calculations will also not be calculated for Steam Generator to atmosphere or Containment Leakage because there isn't a flow monitor. Ensure all pathways with Effluent Flow print on SSCL if not resolve issues by running in manual.) _____
- 4.2.4. **REVIEW** data on the "Meteorological Raw Data" spreadsheet and **USE** SPDS to update any missing or inaccurate data on the "Current Time" data line (row). Then **SELECT** "OK". _____
- 4.2.5. **REVIEW** data on the "Radiation Monitor & Flow Raw Data" spreadsheet. **USE** SPDS to update any missing or inaccurate data on the "Current Time" data line (row). **IF** the calculation is for a Steam Generator Tube Rupture (SGTR) to Atmosphere or Containment leakage

THEN ENTER the appropriate flows on the spreadsheet from Attachment 1 (from Steam Generator or Containment leakage dose assessment sections). Then **SELECT** "OK". _____
- 4.2.6. **SELECT** the appropriate "Accident Type" from the pull-down menu. (Salem; Core Accident, Tube Rupture [SGTR] or Spent Fuel Accident) (Hope Creek; Routine Effluent, Core Accidents or Spent Fuel)
 - **For Salem and Hope Creek SELECT** Spent Fuel Pool if the event is due to damage to fuel in the Spent Fuel Pool _____
 - **For Salem SELECT** Tube Rupture if the event is due to a SGTR select _____
 - **For Hope Creek SELECT** Routine Effluents if there is no increase in effluent concentration _____
 - **IF none of the above are applicable,** choose Core Accident _____
- 4.2.7. **LEFT CLICK** on the "Next" button then **LEFT CLICK** on "Start Calc". _____
- 4.2.8. If MIDAS is available in automatic mode the display will change to the map display and a SSCL will automatically print. **IF** MIDAS input data from MET or RAD Monitors is not available

THEN EXIT and **GO TO** Section 4.3 and run a Quick Dose Projection in manual. _____

DOSE ASSESSMENT (MIDAS) INSTRUCTIONS

Rev: 16

4.2.9. **IF** a SSCL needs to be printed to the screen, or an additional SSCL printed out,

THEN GO to Step 4.7.1 for guidance.

4.2.10. **IF** another dose assessment calculation is required or to EXIT,

THEN SELECT END RUN (A pop-up screen will appear).

NOTE

When a release starts or is in-progress use the **Run Next Time Step** option in order to integrate previous cumulative dose. The three other remaining options should be used **PRIOR** to a radiological release since dose integration is not necessary.

If using **Run Next Time Step** is not appropriate for the situation then select **Save Run & Exit** if dose integration is needed later the data will be available in the "RECAP" mode.

Exit Without Saving should be only used if the user knows the data which won't be saved will never be needed, for any reason.

4.2.11. **PERFORM** one of the following options as available:

- **IF** the user wishes to **Run Next Time Step** dose assessment calculation,

THEN SELECT it, **CLICK OK**, and **RETURN** to Step 4.2.4. (MIDAS will **PERFORM** dose assessment calculations, the SSCL will automatically printout, and the screen map with plume will appear).

OR

- **IF** the user wishes to Save the Run and EXIT,

THEN SELECT **Save Run & Exit**, **CLICK OK** and **RETURN** to Step 4.1.3.

OR

- **IF** the user wishes to EXIT Without Saving the Run,

THEN SELECT **Exit Without Saving**, **CLICK OK** and **RETURN** to Step 4.1.3.

OR

DOSE ASSESSMENT (MIDAS) INSTRUCTIONS

Rev: 16

- **IF** another dose assessment calculation is needed IMMEDIATELY,

THEN SELECT Save Without Exiting, CLICK OK and RETURN to Step 4.2.4.

4.3 Manual Quick Dose Projection (MENU A) Mode Instructions

NOTE

Manual Mode Dose Assessment, should be **PERFORMED IF:**

- A Plant Vent Effluent monitor is not operational.
- A surveillance of the Plant Vent Effluent monitor is ongoing.
- Automatic radiological data acquisition is not operational.
- Automatic meteorological data acquisition is not operational.*
- To input the total isotopic noble gas and iodine 131 values.
- The criteria in Section 4.5 is met.
- The criteria in Section 4.6 is met

- 4.3.1. **SELECT** Manual mode.
- 4.3.2. **SELECT Quick Dose Projection (Menu A)** using the down arrow located in the Accident Run Menu Selection box.
- 4.3.3. **SELECT OK.**
- 4.3.4. If applicable, **PERFORM** the appropriate steps listed below:
 - **IF** "CHANGING UNITS", a pop-up screen will appear concerning initializing data,

THEN SELECT OK.
 - **IF** this is the "FIRST" dose assessment run,

THEN SELECT New and OK. (A pop-up screen will appear concerning destroying data) **SELECT OK.**
 - **IF** this is a "CONTINUATION" of dose assessment runs,

THEN SELECT EDIT LAST and SELECT OK.
- 4.3.5. **INPUT** 15 minute average **MET Data** on the highlighted time line (Meteorological Spreadsheet - Sheet # 4).
- 4.3.6. **SELECT OK.**

DOSE ASSESSMENT (MIDAS) INSTRUCTIONS

Rev: 16

NOTE

For general guidance or specific guidance on selection of monitors/
channels/flows to be used for dose assessment **REFER** to Attachment 1.

- 4.3.7. **IF PERFORMING** (dose calculations using instantaneous data follow additional guidance in Section 4.5) dose calculations using 10 or 15 minute averages,

THEN INPUT the appropriate 10 or 15 minute average radiological and plant vent flow rate data on the highlighted time line. (Radiation Monitor & Flow Spreadsheet - Sheet # 5). (Remember, both rad monitor reading and flow are both required for each pathway, to be calculated.)
- 4.3.8. **SELECT OK**.
- 4.3.9. **SELECT** the appropriate "Accident Type" from the pull-down menu. (Salem; Core Accident, Tube Rupture [SGTR] or Spent Fuel Accident) (Hope Creek; Routine Effluent, Core Accidents or Spent Fuel).
- 4.3.10. **LEFT CLICK** on the "Next" button then **LEFT CLICK** on "Start Calc".
- 4.3.11. **IF** a SSCL needs to be printed to the screen, or an additional SSCL printed out,

THEN GO to Step 4.7.1 for guidance.
- 4.3.12. **IF** another dose assessment calculation is required or to EXIT,

THEN SELECT END RUN (A pop-up screen will appear).

DOSE ASSESSMENT (MIDAS) INSTRUCTIONS

Rev: 16

4.3.13. **PERFORM** one of the following options as available:

- **IF** the user wishes to **PERFORM** another dose assessment calculation as a continuation,

THEN SELECT RUN NEXT TIME STEP, CLICK OK and RETURN to Step 4.3.5.

OR

- **IF** the user wishes to Save the Run and EXIT,

THEN SELECT Save Run & Exit, CLICK OK and RETURN to Step 4.1.3.

OR

- **IF** the user wishes to EXIT Without Saving the Run,

THEN SELECT Exit Without Saving, CLICK OK and RETURN to Step 4.1.3.

OR

- **IF** another dose assessment calculation is needed IMMEDIATELY,

THEN SELECT Save Without Exiting, CLICK OK and RETURN to Step 4.1.4.

4.4 Manual Isotopic Entry on Spreadsheet (MENU M) Mode Instructions

4.4.1. **SELECT Manual** mode.

4.4.2. **SELECT Isotopic Entry On Spreadsheet (Menu M).**

4.4.3. **SELECT OK.**

NOTE

A Pop-up Warning Screen will appear concerning **SELECTING AT LEAST ONE RELEASE POINT**.

