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PRC NC.EP-EP.ZZ-0403 000	2	A	1	H	80061
PRC NC.EP-EP.ZZ-0404 000	1	A	1	H	80088

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A045

NUCLEAR BUSINESS UNIT  
EOF IMPLEMENTING PROCEDURES  
September 14, 2000

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CHANGE PAGES FOR  
REVISION #04

The Table of Contents forms a general guide to the current revision of each section of the EOF EPIP. The changes that are made in this TOC Revision #04 are shown below. Please check that your revision packet is complete and remove the outdated material listed below:

ADD			REMOVE		
Page	Description	Rev.	Page	Description	Rev.
All	T.O.C.	04	All	T.O.C.	03
All	NC.EP-EP.ZZ-0402	01	ALL	NC.EP-EP.ZZ-0402	00
All	NC.EP-EP.ZZ-0403	02	ALL	NC.EP-EP.ZZ-0403	01
All	NC.EP-EP.ZZ-0404	01	ALL	NC.EP-EP.ZZ-0404	00

**PSEG NUCLEAR LLC EMERGENCY PLAN**  
**EOF IMPLEMENTING PROCEDURES**  
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**September 14, 2000**

AEE TOC  
**PSEG**  
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**CONTROL**  
**COPY #** EPIPO59

EMERGENCY OPERATIONS FACILITY (EOF) PROCEDURES

		<u>Revision</u> <u>Number</u>	<u>Number</u> <u>of Pages</u>	<u>Effective</u> <u>Date</u>
<b>EMERGENCY COORDINATOR RESPONSE:</b>				
NC.EP-EP.ZZ-0401(Q)	Emergency Response Coordinator Response	01	6	02/29/2000
NC.EP-EP.ZZ-0402(Q)	Site Support Manager Team Response – EOF	01	6	09/14/2000
NC.EP-EP.ZZ-0403(Q)	Public Information Liaison (PIL) – EOF	02	4	09/14/2000
NC.EP-EP.ZZ-0404(Q)	Protective Action Recommendations (PARS) Upgrades	01	10	09/14/2000
NC.EP-EP.ZZ-0405(Q)	Emergency Termination/ Reduction/Recovery	01	22	02/29/2000
<b>ENGINEERING RESPONSE (EOF):</b>				
NC.EP-EP.ZZ-0501(Q)	EOF – Integrated Engineering Response	00	8	04/01/99
<b>RADIATION PROTECTION RESPONSE (EOF):</b>				
NC.EP-EP.ZZ-0601(Q)	Radiological Support Manager And Radiological Assessment Staff Response	02	31	03/29/2000
NC.EP-EP.ZZ-0602(Q)	EOF Radiological Dose Assessment	00	26	04/01/99
NC.EP-EP.ZZ-0603(Q)	Field Monitoring	02	50	03/29/2000
NC.EP-EP.ZZ-0604(Q)	Helicopter Plume Tracking	00	12	04/01/99
<b>ADMINISTRATIVE SUPPORT RESPONSE (EOF):</b>				
NC.EP-EP.ZZ-0701(Q)	Administrative Support EOF	01	25	12/29/99

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NC.EP-EP.ZZ-0402(Q) Rev. 01

SITE SUPPORT MANAGER TEAM RESPONSE - EOP COPY # EPIPO59

**USE CATEGORY: II**

**REVISION SUMMARY:**

1. Deleted step 2.1.2 reference to Procedure Sign-Off which is no longer used for EPEPs.
2. Deleted step 3.1.1 that discusses references to former EPEPs. All procedures described in this procedure have the new EPEP designator.
3. Deleted step 5.1.6.A - which directs security liaison to ensure security at the ENC. The utility is no longer responsible for establishing security for the new ENC.
4. Added, "provide.....emergency status updates routinely..... to Security Force Member", to step 5.1.6.A.
5. Corrected signature page titles and other effected titles throughout the procedure.
6. This revision satisfies the requirement for a biennial review.

**IMPLEMENTATION REQUIREMENTS**

9-14-00

**EFFECTIVE DATE**

APPROVED: *[Signature]* *[Signature]* 07/24/2000  
 Manager - EP & IT Date

APPROVED: *N/A* *N/A*  
 Vice President - Operations Date

**SITE SUPPORT MANAGER TEAM RESPONSE - EOF**

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**1.0 PURPOSE**

Provides the Site Support Manager (SSM) and Staff duties during a declared emergency.

**2.0 PREREQUISITES****2.1 Prerequisites to be Followed Prior to Implementation:**

2.1.1 Implement this procedure at:

- The discretion of the Emergency Response Manager (ERM).
- Upon staffing of the Emergency Operations Facility (EOF).

**3.0 PRECAUTIONS AND LIMITATIONS****3.1 Precautions and Limitations to be Followed Prior to Implementation:**

3.1.1 Initials should be used in the place keeping sign-offs, instead of checkmarks, if more than one person may implement this procedure,.

3.1.2 Personnel who implement this procedure shall be trained and qualified IAW the Emergency Plan.

**4.0 EQUIPMENT REQUIRED**

As provided in the EOF.

**NOTE**

Should the ERM be unable to fulfill the duties of Emergency Coordinator (EC) for any reason (e.g., sudden illness, accident, etc.) the Site Support Manager (SSM) may assume the duties and responsibilities of EC until another qualified ERM arrives at the facility.

**5.0 PROCEDURE****5.1 The SSM should prepare to activate the EOF as follows:**

5.1.1 **INITIATE** and **MAINTAIN** a chronological log of SSM activities/events.

5.1.2 **NOTIFY** the ERM of your arrival. \_\_\_\_\_

5.1.3 **OBTAIN** a briefing from the Technical Support Supervisor (TSS), in the Technical Support Center (TSC), on plant status. \_\_\_\_\_

5.1.4 **BRIEF** SSM Staff on emergency conditions: \_\_\_\_\_

- Operations Advisor
- Communicator #1 (EOF1)
- Communicator #2 (EOF2)
- Emergency Preparedness Advisor (EPA)
- EOF Security Liaison

5.1.5 **DIRECT** the EPA (or another SSM staff member) to **IMPLEMENT** Attachment 1, SSM Staff Actions. \_\_\_\_\_

5.1.6 **DIRECT** the Security Liaison to perform the following:

- A. Provide guidance and emergency status updates routinely to the Security Force Member posted at the EOF. \_\_\_\_\_
- B. Obtain status of security actions from the Security Liaison at the affected station's TSC. \_\_\_\_\_
- C. Assist the TSC security liaison as requested. \_\_\_\_\_

5.1.7 **NOTIFY** the ERM when ready to assume Emergency Response function. \_\_\_\_\_

5.2 **Upon Activation of the Facility, the SSM should:**

5.2.1 **DIRECT** staff and **ASSIGN** tasks. \_\_\_\_\_

5.2.2 **DESIGNATE** a team member as primary contact with the following as necessary: [see EP Phone Number Directory, NC.EP-WB.ZZ-0001(Z), for vendor listing]. \_\_\_\_\_

- General Electric Corp. - for Hope Creek
- Westinghouse Corp. - for Salem
- Connectiv – for Salem and Hope Creek
- PECO – for Salem

5.2.3 **REQUEST** additional support from PSE&G Research Corporation (Maplewood Research/Testing Lab), if needed. (Contacts for non-working hours are listed in EP Phone Directory, NC.EP-WB.ZZ-0001(Z). \_\_\_\_\_

- 5.2.4 **ENSURE** the Operational and Radiological Information sections of the Station Status Checklist are completed, reviewed, and approved for distribution to the States. \_\_\_\_\_
- 5.2.5 **IMPLEMENT** the Event Classification Guide and **PROVIDE** Emergency Action Level Recommendations to the ERM \_\_\_\_\_
- 5.2.6 **PREPARE** Initial Contact Message Form (ICMF) for changes in Event Classification/Protective Action Recommendations (PAR) and **PROVIDE** to the ERM for review and approval. \_\_\_\_\_
- 5.2.7 **ENSURE** State Representatives in the EOF are provided with the basis for any classification or PAR changes. \_\_\_\_\_
- 5.2.8 **NOTIFY** the ERM regularly of: \_\_\_\_\_
  - Operations assessment of plant conditions.
  - Site Support operations in progress.
  - Site Support operations planned.
  - Site Accountability and Evacuation Status.
  - Site Protection and Security concerns.
- 5.2.9 **GIVE** technical information and briefings to the Public Information Liaison (PIL) to support ENC operations. \_\_\_\_\_
- 5.2.10 **DISCUSS** event mitigating actions and recommendations with the Technical Support Manager (TSM) and TSS. \_\_\_\_\_
- 5.2.11 **IMPLEMENT** recovery planning if directed by the ERM. \_\_\_\_\_
- 5.2.12 **ENSURE** EOF command and control is assigned to an individual prior to the team holding briefings outside the EOF proper. \_\_\_\_\_

5.3 **Upon Event Termination, the Site Support Manager should:**

- 5.3.1 **ENSURE** restoration of facility to its original state. \_\_\_\_\_

6.0 **RECORDS**

- 6.1 Forward all completed EPEPs/Forms/Attachments to the Manager - EP & IT

7.0 **REFERENCES**

- 7.1 References  
None
- 7.2 Cross References  
NBU Emergency Plan

**ATTACHMENT 1  
SSM STAFF ACTIONS****PAGE 1 OF 2****1.0 PRIOR TO ACTIVATION OF THE FACILITY, THE SSM STAFF SHOULD:**

- **VERIFY** communication capabilities with other Emergency Response Facilities using NETS, ESSX, and DID systems.
- **PERFORM** telecopier test or **COORDINATE** with Administrative Support team to **VERIFY** operability of equipment.
- **OBTAIN** anticipated Communicator Attachments from Event Classification Guide work file drawer.
- **OBTAIN** a turnover briefing from Technical Support Center Communicators to include the following information:
  - Current ECG attachment number being implemented.
  - Status of notifications being made.
  - Due time for next Station Status Checklist (SSCL).
  - Request copy of Initial Contact Message Form (ICMF), if necessary.
  - Note any special communication problems, number changes, or contacts
  - Further note any relevant operational status.
  - Give communicator your name/phone extension and advise that you will notify him when your Facility is activated to assume Communicator duties.
- **DESIGNATE** Communicator 1 (EOF1) for voice notification duties, Communicator 2 (EOF2) for form preparation/coordination, and Operations Advisor for status board maintenance and open line communications with the TSC Operations Advisor. If a fourth Communicator is available, assign to NRC-ENS telephone duty and control of SPDS display.
- **ENSURE** that all status boards displayed are for the correct site; (Salem/Hope Creek).

**2.0 UPON FACILITY ACTIVATION, THE SSM STAFF SHOULD:**

- **ASSUME** all emergency communications functions when Facility is declared activated.
- **IMPLEMENT** Event Classification Guide Attachments only as directed by the Emergency Response Manager (ERM).