4.4.4. **SELECT OK.**

4.4.5. **SELECT** the appropriate release point for the isotopic sample.
[HOPE CREEK - (1) FRVS, (2) NPV, (3) SPV, (4) HTV]

OR

[SALEM - (1) PLT Vent, (2) STM Line, (4) CTMT]

DOSE ASSESSMENT (MIDAS) INSTRUCTIONS

Rev: 16

4.4.6. **SELECT Next.** _____

4.4.7. **ENSURE** the Times (hrs) to be Calculated are:

[1] 0.25 _____

[2] 1.00 _____

[3] 4.00 _____

[4] 24.00 _____

OR

INPUT the above values. _____

4.4.8. **SELECT NEXT.** _____

4.4.9. **PERFORM** one of the appropriate steps listed below:

- **IF** "Changing Units", a pop-up screen will appear concerning initializing data,

THEN SELECT OK. _____

- **IF** this is the "FIRST ISOTOPIC" dose assessment run,

THEN SELECT New and OK. (A pop-up screen will appear concerning destroying data). _____

SELECT OK and go to Step 4.4.10. _____

- **IF** "CONTINUING ISOTOPIC" of dose assessment runs,

THEN SELECT EDIT LAST. _____

SELECT OK and go to Step 4.4.10. _____

4.4.10. **ENTER** appropriate **Meteorological Data** on the Meteorological Spreadsheet - Sheet # 4. _____

4.4.11. **SELECT OK** (A Pop-up Screen will appear - Type Of Isotopic Values). _____

4.4.12. **SELECT Enter Isotopic Concentrations And Flow Rate.** _____

4.4.13. **SELECT OK.** _____

4.4.14. **ENTER Plant Vent Flow Rate** under Fan Flow CFM. _____

4.4.15. **ENTER Appropriate Isotopic Values.** _____

4.4.16. **SELECT OK.** _____

DOSE ASSESSMENT (MIDAS) INSTRUCTIONS

Rev: 16

- 4.4.17. **SELECT Next.** _____
- 4.4.18. **DETERMINE** Date, Time of Trip/Shutdown if applicable by selecting appropriate choice in the lower left corner. _____
- 4.4.19. **SELECT Start Calc** (The SSCL will automatically printout and the 13-mile map will be displayed). _____

NOTE

A Pop-up Warning Screen will appear concerning Time of Trip.

- 4.4.20. **IF** a SSCL needs to be printed to the screen or an additional SSCL printed out,
THEN GO to Step 4.7.1 for guidance. _____
- 4.4.21. **IF** another dose assessment calculation is required or to EXIT,
THEN SELECT END RUN (A pop-up screen will appear). _____
- 4.4.22. **PERFORM** one of the following selections:
- **IF** another dose assessment calculation is needed **THEN**
SELECT Save Without Exiting and **RETURN** to Step 4.4.1. _____
- OR**
- **IF** the user wishes to EXIT,
THEN SELECT Save Run & Exit. _____
- 4.4.23. **SELECT OK.** _____

DOSE ASSESSMENT (MIDAS) INSTRUCTIONS

Rev: 16

4.5 Dose Assessment Guidance - Effluent Monitors Increase By A Factor Equal To Or Greater Than 10

NOTE	
Salem and Hope Creek Plant Effluent Monitors are:	
<ul style="list-style-type: none"> • <u>SALEM PLANT EFFLUENT MONITORS USED FOR DOSE ASSESSMENT</u> <ul style="list-style-type: none"> ○ Unit 1 or 2 R41 A, B, or C (uCi/cc) ○ Unit 1 or 2 R46 (A, B, C or D) (mR/hr) if a Steam Generator with a primary to secondary leak is being released directly to atmosphere through the SRV(S) or the manual atmospheric vent (MS-10) • <u>HOPE CREEK PLANT VENT EFFLUENT MONITORS USED FOR DOSE ASSESSMENT</u> <ul style="list-style-type: none"> ○ SPV - 9RX606, 9RX607, or 9RX581 (uCi/cc) ○ NPV - 9RX602, 9RX603, or 9RX591 (uCi/cc) ○ FRVSV - 9RX640, 9RX610, or 9RX611 (uCi/cc) ○ HTV - 9RX518 (uCi/sec) 	

4.5.1. **IF** any Plant Vent Effluent Monitor(s) increase by a factor of 10 or more,

THEN PERFORM the following:

1. **PERFORM** dose assessment calculations in the manual mode using instantaneous value(s) IAW Section 4.3 of this procedure; _____
2. **WRITE** on top of Page 2 of the Station Status Checklist (SSCL), **“RELEASE RATE CALCULATED FROM INSTANTANEOUS MONITOR VALUES.”** _____
3. **ADVISE** the appropriate person SM, RAC, or RSM that, “the SSCL was calculated from instantaneous Plant Vent data and may not reflect actual radiological conditions. An additional SSCL will be forth coming in approximately 20 minutes. _____
4. **PERFORM** another dose assessment in approximately 15 to 20 minutes. **SELECT END RUN** (A pop screen will appear). _____
5. **SELECT Save Run And Exit.**, **CLICK OK** and **RETURN** to Step 4.1.4. Use the 15-minute average MET and 10 or 15-minute average radiological data. _____
6. **PROVIDE** the SSCL, if applicable, to the appropriate person (SM, RAC, or RSM). _____

DOSE ASSESSMENT (MIDAS) INSTRUCTIONS

Rev: 16

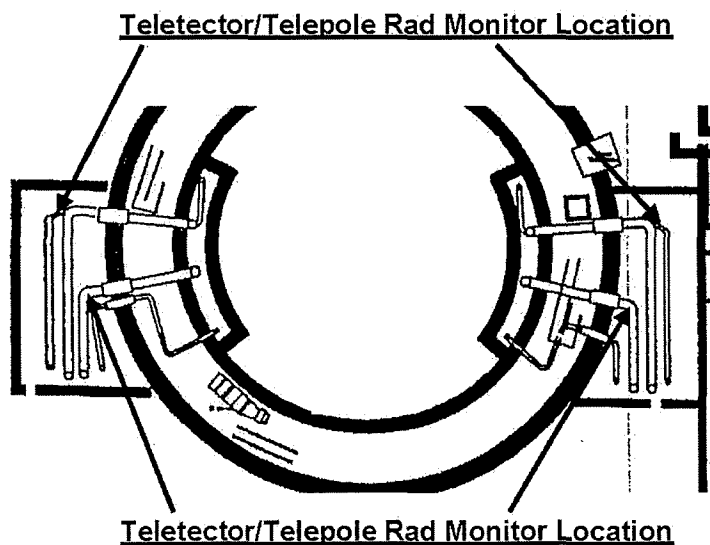
4.6 Preplanned Alternative Guidance

NOTE
SALEM UNIT 1 / 2 ONLY

Contact the Shift Manager (SM) prior to performing dose assessment calculations for preplanned alternative, if the 1R41 or 2R41 monitor(s) are out of service / inoperational and are needed to **PERFORM** dose assessment calculations.

4.6.1. **PERFORM** the appropriate steps listed below, to calculate a SSCL, when the normal method to **PERFORM** dose assessment at **SALEM UNIT 1 and/or SALEM UNIT 2 IS NOT** possible:

- **IMPLEMENT Section 4.3**, to **PERFORM** dose assessment calculations using **Main Steam Line (MSL) Teletector/Telepole Readings**. [All contact teletector/telepole readings on the MSLs should be obtained on the curve of the line prior to the main steam isolation valve (MSIV). (See the diagram below)]. Teletector/Telepole readings must be multiplied by a conversion factor prior to being used in MIDAS calculation. See NOTE in Section 4.3.