## ATTACHMENT 1

## PAGE 2 OF 2

- **MONITOR** all Telecopier activity including transmissions and malfunctions. **ENSURE** all data forms are initialed/signed off.
- **ESTABLISH** timetable for telecopier transmission of critical data forms ensuring deadlines are met.
- **ENSURE** all notifications and procedural requirements are completed accurately and on time.
- **MONITOR** status boards ensuring accuracy and timely updates.
- **NOTIFY** the ERM of communication status and **PERFORM** ERM requests.
- **REVIEW** Communicator ECG Attachments ensuring completeness and accuracy.
- **ENSURE** that security status and on-going challenges are checked by the Security Liaison.

3.0 **UPON TERMINATION OF THE EVENT, THE SSM STAFF SHOULD:**

- **ASSIST** in restoration of the facility to its original state.
- **SEND** all completed EPEPs, forms, and attachments to the Manager – EP & IT.

USE CATEGORY: **II**

REVISION SUMMARY:

1. Deleted step 2.1.2 reference to Procedure Sign-Off which is no longer used for EPEPs.
2. Deleted step 5.1.7 requiring contact be made with the Co-Owners. This action is handled by the ENC Government Affairs Coordinator per NC.EP-EP.ZZ-0801 (Q), Attachment 14, Step 2.3.
3. Corrected signature page titles and other effected titles throughout the procedure.
4. This revision satisfies the requirement for a biennial review.

IMPLEMENTATION REQUIREMENTS

9-14-00

EFFECTIVE DATE

APPROVED: *Raymond Price (R. Price) M. D. MILLER* 08/24/2000  
 Manager – EP & IT Date

APPROVED: *N/A* *N/A*  
 Vice President - Operations Date

**PUBLIC INFORMATION LIAISON (PIL) - EOF**

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1.0 **PURPOSE**

Provides direction for the Public Information Liaison during a declared emergency.

2.0 **PREREQUISITES**

2.1 **Prerequisites to be Followed Prior to Implementation:**

2.1.1 Implement this procedure at:

- The discretion of the ERM.
- Upon staffing of the EOF.

2.1.2 Utilize Form-1, Emergency News Center (ENC) – Plant Status Form as a guideline for the information needed by the ENC Staff

3.0 **PRECAUTIONS AND LIMITATIONS**

None.

4.0 **EQUIPMENT REQUIRED**

As found in the EOF.

5.0 **PROCEDURE**

5.1 **Prior To EOF Activation, the PIL should:**

5.1.1 **NOTIFY** Emergency Response Manager (ERM)/Site Support Manager (SSM) of arrival. \_\_\_\_\_

5.1.2 **SETUP** area. \_\_\_\_\_

5.1.3 **INITIATE** and **MAINTAIN** a chronological log of PIL activities/ events. \_\_\_\_\_

5.1.4 **VERIFY** operation of telephone lines [including links to the Emergency News Center(ENC)]. \_\_\_\_\_

5.1.5 **NOTIFY** the ENC Manager of your arrival at the EOF. \_\_\_\_\_

5.1.6 **REPORT** any problems to the Administrative Support Manager (ASM). \_\_\_\_\_

5.1.7 **OBTAIN/VALIDATE** information at the EOF from the ERM & SSM and **PROVIDE** to the ENC. \_\_\_\_\_

5.1.8 **NOTIFY** the ERM when the ENC is activated. \_\_\_\_\_

5.1.9 **REVIEW** press bulletins and feed any comments back to the ENC within approximately 10 minutes of receipt. **IF** the ERM has requested to review bulletins then **ENSURE** they are provided and reviewed within 10 minutes of receipt. \_\_\_\_\_

5.2 **Upon Activation of the EOF, the PIL should:**

5.2.1 **OBTAIN/VALIDATE** information at the EOF from the ERM & SSM and **PROVIDE** to the ENC. \_\_\_\_\_

5.2.2 **OBTAIN** technical information and briefings from the SSM/Staff. \_\_\_\_\_

5.2.3 **NOTIFY** the ERM of all key ENC Activities. \_\_\_\_\_

5.2.4 **ANSWER** questions about plant status for the ENC staff. (ENC – Plant Status Form-1 may be used as a guide) \_\_\_\_\_

5.2.5 **REVIEW** press bulletins and feed any comments back to the ENC within approximately 10 minutes of receipt. **IF** the ERM has requested to review bulletins then ensure they are provided and reviewed within 10 minutes of receipt. \_\_\_\_\_

5.3 **Upon Event Termination, the PIL should:**

5.3.1 **RESTORE** work station to original state. \_\_\_\_\_

5.3.2 **ASSIST** with restoration of the facility to its original state. \_\_\_\_\_

6.0 **RECORDS**

**FORWARD** all completed EPEPs/Forms/Attachments to the Manager - EP & IT.

7.0 **REFERENCES**

7.1 References  
None

7.2 Cross References

7.2.1 NC.EP-WB.ZZ-0001 (Z), EP Phone Number Directory.

7.2.2 NC.EP-EP.0204(Q)(S/H)/EPIP 204(S/H), ERO Callout.

7.2.3 PSEG Nuclear Emergency Plan

**FORM - 1  
NC.EP-EP.ZZ-0403 - 1**

**EMERGENCY NEWS CENTER - PLANT STATUS**

Number \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Emergency Classification (Time):

Unusual Event \_\_\_\_\_ Site Area Emergency \_\_\_\_\_  
Alert \_\_\_\_\_ General Emergency \_\_\_\_\_

Reason for Classification: \_\_\_\_\_

Station Involved:

Hope Creek  Salem U/I  Salem U/II

Release of Radioactive Material: Yes  No  Amount \_\_\_\_\_

If Yes, Location/Source \_\_\_\_\_

Personnel Injuries: Yes  No  How Many \_\_\_\_\_ Type \_\_\_\_\_

Site Assembly: Started \_\_\_\_\_ Completed \_\_\_\_\_

Site Accountability: Started \_\_\_\_\_ Completed \_\_\_\_\_

Site Evacuation: Started \_\_\_\_\_ Completed \_\_\_\_\_

Operational Status of Units (Power Level or Mode):

Hope Creek \_\_\_\_\_ Salem U/I \_\_\_\_\_ Salem U/II \_\_\_\_\_

Emergency Response Facilities Activated:

OSC \_\_\_\_\_ TSC \_\_\_\_\_ EOF \_\_\_\_\_ ENC \_\_\_\_\_

Delaware EOC \_\_\_\_\_ New Jersey EOC \_\_\_\_\_

Barrier Status: Fuel Cladding \_\_\_\_\_  
Reactor Vessel \_\_\_\_\_  
Primary Containment \_\_\_\_\_

Core Cooling Maintained By: \_\_\_\_\_

Major Equipment Damage: Yes  No  What \_\_\_\_\_

Actions Being Taken to Mitigate Event: \_\_\_\_\_

Met Data: Wind Dir. From \_\_\_\_\_ Wind Speed \_\_\_\_\_ Precipitation \_\_\_\_\_

Protective Actions: Delaware \_\_\_\_\_  
New Jersey \_\_\_\_\_

Sirens Sounded: Delaware \_\_\_\_\_  
New Jersey \_\_\_\_\_

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**USE CATEGORY: II**

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**REVISION SUMMARY:**

1. Deleted step 2.1.1 reference to Procedure Sign-Off which is no longer used for EPEPs.
2. Deleted Attachment 7, Procedure Completion Sign-off Sheet which is no longer used.
3. Deleted step 3.1.2 that discusses references to former EPEPs. All procedures described in this procedure have the new EPEP designator.
4. Revised step 5.3.2 to indicate ECG Attachment 6 rather than Attachment 7 which has been deleted.
5. Corrected signature page titles and other effected titles throughout the procedure.
6. This revision satisfies the requirement for a biennial review.

**IMPLEMENTATION REQUIREMENTS**

Issued for use. 9-14-06

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APPROVED: *Bryan Price (B. Price)* *D. Sullivan* 08/24/2006  
 Manager - EP & IT Date

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APPROVED: *N/A* *N/A*  
 Vice President - Operations Date

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Protective Action Recommendations (PARS) Upgrades

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## 1.0 PURPOSE

Provides direction to the Emergency Response Manager (ERM) and the Emergency Duty Officer (EDO) for determining the need for and development of protective action recommendation (PAR) upgrades after an initial PAR was provided upon General Emergency declaration..

## 2.0 PREREQUISITE

### 2.1 Prerequisites to be Followed Prior to Implementation:

2.1.1 This procedure should be implemented by the ERM with assistance from the Radiological Support Manager (RSM) and the Site Support Manager (SSM). If the EDO is the Emergency Coordinator(EC), then the EDO with assistance from the Radiological Assessment Coordinator (RAC) and the Technical Support Supervisor (TSS) will implement this procedure as needed.

## 3.0 PRECAUTIONS AND LIMITATIONS:

### 3.1 Precautions and Limitations to be Followed Prior to Implementation:

- 3.1.1 This procedure is used for upgrading PARs. Initial PAR development which must be made within minutes of declaring a General Emergency is performed IAW ECG Attachment 4, General Emergency.
- 3.1.2 Initials should be used in the place keeping sign-offs, instead of checkmarks, if more than one person may implement this procedure.
- 3.1.3 Personnel who implement this procedure shall be trained and qualified IAW the Emergency Plan.

## 4.0 EQUIPMENT REQUIRED

As provided in the EOF or TSC.

## 5.0 PROCEDURE

### NOTE

Upon General Emergency declaration, an initial PAR will be provided on the Initial Contact Message Form (ICMF) in accordance with directions provided in the Event Classification Guide(ECG) Attachment 4, General Emergency.

5.1 **The EC Shall Upgrade the PAR as follows:**

5.1.1 **ENSURE** PAR upgrade is considered when in General Emergency condition and changes in plant status, radiological release status, or meteorological conditions occur.

5.1.2 **DIRECT** the SSM (TSS) to REVIEW/DEVELOP a PAR upgrade based upon changes to known or projected plant conditions utilizing ATTACHMENT 1, Predetermined PAR Flowchart.

5.1.3 **DIRECT** the RSM (RAC) to REVIEW/DEVELOP a Radiological Based PAR upgrade utilizing ATTACHMENT 6, RSM (RAC) PAR Checklist.

**NOTE**

Due to the uncertainties associated with release magnitude, release duration, and weather conditions, evacuation of the population at risk is the preferred course of action over sheltering unless conditions clearly indicate a Dose Savings would occur if sheltering were performed.

5.1.4 **COMPARE** the PAR upgrades developed and consider the most appropriate for issue.

5.1.5 **PROVIDE** a PAR Upgrade **ONLY IF** the PARs developed are more conservative than the PAR currently provided to the States of New Jersey and Delaware; or, if a shift in wind direction requires inclusion of additional sectors. Do not downgrade an existing PAR (i.e., Be sure that initial PAR information is carried over/transferred to the new ICMF form).

5.2 **The EC Should Make PAR Development Beyond Ten Miles as follows:**

5.2.1 **DIRECT** the RSM (RAC) to DETERMINE if the Protective Action Guidelines (PAGs), 1 rem TEDE Dose or 5 REM CDE dose, have been or are expected to be exceeded beyond the 10 mile EPZ using actual field team measurements or based on valid dose assessment projections using plant vent isotopic grab sample values and 15 minute average real time meteorological data.

5.2.2 **DEVELOP** PARs beyond ten miles as needed. **DISCUSS** PAR basis with representatives from New Jersey Bureau of Nuclear Engineering (BNE) and/or the Delaware Emergency Management Agency (DEMA).

5.3 **Notification and Documentation:**

5.3.1 **PROVIDE** PAR Upgrade to the states as soon as it is available (approved by the EC). \_\_\_\_\_

5.3.2 **DOCUMENT** the PAR Upgrade on an **ICMF from ECG Attachment 4**, and **DIRECT** the EOF Communicator to make notifications per the **ECG Attachment 6**. \_\_\_\_\_

5.3.3 **NOTIFY** all emergency response facilities of the PAR upgrade. \_\_\_\_\_

6.0 **RECORDS**

Forward all completed EPEPs/Forms/Attachments to the Manager - EP & IT

7.0 **REFERENCES**

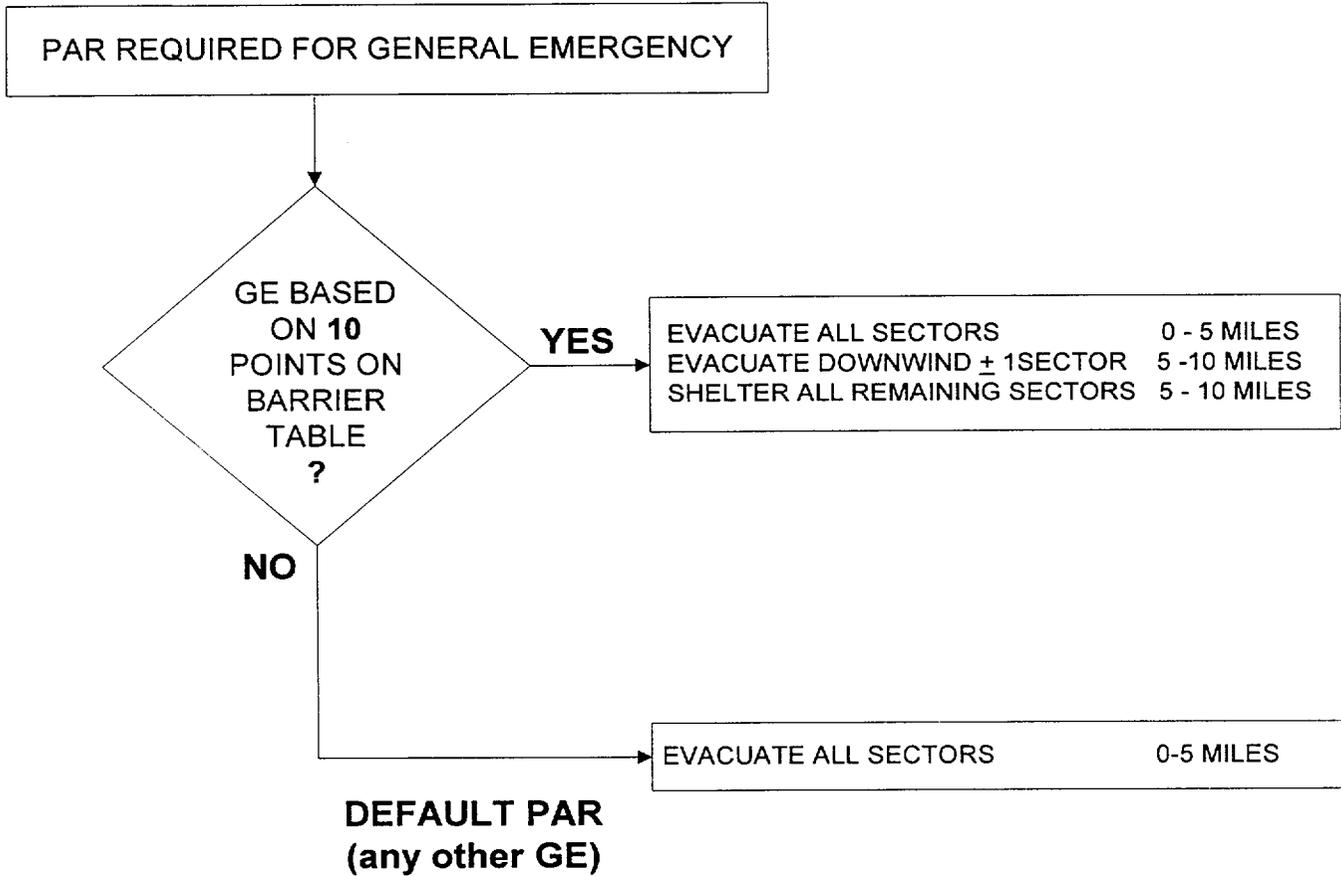
7.1 References

None

7.2 Cross References

PSEG Nuclear Emergency Plan

**ATTACHMENT 1  
PAGE 1 OF 1  
PREDETERMINED PROTECTIVE ACTION RECOMMENDATIONS FLOWCHART**



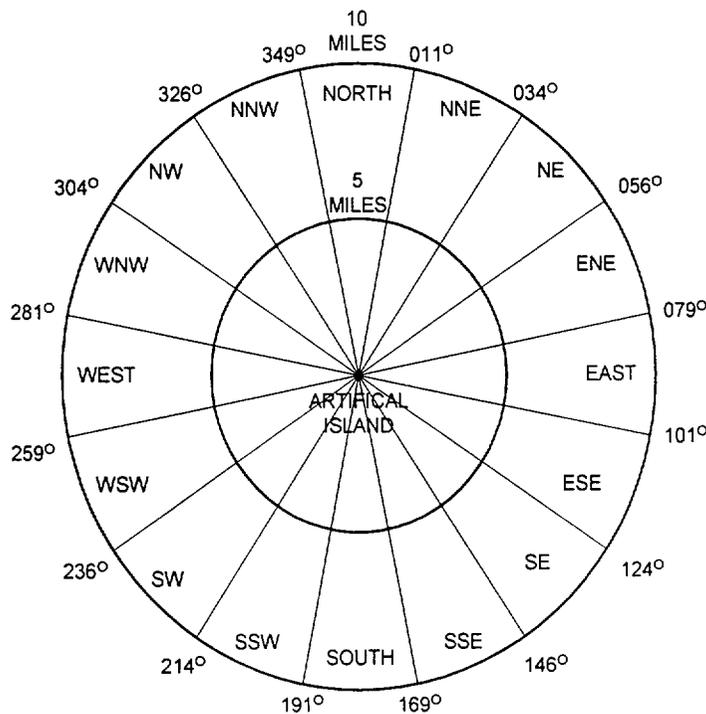
**CAUTION:**

IF TRAVEL CONDITIONS PRESENT AN EXTREME HAZARD (SEVERE ICE, SNOW, WIND, FLOOD, QUAKE DAMAGE, ETC.), CONSIDER SHELTER INSTEAD OF EVACUATE IN THE ABOVE SELECTED PAR

**ATTACHMENT 2  
PAGE 1 OF 1  
PROTECTIVE ACTION RECOMMENDATION WORKSHEET**

WIND DIRECTION FROM			PAR AFFECTED SECTORS
DEGREES	COMPASS		DOWNWIND ±1 SECTORS
349 - 011	N	⇒	SSE - S - SSW
011 - 034	NNE	⇒	S - SSW - SW
034 - 056	NE	⇒	SSW - SW - WSW
056 - 079	ENE	⇒	SW - WSW - W
079 - 101	E	⇒	WSW - W - WNW
101 - 124	ESE	⇒	W - WNW - NW
124 - 146	SE	⇒	WNW - NW - NNW
146 - 169	SSE	⇒	NW - NNW - N
169 - 191	S	⇒	NNW - N - NNE
191 - 214	SSW	⇒	N - NNE - NE
214 - 236	SW	⇒	NNE - NE - ENE
236 - 259	WSW	⇒	NE - ENE - E
259 - 281	W	⇒	ENE - E - ESE
281 - 304	WNW	⇒	E - ESE - SE
304 - 326	NW	⇒	ESE - SE - SSE
326 - 349	NNW	⇒	SE - SSE - S