MAIN STEAM LINES 12, 14, 22, 24 ARE FOUND IN THE OUTSIDE PIPING PENETRATIONS.
MAIN STEAM LINES 11, 13, 21, 23 ARE ACCESSIBLE BY WAY OF THE CHILLER ROOMS AND ARE LOCATED IN THE INNER PIPE PENETRATIONS.

4.6.2. **IF ISOTOPIC DATA** is available,

THEN IMPLEMENT Section 4.4, to **PERFORM** dose assessment calculations based on isotopic plant vent sample values for Hope Creek, Salem Unit 1, or Salem Unit 2.

DOSE ASSESSMENT (MIDAS) INSTRUCTIONS

4.7 Additional Guidance and Instructions for MIDAS

4.7.1. PERFORM the following to "PRINT an additional SSCL":

- 1. SELECT the Special Reports Box located on the lower menu bar of the map screen. _____
- 2. IF the SSCL Box is already highlighted, THEN GO to Step D. _____
- 3. CLICK on the BOX below the Special Reports Box until the highlighted SSCL Box appears. _____
- 4. CLICK CONFIRM. (The latest SSCL will be printed to the screen). _____
- 5. CLICK on the Printer ICON located on the top menu bar. (A pop-up screen will appear). _____
- 6. SELECT OK. _____
- 7. SELECT the X box in the upper right hand corner to EXIT out of the SSCL Screen Print and return to the Map Screen. _____

4.7.2. PERFORM the following to print a SCREEN or REPORT:

- SELECT the Item(s) you wish to print. _____
- SELECT the Confirm box. _____
- SELECT the PRINTER icon located on the bottom of the menu bar. _____

4.7.3. PERFORM the following to Print a Plume Map

- With the cursor on the plume map right CLICK the mouse. _____
- SELECT Print Map from the selection. _____
- SELECT printer from pull down menu if more than one printer is available). _____
- SELECT OK. _____

4.7.4. DETERMINE distance between two points on the plume map display

- POSITION the cursor on the plume map at the first point of interest. _____
- PRESS DOWN and hold the Shift key. _____

DOSE ASSESSMENT (MIDAS) INSTRUCTIONS

Rev: 16

- **CLICK** and hold down the left mouse button and move the mouse to the second area of interest and the distance between the two points will be displayed. _____

4.7.5. **VIEW** different Map Features on the display

- **CLICK** on the Map Features button, from the Plume Map display screen. _____
- **CLICK** on all the items that should be displayed. _____
- **SELECT OK** (selected items will be displayed on the map). _____

END of Instructions**5.0 REFERENCES AND COMMITMENTS****5.1 Commitments**

5.1.1. None

5.2 Performance References

- 5.2.1. NC.EP-EP.ZZ-0310 (Q), Radiation Protection Supervisor - Offsite And Field Monitoring Team Response
- 5.2.2. NC.EP-EP.ZZ-0313 (Q), Advanced Dose Assessment (MIDAS) Instructions
- 5.2.3. HC.EP-EP.ZZ-0301 (Q), Shift Radiation Protection Technician Response
- 5.2.4. SC.EP-EP.ZZ-0301 (Q), Shift Radiation Protection Technician Response
- 5.2.5. EP Aid-018, Salem SPDS Instructions for MET and Radiological Data
- 5.2.6. EP Aid-019, Hope Creek CRIDS/SPDS - Instructions for MET and Radiological Data
- 5.2.7. EP Aid-025, Get Weather from NOAA
- 5.2.8. EP Aid-048, Salem Radiation Monitoring System Summary
- 5.2.9. EP Aid-049, Hope Creek Radiation Monitoring System Summary
- 5.2.10. EP Aid-090, HC EOF RM-11 Instructions for Radiological and Flow Data

5.3 Developmental References

- 5.3.1. EPA 400, Manual of Protective Action Guides and Protective Actions for Nuclear Incidents
- 5.3.2. PSEG Nuclear Emergency Plan
- 5.3.3. MIDAS Documentation

DOSE ASSESSMENT (MIDAS) INSTRUCTIONS

Rev: 16

5.3.4. DCP 80057520 Upgrade of the 1R46 Rad Monitors

5.3.5. DCP 80057587 Upgrade of the 2R46 Rad Monitors

6.0 RECORDS

- **RETURN** completed procedures and documentation to the Emergency Preparedness Manager.

DOSE ASSESSMENT (MIDAS) INSTRUCTIONS

Rev: 16

Attachment 1, Salem/Hope Creek Dose Assessment Guidance

GENERAL GUIDANCE:

- 10 or 15 Minute Average Effluent radiological monitor data and Effluent flow rates should be input every 15 Minutes. Leaving blank cells between lines of data are interpreted by MIDAS as a puff release (no release for that time period). Rad monitor data and the flow data for that pathway both need to be entered or a calculation for that pathway will not be made. Monitored release pathways for Hope Creek are: NPV, SPV, FRVS and HTV. Monitored release pathways for Salem are Plant Vent (R41), Steam Generator to atmosphere (R46) and Containment (R44). Normally occurring discharges from the stations are coming from the **NPV/SPV for HC** and the **Plant Vent for Salem**.
- The following monitors should be used for manual dose assessment:
 - **Hope Creek:** NPV-NG, SPV-NG, FRVS-NG and HTV-NG (WRGM channels). Under specific conditions DAPA monitors can be used to evaluate "What If" calculations for Containment Leakage
 - **Salem:** R41 and under specific conditions the R46 and or R44 monitors
- For assistance with obtaining flow data use EP Aid-018 (Salem) and EP Aid-019 & 090 (Hope Creek).

SALEM UNIT 1 & 2 ONLY

- **Plant Vent Dose Assessment:** Follow the below guidance to help in making the correct decision for which **R41** monitor value to use. Only **ONE** should be used in MIDAS for performing dose assessment.
 - **R41A** should be used if values are > **1E-08 uCi/cc to 9.99E-02 uCi/cc**.
 - **R41B** should be used if values are > **1E-01 uCi/cc to 9.99E+01 uCi/cc**.
 - **R41C** should be used if values are > **1E+02 uCi/cc to 1E+05 uCi/cc**.
- **STEAM GENERATOR DOSE ASSESSMENT**
 - **R46:** Dose assessment may be **PERFORMED** using the **R46 monitor** value during a primary to secondary leak or Steam Generator Tube Rupture (SGTR) if the Steam Generator is being released directly to atmosphere. The R46 value is entered in the R46A-D column in MIDAS for each S/G and use the default flow rate value of 4.50E+05 lbs/hr. More accurate flow can be provided with the assistance of Operations or Engineering but don't wait for this data to run dose assessment, use the default until updated. **If the R46 reading is erratic use substitution of TELETECTOR/TELEPOLE readings for R46MSL values, method below.**

Attachment 1, Salem/Hope Creek Dose Assessment Guidance (continued)

- **Substitution of TELETECTOR/TELEPOLE readings for R46MSL values.**
 - Teletector/Telepole values should be used instead of R46 values if the R46 values are not available or trends of R46 data shows a stream of spikes making the average data unreliable.
 - **REFER** to section 5.6 of this procedure concerning where contact readings on the Main Steam Lines (MSL) should be taken.
 - The Teletector/Telepole value obtained from contact reading (in mR/hr) on the MSL **MUST** be multiplied by the **Correction Factor of 1.16E-2** prior to being used in MIDAS.
 - The value should be entered in the R46MSL column.
 - The value 4.50E+05 lbs/hr should be used as the default flow rate.

- **Containment Leakage Dose Assessment:** R44 monitor values may be used for “**WHAT IF**” type Calculations or if the containment has been breached and an unmonitored release is in progress.
 - Enter the R44 value along with a projected flow rate from containment. Operations or Engineering may be able to provide assistance with determining the projected flow rate.
 - Salem UFSAR section 6.2.2.2.2 lists the Salem Containment air volume as 2.62E+06 cubic feet so the following flow rates could be useful to determine source term due to containment leakage.
 - Design Basis leak rate is 0.1% per day which would be 1.82 CFM
 - 10% per day leak rate would be 1.82E+02 CFM
 - 100% per day would be 1.82E+03 CFM
 - And for a catastrophic failure, 100% in an hour, would be 4.37E+04 CFM

DOSE ASSESSMENT (MIDAS) INSTRUCTIONS

Rev: 16

Attachment 1, Salem/Hope Creek Dose Assessment Guidance (continued)

HOPE CREEK ONLY

Follow the guidance below is for help in making the correct decision for which effluent channel value to use. (**DO NOT** use more than one channel per monitor. On the RM-11 in the HC RPCP and the HC TSC the value displayed on channel icon is the instantaneous value; average values are displayed on the channel display. View the channel display by clicking on the channel icon. The Mid-Hi range sample pump for the NPV, SPV and FRVS starts at 1.00E-03 uCi/cc so values displayed below this value are not valid.)

- **For SPV Monitor:**
 - Use channel 9RX606 from 1.00E-08 to 1.00E-02 uCi/cc (Low Range)
 - Use channel 9RX607 from >1.00E-02 to 1.00E+01 uCi/cc (Mid Range)
 - Use channel 9RX581 from >1.00E+01 to 1.00E+05 uCi/cc (Hi Range)
- **For NPV Monitor:**
 - Use channel 9RX602 from 1.00E-08 to 1.00E-02 uCi/cc (Low Range)
 - Use channel 9RX603 from >1.00E-02 to 1.00E+01 uCi/cc (Mid Range)
 - Use channel 9RX591 from >1.00E+01 to 1.00E+05 uCi/cc (Hi Range)
- **For FRVS Monitor:**
 - Use channel 9RX640 from 1.00E-08 to 1.00E-02 uCi/cc (Low Range)
 - Use channel 9RX610 from >1.00E-02 to 1.00E+01 uCi/cc (Mid Range)
 - Use channel 9RX611 from >1.00E+01 to 1.00E+5 uCi/cc (Hi Range)
- **For HTV Monitor**
 - Use 9RX518 (Effluent Monitor in uCi/sec). For additional guidance refer to NC.EP-EP.ZZ-0313(Q).
- **Hope Creek Containment Leakage "What If" calculations** use the DAPA monitor value (R/hr) along with the projected flow (CFM) for the Primary Containment leakage. According to the Hope Creek UFSAR Table 15.6-12 the air volume of the HC Primary Containment is 3.06E+05 cubic feet so the following flow rates could be useful to determine source term due to containment leakage.
 - Design Basis leak rate is 0.5% per day which would be approx. 1.10 CFM
 - 10% per day leak rate would be 2.13E+01 CFM
 - 100% per day leak rate would be 2.13E+02 CFM
 - For a catastrophic failure, 100% in an hour, would be 5.11E+03 CFM

PSEG NUCLEAR L.L.C
PSEG Nuclear Common
EMERGENCY PREPAREDNESS
NC.EP-EP.ZZ-0601(Q) - Rev. 13

**RADIOLOGICAL SUPPORT MANAGER AND RADIOLOGICAL ASSESSMENT STAFF
RESPONSE**

ADHERENCE LEVEL: LEVEL 2 - REFERENCE USE

Biennial Review Performed: Yes No

Configuration Change Packages and Affected Document Numbers incorporated into this revision:

- None

OTSCs incorporated into this revision:

- None

Operational Experience (OPEX) incorporated into this revision:

- None

Revision Summary	
Location	Description of Change
	<ul style="list-style-type: none">• Procedure converted to new template.
Entire Procedure	<ul style="list-style-type: none">• Corrected title of NC.EP-EP.ZZ-0602(Q). (SAP #70161063/0010)• Corrected formatting of procedure numbers NC.EP-EP.ZZ-0308, NC.EP-EP.ZZ-0305. (SAP #70161063/0030)
Section 4.0	<ul style="list-style-type: none">• Moved initiation of RSM log to Section 4.0 from Attachment 1
Old Step 3.1	<ul style="list-style-type: none">• Deleted step that provided guidance to initial steps as this is part of the procedure process and does not need to be included in this procedure.• Deleted step that stated only qualified individuals are to implement procedure. This step is not required as the only individuals contacted to implement procedure would be qualified.
Old Step 4.0	<ul style="list-style-type: none">• Step deleted. Not part of new template and all equipment is maintained within the EOF.
Step 7.2	<ul style="list-style-type: none">• Cross references were updated and reordered.
Attachment 1	<ul style="list-style-type: none">• Deleted bullet to contact RAC. This is performed in Section 4.0

**RADIOLOGICAL SUPPORT MANAGER AND RADIOLOGICAL
ASSESSMENT STAFF RESPONSE**

Rev: 13

Attachment 2	<ul style="list-style-type: none"> • Revise Note prior to Step A to remove that steps can be performed in any order. This instruction is already in Precautions Step 2.1.1, second bullet. • Revised Step A.1.d to reflect RSM issuance of KI to offsite PSEG radiation workers and corrected title of procedure NC.EP-EP.ZZ-0305(Q), Potassium Iodide (KI) Administration. (SAP #70161063/0010) • Revised Step A.1.g to add reference to guidance for initial PAR and PAR upgrades. (SAP #70161063/0010) • Revised Step A.1.g to correct title for NC.EP-EP.ZZ-0404(Q). (SAP #70161063/0020) • Added new Step A.1.j to provide direction for EOF relocation if needed due to Radiological or External Event concerns. (SAP #70198023) • Revised Section i for RSM actions when a release is in progress. • Moved bullet for Coast Guard Helicopter approval to end of Section i
Attachment 3	<ul style="list-style-type: none"> • Step A.2.c added (at 5 miles or 10 miles) to clarify the range that the projected doses are applicable. • Step 3.c, last bullet, removed "...that could indicate exceeding a PAG", this criteria is not required,
Attachment 4	<ul style="list-style-type: none"> • Reordered steps and corrected numbering/bullets. • Added step to verify and/or issue dosimetry for EOF personnel. (SAP #70161063/0040)
Form-2	<ul style="list-style-type: none"> • Formatted and added signature line for entry of data into Sentinel.
Form-3	<ul style="list-style-type: none"> • Added line for second instrument and deleted Calibration Due Date field as not required.
Form-4	<ul style="list-style-type: none"> • Page 1, changed "TRIP" to "SCRAM". • Updated HTV NG values to match NC.EP-EP.ZZ-0313, Attachment 5 values.
Form-5	<ul style="list-style-type: none"> • Form-5, Page 1, changed "ATWS" to "ATWT".