**NOTE: CONSIDER ADDING A SECTOR TO THE PAR IF THE WIND DIRECTION (FROM) IS WITHIN ± 3° OF A SECTOR DIVIDING LINE.**



**ATTACHMENT 3**

Page 1 OF 1

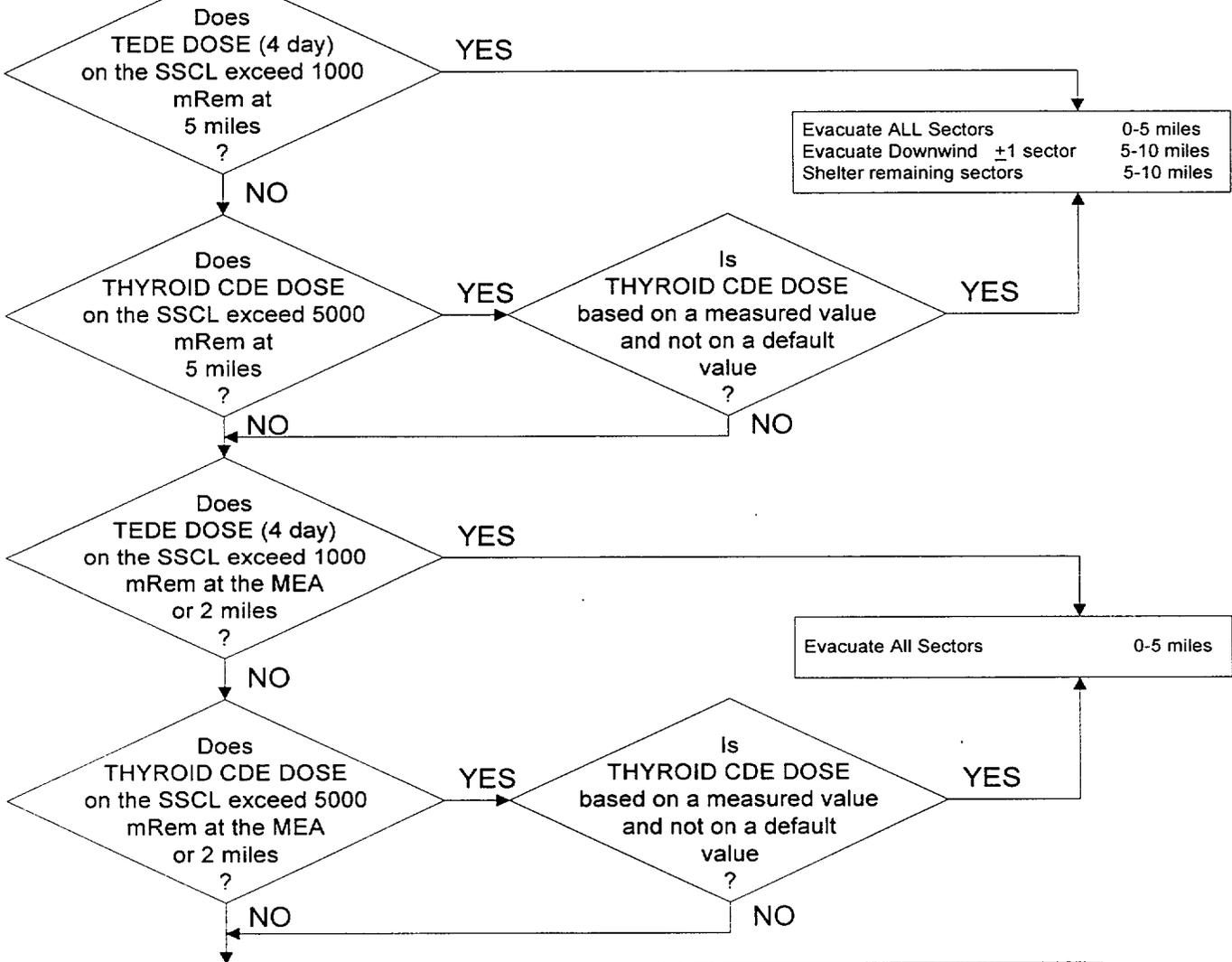
**RADIOLOGICALLY BASED PROTECTIVE ACTION RECOMMENDATION FLOWCHART**

Initial Conditions: If Rad PAR review criteria is not exceeded, Rad PAR is not required.

Release in progress that exceeds Tech Spec release rate of:  
 2.42E+05  $\mu$ Ci/sec Noble Gas (Salem)  
 1.20E+04  $\mu$ Ci/sec Noble Gas (Hope Creek)  
 OR  
 Field survey dose rate at or beyond the MEA exceeds:  
 50 mR/hr Noble Gas or 250 mR/hr Thyroid Commitment.

Rad PAR  
Review Criteria

CONTINUE IF ABOVE CRITERIA IS EXCEEDED



NO RADIOLOGICAL PROTECTIVE ACTION RECOMMENDATION REQUIRED!!

**ATTACHMENT 4**  
**Page 1 of 1**  
**EVACUATION TIME ESTIMATES**  
**GENERAL PUBLIC EVACUATION TIMES (1)**

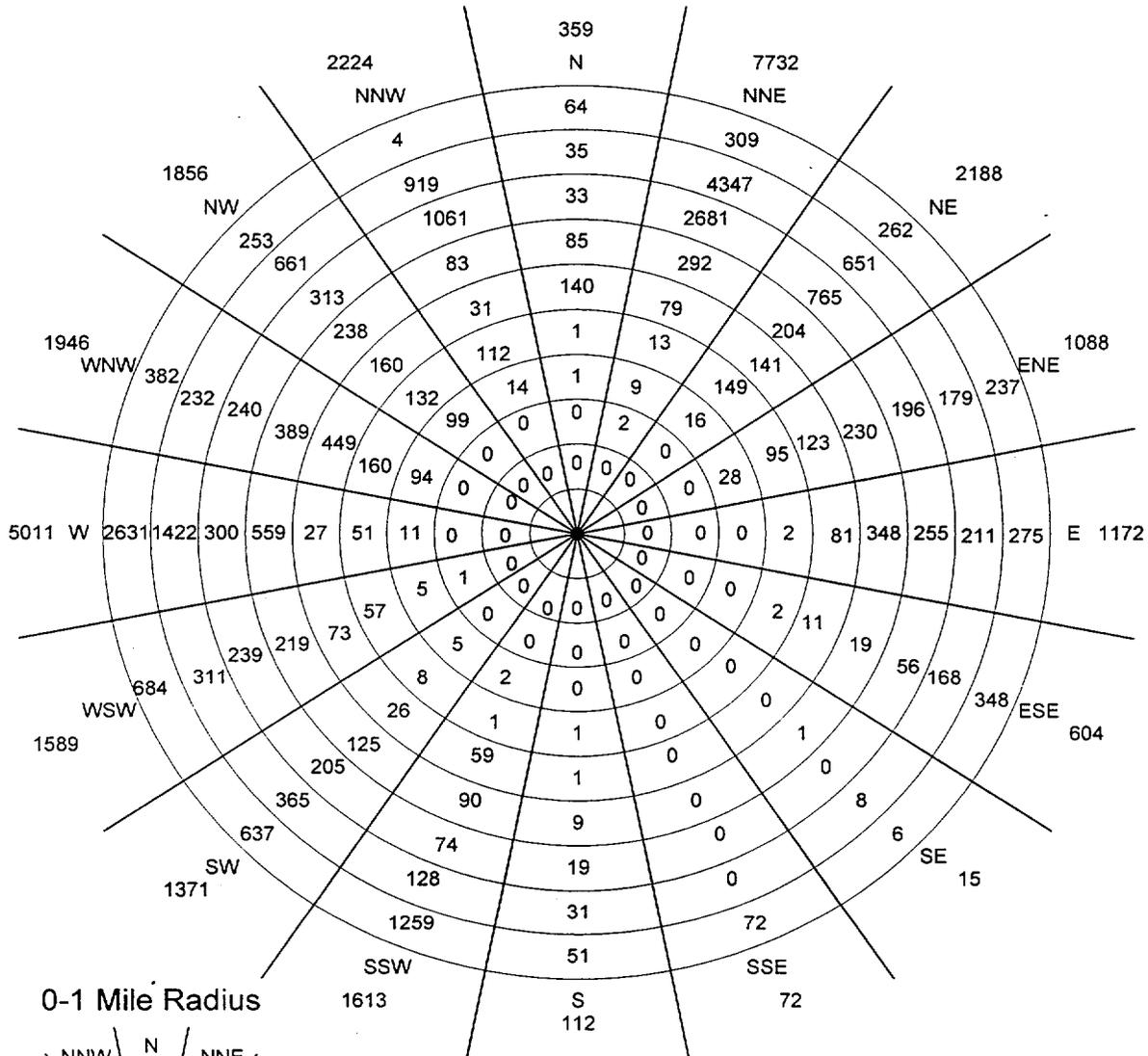
Evacuation Zone (2)	Daytime		Nighttime	
	Normal	Adverse	Normal	Adverse
<u>New Jersey</u>				
<b>Quadrant</b>				