RADIOLOGICAL SUPPORT MANAGER AND RADIOLOGICAL
ASSESSMENT STAFF RESPONSE

TABLE OF CONTENTS

<u>SECTION</u>	<u>PAGE</u>
1.0 PURPOSE AND SCOPE	4
2.0 PRECAUTIONS AND LIMITATIONS	4
3.0 PREREQUISITES	4
4.0 INSTRUCTIONS	4
4.1 The RSM shall:	4
5.0 REFERENCES AND COMMITMENTS	5
6.0 RECORDS	6
Attachment 1, Pre-Activation RSM Checklist.....	7
Attachment 2, RSM Checklist.....	9
Attachment 3, State Liaison Instructions	13
Attachment 4, Habitability, EOF Emergency Ventilation and Laboratory and Testing Services (LTS) Instructions.....	16
Attachment 5, Reserved	20
Attachment 6, Reserved	21
Form - 1 EOF Dosimetry Log.....	22
Form - 2 DLR Issue Log	23
Form - 3 EOF Habitability Log	24
Form - 4 Hope Creek MIDAS Input.....	25
Form - 5 Salem MIDAS Input.....	26

|

RADIOLOGICAL SUPPORT MANAGER AND RADIOLOGICAL ASSESSMENT STAFF RESPONSE

Rev: 13

1.0 PURPOSE AND SCOPE

1.1 Purpose

1.1.1. To outline and describe the Radiological Support Manager's (RSM) duties during a declared emergency |

1.2 Scope

1.2.1. None |

2.0 PRECAUTIONS AND LIMITATIONS

2.1 Precautions

2.1.1. Precaution and Limitations To Be Followed Prior To Implementing This Procedure:

- Medical care takes priority over any radiological conditions unless the radiological conditions are life threatening. _____
- 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. _____

2.2 Limitations

2.2.1. None |

3.0 PREREQUISITES

3.1 Implement this procedure at:

3.1.1. The discretion of the Emergency Response Manager (ERM). _____

3.1.2. Upon staffing of the EOF. _____

4.0 INSTRUCTIONS

4.1 The RSM shall:

4.1.1. **INITIATE** the RSM log. _____

4.1.2. **CONTACT** the Radiological Assessment Coordinator (RAC) OR the Shift Radiation Protection Technician (SRPT) and **OBTAIN** a briefing on the current onsite and offsite radiological conditions. _____

4.1.3. **REPORT** to the ERM and **OBTAIN** a briefing of the current status of the emergency. _____

4.1.4. **UPDATE** the **ERM** on radiological conditions, as appropriate. _____

**RADIOLOGICAL SUPPORT MANAGER AND RADIOLOGICAL
ASSESSMENT STAFF RESPONSE**

Rev: 13

4.1.5. **IMPLEMENT** Attachment 1, Pre-activation RSM Checklist. _____**END of Instructions****5.0 REFERENCES AND COMMITMENTS****5.1 Performance References**

- 5.1.1. NC.EP-EP.ZZ-0305(Q), Potassium Iodide (KI) Administration
- 5.1.2. NC.EP-EP.ZZ-0308(Q), Personnel/Vehicle Survey and Decontamination
- 5.1.3. NC.EP-EP.ZZ-0313(Q), Advanced Dose Assessment (Midas) Instructions
- 5.1.4. NC.EP-EP.ZZ-0404(Q), Protective Action Recommendations (PAR) Upgrades
- 5.1.5. NC.EP-EP.ZZ-0602(Q), EOF Radiological Dose Assessment
- 5.1.6. NC.EP-EP.ZZ-0603(Q), Field Team Monitoring
- 5.1.7. NC.EP-FT.ZZ-0009(Q), Emergency Operations Facility (EOF) Ventilation System Testing
- 5.1.8. EP-HC-111-F4, General Emergency Classification
- 5.1.9. EP-SA-111-F4, General Emergency Classification
- 5.1.10. EP Aid-005, EP Phone Directory
- 5.1.11. EP Aid-018, Salem SPDS - Instructions for MET and Rad Data
- 5.1.12. EP Aid-019, Hope Creek CRIDS/SPDS - Instructions For Met and Radiological Data
- 5.1.13. EP Aid-025, Get Weather from NOAA
- 5.1.14. EP Aid-048, Salem Radiation Monitoring System Summary
- 5.1.15. EP Aid-049, Hope Creek Radiation Monitoring System Summary
- 5.1.16. EP Aid-090, HC EOF RM-11 - Instructions for Radiological and Flow Data
- 5.1.17. EP Aid-095, PSEG Nuclear - ERO Backup Mustering Areas

5.2 Developmental References

- 5.2.1. PSEG Nuclear LLC Emergency Plan
- 5.2.2. EP-AA-120-1010, Emergency Preparedness Training Administration

5.3 Commitments

- 5.3.1. None

RADIOLOGICAL SUPPORT MANAGER AND RADIOLOGICAL
ASSESSMENT STAFF RESPONSE

Rev: 13

6.0 RECORDS

- **RETURN** completed procedure and any information or data thought to be pertinent to the Manager - Emergency Preparedness.
-

RADIOLOGICAL SUPPORT MANAGER AND RADIOLOGICAL ASSESSMENT STAFF RESPONSE

Rev: 13

Attachment 1, Pre-Activation RSM Checklist

A. PRE-ACTIVATION RSM CHECKLIST

1. RSM should ENSURE the following items are performed:

- **ASSIGN** the Radiological Assessment Staff Members (D02's & D03) to the following job assignments:

- Dose Assessment (D02A)
(Refer to NC.EP-EP.ZZ-0602(Q) EOF Radiological Dose Assessment):

_____/_____
(Name) (Name)

- State Liaison, assisting states with RMS and Meteorological data (D02B)
(Refer to Attachment 3, State Liaison and RMS Trending Instructions):

_____/_____
(Name) (Name)

- Habitability, EOF Emergency Vent. and Environmental Sampling Issues (D02C)
(Refer to Attachment 4, Habitability, EOF Emergency Ventilation and Laboratory and Testing Services (LTS) Instructions):

_____/_____
(Name) (Name)

- Coordinating and Tracking Offsite Field Teams Location and Sampling (D03)
(Refer to NC.EP-EP.ZZ-0603 (Q), Field Monitoring):

_____/_____
(Name) (Name)

- a. **ENSURE** the Radiological Assessment Staff is fully staffed to perform the D02/D03 tasks as outlined above, as thought appropriate for current conditions. (**LOG** any deviations)

RADIOLOGICAL SUPPORT MANAGER AND RADIOLOGICAL ASSESSMENT STAFF RESPONSE

Rev: 13

Attachment 1, Pre-Activation RSM Checklist (continued)

- 2. **ASSIGN** an individual to act as an Assistant RSM when the RSM is in Leads meetings or temporarily out of the EOF. (**ENSURE** this individual understands that he/she cannot perform items identified in Attachment 2 which may not be delegated.) _____

- 3. **VERIFY** the following tasks are being performed:
 - If appropriate and a General Emergency has been declared, **DIRECT** EOF habitability surveys be performed every 30 minutes IAW Attachment 4. _____
 - EOF Radiological Assessment equipment is functioning properly. _____
 - EOF AMS is turned on and the alarm set for 2 times the current background. _____
 - Dose Assessment is being performed IAW NC.EP-EP.ZZ-0602(Q), EOF Radiological Dose Assessment. _____
 - Offsite Field Monitoring Teams are functional or in the process of becoming functional. _____
 - Current and forecasted meteorological data has been acquired or is in the process of being acquired. _____

- 4. **INFORM** the ERM **WHEN** the Radiological Assessment Staff is ready to activate. _____

- 5. **WHEN** directed by the ERM to take turnover of dose assessment **THEN**:
 - **DIRECT** the EOF Dose Assessor to take turnover of dose assessment from the Technical Support Center (TSC)/Shift Radiation Protection Technician (SRPT). _____
 - **CONTACT** the RAC to coordinate turnover of dose assessment duties and Station Status Check List (SSCL) from the TSC/SRPT to the EOF. _____
 - **IMPLEMENT** Attachment 2, RSM Checklist. _____

RADIOLOGICAL SUPPORT MANAGER AND RADIOLOGICAL ASSESSMENT STAFF RESPONSE

Rev: 13

Attachment 2, RSM Checklist

NOTE
Asterisk (*) steps may NOT be delegated (These steps have RSM designated below the place keeping initial line).

A. RSM CHECKLIST

1. The RSM should ensure the following items are performed:

- a. CONTINUE/MAINTAIN the RSM log.
b. ENSURE Offsite Radiological Dose Projections are being performed IAW NC.EP-EP.ZZ-0602(Q), EOF Radiological Dose Assessment, and the SSCL Page 2 is being produced every 30 minutes when a radiological release is in progress.

NOTE
Medical care takes priority over any radiological conditions unless the radiological conditions are life threatening.

- c. If necessary, COORDINATE the transportation of any contaminated injured person offsite with the RAC.
d. *AUTHORIZE issuance of KI to offsite PSEG radiation workers, as appropriate IAW NC.EP-EP.ZZ-0305(Q), Potassium Iodide (KI) Administration.
e. BRIEF EOF Radiological Assessment Staff as changing conditions warrant.
f. ASSIST with Event Classification.

RSM

RADIOLOGICAL SUPPORT MANAGER AND RADIOLOGICAL ASSESSMENT STAFF RESPONSE

Rev: 13

Attachment 2, RSM Checklist (continued)

g. *PROVIDE Protective Action Recommendations (PARs), as appropriate IAW;

- For Initial PAR - EP-HC-111-F4 or EP-SA-111-F4, General Emergency classification.

_____ RSM

- For PAR Upgrades - NC.EP-EP.ZZ-0404(Q), Protective Action Recommendations (PAR) Upgrades.

_____ RSM

h. ENSURE Laboratory and Testing Services (LTS) is contacted IAW Attachment 4.

i. PERFORM the following applicable steps if a RADIOLOGICAL RELEASE is in progress:

- INFORM the Radiological Assessment Staff immediately when it is known a radiological release is in progress. _____
- OBTAIN frequent briefings concerning the Offsite Field Team's assignments from Offsite Team Coordinator (OTC) reports. _____
- INFORM ERM if Dose Assessment or radiological field surveys show a Protective Action Guideline (PAG) could be exceeded in an area not already covered by a PAR. _____
- REQUEST the RAC to obtain a plant vent isotopic sample and provide the results to the Dose Assessor as soon as possible after the start of a release. _____
- CONSIDER moving essential equipment from the Security Center and the Processing Center. _____
- INITIATE Habitability AND Contamination Controls IAW Attachment 4 AND VERIFY the following: _____
 - No Eating or Drinking has been announced in the EOF as needed _____
 - Step-Off-Pads (SOP) have been setup as needed. _____

RADIOLOGICAL SUPPORT MANAGER AND RADIOLOGICAL ASSESSMENT STAFF RESPONSE

Rev: 13

Attachment 2, RSM Checklist (continued)

- Radiological Postings are in place as needed. _____
- **IF** a **GENERAL EMERGENCY** has been declared,

THEN ENSURE habitability is being performed every 30 minutes IAW Attachment 4 of this procedure. _____
- **IF** the current OR forecast meteorological conditions show a radiological plume will enter the NNE Sector, (EOF Location),

THEN ENSURE Emergency Ventilation is placed in service IAW Attachment 4. _____
- **INSTRUCT** the D02A to **PERFORM** an isotopic dose assessment from the plant vent sample results, determine the NG to Iodine ratio and to communicate the results to the representatives from Delaware Emergency Management Agency (DEMA) and New Jersey Bureau of Nuclear Energy (NJBNE). _____
- **COORDINATE** with the RAC and recommend travel routes, modes of transportation, and appropriate controls in/out of Salem and Hope Creek Stations for all vehicles and personnel. _____
- **IF** necessary,

THEN DIRECT the setup of a vehicle decontamination area, IAW NC.EP-EP.ZZ-0308(Q), Personnel/Vehicle Survey and Decontamination. _____
- **IF** necessary,

THEN DISCUSS the use of State Emergency Worker/Vehicle Decon Facilities) with the Emergency Preparedness Coordinator (EPC). _____
- **OBTAIN** ERM approval for Coast Guard or Helicopter assistance in tracking the plume, if thought necessary. _____

**RADIOLOGICAL SUPPORT MANAGER AND RADIOLOGICAL
ASSESSMENT STAFF RESPONSE**

Rev: 13

Attachment 2, RSM Checklist (continued)

j. **PROVIDE** EOF evacuation recommendations/options to the ERM based on habitability concerns or based on external events that necessitate EOF relocation:

- Recommend that the EOF staff be evacuated and relocated to Salem County 911 Center/ENC - Primary EOF Back-up Mustering Area, (refer to EP Aid-095) or the Unaffected Station's TSC. _____

- Recommend that all portable Satellite Phones, portable radios, EOF Laptops, Field Team vehicles & monitoring equipment and one set of ECGs and EOF EP Implementing Procedures, as a minimum be moved to the relocated EOF location. _____

RADIOLOGICAL SUPPORT MANAGER AND RADIOLOGICAL ASSESSMENT STAFF RESPONSE

Rev: 13

Attachment 3, State Liaison Instructions

A. STATE LIAISON

<p>NOTE</p> <p>As needed, use the following references to complete activities in this attachment</p> <ul style="list-style-type: none"> • EP Aid-018, Salem SPDS MET and Rad Data • EP Aid-019, HC CRIDS SPDS MET and Rad Data • EP Aid-025, Get Weather from NOAA • EP Aid-048, Salem Radiation Monitoring System (RMS) Summary • EP Aid-049, Hope Creek Radiation Monitoring System (RMS) Summary • EP Aid-090, HC EOF RM-11 - Instructions for Radiological and Flow Data • SC.EP EP.ZZ 0301[Q] Attachment 2 for Unit #1 • SC.EP EP.ZZ 0301[Q] Attachment 3 for Unit #2
--

1. The State Liaison Should **PERFORM** The Following:

- **ESTABLISH** communications with the representatives from the States of New Jersey, Delaware, and the NRC, upon their arrival at the EOF.
- **ASSIST** State personnel with 15 minute updates of MET/RMS data when radiological monitors are in warning, alarm, or as thought appropriate. (Delaware Emergency Management Agency (DEMA) and the New Jersey Bureau of Nuclear Engineering (NJBNE) personnel have station SPDS display terminals in their areas to obtain MET/RMS data but may need some assistance.)
- **IF** no radiological release is in progress,
 - THEN PROVIDE** DEMA and NJBNE EOF personnel 30 minute updates of radiological plant vent effluent and meteorological data using Form-4 for Hope Creek or Form-5 for Salem dose assessment input. (This data can be obtained from the EOF dose assessors.)
- **IF** a radiological release is in progress,
 - THEN PROVIDE** DEMA and NJBNE EOF personnel 15 minute updates of radiological plant vent effluent and meteorological data using Form-4 for Hope Creek or Form-5 for Salem dose assessment input. (This data can be obtained from the EOF dose assessors.)