Full 0-5 miles (1)	180	205	100	105
NE 0-10 miles (1-5)	185	210	110	120
SE 0-10 miles (1,6,7)	180	205	100	105
<b>Sectors</b>				
0-5 miles (1)	180	205	100	105
0-10 miles NNE (1-5)	185	210	110	120
0-10 miles NE (1-5)	185	210	110	120
0-10 miles ENE (1-4, 6)	185	210	110	120
0-10 miles E (1,2,6,7)	180	205	100	105
0-10 miles ESE (1,2,6,7)	180	205	100	105
0-10 miles SE (1,6,7)	180	205	100	105
<u>Delaware</u>				
<b>Quadrant</b>				
Full 0-5 miles (10)	175	200	90	95
NW 0-10 miles (10-14)	180	205	100	105
SW 0-10 miles (10, 15-19)	180	205	100	105
<b>Sectors</b>				
0-5 miles (10)	175	200	90	95
0-10 miles NNW (10-12)	180	205	100	105
0-10 miles NW (10-13)	180	205	100	105
0-10 miles WNW (10, 12-14)	180	205	100	105
0-10 miles W (10, 13-15)	180	205	100	105
0-10 miles WSW (10, 14-16)	180	205	100	105
0-10 miles SW (10, 15-17)	180	205	100	105
0-10 miles SSW (10, 16-18)	180	205	100	105
0-10 miles S (10, 17-19)	180	205	100	105
0-10 miles SSE (10, 18-19)	180	205	100	105
Full EPZ (1-7, 10-19)(3)	185	210	110	120

**NOTES:**

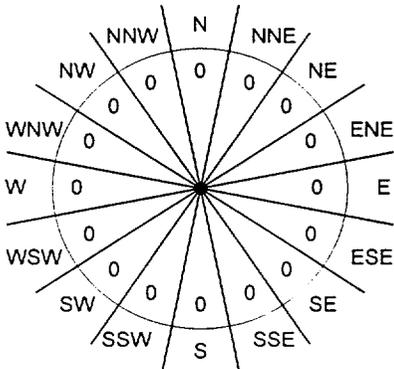
1. Times have been rounded to nearest five minutes. All evacuation times listed here include time to notify, time to prepare the home for evacuation, and travel time out of the EPZ.
2. See EOF Status Board Maps for emergency planning/sector areas locations. Emergency planning areas 8 and 9 represent river areas in New Jersey for which the US Coast Guard will be responsible.
3. Full EPZ (1-7, 10-19) scenario is analyzed in accordance with the Guidance of ATTACHMENT 4 of NUREG-0654/FEMA-Rep-1, Rev. 1.

### ATTACHMENT 5

### PERMANENT POPULATION DISTRIBUTION BY COMPASS DIRECTION



0-1 Mile Radius



**NOTE**

Above and below estimates are of permanent population. Transient and recreational population could result in a 0-10 mile population of approximately 50,000 persons.

0 - 2 MI	0 - 5 MI	0 - 10 MI	2 - 5 MI	5 - 10 MI
0	1071	28,952	1071	27,881

**ATTACHMENT 6**

**Page 1 of 1**

**RSM (RAC)**  
**PROTECTIVE ACTION RECOMMENDATION**  
**CHECKLIST**

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

1. **OBTAIN** a briefing from the RAC (SRPT). **NOTE** current dose assessment projection and actual field measurements if available. **OBTAIN** feed back on any PAR already provided to the States.
2. **REVIEW** source term, dose assessment calculations, meteorological data, and field measurement information received.
3. **CONSIDER** the following when formulating a PAR upgrade utilizing Attachments 4, Evacuation Time Estimates, and Attachment 5, Population Distribution:
  - Time to evacuate the population at risk
  - Time estimate until release begins or ends.
  - Nature of release. (puff, continuous, controlled, monitored, etc.)
  - Stability of plant conditions, release rate, plant vent filters, weather conditions.
4. **DEVELOP** a PAR Upgrade using ATTACHMENT 3 and ATTACHMENT 2 based on changes in the radiological release status or meteorological conditions,.
5. **PROVIDE** Recommended PAR's as appropriate, to the ERM (EDO)
6. **REPEAT** steps 2 thru 5 after each dose assessment calculation is completed.

Completed by: \_\_\_\_\_  
 RSM (RAC)

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