RADIOLOGICAL SUPPORT MANAGER AND RADIOLOGICAL ASSESSMENT STAFF RESPONSE

Rev: 13

Attachment 3, State Liaison Instructions (continued)

- REFER State and Federal personnel to the RMS Status Board for current and trended RMS data if SPDS is not operable in the EOF. _____
- REFER State and Federal personnel to appropriate contacts for other support in the EOF, when applicable. _____

2. RMS and MET Data

a. As needed, OBTAIN radiological and effluent flow data from the following sources:

- HOPE CREEK SPDS and the RM-11 Displays. _____
- SALEM SPDS Radiation Monitoring Screens and/or from Control Room FAX from the SRPT. _____

b. INFORM the RSM immediately, INCLUDING INTERRUPTING MEETINGS, IF

- Any effluent monitor increase at Salem or Hope Creek. _____
- Any of the High Range Containment Monitors increase to the following values: _____

HOPE CREEK ONLY

- DAPA "A" or DAPA "B" = $\geq 2,000$ R/hr (indication that the fuel clad barrier has been lost) _____
- DAPA "A" or DAPA "B" $\geq 10,000$ R/hr (indication of potential loss of Containment.) _____

SALEM UNITS 1 & 2 ONLY

- R44 "A" or R44 "B" > 300 R/hr (indication that the fuel clad and RCS barriers have been lost) _____
- R44 "A" or R44 "B" $> 2,000$ R/hr (indication of potential loss of Containment) _____

RADIOLOGICAL SUPPORT MANAGER AND RADIOLOGICAL ASSESSMENT STAFF RESPONSE

Rev: 13

Attachment 3, State Liaison Instructions (continued)

c. OBTAIN MET data from one of the following sources:

- Hope Creek/Salem SPDS _____
- Hope Creek/Salem TSC or Control Room _____
- National Weather Service (NWS)
(609-261-6604 or 609-261-6602) _____
- National Weather Service (NWS) Website _____

d. INFORM the RSM & Duty Dose Assessor of conditions that could initiate a PAR Upgrade (Must be at a General Emergency).

- Wind Shift to a new sector
- Any meteorological change which could increase the concentration of the release, such as decreasing wind speed, increasing stability class or less rain.
- INCREASING Projected TEDE Dose $\geq 1,000$ (1.0E+3) mRem (at 5 miles or 10 miles) as seen on a MIDAS SSCL page 2.

OR

INCREASING Projected Thyroid Dose $\geq 5,000$ (5.0E+3) mRem (at 5 miles or 10 miles) as seen on a MIDAS SSCL page 2. _____

- Reports from an Offsite Field Team with increasing dose rates. _____

e. IF SPDS is not available in the EOF

THEN ENSURE the MET/RMS data is being recorded and updated on the RMS Status Board approximately every 15 minutes unless directed otherwise by the RSM. _____

RADIOLOGICAL SUPPORT MANAGER AND RADIOLOGICAL ASSESSMENT STAFF RESPONSE

Rev: 13

Attachment 4, Habitability, EOF Emergency Ventilation and Laboratory and Testing Services (LTS) Instructions

A. HABITABILITY AND CONTAMINATION CONTROLS

1. IF a RADIOLOGICAL RELEASE is in progress

THEN PERFORM the following steps as applicable OR as directed by the RSM:

a. **IMPLEMENT** Contamination Controls

- NO Eating or Drinking in the EOF. _____
- SETUP Step-Off-Pads (SOP). _____
- ESTABLISH Radiological Postings. _____

b. **IMPLEMENT** Habitability Controls

- **VERIFY** all personnel in the EOF have dosimetry. **ISSUE** dosimetry to all personnel who do not have dosimetry using Sentinel or Form-2. _____
- **PLACE** at least 3 electronic dosimeters within the EOF and in occupied adjoining rooms to monitor exposure. _____
- **SETUP** the AIR Monitoring Sampler and set background at 2 times the current background (monitor background 30 minutes after starting). _____
- **PERFORM** a habitability survey of areas inside and outside the Energy and Environmental Resource Center (EERC), as deemed appropriate by the RSM, AND LOG on Form - 3, EOF Habitability Log. _____
- IF a GENERAL EMERGENCY is declared.
THEN PERFORM EOF Habitability surveys every 30 minutes. _____
- **LOG** results on Form 3, EOF Habitability Log. _____

c. **INFORM** the RSM if any criteria below is exceeded:

- External dose equivalent (EDE) dose rates are >500 mR/hr within the facility - immediate evacuation should be considered. _____

RADIOLOGICAL SUPPORT MANAGER AND RADIOLOGICAL ASSESSMENT STAFF RESPONSE

Rev: 13

Attachment 4, Habitability, EOF Emergency Ventilation and Laboratory and Testing Services (LTS) Instructions (continued)

- EDE dose rates are >250 mR/hr, but <500 mR/hr within the facility - evacuation within (1) hour should be considered. _____
- The EDE dose rates are > 50 mR/hr, but < 250 mR/hr within the facility - evacuation within (2) hours should be considered. _____

NOTE

There are two Bypass Switches which can be used to initiate the Pressurized Mode of the EOF Ventilation System. Switch # 1 is located in the Mechanical Room (Room 46) (the switch is located on the right hand wall) and Switch #2 is located in the EOF Dose Assessment area of the EOF. Both switches are three-way switches and both operate the system. A light on the switch will illuminate when the system is running. _____

2. **WHEN** directed by the RSM, **PLACE** the EOF Ventilation In Pressurized Mode as follows:

- a. **LOCATE** EOF Bypass Switch #1 or #2. _____
- b. **POSITION** the Bypass Switch to the "ON" position (switch illuminates when the system is "ON"). _____
- c. **LOCATE** the DP Gauge next to the Lead's Conference Room in the EOF. **RECORD** the DP Gauge reading on the line below:

_____.
(**NOTIFY** the RSM if the gauge reading is < 0.025 inches) _____
- d. **NOTIFY** the RSM when EOF Ventilation is in the Pressurized Mode. _____
- e. **RETURN** the EOF Ventilation to the Normal Mode when Pressurized operation is no longer needed by changing position of the Bypass Switch and verifying that the light goes out. _____

RADIOLOGICAL SUPPORT MANAGER AND RADIOLOGICAL ASSESSMENT STAFF RESPONSE

Rev: 13

Attachment 4, Habitability, EOF Emergency Ventilation and Laboratory and Testing Services (LTS) Instructions (continued)

B. EOF VENTILATION MAINTENANCE

1. As needed, **PERFORM** the following maintenance on the EOF ventilation:

a. IF the following conditions exist, THEN PERFORM the following maintenance/ALARA tasks on the EOF Emergency Ventilation HEPA Units.

- IF the EOF is in the plume path, THEN ENSURE that dose rates are obtained on the HEPA filter every hour after EOF ventilation is placed in the Pressurized mode.
- IF the contact dose rate is > 500 mR/hr, THEN CONSIDER changing out the HEPA unit filter.

NOTE

The Radiation Protection Supervisor - Offsite may be contacted for additional technical support (people, advice concerning handling, storage, etc.) in changing out the HEPA filters, as necessary.

b. IF any of the following occurs,

THEN ENSURE the HEPA units are changed out IAW NC.EP-FT.ZZ-0009(Q), Emergency Operations Facility (EOF) Ventilation System Testing.

- Dose rates are >1000 mR/hr on contact of the HEPA units.
- At a high DP gauge reading (>1.75 inches) or at the RSM's discretion (gauge on front of HEPA housing)

C. LABORATORY AND TESTING SERVICES (LTS)

NOTE

LTS phone number may be obtained from the EP Phone Directory (EP Aid-005) available in the Administrative Support Area.

1. **CONTACT** LTS if a radioactive release is thought to be likely or a radioactive release is in progress.

**RADIOLOGICAL SUPPORT MANAGER AND RADIOLOGICAL
ASSESSMENT STAFF RESPONSE**

Rev: 13

**Attachment 4, Habitability, EOF Emergency Ventilation and Laboratory and Testing Services
(LTS) Instructions (continued)**

2. **REQUEST** Personnel From LTS Perform The Following:

- **ASSEMBLE** LTS Emergency Environmental Sampling personnel at the EOF and **REPORT** to the RSM. _____
- **REQUEST** the coordinator from LTS **REPORT** to the EOF, if environmental sampling is necessary. _____
- **CONSIDER** the change out of air samples and dosimetry in the down-wind sector from the radioactive plume and two sectors to each side. _____
- **ASSIST** the RSM in determination of an environmental sampling plan. _____
- After the radioactive plume is terminated, **DISPATCH** the environmental sampling teams to collect samples, in accordance with LTS procedures. _____

NC.EP-EP.ZZ-0601(Q)
RADIOLOGICAL SUPPORT MANAGER AND RADIOLOGICAL
ASSESSMENT STAFF RESPONSE

Page 20 of 26

Rev: 13

Attachment 5, Reserved

RESERVED

See
EP Aid-048 (Salem)
OR
EP Aid-049 (Hope Creek)
For RMS Quick Reference

NC.EP-EP.ZZ-0601(Q)
RADIOLOGICAL SUPPORT MANAGER AND RADIOLOGICAL
ASSESSMENT STAFF RESPONSE

Page 21 of 26

Rev: 13

Attachment 6, Reserved

RESERVED

See

EP Aid-018 (Salem) or EP Aid-019 (HC)

For aid in using Salem SPDS or HC CRIDS/SPDS

OR

EP Aid-090 (HC EOF RM-11)

For aid in using the HC EOF RM-11 Displays

RADIOLOGICAL SUPPORT MANAGER AND RADIOLOGICAL ASSESSMENT STAFF RESPONSE

Rev: 13

Form - 2 DLR Issue Log

DLR Issued to: (Name): _____

DLR Number: _____ Badge or Employee #: _____

To the best of my knowledge, my current annual exposure is ____mrem.

Name (Print/Sign): _____ Date: _____

DLR Issued to: (Name): _____

DLR Number: _____ Badge or Employee #: _____

To the best of my knowledge, my current annual exposure is ____mrem.

Name (Print/Sign): _____ Date: _____

DLR Issued to: (Name): _____

DLR Number: _____ Badge or Employee #: _____

To the best of my knowledge, my current annual exposure is ____mrem.

Name (Print/Sign): _____ Date: _____

DLR Issued to: (Name): _____

DLR Number: _____ Badge or Employee #: _____

To the best of my knowledge, my current annual exposure is ____mrem.

Name (Print/Sign): _____ Date: _____

Entry into Sentinel Complete: _____ Date: _____

(Print/Sign)

RADIOLOGICAL SUPPORT MANAGER AND RADIOLOGICAL ASSESSMENT STAFF RESPONSE

Rev: 13

Form - 4 Hope Creek MIDAS Input

Date: ___/___/___ Time: _____

RX POWER: _____ % / RX SCRAM at: _____ hrs. / ATWS: YES / NO

Meteorological Information:

Wind Speed @ 33': _____ mph Wind Speed @ 300': _____ mph
 Wind Direction (From) @ 33': _____ degrees
 Delta T: _____ °C (300'-33') OR (Stability Class for _____ 150'-33' Delta T)
 Rainfall: _____ inches/15 minutes

Hope Creek Vent Flow and Radiological Data: (Only use this section if HC is in Emergency Classification)

NPV Flow:	CFM	If process flow exists for a potential release pathway, enter the appropriate flow, otherwise mark N/A. If flow exists for the pathway also enter a NG values for that pathway or mark N/A.
SPV Flow:	CFM	
FRVS Flow:	CFM	
HTV Flow:	CFM	
NPV NG:	µCi/cc	For NPV, SPV and FRVS use: Low Range if between 1.00E-08 and 1.00E-02 µCi/cc Mid-Range if between 1.00E-02 and 1.00E+01 µCi/cc High Range if between 1.00E+01 and 1.00E+05 µCi/cc
SPV NG:	µCi/cc	
FRVS NG:	µCi/cc	
HTV NG:	µCi/cc	Low Range if between 1.00E-04 and 1.00E-02 µCi/cc High Range if between 1.00E-02 and 1.00E+04 µCi/cc

Hope Creek "What If" Containment Leakage

Drywell DAPA Monitor Value	R/hr	Flow Values: The flow is based on the expected Drywell Leakage in CFM. If at the design basis leak rate of 0.5% of the containment volume per day, then assume 1.1 CFM. 10% per day leakage is 2.13E+01 CFM. 100% per day leakage is 2.13E+02 CFM and Catastrophic failure is 100% in and hour and is 5.11E+03 CFM.
----------------------------	------	---

Enhanced Mode and MULTIPLE Unit/Source Term MIDAS (Nuclide Mix ID Values)

Run 1 Unit = _____ Menu = _____ Mix ID = _____	Run 2 Unit = _____ Menu = _____ Mix ID = _____	Run 3 Unit = _____ Menu = _____ Mix ID = _____	Run 4 Unit = _____ Menu = _____ Mix ID = _____	Run 5 Unit = _____ Menu = _____ Mix ID = _____
---	---	---	---	---

Comments:

RADIOLOGICAL SUPPORT MANAGER AND RADIOLOGICAL ASSESSMENT STAFF RESPONSE

Rev: 13

Form - 5 Salem MIDAS Input

Date: ___/___/___ Time: _____ Unit #1 Unit #2
 RX POWER: _____ % / RX TRIP at: _____ hrs. / ATWT: YES / NO

Meteorological Information:

Wind Speed @ 33': _____ mph Wind Speed @ 300': _____ mph
 Wind Direction (From) @ 33': _____ degrees
 Delta T: _____ °C (300'-33') OR (Stability Class for _____ 150'-33' Delta T)
 Rainfall: _____ inches/15 minutes

Salem Vent Flow and Radiological Data: (Use this section if either Salem Unit is in Emergency Classification)

Plant Vent:	CFM	If process flow exists for this release pathway, enter the appropriate flow, otherwise mark N/A. If process flow exists for this release pathway, enter the appropriate NG value for the R41 or R45 value (ONLY one).
R41 __ NG:	µCi/cc	<u>For R41 use:</u> R41A if between 1.00E-08 and 1.00E-02 µCi/cc R41B if between 1.00E-02 and 1.00E+01 µCi/cc R41C if between 1.00E+01 and 1.00E+05 µCi/cc
S/G to Atm. Release:	Lbs/hr	<u>ONLY</u> enter S/G to atmosphere flow if a tube leakage or a tube rupture makes this a release pathway through a steam relief or a MS-10 valve. The default flow rate is 4.50E+05 Lbs/hr but as pressure decreases so will flow, Engineering support can provide flow data but use default to avoid delaying dose assessment results. Use actual flow value when available.
R46 __:	mR/hr	<u>ONLY</u> enter R46 value if a S/G release to atmosphere is in progress. S/G leakage is monitored by the plant vent monitor if not through the relief or MS-10. A Main Steam Line (MSL) break outside of containment would also apply. S/G #11/21 use R46C, S/G #12/22 use R46A, S/G #13/23 use R46D and for release from S/G #14/24 use R46B.
Containment Leakage	CFM	This would normally be a "What If" calculation when high activities are bottled up in Containment. The Design Basis leakage is 0.1% per day which is about 1.82 CFM (1.0% per day = 18 CFM, 10% per day = 182 CFM, 100% per day = 1820 CFM, 100% in an hour = 43,700 CFM for Catastrophic Failure). Engineering can assist in determining the leak rates if this is the release pathway.
R44 __:	R/Hr	R44 response to high levels of activity released to containment during a LOCA should result in both R44 monitors reading approximately the same. Use the highest valid reading from the R44s.

Enhanced Mode and MULTIPLE Unit/Source Term MIDAS (Nuclide Mix ID Values)

Run 1 Unit = _____ Menu = _____ Mix ID = _____	Run 2 Unit = _____ Menu = _____ Mix ID = _____	Run 3 Unit = _____ Menu = _____ Mix ID = _____	Run 4 Unit = _____ Menu = _____ Mix ID = _____	Run 5 Unit = _____ Menu = _____ Mix ID = _____
---	---	---	---	---

Comments: