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A045

**PSEG NUCLEAR LLC  
EOF IMPLEMENTING PROCEDURES  
JULY 29, 2003**

**CHANGE PAGES FOR  
REVISION #14**

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 #14 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 Please check that your revision packet is complete and remove the outdated material listed below: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.	14	All	T.O.C.	13
All	NC.EP-EP.ZZ-0601	06	ALL	NC.EP-EP.ZZ-0601	05
All	NC.EP-EP.ZZ-0602	03	ALL	NC.EP-EP.ZZ-0602	02
All	NC.EP-EP.ZZ-0603	06	ALL	NC.EP-EP.ZZ-0603	05

**PSEG NUCLEAR LLC EMERGENCY PLAN  
 EOF IMPLEMENTING PROCEDURES  
 TABLE OF CONTENTS  
 July 29, 2003**

**PSE&G  
 CONTROL** *EPIPO59*

**EMERGENCY OPERATIONS FACILITY (EOF) PROCEDURES**

**EMERGENCY COORDINATOR RESPONSE:**

**COPY #**  

<u>Revision Number</u>	<u>Number of Pages</u>	<u>Effective Date</u>
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NC.EP-EP.ZZ-0401(Q)	Emergency Preparedness Coordinator Response	03	7	01/31/2003
NC.EP-EP.ZZ-0402(Q)	Site Support Manager Team Response – EOF	03	6	01/31/2003
NC.EP-EP.ZZ-0403(Q)	Public Information Liaison (PIL) – EOF	03	4	03/14/2002
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	02	22	05/07/2003

**ENGINEERING RESPONSE (EOF):**

NC.EP-EP.ZZ-0501(Q)	EOF – Integrated Engineering Response	01	6	02/06/2002
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**RADIATION PROTECTION RESPONSE (EOF):**

NC.EP-EP.ZZ-0601(Q)	Radiological Support Manager And Radiological Assessment Staff Response	06	24	07/29/2003
NC.EP-EP.ZZ-0602(Q)	EOF Radiological Dose Assessment	03	19	07/29/2003
NC.EP-EP.ZZ-0603(Q)	Field Monitoring	06	49	07/29/2002
NC.EP-EP.ZZ-0604(Q)	Helicopter Plume Tracking	01	10	05/24/2001

**ADMINISTRATIVE SUPPORT RESPONSE (EOF):**

NC.EP-EP.ZZ-0701(Q)	Administrative Support - EOF	06	18	01/31/2003
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**PSEG NUCLEAR LLC**

NC.EP-EP.ZZ-0601 (Q) - REV. 06

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

**USE CATEGORY: II**

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**REVISION SUMMARY:**

1. Deleted the Unit 2 R16 Monitor from Attachment 5, in accordance with notification number 80045432.
2. Added the date to Form - 4 and reformatted the form slightly to address comments from users.
3. Revised Form – 1 to replace social security number to "badge or employee number."
4. Revised Form – 2 to add "or employee number."

**IMPLEMENTATION REQUIREMENTS**

Implementation Date: 07/29/2003

PSE&G  
CONTROL  
COPY # EPIPOS9

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APPROVED: \_\_\_\_\_

  
Emergency Preparedness Manager

7/3/03  
Date

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APPROVED: \_\_\_\_\_

N/A  
Director - Operations

\_\_\_\_\_  
Date

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

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**1.0 PURPOSE**

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

**2.0 PREREQUISITES**

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

Implement this procedure at:

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

**3.0 PRECAUTIONS AND LIMITATIONS**

**3.1 Precaution and Limitations To Be Followed Prior To Implementing This Procedure**

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

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

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

3.1.4 All steps listed in this procedure may be implemented at users discretion.

**4.0 EQUIPMENT REQUIRED**

As provided in the EOF.

5.0 **PROCEDURE**

5.1 **RSM Duties**

5.1.1 REPORT to the ERM to receive a briefing of the current status of the emergency. \_\_\_\_\_

5.1.2 UPDATE the ERM of changing radiological conditions, as appropriate. \_\_\_\_\_

5.1.3 IMPLEMENT Attachment 1, Pre-activation RSM Checklist. \_\_\_\_\_

6.0 **RECORDS**

Return completed procedure and any information or data thought to be pertinent to the Emergency Preparedness Manager

7.0 **REFERENCES**

7.1 **References**

None

7.2 **Cross References**

7.2.1 NC.EP-EP.ZZ-0602(Q) Radiological Dose Assessment

7.2.2 NC.EP-EP.ZZ-0603(Q) Field Team Monitoring

7.2.3 NC.EP-AP.ZZ-1014(Q), Emergency Preparedness Classroom Training Administration

7.2.4 NC.EP-DG.ZZ-0009(Z), Salem SPDS Operating Instructions

7.2.5 PSEG Nuclear Emergency Plan

## ATTACHMENT 1

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## PRE-ACTIVATION RSM CHECKLIST

1.0 PRE-ACTIVATION RSM CHECKLIST1.1 RSM Should Ensure The Following Items are Performed:

1.1.1 INITIATE the RSM log. \_\_\_\_\_

1.1.2 CONTACT the RAC for a current briefing of the on/offsite radiological conditions. \_\_\_\_\_

1.1.3 ASSIGN the Radiological Assessment Staff Members (D2's) functions are as follows:

• Dose Assessment

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

\_\_\_\_\_/\_\_\_\_\_  
(Name) (Name)• Habitability, EOF Emergency Ventilation and Environmental Sampling Issues

(Refer to Attachment 4, Habitability, EOF Emergency Ventilation and Maplewood Lab Instructions):

\_\_\_\_\_/\_\_\_\_\_  
(Name) (Name)• RMS and Meteorological (MET) Trending and Forecast

(Refer to Attachment 3, State Liaison and RMS Trending Instructions):

\_\_\_\_\_/\_\_\_\_\_  
(Name) (Name)• Coordinating and Tracking Offsite Field Teams Location and Sampling

(Refer to NC.EP-EP.ZZ-0603 (Q), Field Monitoring):

\_\_\_\_\_/\_\_\_\_\_  
(Name) (Name)• State Liaison

(Refer to Attachment 3, State Liaison and RMS Trending Instructions):

\_\_\_\_\_/\_\_\_\_\_  
(Name) (Name)

1.1.4 ENSURE the Radiological Assessment Staff is staffed to perform the D2 tasks as outlined above, as thought appropriate. \_\_\_\_\_

1.1.5 ASSIGN personnel to fill each appropriate function and designate an Assistant RSM. \_\_\_\_\_



**ATTACHMENT 1****Page 2 of 2****1.1.6 VERIFY the following tasks are performed:**

- IF a General Emergency has been declared, THEN Perform EOF habitability every 30 minutes IAW Attachment 4, if thought appropriate. \_\_\_\_\_
- EOF Radiological Assessment equipment is functioning properly. \_\_\_\_\_
- AMS is turned on and the alarm set for 2 times the current background. \_\_\_\_\_
- Dose Assessment can be performed IAW NC.EP-EP.ZZ-0602(Q), Radiological Dose Assessment. \_\_\_\_\_
- Offsite Field Monitoring Teams are functional or in the process of becoming functional. \_\_\_\_\_
- Current and forecast meteorological data has been acquired or is in the process of being acquired. \_\_\_\_\_

**1.1.7 CONTACT the RAC prior to activation of the EOF to receive an update of the Inplant and Onsite radiological conditions.** \_\_\_\_\_**1.1.8 IMPLEMENT Attachment 2, RSM Checklist:**

- Upon completion of Attachment 1. \_\_\_\_\_
- As thought appropriate by the RSM. \_\_\_\_\_

## ATTACHMENT 2

Page 1 of 3

## RSM CHECKLIST

**NOTE**

- The order that these steps may be performed at the RSM's discretion. Asterisk (\*) steps may NOT be delegated. These steps have RSM written under them.
- Mark steps that are not applicable N/A and explain why the step is N/A on Attachment 8, Completion Sign-off Sheet.

RSM's Name: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_  
(Print) (Sign) (Date)

## 1.0 RSM CHECKLIST

### **1.1 The RSM Should Ensure The Following Items are Performed:**

- 1.1.2 ENSURE Offsite Radiological Dose Projections are being performed IAW NC.EP-EP.ZZ-0602(Q), Radiological Dose Assessment, and the SSCL Page 2 is being produced every 30 minutes.

**NOTE**

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

- 1.1.3 COORDINATE** the transportation of any contaminated injured person offsite with the RAC.

## ATTACHMENT 2

Page 2 of 3

- 1.1.4 \*AUTHORIZE issuance of KI as appropriate IAW NC.EP-EP.ZZ-305(Q), Stable Thyroid Blocking.

RSM

- 1.1.5 BRIEF EOF Radiological Assessment Staff as changing conditions warrant.

- 1.1.6 ASSIST with Event Classification.

- 1.1.7 \*PROVIDE Protective Action Recommendations (PARs), as appropriate, IAW NC.EP-EP.ZZ-0404(Q), Protective Action Recommendations (PAR).

RSM

NOTE

A radiological release is in progress when the Noble Gas (NG) Offsite Dose Calculation Manual (ODCM)/Federal Limits are met or exceeded.  
 Hope Creek ODCM Limits = 1.20E+04 uCi/sec.  
 Salem NG ODCM Limits = 2.42E+05 uCi/sec.

- 1.1.8 ENSURE Maplewood Lab is contacted by assigned personnel IAW Attachment 4, Instructions For Habitability, EOF Emergency Ventilation, and Maplewood Labs.

- 1.1.9 PERFORM the following applicable steps if a **RADIOLOGICAL RELEASE** is in progress:

- INFORM the ERM 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.
- CONSIDER moving essential equipment from the Guard House and the Processing Center.
- OBTAIN ERM approval for the Coast Guard or Helicopter assistance in tracking the plume, if thought necessary
- INITIATE Contamination Controls IAW Step 1.1.10, Part A, of this Attachment.

**ATTACHMENT 2****Page 3 of 3**

- **DIRECT** the setup of a vehicle decon area, IAW NC,EP-EP.ZZ-0308(Q)/EPIP 308S(H), Personnel/Vehicle Survey and Decontamination, if necessary. \_\_\_\_\_
- **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. \_\_\_\_\_

**1.1.10 PERFORM** the following applicable steps upon the declaration of a **GENERAL EMERGENCY**, if thought appropriate:

- A. IMPLEMENT** Contamination Controls. \_\_\_\_\_
  - No Eating, Drinking, or Smoking.
  - Setup Step Off Pads (SOP). \_\_\_\_\_
  - Establish Radiological Postings. \_\_\_\_\_
- B. ENSURE** habitability is being performed every 30 minutes IAW Attachment 4 of this procedure. \_\_\_\_\_
- C. ENSURE** Emergency Ventilation is turned on IAW Attachment 4 of this procedure, if:
  - A radiological release is in progress and the current or forecast meteorological conditions show a radiological plume will enter the Sector that the EOF is located (NNE).
- D. PLACE** SRDs at the front and rear entrances of the Nuclear Training Center, Room 50 (Admin Support Area), and in the EOF proper. Log all SRDs on Form – 1, EOF SRD Log. \_\_\_\_\_

## ATTACHMENT 3

Page 1 of 2

## STATE LIAISON AND RMS TRENDING INSTRUCTIONS

1.0 STATE LIAISON1.1 The State Liaison Should Perform The Following:

- 1.1.1 ESTABLISH communications with the representatives from the States of New Jersey, Delaware, and the NRC, upon their arrival at the EOF. \_\_\_\_\_
- 1.1.2 PROVIDE State personnel 15 minute updates of RMS data when radiological monitors are in warning, alarm, or as thought appropriate. \_\_\_\_\_
- 1.1.3 IF no radiological release is in progress,  
THEN PROVIDE Delaware Emergency Management Agency (DEMA) and New Jersey Bureau of Nuclear Engineering (NJ – BNE) EOF personnel 30 minute updates of radiological plant vent effluent and meteorological data using Form – 4, MIDAS Data Form.  
(This data can be obtained from the EOF dose assessors) \_\_\_\_\_
- 1.1.4 IF a radiological release is in progress,  
THEN PROVIDE DEMA and NJ - BNE EOF personnel 15 minute updates of radiological plant vent effluent and meteorological data using Form – 4, MIDAS Data Form.  
(This data can be obtained from the EOF dose assessors) \_\_\_\_\_
- 1.1.5 REFER State and Federal personnel to the RMS Status Board for current and trended RMS data. \_\_\_\_\_
- 1.1.6 REFER State and Federal personnel to appropriate contacts in the EOF, when applicable. \_\_\_\_\_

2.0 RMS AND MET TRENDING2.1 Perform The Following To Trend RMS And MET Data:

- 2.1.1 OBTAIN radiological data from the following sources:
  - (HOPE CREEK ONLY) VAX LA120 (Refer to Attachment 6, Operation of VAX LA120 Terminal). \_\_\_\_\_
  - (SALEM UNITS 1 & 2 ONLY) SPDS Radiation Monitoring Screens (Refer to NC.EP-DG.ZZ.0009(Z), Salem SPDS Operating Instructions). \_\_\_\_\_

## ATTACHMENT 3

Page 2 of 2

- Control Room FAX from a Radiation Protection Technician.

A. **INFORM** the RSM immediately, **INCLUDING INTERRUPTING MEETINGS**, and then the State Liaison, if any of the High Range Containment or Effluent Monitors indicate the following values.

**(HOPE CREEK ONLY)**

- DAPA "A" or DAPA "B" =  $\geq 5000$  R/hr. (indication fuel clad barrier has been lost)
- NPV, SPV, FRVS, or HTV =  $\geq 1.20E+04$  uCi/sec. (NG TS limits)

**(SALEM UNITS 1 & 2 ONLY)**

- R44 "A" or R44 "B" =  $> 300$  R/hr. (indication fuel clad and RCS barriers have been lost)
- R41 "D" =  $2.42E+05$  uCi/sec. (NG TS limits)

2.1.2 **OBTAIN** MET data from one of the following sources:

- A. VAX LA120
- B. Salem or Hope Creek TSC
- C. Salem or Hope Creek Control Room
- D. National Weather Service (609-261-6604) or 609-261-6602)

2.1.3 **ENSURE** the RMS data is being recorded and updated on the RMS Status Board approximately every 15 minutes, or as instructed by the RSM.

2.1.4 **INFORM** the RSM if current meteorological data is within three degrees of another sector, if a PAR has been or is being made.

2.1.5 **REFER** to Attachment 5, RMS Quick Reference, for information on Effluent and Area Radiation Monitors at Hope Creek and Salem.

2.1.6 **REFER** to the Salem RMS Manual and Hope Creek Procedure HC.RP-AR.SP-0001(Q), Radiation Monitoring System Alarm Response, for more detailed RMS information.

## ATTACHMENT 4

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HABITABILITY, EOF EMERGENCY VENTILATION AND MAPLEWOOD LAB  
INSTRUCTIONS1.0 HABITABILITY1.1 Habitability Should Be Performed In The Following Manner:

- 1.1.1 PERFORM EOF Habitability every 30 minutes, if a GENERAL EMERGENCY is declared. \_\_\_\_\_
- 1.1.2 LOG results on Form 3, EOF Habitability Log. \_\_\_\_\_
- 1.1.3 REFER to the following steps for appropriate actions to be taken:
- External dose equivalent (EDE) dose rates are  $> 500$  mR/hr. within the facility, immediate evacuation should be considered. \_\_\_\_\_
  - EDE dose rates are  $> 250$  mR/hr. within the facility, evacuation within (1) hour should be considered. \_\_\_\_\_
  - The EDE dose rates are  $\geq 50$  mR/hr., but  $\leq 250$  mR/hr. within the facility, evacuation within (2) hours should be considered. \_\_\_\_\_
- 1.1.4 PERFORM a survey of areas inside and outside the Nuclear Training Center, as thought appropriate by the RSM, and log on Form – 3, EOF Habitability Log. \_\_\_\_\_
- 1.1.5 SETUP the AIR Monitoring Sampler and set background to 2 times current background. \_\_\_\_\_

2.0 EOF Emergency Ventilation2.1 Place the EOF Ventilation In Service By:

- 2.1.1 ENTER the Mechanical Room (Room 46). \_\_\_\_\_
- 2.1.2 LOCATE the EOF Bypass Switch #1 on the right hand wall. \_\_\_\_\_

**ATTACHMENT 4****Page 2 of 3**

2.1.3 POSITION the Bypass Switch to the "ON" position. \_\_\_\_\_

2.1.4 LOCATE the DP Gauge next to the Lead's Conference Room. \_\_\_\_\_

2.1.5 PRINT the DP Gauge value on the indicated line below. \_\_\_\_\_

\_\_\_\_\_ (W.C.)

(DP GAUGE VALUE)

2.1.6 NOTIFY the RSM if the value indicates < 0.025 inches. \_\_\_\_\_

### 3.0 EOF VENTILATION MAINTENANCE

#### 3.1 Perform The Following Maintenance On The EOF Ventilation:

3.1.1 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, ensure the HEPA is dose rated every hour after it is started. \_\_\_\_\_
- If the contact dose rate is  $\geq 500$  mR/hr., ensure that consideration is given to changing out the HEPA units. \_\_\_\_\_

#### NOTE

Contact the Radiation Protection Supervisor – Offsite, for additional technical support (people, advice concerning handling, storage, etc.) in changing out the HEPA filters, if necessary.

3.1.2 IF any of the following occurs, THEN ensure the HEPA units are changed out IAW NC.EP-EP.ZZ-1016(Z)/EPIP 1016, Test Procedures for Backup Generator Vent System and HVAC Filter Replacement.

- Dose rates are > 1000 mR/hr. on contact of the HEPA units. \_\_\_\_\_
- At a high DP. \_\_\_\_\_
- At the RSM's discretion. \_\_\_\_\_



## ATTACHMENT 4

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4.0 **MAPLEWOOD LABS****NOTE**

Maplewood Labs phone number may be obtained from Admin. Support.

4.1 **Contact Maplewood Research and Testing Lab If:**

- A radioactive release is thought to be likely. \_\_\_\_\_
- A radioactive release is in progress. \_\_\_\_\_

4.2 **Request Personnel From Maplewood Labs To Perform The Following**

- 4.2.1 ASSEMBLE emergency environmental sampling personnel. \_\_\_\_\_
- 4.2.2 CONSIDER the change out of air samples and TLDs in the downwind sector from the radioactive plume and two sectors to each side. \_\_\_\_\_
- 4.2.3 REQUEST the coordinator from Maplewood Labs to come to the EOF, if environmental sampling is going to occur. \_\_\_\_\_

## ATTACHMENT 5

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## RMS QUICK REFERENCE

**1.0 Salem RMS (Unit 1 and 2)**

**R2** is an Area Radiation Monitor (ARM) located in Containment on the 130' elevation.  
Ranges: 1E-01 to 1E+04 mR/hr.

**R7** is an ARM located in Containment on the 100' elevation, adjacent to the Seal Table Room.  
Ranges: 1E-01 to 1E+04 mR/hr.

**R10A** is an ARM located in Containment on the 100' elevation next to the personnel airlock.  
Ranges: 1E-01 to 1E+04 mR/hr.

**R10B** is an (ARM) located in Containment on the 130' elevation next to the personnel airlock.  
Ranges: 1E-01 to 1E+04 mR/hr.

**R34** is an ARM located in the Mechanical Penetration across from the 100' elevation Containment personnel Airlock.  
Ranges: 1E-01 to 1E+06 mR/hr.

**R44A** is a High Range or Accident Area Radiation Monitor (HARM) located in Containment on the 130' elevation close to the personnel airlock.  
Ranges: 1E+00 to 1E+07 R/hr.

**R44B** is a (HARM) located in Containment on the 100' elevation between the R10A and R7 ARMs.  
Ranges: 1E+00 to 1E+07 R/hr.

**R47** is an ARM located in the 78' Electrical Penetration. The PASS lines are located in the overhead. The skid and PASS lines may be the source of any increase in this area. This Penetration has its own ventilation flow path and will vent directly into the atmosphere. There is a potential for an unmonitored release from this Penetration.  
Ranges: 1E-01 to 1E+07 mR/hr

## ATTACHMENT 5

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**NOTE**

- All emergency Grab Samples (Noble Gas, Iodine and Particulate) should be taken from the R45 Skid located in the R45 Shed.
- Only one of the following Effluent Monitors (R41A, R41B, R41C, R45B or R45C) readings should be used in MIDAS Manual Mode.

**R41A** is the Low Range Noble Gas Monitor and is located on the R41 Sample Skid on the 122' elevation of the Auxiliary Building next to the door to the stairs.

Ranges: 1E-07 to 1E-01 uCi/cc

**R41B** is the Mid Range Noble Gas Monitor and is located on the R41 Sample Skid on the 122' elevation of the Auxiliary Building next to the door to the stairs.

Ranges: 1E-04 to 1E-02 uCi/cc

**R41C** is the High Range Noble Gas Monitor and is located on the R41 Sample Skid on the 122' elevation of the Auxiliary Building next to the door to the stairs.

Ranges: 1E-01 to 1E+05 uCi/cc

**R41D** is the Effluent Noble Gas Monitor and is located on the R41 Sample Skid on the 122' elevation of the Auxiliary Building next to the door to the stairs.

Ranges: 0E+00 to 1E+13 uCi/Sec

(The R41D should not be used in MIDAS to perform manual dose assessment calculations)

**R45B** is the "Backup" Mid Range Noble Gas Monitor and is located in the R45 Shed behind the Fuel Handling Building. This monitor should not be used unless the R41 monitors are inoperable.

Ranges: 1E-03 uCi/cc to 1E+01 uCi/cc

**R45C** is the "Backup" High Range Noble Gas Monitors and is located in the R45 Shed behind the Fuel Handling Building. This monitor should not be used unless the R41 monitors are inoperable.

Ranges: 1E-01 uCi/cc to 1E+05 uCi/cc

## ATTACHMENT 5

Page 3 of 4

2.0 Hope Creek**NOTE**

All ARM's in the Reactor Building have maximum ranges of  $1.00\text{E}+04$  mR/hr, except for the Inner Tip Room Monitor (9RX699). The Inner Tip Room Monitor's maximum range is  $1.00\text{E}+07$  mR/hr.

**DAPA A and DAPA B (9RX635 and 9RX636)** are high range ARMs in the Drywell. DAPA A is approximately twice as high as DAPA B under normal operating conditions. During a LOCA in the Drywell the two monitors should start to trend closer together due to the atmospheric conditions in the Drywell affecting both monitors equally. Increases on both of these monitors while DAPA A's reading stays about twice of what DAPA B is reading, would be an indication of fuel damage.  
Ranges:  $1.00\text{E}+00$  to  $1.00\text{E}+08$  R/hr.

**Tip Room Inner ARM (9RX699)** is located on 102' elevation of the Reactor Building inside the Tip Room. This monitor has the highest range of any ARM in the Reactor Building and could give an idea of what the dose rates in the Reactor Building are after the other ARMs peg out high.  
Ranges:  $1.00\text{E}+00$  to  $1.00\text{E}+07$  mR/hr

**Main Steam Line A - D monitors (9RX509-512)** are four ARMs located in the ceiling of the Main Steam Tunnel. Increases in these monitors would be an indication of fuel damage. These monitors could increase due to shine from the Reactor Building, after a radiological release.  
Ranges:  $1.00\text{E}+00$  to  $1.00\text{E}+06$  mR/hr

**Safeguard Instrument Room Monitor (9RX704)** is an ARM located on 77' elevation of the Reactor Building. An increase on this monitor when the reactor SCRAMs with fuel damage could be due to shine from the Torus.  
Ranges:  $1.00\text{E}-01$  to  $1.00\text{E}+04$  mR/hr

## ATTACHMENT 5

Page 4 of 4

**FRVS Effluent monitor (9RX680)** monitors what is going out the FRVS Plant Vent. Under normal operating conditions Reactor Building ventilation would vent through the South Plant Vent. Under accident conditions or when manually initiated, Reactor Building Ventilation isolates and the Reactor Building will vent through the FRVS. FRVS is always a ground release. Values  $\geq 1.20\text{E}+04$  uCi/Sec would be an indication that a radiological release is in progress.

Ranges:  $1.00\text{E}+00$  to  $1.00\text{E}+12$  uCi/Sec

**North Plant Vent Effluent (NPV) monitor (9RX590)** monitors Offgas and the chemistry lab fume hoods. NPV could be a ground or elevated release depending on the time of year and wind speed. Values  $\geq 1.20\text{E}+04$  uCi/Sec would be an indication that a radiological release is in progress.

Ranges:  $1.00\text{E}+00$  to  $1.00\text{E}+12$  uCi/Sec

**South Plant Vent Effluent (SPV) monitor (9RX586)** monitors Service Radwaste Building, Turbine Building and the Reactor Building (if FRVS hasn't been initiated). Values  $\geq 1.20\text{E}+04$  uCi/Sec would be an indication that a radiological release is in progress.

Ranges:  $1.00\text{E}+00$  to  $1.00\text{E}+12$  uCi/Sec

**Hardened Torus Vent Effluent (HTV) monitor (9RX518)** would be used to vent the Drywell to relieve pressure. The path it would take would be through the Torus and take advantage of the scrubbing properties of the Torus water, but the release would be considered to be an unfiltered release. Iodines and particulates could be a major concern. Control Room operators would have to open a valve to use this release path. Sampling from the PASS Torus Gas Space should be performed to provide information as to what is being released. Values  $\geq 1.20\text{E}+04$  uCi/Sec would be an indication that a radiological release is in progress.

Ranges:  $0.00\text{E}+00$  to  $2.09\text{E}+12$  uCi/Sec

## ATTACHMENT 6

Page 1 of 3

## OPERATION OF THE VAX LA120 TERMINAL

1.0 Meteorological Data1.1 Perform The Following to Obtain Current 15 Minute Average Meteorological Data:

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

1.1.2 ENTER MET and depress the RETURN key \_\_\_\_\_

**NOTE**

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

Meteorological data may be obtained from the Salem SPDS IAW NC.EP-DG.ZZ-0009(Z)

- ENTER Option 3 (Disable Automatic Display of MET Data Every 15 minutes) and depress the RETURN key to STOP the VAX LA120 from printing out meteorological data every 15 minutes. \_\_\_\_\_
- ENTER Option 1 (Display Current Meteorological Data) and depress the RETURN key to receive the current 15 meteorological data print out and assume having the current 15 minute MET data printout automatically. \_\_\_\_\_

1.2 Perform The Following Steps to Obtain Archived Meteorological Data:

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

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

1.2.3 ENTER Option 2 (Display Meteorological Data From Data Base) and depress the RETURN key. (Current system Date and Time will be displayed). \_\_\_\_\_

1.2.4 IF this is the data you want, THEN depress the RETURN key. (Your option will be printed out). \_\_\_\_\_

## ATTACHMENT 6

## Page 2 of 3

- 1.2.5 IF you want data from another date and time, THEN go to Step 1.2.6. \_\_\_\_\_
- 1.2.6 ENTER start date and time as shown below and depress the RETURN key. (For December 27, 1989 at 0130 enter 27-DEC-1989 "depress the space bar once" and enter 01:30). \_\_\_\_\_
- 1.2.7 ENTER "Y" if the information is correct or "N" if the information is not correct and reenter it as shown in Step 1.2.6. \_\_\_\_\_
- 1.2.8 ENTER the end date and time as shown below and depress the RETURN key. (For December 28, 1989 at 0230 enter 28-DEC-1989 "depress the space bar once" and enter 02:30). \_\_\_\_\_
- 1.2.9 ENTER "Y" if the information is correct or "N" if the information is not correct and re-enter it as shown in Step 1.2.6. \_\_\_\_\_

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

- 2.1.1 DEPRESS the RETURN key. (USERNAME should be displayed). \_\_\_\_\_
- 2.1.2 ENTER the letters EOF and depress the RETURN key. (A prompt should be displayed asking for PASSWORD). \_\_\_\_\_
- 2.1.3 ENTER EOFUSER and depress the RETURN key. (The EOF Plant Menu should be displayed.) \_\_\_\_\_
- 2.1.4 SELECT Option 1 for Hope Creek. \_\_\_\_\_
- 2.1.5 DEPRESS the RETURN key. (The EOF Report Options Menu will be displayed). \_\_\_\_\_
- 2.1.6 ENTER Option 1 (Current RMS Status) and depress the RETURN key. (The most current instantaneous RMS and 15 minute MET data will be printed out.) \_\_\_\_\_

**2.2 Perform The Following Steps to Obtain 15 Minute Average RMS Data:**

- 2.2.1 DEPRESS the RETURN key. (USERNAME should be displayed). \_\_\_\_\_
- 2.2.2 ENTER EOF and depress the RETURN key. (A prompt should be displayed asking for PASSWORD). \_\_\_\_\_

**ATTACHMENT 6****Page 3 of 3**

- 2.2.3 ENTER EOFUSER and depress the RETURN key. (The EOF Plant Menu should be displayed). \_\_\_\_\_
- 2.2.4 SELECT option 1 for Hope Creek. \_\_\_\_\_
- 2.2.5 DEPRESS the RETURN key. (The EOF Report Options Menu should be displayed). \_\_\_\_\_
- 2.2.6 SELECT and enter option number 6 (15 Minute Historical Data). (Current system date and time should be displayed. A prompt should be displayed for start date and time) \_\_\_\_\_
- 2.2.7 IF this is the data you want, THEN depress the RETURN key. (Your option will be printed out). \_\_\_\_\_
- 2.2.8 IF you want data from another date and time, THEN go to Step 2.2.9. DEPRESS the RETURN key for 15 minute average RMS and MET data. (Your selection will be printed). \_\_\_\_\_
- 2.2.9 ENTER start date and time as shown below and depress the RETURN key. (For December 27, 1989 at 0130 enter 27-DEC-1989 "depress the space bar once" and enter 01:30). \_\_\_\_\_
- 2.2.10 ENTER "Y" if the information is correct or "N" if the information is not correct and reenter it as shown in Step 2.2.9. \_\_\_\_\_
- 2.2.11 ENTER the end date and time as shown below and depress the RETURN key. (For December 28, 1989 at 0230 enter 28-DEC-1989 "depress the space bar once" and enter 02:30). \_\_\_\_\_
- 2.2.12 ENTER "Y" if the information is correct or "N" if the information is not correct and re-enter it as shown in Step 2.2.9. \_\_\_\_\_



## FORM – 1

Page 1 of 1

## EOF DOSIMETRY LOG

NAME	SRD NUMBER	BADGE OR EMPLOYEE NUMBER	ISSUED DATE	RTN DATE	INITIAL VALUE (mRem)	END VALUE (mRem)	TOTAL DOSE (mRem)

FORM – 2

Page 1 of 1

TLD ISSUE LOG

Name \_\_\_\_\_

Date \_\_\_\_\_

TLD Number \_\_\_\_\_ Badge or Employee Number \_\_\_\_\_

To the best of my knowledge, my current annual exposure is \_\_\_\_\_mrem.

Signature \_\_\_\_\_

Date \_\_\_\_\_

\*\*\*\*\*  
\*\*\*\*\*

Name \_\_\_\_\_

Date \_\_\_\_\_

TLD Number \_\_\_\_\_ Badge or Employee Number \_\_\_\_\_

To the best of my knowledge, my current annual exposure is \_\_\_\_\_mrem.

Signature \_\_\_\_\_

Date \_\_\_\_\_

\*\*\*\*\*  
\*\*\*\*\*

Name \_\_\_\_\_

Date \_\_\_\_\_

TLD Number \_\_\_\_\_ Badge or Employee Number \_\_\_\_\_

To the best of my knowledge, my current annual exposure is \_\_\_\_\_mrem.

Signature \_\_\_\_\_

Date \_\_\_\_\_

FORM – 3

Page 1 of 1

EOF HABITABILITY LOG

DATE:

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

FORM - 4

Page 1 of 1

**MIDAS DATA FORM**

DATE: \_\_\_\_\_ TIME: \_\_\_\_\_

**SALEM UNIT 1 / 2 RELEASE CONCENTRATION AND PLANT VENT FLOW RATE**  
(CIRCLE ONE)

Monitor R41A (uCi/cc)	Monitor R41B (uCi/cc)	Monitor R41C (uCi/cc)	Monitor OTHER (uCi/cc)	PLANT VENT FLOW RATE (cfm)

**HOPE CREEK RELEASE CONCENTRATION AND PLANT VENT FLOW RATE**

<u>MONITOR</u> FRVS (uCi/cc)	<u>MONITOR</u> SPV (uCi/cc)	<u>MONITOR</u> NPV (uCi/cc)	<u>MONITOR</u> OTHER (uCi/cc)	FRVS VENT FLOW RATE (cfm)	NPV VENT FLOW RATE (cfm)	SPV VENT FLOW RATE (cfm)	OTHER VENT FLOW RATE (cfm)

**METEOROLOGICAL DATA**

WIND SPEED 33 FOOT (mph)	WIND SPEED 300 FOOT (mph)	WIND DIR. 33 FOOT - FROM - (degrees)	WIND DIR. 300 FOOT - FROM - (degrees)	300 - 33 STABILITY CLASS (degree C)	AMBIENT TEMP. (degrees C)	RAIN (inches)

**PSEG NUCLEAR LLC**

NC.EP-EP.ZZ-0602 (Q) - REV. 03

**EOF RADIOLOGICAL DOSE ASSESSMENT**

**USE CATEGORY: II**

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**REVISION SUMMARY:**

1. Deleted reference to the Unit 2 R16 radiation monitor in Attachment 4 in accordance with notification number 80045432.

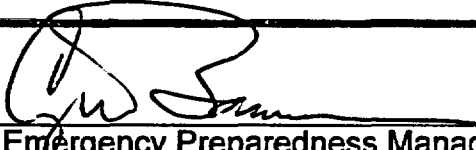
PSE&G  
CONTROL  
COPY # EP19059

**IMPLEMENTATION REQUIREMENTS**

Implementation date: 07/29/2003

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APPROVED: \_\_\_\_\_

  
Emergency Preparedness Manager

7/3/03  
Date

---

APPROVED: \_\_\_\_\_

N/A  
Director - Operations

N/A  
Date

---

**EOF RADIOLOGICAL DOSE ASSESSMENT****TABLE OF CONTENTS**

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## 1.0 PURPOSE

Provide direction to EOF Radiological Dose Assessment staff for proper performance of their duties and responsibilities.

## 2.0 PREREQUISITES

### 2.1 Prerequisites To Be Followed Prior To Implementing This Procedure

#### 2.1.1 Implement this procedure:

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

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

## 3.0 PRECAUTIONS AND LIMITATIONS

### 3.1 Precaution and Limitations To Be Followed Prior To Implementing This Procedure

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

## 4.0 EQUIPMENT REQUIRED

As provided in the EOF.

## 5.0 PROCEDURE

### 5.1 RADIOLOGICAL ASSESSMENT DUTIES

#### 5.1.1 OBTAIN a briefing on current radiological conditions and the emergency status from the Radiological Support Manager (RSM) or RSM designee. The following information should be provided during the briefing.

#### NOTE

A radiological release is in progress when the Noble Gas (NG) Offsite Dose Calculation Manual (ODCM)/Federal Limits are met or exceeded.

Hope Creek ODCM Limits =  $1.20\text{E}+04$  uCi/sec.

Salem NG ODCM Limits =  $2.42\text{E}+05$  uCi/sec.

- A. IS a radiological release in progress? \_\_\_\_\_
- B. IF YES, THEN what magnitude is the radiological release \_\_\_\_\_ uCi/Sec and the time it started \_\_\_\_\_? \_\_\_\_\_
- C. HAVE any Protective Action Recommendations (PARs) been made or are about to be made? \_\_\_\_\_
- D. IF YES, THEN what PAR(s) were or will be made? \_\_\_\_\_
- E. HAVE any Fission Product Barriers (RCS, Fuel, Containment) been breached? \_\_\_\_\_
- F. IF YES, THEN which barriers have been breached? \_\_\_\_\_
- G. WHAT is the Emergency classification and the basis? \_\_\_\_\_

5.1.2 IF a log book is being kept, THEN RECORD any pertinent information or data in the EOF Dose Assessment Log Book, as time permits. \_\_\_\_\_

**NOTE**

A blank Station Status Checklist (SSCL) may be obtained from ECG Attachment 8.

5.1.3 IF automatic data acquisition is operational, THEN go to Step 5.1.7 and: \_\_\_\_\_

- A. IMPLEMENT NC.EP-EP.ZZ-0309(Q, Dose Assessment. \_\_\_\_\_
- B. PERFORM dose assessment in automatic mode. \_\_\_\_\_
- C. OBTAIN a SSCL. \_\_\_\_\_

5.1.4 IF automatic data acquisition is NOT operational, THEN: \_\_\_\_\_

- A. IMPLEMENT NC.EP-EP.ZZ-0309(Q). \_\_\_\_\_
- B. PERFORM dose assessment in manual mode. \_\_\_\_\_
- C. OBTAIN a SSCL. \_\_\_\_\_

5.1.5 OBTAIN radiological data to perform manual dose assessment from one of the following sources: \_\_\_\_\_



- (HOPE CREEK ONLY) VAX LA120, IAW Attachment 1 of this procedure. \_\_\_\_\_
  - (HOPE CREEK ONLY) A Control Point FAX of RMS Status Sheet. \_\_\_\_\_
  - (SALEM 1 & 2 ONLY) A Control Room FAX. of Radiological Assessment Data Sheet. \_\_\_\_\_
  - (SALEM 1 & 2 ONLY) SPDS Radiation Monitoring Screens [Refer to NC.EP-DG.ZZ-0009(Z), SPDS Operating Instructions]. \_\_\_\_\_
- 5.1.6 OBTAIN meteorological data to perform manual dose assessment from one of the following sources: \_\_\_\_\_
- (HOPE CREEK ONLY) VAX LA120, IAW Attachment 1 of this procedure. \_\_\_\_\_
  - (HOPE CREEK ONLY) A Control Point FAX. \_\_\_\_\_
  - (SALEM 1 & 2 ONLY) A Control Room FAX. \_\_\_\_\_
  - (SALEM 1 & 2 ONLY) SPDS Radiation Monitoring Screens [Refer to NC.EP-DG.ZZ-0009(Z), Salem SPDS Operating Instructions]. \_\_\_\_\_
  - (HOPE CREEK, SALEM 1 & 2 ) If the meteorological data can NOT be obtained from any other source, call the National Weather Service at 609-261-6604 or 609-261-6602. \_\_\_\_\_
- 5.1.7 IF the SSCL indicates a radiological release is in progress, THEN implement Attachment 2, Radiological Based PAR and PAR Worksheet, to determine if a PAR is necessary. \_\_\_\_\_
- A. IF necessary, THEN determine the PAR. \_\_\_\_\_
  - B. REVIEW the SSCL and PAR with the RSM. \_\_\_\_\_
  - C. INFORM the RSM that the EOF is ready to assume the SSCL/Dose Assessment duties. \_\_\_\_\_
- 5.1.8 IF the SSCL indicates a radiological release is NOT in progress, THEN: \_\_\_\_\_
- A. REVIEW the SSCL with the RSM. \_\_\_\_\_
  - B. INFORM the RSM that the EOF is ready to assume the SSCL/Dose Assessment duties. \_\_\_\_\_

5.1.9 PRODUCE the SSCL every 30 minutes and present it to the RSM under any of the following conditions: \_\_\_\_\_

- IF a radiological release is in progress. \_\_\_\_\_
- IF the EOF is activated. \_\_\_\_\_
- IF asked to do so by the RSM. \_\_\_\_\_

5.1.10 DETERMINE which MIDAS reports to print out and present to the RSM, IAW Attachment 4, MIDAS Report Guidance. \_\_\_\_\_

5.1.11 TRACK and trend the affected Plant's radiological conditions by monitoring the RMS. Refer to Step 5.1.5 for methods to obtain RMS data. \_\_\_\_\_

5.1.12 IF any of the following conditions occur to RMS values, THEN notify the RSM immediately, followed by the State Liaison(s): \_\_\_\_\_

- (HOPE CREEK ONLY) SSCL Noble Gas or Noble Gas value on the VAX LA120 for North Plant Vent (NPV), South Plant Vent (SPV), Filtration Recirculation Ventilation System (FRVS), and/or Hardened Torus Vent (HTV)  $\geq 1.20\text{E}+04$  uCi/Sec. \_\_\_\_\_
- (SALEM 1 & 2 ONLY) SSCL Noble Gas or Noble Gas value on SPDS  $\geq 2.42\text{E}+05$  uCi/Sec. \_\_\_\_\_

#### NOTE

Refer to the Salem RMS Manuals or HC.RP-AR.SP-0001 (Q) or the Hope Creek Radiation Protection Radiation Monitoring System Alarm Response Procedure, for additional information than what is contained in Attachment 4, RMS Quick Reference for Salem or Hope Creek RMS.

- 5.1.13 REVIEW Attachment 4, RMS Quick Reference, for information concerning effluent, some area radiation monitors (ARM), Containment and Drywell ARMs. \_\_\_\_\_
- 5.1.14 IF a radiological release is in progress, THEN calculate a Noble Gas to Iodine Correction Factor (ICF), IAW Attachment 5, Iodine Correction Factor, when possible. \_\_\_\_\_
- 5.1.15 IF "WHAT IF" dose assessment scenarios are necessary, THEN implement NC.EP-EP.ZZ-0313(Q), Advanced Dose Assessment. \_\_\_\_\_

## 6.0 RECORDS

Return completed procedure and any information or data thought to be pertinent by the dose assessor, to the Emergency Preparedness Manager.

## 7.0 REFERENCES

### 7.1 References

None

### 7.2 Cross References

- 7.2.1 NC.EP-EP.ZZ-0309(Q), Dose Assessment
- 7.2.2 NC.EP-EP.ZZ-0313(Q), Advanced Dose Assessment (MIDAS) Instructions
- 7.2.3 HC.RP-AR.SP-0001(Q). Salem RMS Manuals
- 7.2.4 NC.EP-EP.ZZ-0601(Q), Radiological Dose Assessment
- 7.2.5 NC.EP-AP.ZZ-1014(Q), Emergency Preparedness Classroom Training Administration
- 7.2.6 PSEG Nuclear Emergency Plan
- 7.2.7 NC.EP-DG.ZZ-0009(Z), Salem SPDS Operating Instructions

## ATTACHMENT 1

Page 1 of 3

## OPERATION OF THE VAX LA120 TERMINAL

1.0 Meteorological Data1.1 Perform The Following to Obtain Current 15 Minute Average Meteorological Data:

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

1.1.2 ENTER MET and depress the RETURN key \_\_\_\_\_

**NOTE**

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

Meteorological data may be obtained from the Salem SPDS IAW NC.EP-DG.ZZ-0009(Z).

- ENTER Option 3 (Disable Automatic Display of MET Data Every 15 minutes) and depress the RETURN key to STOP the VAX LA120 from printing out meteorological data every 15 minutes. \_\_\_\_\_
- ENTER Option 1 (Display Current Meteorological Data) and depress the RETURN key to receive the current 15 meteorological data print out and assume having the current 15 minute MET data printout automatically. \_\_\_\_\_

1.2 Perform The Following Steps to Obtain Archived Meteorological Data:

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

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

1.2.3 ENTER Option 2 (Display Meteorological Data From Data Base) and depress the RETURN key. (Current system Date and Time will be displayed). \_\_\_\_\_

1.2.4 IF this is the data you want. THEN depress the RETURN key. (Your option will be printed out). \_\_\_\_\_

## ATTACHMENT 1

## Page 2 of 3

- 1.2.5 IF you want data from another date and time, THEN go to Step 1.2.6. \_\_\_\_\_
- 1.2.6 ENTER start date and time as shown below and depress the RETURN key. (For December 27, 1989 at 0130 enter 27-DEC-1989 "depress the space bar once" and enter 01:30). \_\_\_\_\_
- 1.2.7 ENTER "Y" if the information is correct or "N" if the information is not correct and reenter it as shown in Step 1.2.6. \_\_\_\_\_
- 1.2.8 ENTER the end date and time as shown below and depress the RETURN key. (For December 28, 1989 at 0230 enter 28-DEC-1989 "depress the space bar once" and enter 02:30). \_\_\_\_\_
- 1.2.9 ENTER "Y" if the information is correct or "N" if the information is not correct and re-enter it as shown in Step 1.2.6. \_\_\_\_\_

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

- 2.1.1 DEPRESS the RETURN key. (USERNAME should be displayed). \_\_\_\_\_
- 2.1.2 ENTER the letters EOF and depress the RETURN key. (A prompt should be displayed asking for PASSWORD). \_\_\_\_\_
- 2.1.3 ENTER EOFUSER and depress the RETURN key. (The EOF Plant Menu should be displayed.) \_\_\_\_\_
- 2.1.4 SELECT Option 1 for Hope Creek. \_\_\_\_\_
- 2.1.5 DEPRESS the RETURN key. (The EOF Report Options Menu will be displayed). \_\_\_\_\_
- 2.1.6 ENTER Option 1 (Current RMS Status) and depress the RETURN key. (The most current instantaneous RMS and 15 minute MET data will be printed out.) \_\_\_\_\_

2.2 **Perform The Following Steps to Obtain 15 Minute Average RMS Data:**

- 2.2.1 DEPRESS the RETURN key. (USERNAME should be displayed). \_\_\_\_\_
- 2.2.2 ENTER EOF and depress the RETURN key. (A prompt should be displayed asking for PASSWORD). \_\_\_\_\_

## ATTACHMENT 1

## Page 3 of 3

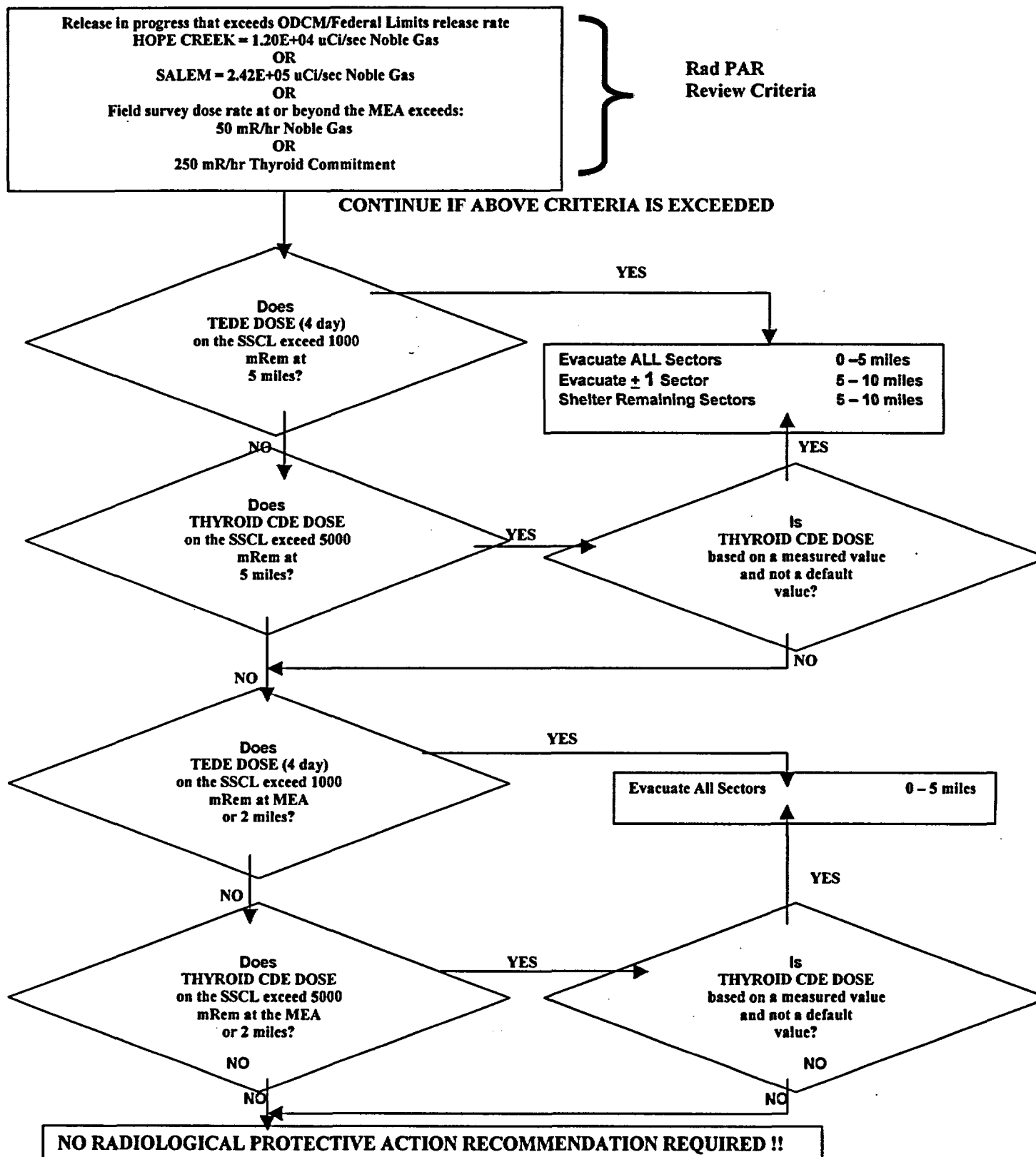
- 2.2.3 ENTER EOFUSER and depress the RETURN key. (The EOF Plant Menu should be displayed). \_\_\_\_\_
- 2.2.4 SELECT option 1 for Hope Creek. \_\_\_\_\_
- 2.2.5 DEPRESS the RETURN key. (The EOF Report Options Menu should be displayed). \_\_\_\_\_
- 2.2.6 SELECT and enter option number 6 (15 Minute Historical Data). (Current system date and time should be displayed. A prompt should be displayed for start date and time) \_\_\_\_\_
- 2.2.7 IF this is the data you want, THEN depress the RETURN key. (Your option will be printed out). \_\_\_\_\_
- 2.2.8 IF you want data from another date and time, THEN go to Step 2.2.9. DEPRESS the RETURN key for 15 minute average RMS and MET data. (Your selection will be printed). \_\_\_\_\_
- 2.2.9 ENTER start date and time as shown below and depress the RETURN key. (For December 27, 1989 at 0130 enter 27-DEC-1989 "depress the space bar once" and enter 01:30). \_\_\_\_\_
- 2.2.10 ENTER "Y" if the information is correct or "N" if the information is not correct and reenter it as shown in Step 1.2.6. \_\_\_\_\_
- 2.2.11 ENTER the end date and time as shown below and depress the RETURN key. (For December 28, 1989 at 0230 enter 28-DEC-1989 "depress the space bar once" and enter 02:30). \_\_\_\_\_
- 2.2.12 ENTER "Y" if the information is correct or "N" if the information is not correct and re-enter it as shown in Step 2.2.9. \_\_\_\_\_

## ATTACHMENT 2

Page 1 OF 2

# RADIOLOGICAL BASED PROTECTIVE ACTION RECOMMENDATION FLOW CHART AND WORKSHEET

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

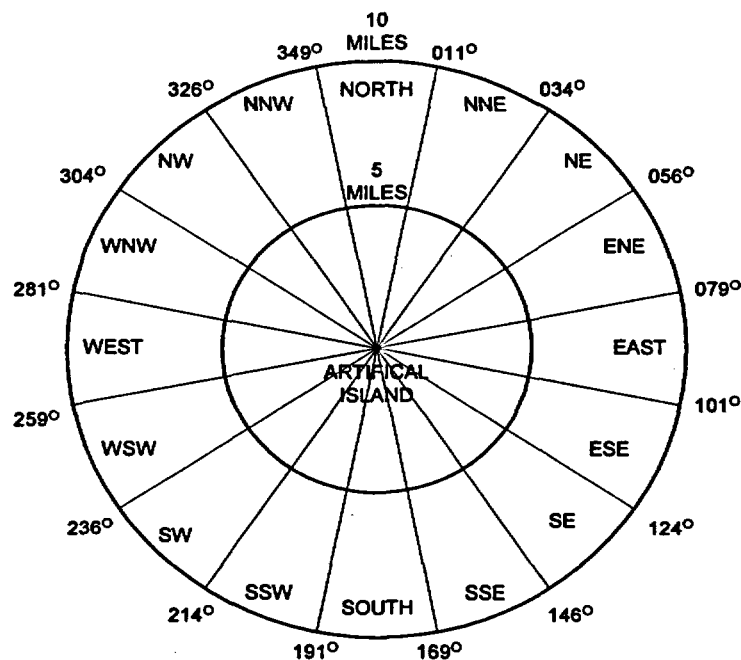


## ATTACHMENT 2

Page 2 of 2

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

NOTE: CONSIDER ADDING A SECTOR TO THE PAR IF THE WIND DIRECTION (FROM) IS WITHIN  $\pm 3^\circ$  OF A SECTOR DIVIDING LINE.





**ATTACHMENT 3**

Page 1 of 1

**MIDAS REPORT GUIDANCE****NOTE**

This Attachment is to be used only as a guidance. Depending on the RSM's requests, more or less reports may be asked for.

**1.0 NO RADIOLOGICAL RELEASE IN PROGRESS****Print Out The Following Plots**

- TEDE 4-DAY DOSE PLOT
- As requested by the RSM.

**2.0 RADIOLOGICAL RELEASE IN PROGRESS****Print Out The Following Plots And Prints.**

- MIDAS TEDE 4-DAY PLOT (FOR LEADS MEETINGS).
- MIDAS TEDE DOSE RATE PRINT
- MIDAS THYROID CDE DOSE RATE PRINT
- MIDAS PROJECTED DOSE SUMMARY PRINT
- MIDAS MET AND RAD SUMMARY PRINT

## ATTACHMENT 4

Page 1 of 4

## RMS QUICK REFERENCE

1.0 Salem RMS (Unit 1 and 2)

R2 is an Area Radiation Monitor (ARM) located in Containment on the 130' elevation.  
Ranges: 1E-01 to 1E+04 mR/hr.

R7 is an ARM located in Containment on the 100' elevation, adjacent to the Seal Table Room.  
Ranges: 1E-01 to 1E+04 mR/hr.

R10A is an ARM located in Containment on the 100' elevation next to the personnel airlock.  
Ranges: 1E-01 to 1E+04 mR/hr.

R10B is an (ARM) located in Containment on the 130' elevation next to the personnel airlock.  
Ranges: 1E-01 to 1E+04 mR/hr.

R34 is an ARM located in the Mechanical Penetration across from the 100' elevation Containment personnel Airlock.  
Ranges: 1E-01 to 1E+06 mR/hr.

R44A is a High Range or Accident Area Radiation Monitor (HARM) located in Containment on the 130' elevation close to the personnel airlock.  
Ranges: 1E+00 to 1E+07 R/hr.

R44B is a (HARM) located in Containment on the 100' elevation between the R10A and R7 ARMs.  
Ranges: 1E+00 to 1E+07 R/hr.

R47 is an ARM located in the 78' Electrical Penetration. The PASS lines are located in the overhead. The skid and PASS lines may be the source of any increase in this area. This Penetration has its own ventilation flow path and will vent directly into the atmosphere. There is a potential for an unmonitored release from this Penetration.  
Ranges: 1E-01 to 1E+07 mR/hr

## ATTACHMENT 4

Page 2 of 4

**NOTE**

- All emergency Grab Samples (Noble Gas, Iodine and Particulate) should be taken from the R45 Skid located in the R45 Shed.
- Only one of the following Effluent Monitors (R41A, R41B, R41C, R45B or R45C) readings should be used in MIDAS Manual Mode.

**R41A** is the Low Range Noble Gas Monitor and is located on the R41 Sample Skid on the 122' elevation of the Auxiliary Building next to the door to the stairs.

Ranges: 1E-07 to 1E-01 uCi/cc

**R41B** is the Mid Range Noble Gas Monitor and is located on the R41 Sample Skid on the 122' elevation of the Auxiliary Building next to the door to the stairs.

Ranges: 1E-04 to 1E-02 uCi/cc

**R41C** is the High Range Noble Gas Monitor and is located on the R41 Sample Skid on the 122' elevation of the Auxiliary Building next to the door to the stairs.

Ranges: 1E-01 to 1E+05 uCi/cc

**R41D** is the Effluent Noble Gas Monitor and is located on the R41 Sample Skid on the 122' elevation of the Auxiliary Building next to the door to the stairs.

Ranges: 0E+00 to 1E+13 uCi/Sec

(The R41D should not be used in MIDAS to perform manual dose assessment calculations)

**R45B** is the "Backup" Mid Range Noble Gas Monitor and is located in the R45 Shed behind the Fuel Handling Building. This monitor should not be used unless the R41 monitors are inoperable.

Ranges: 1E-03 uCi/cc to 1E+01 uCi/cc

**R45C** is the "Backup" High Range Noble Gas Monitors and is located in the R45 Shed behind the Fuel Handling Building. This monitor should not be used unless the R41 monitors are inoperable.

Ranges: 1E-01 uCi/cc to 1E+05 uCi/cc

## ATTACHMENT 4

Page 3 of 4

2.0 Hope Creek**NOTE**

All ARM's in the Reactor Building have maximum ranges of  $1.00\text{E}+04$  mR/hr, except for the Inner Tip Room Monitor (9RX699). The Inner Tip Room Monitor's maximum range is  $1.00\text{E}+07$  mR/hr.

DAPA A and DAPA B (9RX635 and 9RX636) are high range ARMs in the Drywell. DAPA A is approximately twice as high as DAPA B under normal operating conditions. During a LOCA in the Drywell the two monitors should start to trend closer together due to the atmospheric conditions in the Drywell affecting both monitors equally. Increases on both of these monitors while DAPA A's reading stays about twice of what DAPA B is reading, would be an indication of fuel damage.  
Ranges:  $1.00\text{E}+00$  to  $1.00\text{E}+08$  R/hr.

Tip Room Inner ARM (9RX699) is located on 102' elevation of the Reactor Building inside the Tip Room. This monitor has the highest range of any ARM in the Reactor Building and could give an idea of what the dose rates in the Reactor Building are after the other ARMs peg out high.  
Ranges:  $1.00\text{E}+00$  to  $1.00\text{E}+07$  mR/hr

Main Steam Line A - D monitors (9RX509-512) are four ARMs located in the ceiling of the Main Steam Tunnel. Increases in these monitors would be an indication of fuel damage. These monitors could increase due to shine from the Reactor Building, after a radiological release.  
Ranges:  $1.00\text{E}+00$  to  $1.00\text{E}+06$  mR/hr

Safeguard Instrument Room Monitor (9RX704) is an ARM located on 77' elevation of the Reactor Building. An increase on this monitor when the reactor SCRAMs with fuel damage could be due to shine from the Torus.  
Ranges:  $1.00\text{E}-01$  to  $1.00\text{E}+04$  mR/hr

## ATTACHMENT 4

Page 4 of 4

**FRVS Effluent monitor (9RX680)** monitors what is going out the FRVS Plant Vent. Under normal operating conditions Reactor Building ventilation would vent through the South Plant Vent. Under accident conditions or when manually initiated, Reactor Building Ventilation isolates and the Reactor Building will vent through the FRVS. FRVS is always a ground release. Values  $\geq 1.20\text{E}+04$  uCi/Sec would be an indication that a radiological release is in progress.

Ranges:  $1.00\text{E}+00$  to  $1.00\text{E}+12$  uCi/Sec

**North Plant Vent Effluent (NPV) monitor (9RX590)** monitors Offgas and the chemistry lab fume hoods. NPV could be a ground or elevated release depending on the time of year and wind speed. Values  $\geq 1.20\text{E}+04$  uCi/Sec would be an indication that a radiological release is in progress.

Ranges:  $1.00\text{E}+00$  to  $1.00\text{E}+12$  uCi/Sec

**South Plant Vent Effluent (SPV) monitor (9RX580)** monitors Service Radwaste Building, Turbine Building and the Reactor Building (if FRVS hasn't been initiated). Values  $\geq 1.20\text{E}+04$  uCi/Sec would be an indication that a radiological release is in progress.

Ranges:  $1.00\text{E}+00$  to  $1.00\text{E}+12$  uCi/Sec

**Hardened Torus Vent Effluent (HTV) monitor (9RX518)** would be used to vent the Drywell to relieve pressure. The path it would take would be through the Torus and take advantage of the scrubbing properties of the Torus water, but the release would be considered to be an unfiltered release. Iodines and particulates could be a major concern. Control Room operators would have to open a valve to use this release path. Sampling from the PASS Torus Gas Space should be performed to provide information as to what is being released. Values  $\geq 1.20\text{E}+04$  uCi/Sec would be an indication that a radiological release is in progress.

Ranges:  $0.00\text{E}+00$  to  $2.09\text{E}+12$  uCi/Sec

## ATTACHMENT 5

Page 1 of 3

## IODINE CORRECTION FACTOR

1.0 IODINE CORRECTION FACTOR CALCULATION USING PLANT VENT DATA1.1 Perform The Following To Obtain An Iodine Correction Factor:

1.1.1 OBTAIN the Plant vent Iodine 131 data in uCi/cc from the Radiation Protection Supervisor-Offsite (RPS-Offsite) located in the TSC. \_\_\_\_\_

1.1.2 OBTAIN the Plant Vent RMS Noble Gas value in uCi/cc from the appropriate effluent monitor that the radiological release is being discharged from. \_\_\_\_\_

1.1.3 DIVIDE the Iodine value by the Plant Vent Noble Gas value This will produce the Iodine Correction Factor (ICF) \_\_\_\_\_

$\frac{\text{Iodine 131 (uCi/cc)}}{\text{Plant Vent RMS Noble Gas Value (uCi/cc)}} = \text{ICF}$
--

1.1.4 MULTIPLY most current RMS Noble Gas monitor value by the ICF. The product will be the Corrected Iodine Value. \_\_\_\_\_

1.1.5 OBTAIN the Corrected Iodine Value at least every 30 minutes by multiplying the most current Plant Vent RMS Noble Gas monitor value by the ICF. \_\_\_\_\_

1.1.6 IMPLEMENT NC.EP-EP.ZZ-0309(Q)/EPIP 309S(H), Dose Assessment, Attachment 3, Manual Dose Assessment, and follow appropriate steps. \_\_\_\_\_

1.1.7 INPUT the Corrected Iodine Value into the appropriate RMS – DI location on the MIDAS spread sheet (i.e., FRVS - DI, 2R45B - DI, etc.). \_\_\_\_\_

## ATTACHMENT 5

Page 2 of 3

**NOTE**

Use the current Plant Vent flow rate for the -DI flow rate.

1.1.8 UPDATE the ICF whenever more recent Plant Vent Iodine 131 is available.

2.0 **IODINE CORRECTION FACTOR CALCULATION USING FIELD TEAM DOSE PROJECTION DATA**

**NOTE**

- The following method will only work if the Field Monitoring Team data is collected at the MIDAS projected center line at a distance of 2, 5, or 10 miles.
- The primary methodology of obtaining the ICF should be performed IAW Section 1.0 of this Attachment

2.1 **Perform The Following To Obtain An ICF From Field Monitoring Data:**

2.1.1 RUN an automatic SSCL. Use the Plant Vent Noble Gas RMS monitor value and current 15 minute MET data if in Manual MIDAS mode.

2.1.2 RECORD the Projected Dose Rate of interest (SSCL TEDE DOSE RATE) in Space A., the distance in miles in Space B., and the direction in Space C.

A. \_\_\_\_\_ (mRem/hour TEDE Rate) B. \_\_\_\_\_ (Miles) C. \_\_\_\_\_ (Degrees)

## ATTACHMENT 5

Page 3 of 3

2.1.3 RECORD the Projected X/Q of interest (SSCL X/Q) in Space D. \_\_\_\_\_

D. \_\_\_\_\_

2.1.4 RECORD the Field Team's measured CLOSED WINDOW reading at the location of interest in Space E. \_\_\_\_\_

E. \_\_\_\_\_ mR/hour

2.1.5 RECORD the Field Team Iodine 131 Sample in uCi/cc in Space F. IAW NC.EP-EP.ZZ-0603(Q), Field Monitoring. \_\_\_\_\_

F. \_\_\_\_\_ uCi/cc

2.1.6 CALCULATE the Iodine 131 Release Rate as follows and record in Space G.: \_\_\_\_\_

$$\frac{A}{E} * \frac{1}{D} * F * 1.00E+06 = G. \text{_____ (uCi/Sec)}$$

(1.00E+06 = Conversion Factor from Cubic Meters to cc)

2.1.7 OBTAIN the Noble Gas Release Rate (uCi/Sec) using the same SSCL the TEDE DOSE RATE and X/Q that were obtained from and record in Space H. \_\_\_\_\_

H. \_\_\_\_\_

2.1.8 DETERMINE the Iodine Correction Factor (ICF) as follows: \_\_\_\_\_

$$\frac{\text{Iodine Release Rate in uCi/Sec (Space G.)}}{\text{Noble Gas Release Rate in uCi/Sec (Space H.)}} = \text{ICF}$$

2.1.9 FOLLOW the directions in 1.0, Steps 1.1.4 - 1.1.9 of this Attachment for instructions in the proper use of the ICF. \_\_\_\_\_



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NC.EP-EP.ZZ-0603(Q) – REV. 06  
FIELD MONITORING

USE CATEGORY: II

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1. Revised Attachment 8, Section 1.1.13 concerning the loading and use of respirators, in accordance with (IAW) notification number 80061439.
2. Revised Attachment 4's Note prior to Step 2.0, to say Field Sample Form, instead of Air Sample Form, IAW notification number 80061439.

IMPLEMENTATION REQUIREMENTS

Implementation Effective Date: 07/29/2003

PSE&G  
CONTROL  
COPY # EPIPO59

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APPROVED: \_\_\_\_\_

  
Emergency Preparedness Manager

7/5/03  
Date

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APPROVED: \_\_\_\_\_

  
Director of Operations

7/9/03  
Date

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**FIELD MONITORING**  
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**1.0. PURPOSE**

Provide the EOF Offsite Team Coordinator/Field Team Communicator, and the Offsite Field Monitoring Team with direction to perform their duties during a declared emergency.

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

Implement this procedure at:

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

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

- 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.
- It is recommended that initials be used in the place keeping sign-offs, instead of checkmarks, if more than one person may implement this procedure.
- Personnel who implement this procedure shall be trained and qualified IAW the Emergency Plan.

**4.0 EQUIPMENT / MATERIAL REQUIRED**

As provided in the EOF.

**5.0 PROCEDURE****5.1 The Offsite Team Coordinator/Field Team Communicator (OTC/FTC)**

5.1.1 IMPLEMENT Attachment 1, Offsite Team Coordinator/Field Team Communicator Checklist, unless otherwise directed by the Radiological Support Manager (RSM).

**5.2 The Offsite Field Monitoring Team(s) (OFMT)**

**5.2.1 IMPLEMENT Attachment 8, Field Monitoring Team Responsibilities and Directions.**

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**6.0 RECORDS**

Return completed procedure and any information or data thought to be pertinent by the dose assessor, to the EP Manager.

**7.0 REFERENCES**

**7.1 References**

- 7.1.1 NUREG-0654, Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants.
- 7.1.2 NUREG/CR-0314, An Air Sampling System for Evaluating Thyroid Dose Commitment Due to Fission Products Released for Reactor Containments.
- 7.1.3 Radiological Health Handbook (Revised Edition January 1970)
- 7.1.4 EPA 400-R-92-001, Manual Of Protective Action Guides And Protective Actions For Nuclear Incidents.

**7.2 Cross References**

- 7.2.1 NC.EP-EP.ZZ-0308(Q), Personnel/Vehicle Survey & Decontamination
- 7.2.2 NC.EP-EP.ZZ-0601(Q) Radiological Support Manager and Radiological Assessment Staff Response
- 7.2.3 NC.EP-EP.ZZ-0602(Q) EOF Radiological Dose Assessment
- 7.2.4 NC.AP-EP.ZZ-1006(Z) Emergency Preparedness Inventory Radiation Protection
- 7.2.5 PSEG Nuclear Emergency Plan



Name: \_\_\_\_\_ / \_\_\_\_\_  
(PRINT) / (SIGN) \_\_\_\_\_ / \_\_\_\_\_  
DATE / TIME

### 1.1 The OTC/FTC Should Perform The Following:

- ## NUCLEAR COMMON

## ATTACHMENT 1

## PAGE 2 of 4

- C. ENSURE the Offsite Field Monitoring Teams have implemented Attachment 8, Field Monitoring Team Responsibilities and Directions. \_\_\_\_\_
- 1.1.7 IMPLEMENT Attachment 4, Field Monitoring Team Log. \_\_\_\_\_
- 1.1.8 DIRECT Field Teams to monitoring and provide instructions concerning what type of readings and sampling they should perform. \_\_\_\_\_
- 1.1.9 REFER below for instructions and items to consider when assigning locations, type of samples to be taken, and special actions/concerns: \_\_\_\_\_
- CONSULT with the RSM concerning what type of reading and samples should be taken \_\_\_\_\_
  - CONSULT with the States of Delaware and New Jersey to avoid duplication of efforts and avoid traffic jams. \_\_\_\_\_
  - REFER to the MIDAS printouts for projected location of the plume center line. \_\_\_\_\_
  - OBTAIN the CREST printout to determine location where the plume should be. \_\_\_\_\_
  - ASSIGN the Field Teams to locations where it is thought the plume is located using the information gathered from dose projections, CREST printouts, and information gathered from the States of Delaware and New Jersey. \_\_\_\_\_
  - INSTRUCT the Field Monitoring Teams to take dose rates and pull air samples, as appropriate. \_\_\_\_\_
  - LOG information gathered from the Field Monitoring Team, CREST Data, and SSCL TEDE Rate on Form – 4, Field Monitoring/CREST Data vs. Projected Data. \_\_\_\_\_
  - COMPARE the different data points logged on Form-4. \_\_\_\_\_
  - CONSULT with the RSM concerning the data recorded on Form -4. \_\_\_\_\_
  - DETERMINE iodine sample results to the dose assessment staff using Attachment 7, Conversion Table For Iodine 131 and provide results to dose assessment staff. \_\_\_\_\_

**ATTACHMENT 1****Page 3 of 4**

- **IMPLEMENT** Attachment 7, Conversion Table For Iodine I-131 and NC.EP-EP.ZZ-0305(Q), Stable Iodine Thyroid Blocking, to determine if issuance of KI is needed for Offsite Field Monitoring Team Members. Inform the RSM of your recommendation. \_\_\_\_\_
  - **REQUEST** the RSM to authorize use of a boat through the Coast Guard to support tracking the plume, if thought appropriate. (Admin Support should do the actual calls to arrange this support).
  - **TRACK** all Field Teams located on the EPZ map. \_\_\_\_\_
  - **REVIEW** paperwork for completeness and correctness of data being recorded periodically. \_\_\_\_\_
- 1.10** **COORDINATE** with the RSM for samples to be picked up from the Field Monitoring Teams and delivered to the proper location for counting, when appropriate. \_\_\_\_\_
- 1.11** **SUPPLY** guidance to the Offsite Field Monitoring Teams concerning how to handle survey equipment that is contaminated with  $\geq 50k$  ccpm. (Consideration should be given to bagging survey equipment) \_\_\_\_\_
- 1.12** **IMPLEMENT** Attachment 7, Conversion Table For Iodine I-131 and NC.EP-EP.ZZ-0305(Q), Stable Iodine Thyroid Blocking, to determine if issuance of KI is needed for Offsite Field Monitoring Team Members. Inform the RSM of your recommendation. \_\_\_\_\_
- 1.13** **COORDINATE** with the RSM to determine the appropriate Emergency Worker Decon Facility the Offsite Field Monitoring Teams should report to, if it is impractical to return to the EOF. \_\_\_\_\_
- 1.13.1** **REFER** below for the State of Delaware's Decon Centers and locations: \_\_\_\_\_
- National Guard Armory Located on Broad Street in Middletown.
  - Delaware in a shopping center on the west side of the road behind Happy Harry's Pharmacy. This is south of the intersection of Route 13 and 301.
- 1.13.2** **REFER** below for the State of New Jersey's Decon Centers and locations: \_\_\_\_\_



ATTACHMENT 1

Page 4 of 4

- Pennsville Fire Station Located at the intersection of Route 49 and Castle Height Drive across from the Pennsville Jr. and Sr. High Schools.
  - Shiloh Fire Station Located at Route 49 on the east side of the road.
- 1.14 CONSULT with the RSM and recall Offsite Field Monitoring Teams if determined appropriate. \_\_\_\_\_
- 1.15 COORDINATE with the RSM to ensure that whole body counting, personnel and vehicle decontamination are performed, if necessary, IAW NC.EP-EP.ZZ-0308, Personnel/Vehicle Survey and Decontamination: \_\_\_\_\_
- 1.16 COORDINATE the following, with the RSM, prior to relieving the Field Team members:
- 1.16.1 DETERMINE if the Field Team members should be assigned to a relief station or allowed to go home. \_\_\_\_\_
- 1.16.2 DETERMINE when the Field Team members should return to the EOF. \_\_\_\_\_
- 1.16.3 CONSULT with the States of New Jersey and Delaware to determine best routes to the Field Team's homes or the relief station, to avoid traffic jams, roadblocks and radiological concerns. \_\_\_\_\_

**ATTACHMENT 2**  
**Page 1 of 1**

**OFFSITE FIELD MONITORING TEAM BRIEFING GUIDANCE**

**1.0 Briefing Guidance**

**NOTE**

This briefing may take place over the radio or cellular phone.

- 1.1 At A Minimum, The Following Items Should Be Included In The Briefing and Recorded On Form – 6, Field Monitoring Team Briefing Form:**
- 1.1.1 ENSURE** radio protocol is conducted in the following manner:
    - REPEAT back instructions in accordance with the Work Standards Handbook
    - USE the proper phonetic alphabet, when appropriate.
  - 1.1.2 REVIEW** Attachment 10, Package Insert For Thyro-Block Tablets, to ensure it is filled out properly and signed.
  - 1.1.3 FOLLOW** the provisions for gas and meals listed below: (EZ-PASS is installed in the vehicles, so there should be no charges for tolls)
    - PAY, or CHARGE on Corporate American Express card, meals and gas and then submitted for reimbursement.
  - 1.1.4 PRESENT** meteorological conditions and forecast.
  - 1.1.5 PHONE** Number to contact the OTC/FTC. This **CAN'T** be a NETS phone.
  - 1.1.6 USE** Frequency 4 to contact the EOF for the Offsite Field Monitoring Team. (Frequency 1 may be used if thought necessary)
  - 1.1.7 USE** Frequency 1 to contact the TSC or the Onsite Field Monitoring Team. (Frequency 4 may be used if thought necessary)

## ATTACHMENT 3

Page 1 of 2

## OFFSITE FIELD MONITORING EQUIPMENT CHECKLIST

NOTE

- An inventory of the Offsite Field Monitoring Team Kits is not necessary, if they are properly sealed.
- Refer to NC.EP-AP.ZZ-1006(Z), Emergency Preparedness Inventory Radiation Protection, to perform an inventory of the Emergency Locker, if necessary.
- Lead blankets and respirators are not stored in the Offsite Field Monitoring Team Kits. The Forms Kits are stored in the same location as the Offsite Field Monitoring Team Kits, but not in the actual kits.
- This checklist is to be used to help ensure needed items are not left behind while loading the emergency vehicle. It is not to be used instead of the inventory list that is in NC.EP-AP.ZZ-1006(Z), Emergency Preparedness Inventory Radiation Protection.

- Low Volume Air Sampler with two air sample heads. \_\_\_\_\_
- One Count Rate Meter: E140N with a HP 210 probe. \_\_\_\_\_
- One Ion Chamber Dose Rate Meter : RO-2 or RO-2A or equivalent. \_\_\_\_\_
- One GM Meter : E520 with a HP 177C or 270 probe. \_\_\_\_\_
- Hi Range Dosimeters (0-5 R or 0-10 R) or equivalent electronic dosimeter. \_\_\_\_\_
- Low Range Dosimeters (0-200 mR or 0-500 mR) or electronic equivalent. \_\_\_\_\_
- One Dosimeter Charger. \_\_\_\_\_
- Absorbent Material. \_\_\_\_\_
- One Ten Mile (EPZ) N.J. and Delaware Map. \_\_\_\_\_
- One Onsite Map \_\_\_\_\_
- One Pair of Tweezers. \_\_\_\_\_
- Silver Zeolite Cartridges. (Use Cartridges marked for drills during drills and exercises.) \_\_\_\_\_
- Box of Air Sample Filters. \_\_\_\_\_

**ATTACHMENT 3**

**Page 2 of 2**

- Gloves.
- Small Envelops for Particulate Air Sample Filters.
- Roll of Masking Tape.
- Small Plastic Bags.
- Flashlight.
- Spare Nine Volt Batteries
- Spare D Cell Batteries
- One Bottle of KI Tablets
- One First Aid Kit
- Box of Smear Papers.
- Protective Clothing/Paper Coveralls and Shoe Covers
- Lead Blankets

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**ATTACHMENT 4**  
**Page 1 of 3**

**FIELD MONITORING TEAM LOG**

**1.0     OPERATING INSTRUCTIONS FOR EOF OFFSITE FIELD TEAM RADIO BASE STATION**

**1.1     To Operate The Radio Perform The Following:**

- 1.1.1    TURN on the radio power switches.
- 1.1.2    PRESS the F1 button located on the top of the radio to communicate with the Onsite Field Monitoring Teams or F4 to communicate with the Offsite Field Monitoring Teams.
- 1.1.3    POSITION the toggle switch on the left side of the radio to on to use the headset or off to use the speaker.
- 1.1.4    PRESS the button on the headset cord to transmit, if headset is in use.
- 1.1.5    PRESS the transmit bar on microphone transmit, if headset is not in use.

**NOTE**

This Attachment should be used to assist in performing necessary calculations and document briefing updates to:

- Log Offsite Field Monitoring Team Data on Form – 2, Field Sample Form.
- Track Offsite Field Monitoring Team's dose on Form – 3, SRD Log.

**2.0     OFFSITE DATA**

**2.1     The OTC/FTC OR Designee Should Record the Following, As Appropriate:**

- 2.1.1    The Team's Phonetic (Alphabet) Name: \_\_\_\_\_
- 2.1.2    The Location the Team is being sent to: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
- 2.1.3    Instrument Type/Serial Number: \_\_\_\_\_ / \_\_\_\_\_
- 2.1.4    General Area Open Window Dose Rate: \_\_\_\_\_ mR/Hr

**ATTACHMENT 4**  
**Page 2 of 3**

2.1.5 Open Window Ground Dose Rate : \_\_\_\_\_ Mr/Hr  
2.1.6 Closed Window Ground Dose Rate: \_\_\_\_\_ Mr/Hr  
2.1.7 General Area Closed Window Dose Rate: \_\_\_\_\_ Mr/Hr  
2.1.8 Time On for A/S: \_\_\_\_\_  
2.1.9 Time Off for A/S: \_\_\_\_\_  
2.1.10 Average Flow Rate: \_\_\_\_\_ cfm  
2.1.11 Iodine Cartridge Background: \_\_\_\_\_ cpm  
2.1.12 Iodine Cartridge Sample: \_\_\_\_\_ cpm  
2.1.13 Particulate Background: \_\_\_\_\_ cpm  
2.1.14 Particulate Sample: \_\_\_\_\_ cpm

**NOTE**

- Form – 1, Offsite Calculations Form, should be used to obtain directions on performing air sample calculations.
- Section 3.0, Briefing Update, of this Attachment, should be used as changing conditions warrant.

ATTACHMENT 4  
Page 3 of 3

3.0 **BRIEFING UPDATE**

3.1 **The OTC/FTC OR Designee Should Record The Following  
As Appropriate:**

3.1.1 Time: \_\_\_\_\_:

3.1.2 Event Classification: \_\_\_\_\_

3.1.3 Plant Conditions: \_\_\_\_\_

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3.1.4 Radiological Conditions: \_\_\_\_\_

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3.1.5 Additional Information Communicated to Offsite Team:

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## ATTACHMENT 5

Page 1 of 1

## PARTICULATE AIR ACTIVITY VS. COUNT RATE TABLE

	SAMPLE VOLUME 5 FT. <sup>3</sup>	SAMPLE VOLUME 10 FT. <sup>3</sup>	SAMPLE VOLUME 15 FT. <sup>3</sup>	SAMPLE VOLUME 20 FT. <sup>3</sup>	SAMPLE VOLUME 25 FT. <sup>3</sup>	SAMPLE VOLUME 30 FT. <sup>3</sup>
(ccpm)	(uCi/cc)	(uCi/cc)	(uCi/cc)	(uCi/cc)	(uCi/cc)	(uCi/cc)
5.00E+04	1.59E-06	7.95E-07	5.30E-07	3.97E-07	3.18E-07	2.65E-07
4.50E+04	1.43E-06	7.15E-07	4.77E-07	3.57E-07	2.86E-07	2.38E-07
4.00E+04	1.27E-06	6.35E-07	4.23E-07	3.17E-07	2.54E-07	2.12E-07
3.50E+04	1.11E-06	5.55E-07	3.70E-07	2.77E-07	2.22E-07	1.85E-07
3.00E+04	9.53E-07	4.76E-07	3.18E-07	2.38E-07	1.91E-07	1.59E-07
2.50E+04	7.94E-07	3.97E-07	2.65E-07	1.98E-07	1.59E-07	1.32E-07
2.00E+04	6.35E-07	3.17E-07	2.12E-07	1.59E-07	1.27E-07	1.06E-07
1.50E+04	4.77E-07	2.38E-07	1.59E-07	1.19E-07	9.54E-08	7.95E-08
1.00E+04	3.18E-07	1.59E-07	1.06E-07	7.95E-08	6.36E-08	5.30E-08
9.00E+03	2.86E-07	1.43E-07	9.53E-08	7.15E-08	5.72E-08	4.77E-08
8.00E+03	2.54E-07	1.27E-07	8.47E-08	6.35E-08	5.08E-08	4.23E-08
7.00E+03	2.22E-07	1.11E-07	7.40E-08	5.55E-08	4.44E-08	3.70E-08
6.00E+03	1.91E-07	9.55E-08	6.37E-08	4.77E-08	3.82E-08	3.18E-08
5.00E+03	1.59E-07	7.95E-08	5.30E-08	3.97E-08	3.18E-08	2.65E-08
4.00E+03	1.27E-07	6.35E-08	4.23E-08	3.17E-08	2.54E-08	2.12E-08
3.00E+03	9.53E-08	4.76E-08	3.18E-08	2.38E-08	1.91E-08	1.59E-08
2.00E+03	6.35E-08	3.17E-08	2.12E-08	1.59E-08	1.27E-08	1.06E-08
1.00E+03	3.18E-08	1.59E-08	1.06E-08	7.95E-09	6.39E-09	5.30E-09
9.00E+02	2.86E-08	1.43E-08	9.53E-09	7.15E-09	5.72E-09	4.77E-09
8.00E+02	2.54E-08	1.27E-08	8.47E-09	6.35E-09	5.08E-09	4.23E-09
7.00E+02	2.22E-08	1.11E-08	7.40E-09	5.55E-09	4.44E-09	3.70E-09
6.00E+02	1.91E-08	9.55E-09	6.37E-09	4.77E-09	3.82E-09	3.18E-09
5.00E+02	1.59E-08	7.95E-09	5.30E-09	3.97E-09	3.18E-09	2.65E-09
4.00E+02	1.27E-08	6.35E-09	4.23E-09	3.17E-09	2.54E-09	2.12E-09
3.00E+02	9.53E-09	4.76E-09	3.18E-09	2.38E-09	1.91E-09	1.59E-09
2.00E+02	6.35E-09	3.17E-09	2.12E-09	1.59E-09	1.27E-09	1.06E-09
1.00E+02	3.18E-09	1.59E-09	1.06E-09	7.95E-10	6.36E-10	5.30E-10

Calculation Based on:  $\text{uCi/cc} = \frac{\text{ccpm} * 4.5\text{E-}07 \text{ uCi/dpm}}{\text{VOL (FT}^3\text{)} * 2.832\text{E+}4 \text{ (CC/FT}^3\text{)} * \text{EFF (0.10)}}$



## ATTACHMENT 6

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## PARTICULATE AIR ACTIVITY VS. DOSE RATE TABLE

	SAMPLE VOLUME 5 (CUBIC FT.)	SAMPLE VOLUME 10 (CUBIC FT.)	SAMPLE VOLUME 15 (CUBIC FT.)	SAMPLE VOLUME 20 (CUBIC FT.)	SAMPLE VOLUME 25 (CUBIC FT.)	SAMPLE VOLUME 30 (CUBIC FT.)
(mRad/hr)	(uCi/cc)	(uCi/cc)	(uCi/cc)	(uCi/cc)	(uCi/cc)	(uCi/cc)
1.00E+03	1.59E-06	7.95E-07	5.30E-07	3.97E-07	3.18E-07	2.65E-07
5.00E+02	1.43E-06	7.15E-07	4.77E-07	3.57E-07	2.86E-07	2.38E-07
1.00E+02	1.27E-06	6.35E-07	4.23E-07	3.17E-07	2.54E-07	2.12E-07
9.50E+01	1.11E-06	5.55E-07	3.70E-07	2.77E-07	2.22E-07	1.85E-07
9.00E+01	9.53E-07	4.76E-07	3.18E-07	2.38E-07	1.91E-07	1.59E-07
8.50E+01	7.94E-07	3.97E-07	2.65E-07	1.98E-07	1.59E-07	1.32E-07
8.00E+01	6.35E-07	3.17E-07	2.12E-07	1.59E-07	1.27E-07	1.06E-07
7.50E+01	4.77E-07	2.38E-07	1.59E-07	1.19E-07	9.54E-08	7.95E-08
7.00E+01	3.18E-07	1.59E-07	1.06E-07	7.95E-08	6.36E-08	5.30E-08
6.50E+01	2.86E-07	1.43E-07	9.53E-08	7.15E-08	5.72E-08	4.77E-08
6.00E+01	2.54E-07	1.27E-07	8.47E-08	6.35E-08	5.08E-08	4.23E-08
5.50E+01	2.22E-07	1.11E-07	7.40E-08	5.55E-08	4.44E-08	3.70E-08
5.00E+01	1.91E-07	9.55E-08	6.37E-08	4.77E-08	3.82E-08	3.18E-08
4.50E+01	1.59E-07	7.95E-08	5.30E-08	3.97E-08	3.18E-08	2.65E-08
4.00E+01	1.27E-07	6.35E-08	4.23E-08	3.17E-08	2.54E-08	2.12E-08
3.50E+01	9.53E-08	4.76E-08	3.18E-08	2.38E-08	1.91E-08	1.59E-08
3.00E+01	6.35E-08	3.17E-08	2.12E-08	1.59E-08	1.27E-08	1.06E-08
2.50E+01	3.18E-08	1.59E-08	1.06E-08	7.95E-09	6.39E-09	5.30E-09
2.00E+01	2.86E-08	1.43E-08	9.53E-09	7.15E-09	5.72E-09	4.77E-09
1.50E+01	2.54E-08	1.27E-08	8.47E-09	6.35E-09	5.08E-09	4.23E-09
1.00E+01	2.22E-08	1.11E-08	7.40E-09	5.55E-09	4.44E-09	3.70E-09
5.00E+00	1.91E-08	9.55E-09	6.37E-09	4.77E-09	3.82E-09	3.18E-09
1.00E+00	1.59E-08	7.95E-09	5.30E-09	3.97E-09	3.18E-09	2.65E-09

Calculation Based on:

$$(1 \text{ mRad/hr.} = 5000 \text{ ccpm}) \quad \text{uCi/cc} = \frac{\text{ccpm} * 4.5\text{E-}07 \text{ uCi/dpm}}{\text{VOL (FT}^3\text{)} * 2.832\text{E+}4 \text{ (CC/FT}^3\text{)} * \text{EFF (0.10)}}$$

## ATTACHMENT 7

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**CONVERSION TABLE OF CORRECTED  
COUNTS PER MIN TO uCi/cc I-131**

<b>ccpm</b>	<b>uCi/cc</b>	<b>THY. COMMITTED DOSE EQUIVALENT (mRem/INHALATION hr)</b>
1.13E+01	1.00E-08	1.30E+01
2.26E+01	2.00E-08	2.60E+01
5.65E+01	5.00E-08	6.50E+01
7.92E+01	7.00E-08	9.10E+01
1.13E+02	1.00E-07	1.30E+02
2.26E+02	2.00E-07	2.60E+02
5.65E+02	5.00E-07	6.50E+02
7.92E+02	7.00E-07	9.10E+02
1.13E+03	1.00E-06	1.30E+03
2.26E+03	2.00E-06	2.60E+03
5.65E+03	5.00E-06	6.50E+03
7.92E+03	7.00E-06	9.10E+03
1.13E+04	1.00E-05	1.30E+04
2.26E+04	2.00E-05	2.60E+04
3.40E+04	3.00E-05	3.90E+04
4.53E+04	4.00E-05	5.20E+04

**EQUATIONS:**

$$\frac{\text{corrected counts per minute (ccpm)}}{(\text{detector efficiency})(\text{collection efficiency})(\text{conversion factor - dpm to uci})(\text{volume - cubic ft.})(\text{conversion factor - cc to cubic ft.})}$$

**WHERE:**

2.00E-03 ccpm/dpm	=	DETECTOR EFFICIENCY
90% (0.90)	=	COLLECTION EFFICIENCY
2.22E+06 dpm/uCi	=	CONVERSION FACTOR
10 Cubic Feet	=	VOLUME
2.832E+04 cc to Cubic Feet	=	CONVERSION FACTOR

$$\text{uCi/cc} * \text{Dose Rate Conversion Factor (DRCF)} = \text{mRem/Inhalation hr.}$$

**WHERE:**

1.30E+09 mRem/uCi/cc/hr In Accordance With Dose Rate Conversion Factor (DRCF) from EPA 400.

**ATTACHMENT 8**

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**OFFSITE FIELD MONITORING TEAM RESPONSIBILITIES AND DIRECTIONS****1.0 FIELD MONITORING TEAMS****1.1 The Field Monitoring Teams Should Perform The Following:****1.1.1 CHECK the seals on Field Monitoring Kits.**

- A. PERFORM an inventory of kits IAW Attachment 3, Field Monitoring Equipment Checklist, if seals are broken.

**NOTE**

A satisfactory response check would be an upscale response of the instrument when on the lowest scale.

- B. PERFORM a response check on instruments, even if the Field Monitoring Kits are intact.

**1.1.2 OBTAIN a Dimension (DID) or Centrex telephone number for the OTC.****1.1.3 OBTAIN the emergency vehicle keys from:**

- The Administration Support Manager.
- The EOF Security Guard.
- The EOF Red Key Lock Box.

**1.1.4 OBTAIN an operable radio from the radio operator.****1.1.5 READ Attachment 10, Package Insert for Thyro-Block Tablets, and SIGN Form – 5, KI Side Effects/Administration Sign Off Form.****1.1.6 RECEIVE a briefing from:**

- A. The OTC/FTC, if available.
- B. The RPS-Offsite, if the OTC/FTC, is not available.

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- 1.1.7 ZERO SRDs, or electronic dosimeters, as appropriate. \_\_\_\_\_
- 1.1.8 COMPLETE the applicable information on Form - 3, Dosimetry Log. \_\_\_\_\_
- 1.1.9 IF the OTC/FTC is available, THEN give the completed Form 3 to the OTC. \_\_\_\_\_
- 1.1.10 IF the OTC/FTC is not available, THEN transmit the information on Form 3 to the RPS-Offsite [located in the TSC (HC X3468 or SA X2702)] \_\_\_\_\_
- 1.1.11 LOAD the Offsite Field Monitoring Team Kits into the Emergency Vehicle. \_\_\_\_\_

**NOTE**

Lead blankets and respirators are not stored in the Offsite Field Monitoring Team Kits. The Forms Kits are stored in the same location as the Offsite Field Monitoring Team Kits, but not in the actual kits.

- 1.1.13 Load respirators, if members of the Offsite Field monitoring team are respirator qualified. \_\_\_\_\_
- 1.1.14 PERFORM a radio and a telephone check from the emergency vehicle. The radio should be on frequency 4. Frequency 1 should be used to contact the Onsite Field Monitoring Teams. \_\_\_\_\_
- 1.1.15 INFORM the OTC/FTC, or the RPS-Offsite if he has control of the Field Team, if the Emergency Vehicle's gas gauge indicates < 1/2 full prior to going into the field and at any time while in the field. \_\_\_\_\_

## ATTACHMENT 8

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2.0 DIRECTIONSNOTE

- The Offsite Field Monitoring Team should provide input to the OTC/FTC or the RPS-Offsite as they think necessary, concerning sampling and moving to other than assigned locations due to radiological or meteorological conditions.
- The Offsite Field Monitoring Team members should report conflicting radiological or meteorological conditions to the OTC/FTC or RPS-Offsite, AS SOON AS POSSIBLE.

2.1 Offsite Field Monitoring Team Should Follow The Directions Listed Below:

- 2.1.1 REFER to Attachment 9, Offsite Field Monitor Locations, or the EPZ Atlas, for Offsite Field Monitoring Locations.
- 2.1.2 CONTACT with the OTC/FTC should be maintained at least every 30 minutes.
- 2.1.3 ENSURE Ground/General Area and Open/Closed window readings are taken at every sampling location sent to by the OTC/FTM.
- 2.1.3 ENSURE all air samples are a total of 10 cubic feet taken at a flow rate not to exceed 2 cfm, unless otherwise directed by the OTC/FTC or RPS-Offsite, if applicable.
- 2.1.5 PURGE the Iodine Cartridge in low background areas outside the plume.
- 2.1.6 COUNT all samples in low background areas outside the plume.
- 2.1.7 MONITOR dose rates and check dosimetry upon entering and exiting the plume.
- 2.1.8 USE proper contamination controls to prevent cross contamination of samples and to prevent contamination of instruments.
- 2.1.9 STORE all samples in the back corner of emergency vehicle and cover with the lead blanket.

## ATTACHMENT 8

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- 2.1.10 PERFORM a cursory survey of all Field Team members and the inside and outside of the vehicle, at present field location, when told to return to the EOF.
- 2.1.11 REPORT back results.
- 2.1.12 CONTACT the OTC/FTC, upon returning to the EOF, and remain in the vehicle, until directed otherwise.

### 3.0 RECOVERY

#### 3.1 Perform the Following at the End of a Real Event, Drill, or Exercise:

- 3.1.1 PERFORM and replenish and Offsite Field Monitoring Team Kits to ensure kits are kept in a ready mode NC.EP-AP.ZZ-1006(Z), Emergency Preparedness Inventory Radiation Protection, at the termination of a drill/exercise, or a real emergency. \_\_\_\_\_
- 3.1.2 PERFORM response checks on the instruments used. If instrument(s) fails a response check, inform the OTC/FTC, or RPS-Offsite if he has control of the Field Team. \_\_\_\_\_
- 3.1.3 ENTER initials and badge number on the tie wrap labels. \_\_\_\_\_

## ATTACHMENT 9

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## OFFSITE EMERGENCY MONITORING LOCATIONS

**NOTE**

The following pages of this Attachment include Offsite Emergency Monitoring Stations for New Jersey and Delaware. The descriptions and directions to each of the locations are contained in this attachment. Most monitoring points are situated at intersections, end of roads or landmarks. In addition, many points are identified by symbols painted on utility poles. These symbols consist of 2 to 5 letters or numerals (ENE4, etc.) painted in green above 3 orange circles arranged in a triangle. All distances are approximate.

<b><u>LOCATION</u></b>	<b><u>MILE</u></b>	<b><u>AZIMUTH</u></b>	<b><u>DESCRIPTION</u></b>
N7	5.8	6.5°	Drive 1.6 miles North on Hancocks Bridge Road from the Hancocks Bridge intersection. Turn left onto Ft. Elfsborg Road proceed 3.5 miles to curve at the intersection of Road 624 and 625. The marked pole at the intersection is the monitoring location.
N10	9.6	355.5°	Drive 3.5 miles North on Route 49 from the town of Salem until you reach Lighthouse Road. Turn left onto Lighthouse Road and proceed 2 miles to Fort Mott Road. Turn left onto Fort Mott Road. Proceed 1.5 miles to the end of the road. The marked pole at the end of the road is the monitoring location.
N20	10.5	10°	Drive 3.8 miles North on Route 49 from the town of Salem you reach Richmans Dairy. The monitoring location is located in front of the restaurant.

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<u>LOCATION</u>	<u>MILE</u>	<u>AZIMUTH</u>	<u>DESCRIPTION</u>
NNE7	5.8	21°	Drive 1.6 miles North on Hancocks Bridge Road from the Hancocks Bridge Intersection. Turn left onto Ft. Elfsborg Road and proceed 2.2 miles to Amwellbury Road. The marked pole at this intersection is the monitoring location.
NNE8	6.4	11°	Drive 1.6 miles North on Hancocks Bridge Road from the Hancocks Bridge intersection. Turn left onto Ft. Elfsborg Road and proceed 4.2 miles to Country Club Road. The marked pole at the intersection is the monitoring location.
NNE10	8.7	25°	Drive North on Market Street 0.3 miles from the town of Salem. Turn left onto Hancock Avenue and proceed to the end of the Avenue. The marked pole located 50 feet around the corner is the monitoring location.
NNE10a	7.4	26.5°	Drive 0.8 miles South on Walnut Street from East Broadway, to the New Salem High School. The marked pole across the street from the school is the monitoring location.
NNE10b	7.3	10°	Drive 1.6 miles North from the Hancocks Bridge intersection, towards the town of Salem on Hancocks Bridge Road. Turn left onto Ft. Elfsborg Road and proceed 4.3 miles to Sinnickson Landing Road. Turn left and proceed 1.5 miles. After crossing a bridge, the monitoring locations on the left prior to the first house on the right.



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<u>LOCATION</u>	<u>MILE</u>	<u>AZIMUTH</u>	<u>DESCRIPTION</u>
NNE20	10.3	28°	Drive North 2.6 miles on Market Street to the Memorial Hospital of Salem County. The marked pole located in front of the hospital is the monitoring location.
NE4	3.8	50.5°	Drive 0.5 miles North from Hancocks Bridge intersection toward the town of Salem. Turn left onto Front Street, which will become Poplar Street. Front Street is the last street before the bridge. Proceed to the gate located at the end of the road. The marked concrete pole located at the gate is the monitoring location.
NE5	4.1	52°	Drive 0.5 miles North from the Hancocks Bridge intersection toward the town of Salem. Turn left onto Front Street, which will become Poplar Street. Front Street is the last street before the bridge. Proceed 0.9 miles to a farm with a large white and green barn. The marked pole across the street from the farm is the monitoring location.
NE7	5.1	55°	Drive 0.2 miles North from the Hancocks Bridge intersection to the Lower Alloways Creek Municipal Building. The monitoring location is across the street from the Municipal Building on a pole south of the post office.

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<u>LOCATION</u>	<u>MILE</u>	<u>AZIMUTH</u>	<u>DESCRIPTION</u>
NE7a	5.8	40.5°	Drive 1.7 miles North from the Hancocks Bridge intersection toward the town of Salem to the intersection of Hancocks Bridge and Quinton Road and Salem/Hancock Bridge Road. The marked pole is the monitoring location.
NE10	8.8	48.5°	Drive 3.5 miles east from the town of Salem on Route 49 to the intersection of Routes 49 and 581. This is a stoplight located in Quinton. Turn left onto Route 581 and proceed 0.2 miles to the Waterworks Road intersection. The marked pole at this intersection is the monitoring location.
NE20	10.8	45°	Drive East 3.8 miles on Grant Street in the town of Salem to Clancy Road. (Grant Street turns into Quaker Neck Road). The marked pole located at the Clancy Road intersection is the monitoring location.
ENE4	3.7	75°	Drive 3.5 miles on the access road from the Salem and Hope Creek Generating Stations. Located on the west side of the road is an air sampler. The monitoring location is located at the air sampler.
ENE5	4.1	62.5°	Drive 4.0 miles from the Salem and Hope Creek Generating Stations, to the intersection of Grosscup Road. The marked pole located at the Grosscup Road intersection is the monitoring point location.
ENE5a	4.1	62.5°	Drive 4.8 miles from the Salem and Hope Creek Generating Stations, to the intersection of Grosscup Road. The marked pole located at the Grosscup Road intersection is the monitoring point location.

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<u>LOCATION</u>	<u>MILE</u>	<u>AZIMUTH</u>	<u>DESCRIPTION</u>
ENE7	5.9	65°	Drive 6.8 miles from the Salem and Hope Creek Generating Stations to the Harmersville intersection. The stoplight located at the LAC General Store
ENE10	8.6	68°	Drive 6.8 miles from the Salem and Hope Creek Generating Stations to the Harmersville intersection. The stoplight located at the LAC General Store is the Harmersville intersection. Proceed straight through the stop light and bear to the left. This should be Harmersville/Peck Corner Cohansey Road. Proceed 2.6 miles to the intersection of Jericho Road. The marked pole at this intersection is the monitoring location.
ENE20	10.5	73°	Drive 6.8 miles from the Salem and Hope Creek Generating Stations to the Harmersville intersection. The stoplight located at the LAC General Store is the Harmersville intersection. Proceed straight through the stop light and bear to the left. This should be Harmersville/Peck Corner Cohansey Road. Proceed 4.5 miles to the intersection of Route 49. The monitoring location is at this intersection.

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<u>LOCATION</u>	<u>MILE</u>	<u>AZIMUTH</u>	<u>DESCRIPTION</u>
E1	0.9	106°	The fork in the Access Road between the Salem and Hope Creek Generating Stations. Located on pole to the right of air sampler.
E4	3.5	86°	Drive 3.3 miles from the Salem and Hope Creek Generating Stations, down the Access Road to the sharp bend. The monitoring location is at the sharp bend on the gantry pole.
E4a	3.5	88°	Drive 3.1 miles from the Salem and Hope Creek Generating Stations, down the Access Road to the sharp bend. The monitoring location is at the sharp bend on the gantry pole.
E7	6.5	85.5°	Drive 6.8 miles from the Salem and Hope Creek Generating Stations to the Harmersville intersection. The stoplight located at the LAC General Store is the Harmersville intersection. Proceed straight through the stop light and bear to the left. This should be Harmersville/Pecks Corner Cohansey Road. Turn right onto Canton Road and proceed 3 miles to Frogg Ocean Road. The marked pole located at this intersection is the monitoring location.
E10	6.5	90.0°	Drive 6.8 miles from the Salem and Hope Creek Generating Stations to the Harmersville intersection. The stoplight located at the LAC General Store is the Harmersville intersection. Proceed straight through the stop light and bear to the left. This should be Harmersville/Pecks Corner Cohansey Road. Turn left onto Buckhorn Rd and proceed 4.5.
E20	12.6	91°	Drive 12.5 miles East, from the town of Salem, on Route 49 to the intersection of East/West Roadstown Road. The marked pole at this intersection is the monitoring location.

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<u>LOCATION</u>	<u>MILE</u>	<u>AZIMUTH</u>	<u>DESCRIPTION</u>
ESE7	6.4	104°	Drive 6.8 miles from the Salem and Hope Creek Generating Stations to the Harmersville intersection. The stoplight located at the LAC General Store is the Harmersville intersection. Turn right onto Canton Road and proceed 3.7 miles to Long Bridge Road. Turn right and proceed 1.6 miles to the end of the road. Turn left onto Stow Neck Road and proceed 0.3 miles. The marked pole on is the monitoring location.
ESE10	8.1	103°	Drive 6.8 miles from the Salem and Hope Creek Generating Stations to the Harmersville intersection. The stoplight located at the LAC General Store is the Harmersville intersection. Turn right onto Canton Road and proceed 5.2 miles to the intersection of Gum Tree Corner. The monitoring location is at this intersection.
ESE20	11.3	118°	Drive 6.8 miles from the Salem and Hope Creek Generating Stations, to the Harmersville intersection. The stoplight located at the LAC General Store is the Harmersville intersection. Turn right onto Canton Road and proceed 3.4 miles to the end of the road. Turn left onto Bacon's Neck Road and proceed 0.3 miles to Market Road. The marked pole located at this intersection is the monitoring location.

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<u>LOCATION</u>	<u>MILE</u>	<u>AZIMUTH</u>	<u>DESCRIPTION</u>
SE10	8.8	129°	Drive 6.8 miles from the Salem and Hope Creek Generating Stations to the Harmersville intersection. The stoplight located at the LAC General Store is the Harmersville intersection. Turn right onto Canton Road and proceed 5.2 miles to Gum Tree Corner and bear right onto Gum Tree Corner. Proceed 3.4 miles to the end of the road. Turn right onto Bacon's Neck Road and proceed 0.6 miles until you reach Tindull Island Road. Turn left and proceed 0.2 miles until you reach Bayside Road. Turn left and proceed 2.0 miles to the fork in the road. Take the right fork and proceed to the end of the road. The marked pole located at the end of the road is the monitoring location.
SE20	11.4	125°	Drive 6.8 miles from the Salem and Hope Creek Generating Stations to the Harmersville intersection. The stoplight located at the LAC General Store is the Harmersville intersection. Turn right onto Canton Road and proceed 5.2 miles to Gum Tree Corner and bear right onto Gum Tree Corner. Proceed 3.4 miles to the end of the road. Turn right onto Bacon's Neck Road and proceed 0.6 miles until you reach Tindull Island Road. Turn left and proceed 1.5 miles to Ragged Island Road. Turn left and proceed to the end of the Road. The pole marked at the end of the road is the monitoring location.

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<u>LOCATION</u>	<u>MILE</u>	<u>AZIMUTH</u>	<u>DESCRIPTION</u>
SSE10	9.7	159°	Drive to the Delaware Memorial Bridge and proceed 30 miles on Rte 13 South to Rte 6. Turn left onto Rte 6 and proceed 8.0 miles to the end of the road. The monitoring location is at the end of the road at Wood-land Beach on a telephone pole on the beach.
S5	4.2	187°	Drive to the Delaware Memorial Bridge and proceed 18 miles on Rte 13 South to Odessa. Turn left onto Main St/Rte 299 and proceed 6 miles South to Rd 453.(Rte 299 turns into Rte 9 and Rd 453 is also known as Cedar Swamp Rd).Turn left onto Rd 453 and proceed 2.8 miles to the end of the road. The monitoring location is at the end of the road on a concrete barrier.
S7	6.3	179.5°	Drive to the Delaware Memorial Bridge and proceed 18 miles on Rte 13 South to Odessa. Turn left onto Main St/Rte 299 and proceed South 9 miles to Rd 491.(Rte 299 turns into Rte 9). Proceed 1.5 miles on Rd 491 to the intersection. Monitoring location is at this intersection.
S10	9.1	177°	Drive to the Delaware Memorial Bridge and proceed 30 miles on Rte 13 South to Rte 6. Turn left onto Rte 6 and proceed 5.2 miles to Rte 9. Turn left on Rte 9 and proceed 1.8 miles to Rd 321. The monitoring location is at this intersection.

## ATTACHMENT 9

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<u>LOCATION</u>	<u>MILE</u>	<u>AZIMUTH</u>	<u>DESCRIPTION</u>
SSW4	3.9	203°	Drive to the Delaware Memorial Bridge and proceed 18 miles on Route 13 South to Odessa. Turn left onto Main Street/Route 299 and proceed South 6 miles to Road 453. (Route 299 turns into Route 9 and Road 453 is also known as Cedar Swamp Road). Turn left onto Road 453 and proceed 2.0 miles, the monitoring locations is on the left side of the road.
SSW7	5.6	198.5°	Drive to the Delaware Memorial Bridge and proceed 18 miles on Route 13 South to Odessa. Turn left onto Main Street/Route 299 and proceed 9 miles to Road 454. (Route 299 turns into Route 9 and Road 454 is also known as Saw Mill Branch Road). The monitoring location is at this intersection.
SSW10	9.1	203.5°	Drive to the Delaware Memorial Bridge and proceed 24 miles on Route 13 South to Road 469. (Road 469 is also known as Black Diamond Road). Turn left onto Road 469 and proceed 2 miles to Road 30 and 45. The monitoring location is at this intersection.
SSW20	11.6	199°	Drive to the Delaware Memorial Bridge and proceed 30 miles on Route 13 south to Route 6 in Symra. The monitor location is at this intersection in the back of "Wendy's" parking lot.



## ATTACHMENT 9

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<u>LOCATION</u>	<u>MILE</u>	<u>AZIMUTH</u>	<u>DESCRIPTION</u>
SW5	4.9	216°	Drive to the Delaware Memorial Bridge and proceed 18 miles on Route 13 South to Odessa. Turn left onto Main Street/Route 299 and proceed 6 miles to Road 453. (Route 299 turns into Route 9 and Road 453 is also known as Cedar Swamp Road). The monitoring location is on the pole in the front of light house.
SW7	6.0	235°	Drive to the Delaware Memorial Bridge and proceed 18 miles on Route 13 South to Odessa. Turn left onto Main Street/Route 299 and proceed 3.5 miles to Road 452. (Route 299 turns into Route 9 and Road 452 is also known as Fieldsboro Road). The monitoring location is at this intersection in the island.
SW10	9.0	230°	Drive to the Delaware Memorial Bridge and proceed 22 miles on Route 13 South to the intersection of Route 71. The monitoring location is at this intersection on the south side of Route 13 at the 2nd right of triangle.
SW20	12.3	225°	Drive to the Delaware Memorial Bridge and proceed 22.5 miles on Route 13 south to Road 471. Turn right onto Road 471 proceed 3 miles to Route 15. (Road 471 is also known as Blackbird Forest Road and Route 15, Road 47 and Vandyke Greenspring Road). Turn right and drive 1.1 miles to Dexter Corner. The monitoring location is at this intersection on pole with adjacent junction box on the North East corner.

## ATTACHMENT 9

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<u>LOCATION</u>	<u>MILE</u>	<u>AZIMUTH</u>	<u>DESCRIPTION</u>
WSW5	4.4	255°	Drive to the Delaware Memorial Bridge and proceed 18 miles on Route 13 South to Odessa. Turn left onto Main Street/Route 299 and proceed 2.6 miles to road 440. (Route 299 turns into Route 9. Proceed North on Route 9. Road 440 is also known as Thomas Landing Road). Turn right onto Road 440 and drive 0.8 miles to the end of the paved road. Monitoring location is at the end of the paved road.
WSW5a	4.2	263°	Drive to the Delaware Memorial Bridge and proceed 9 miles on Rte 13 South to Rte 72. Turn left onto Rte 72 and proceed 11.5 miles to the bridge over the Appoquinimink River. (Rte 72 turns into 9). You will pass W5 monitoring location on the North side of the bridge. Drive 0.5 miles to the monitoring location.
WSW7	6.0	252°	Drive to the Delaware Memorial Bridge and proceed 9 miles on Rte 13 South to Odessa. Monitoring location is at the Intersection of Rt 299 and Rt 9.
WSW10	9.4	239°	Drive to the Delaware Memorial Bridge and proceed 20 miles on Route 13 South to Road 25. (Road 25 is also known as Pine Tree Road). Turn right onto Road 25 and proceed 1.8 miles to the Townsend Elementary School. The monitoring location is at the school.

## ATTACHMENT 9

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<u>LOCATION</u>	<u>MILE</u>	<u>AZIMUTH</u>	<u>DESCRIPTION</u>
WSW20	11.0	242°	Drive to the Delaware Memorial Bridge and proceed 20 miles on Rte 13 South to Rd 25. (Rd 25 is also known as Pine Tree Rd). Turn right and proceed 3.0 miles to Rd 459. (Rd 459 is also known as Grears Corner Rd). The monitoring location is at this intersection.
W5	4.2	271.5°	Drive to the Delaware Memorial Bridge and proceed 9 miles on Rte 13 South to Rte 72. Turn left onto Rte 72 and proceed 11.5 miles to the bridge over the Appoquinimink River. (Rte 72 turns into 9). The monitoring location is on the North side of the bridge.
W7	6.6	264.5°	Drive to the Delaware Memorial Bridge and proceed 18 miles on Rte 13 South to Odessa. Turn left onto Main St/Rte 299. The Monitoring location is at this intersection at the Delaware State Police Station.
W10	9.9	263.5°	Drive to the Delaware Memorial Bridge and proceed 18 miles on Rte 13 South to Odessa. Go West on Rte 299 and proceed 3 miles to Middletown. Turn right onto S. Broad St/Rte 71. The monitoring location is at Middletown National Guard Armory.
W20	11.2	261.5°	Drive to the Del. Memorial Bridge and proceed 18 miles on Rte 13 South to Odessa. Turn right onto Main St/Rte 299 and proceed 4.5 miles through Middletown to Road 10 (Levels Road). The monitoring location is at the intersection.

## ATTACHMENT 9

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<u>LOCATION</u>	<u>MILE</u>	<u>AZIMUTH</u>	<u>DESCRIPTION</u>
WNW4	3.4	294°	Drive to the Delaware Memorial Bridge and proceed 9 miles on Rte 13 South to Rte 72. Turn left onto Rte 72 and proceed to Belts Rd.(Rte 72 turns into Rte 9).Turn left onto Belts Rd and proceed to the "T" in the road. Turn right on New Road South to the lighthouse gate. The monitoring location is at the gate.
WNW5	4.0	295°	Drive to the Delaware Memorial Bridge and proceed 9 miles on Rte 13 South to Rte 72. Turn left onto Rte 72 and proceed 10 miles to a sharp 90 curve to the left.(Rte 72 turns into Rte 9). The monitoring location is on the North side of the road.
WNW7	6.7	291.5°	Drive to the Delaware Memorial Bridge and proceed 14.5 miles on Rte 13 South to Rd 420 (Rd 420 is also known as Pole Bridge Rd). Turn left at light. The monitoring location is in the WAWA parking lot.
WNW10	8.5	288.5°	Drive to the Delaware Memorial Bridge and proceed 14.5 miles on Rte 13 South to Rd 15. Turn right onto Rd 15 and proceed 1.8 miles to Rd 413. (Rd 15 is also known as Boyds Corner Rd and Rd 413 is also known as Jamison Corner Rd). The monitoring location is at the intersection.

## ATTACHMENT 9

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<u>LOCATION</u>	<u>MILE</u>	<u>AZIMUTH</u>	<u>DESCRIPTION</u>
WNW20	10.4	292.5°	Drive to the Delaware Memorial Bridge and proceed 14.5 miles on Rte 13 South to Rd 15. Turn right onto Rd 15 and proceed 3.5 miles to Rte 896 /301.(Rd 15 is also known as Boyds Corner Rd).Turn right onto Rte 896 /301 and proceed 1 mile to the Summit Airport. The monitoring location is at the Summit Airport next to a ditch full of large rocks.
NW4	3.8	319.5°	Drive to the Del. Memorial Bridge & proceed 9 miles on Rte 13 South to Rte 72. Turn left onto Rte 72 & proceed 8.5 miles to Augustine Bch. (Rte 72 turns into Rte 9). The monitoring location is at Augustine Bch adjacent to sign.
NW7	5.4	312°	Drive to the Del. Memorial Bridge & proceed 14.5 miles on Rte 13 South to Rd 420 (Pole Bridge Road at Boyds Corner). Turn left onto Rd 420 & proceed 2.5 miles to the intersection of Rd 420 and Rd 2 (Port Penn Road). The monitoring location is at this intersection.
NW10	8.4	312°	Drive to the Del. Memorial Bridge & proceed 11 miles on Rte 13 South to St. Georges Bridge. The monitoring location is on the pole prior to the last exit before going onto the bridge.
NW20	11.5	310°	Drive to the Del. Memorial Bridge & proceed 6 miles on Rte 13 South to Rte 71 (Red Lion Road). Bear right onto Rte 71 & proceed 4.5 miles to the intersection of Rd 409. (Rd 409 is also known as Kirkwood St. Georges Rd). The monitoring location is on the south side of RR tracks next to RR signal.

## ATTACHMENT 9

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<u>LOCATION</u>	<u>MILE</u>	<u>AZIMUTH</u>	<u>DESCRIPTION</u>
NNW5	4.0	328°	Drive to the Del. Memorial Bridge & proceed 9 miles on Rte 13 South to Rte 72. Turn left onto Rte 72 and proceed 7.5 miles to the small bridge just south of Port Penn.(Rte 72 turns into Rte 9.) Turn left just prior to the bridge (Fishers Wharf Road) & proceed 0.2 miles to the end of the road. The monitoring location is at the end of the road in front of the sewage plant where an air sampler is located. (NOTE: Map location is wrong. Correction location is about one inch south on map on Rte. 9).
NNW7	5.2	332.5°	Drive to the Delaware Memorial Bridge and proceed 9 miles on Route 13 South to Route 72. Turn left onto Route 72 and proceed 6.5 miles to Thorntown Road intersection.(Route 72 turns into Route 9. The monitoring location is on the river side at this intersection at the entrance to the Port Penn Trail.
NNW10	7.8	342°	Drive to the Delaware Memorial Bridge and proceed 9 miles on Route 13 South to Route 72. Turn left onto Route 72 and proceed 4 miles to Delaware City.(Route 72 turns into Route 9). Cross over the small bridge and turn right at the first road.(Follow the signs to the Delaware National Armory/Governor Bacon Health Center). Turn left at the first road and proceed 0.4 miles to the end of the road. The monitoring location is in the front of the DNREC Operations Center, East of blue garage.

## ATTACHMENT 9

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<u>LOCATION</u>	<u>MILE</u>	<u>AZIMUTH</u>	<u>DESCRIPTION</u>
NNW20	12.3	331°	From Delaware Memorial Bridge take Route 13 South (Delaware) 7.6 miles to Bear-Tybouts Road and make a left. The monitoring point is at the North East Corner of Park & Ride at the light.

**ATTACHMENT 10**

Page 1 of 2

**PACKAGE INSERT FOR THYRO-BLOCK TABLETS****1.0 HOW POTASSIUM IODIDE WORKS**

- Certain forms of iodine help your thyroid gland work right. Most people get the iodine they need from foods, like iodized salt or fish. The thyroid can "store" or hold only a certain amount of iodine.
- In a radiation emergency, radioactive iodine may be released in the air. This material may be breathed or swallowed. It may enter the thyroid gland and damage it. The damage would probably not show itself for years. Children are most likely to have thyroid damage.
- If you take potassium iodide, it will fill your thyroid gland. This reduces the chance that harmful radioactive iodine will enter the thyroid gland.

**2.0 WHO SHOULD NOT TAKE POTASSIUM IODIDE****NOTE**

You may take potassium iodide if you are taking medicine for a thyroid problem (for example, a thyroid hormone or anti-thyroid drug). Pregnant and nursing women, babies and children may also take potassium iodide.

**2.1 People who should not take potassium iodide are:**

- People who are allergic to iodine.
- People with kidney problems.
- Persons on certain high blood pressure medications (ACE Inhibitors).

**3.0 HOW AND WHEN TO TAKE POTASSIUM IODIDE**

Potassium Iodide should be taken as soon as possible after being directed to. You should take one dose every 24 hours. More will not help you because the thyroid can "hold" only limited amounts of iodine. Larger doses will increase the risk of side effects. You will probably be told not to take the drug for more than ten days.



**ATTACHMENT 10****Page 2 of 2****4.0 SIDE EFFECTS**

- Usually, side effects of potassium iodide happen when people take higher doses for a long time. You should be careful not to take more than the recommended dose or take it for longer than you are told. Side effects are unlikely because of the low dose and the short time you will be taking the drug.
- Possible side effects include skin rashes, swelling of the salivary glands, and "iodine" (metallic taste, burning mouth and throat, sore teeth and gums, symptoms of a head cold, and some times stomach upset and diarrhea).
- A few people have an allergic reaction with more serious symptoms. These could be fever and joint pains, or swelling of parts of the face and body and at times severe shortness of breath requiring immediate medical attention.
- Taking iodine may rarely cause overactivity of the thyroid gland, underactivity of the thyroid gland or enlargement of the thyroid gland (goiter).

**5.0 WHAT TO DO IF SIDE EFFECTS OCCUR**

If the side effects are severe or if you have an allergic reaction, stop taking potassium iodide and call a doctor.

## FORM – 1

Page 1 of 1

## OFFSITE CALCULATIONS FORM

1.0 Offsite Calculations Form

Person Performing Calculations : \_\_\_\_\_ / \_\_\_\_\_ Date: \_\_\_\_\_  
(Print/Sign)

- 1.1. Go to Section 2.0 of Attachment 4 for data to perform calculations.
- 1.2. Subtract step 2.1.6 from step 2.1.5 and Multiply that value by the beta correction factor of 5 for the mRad/hr and record below:  
\_\_\_\_\_ mRad/hr.  
(Gen. Area)
- 1.3. Subtract step 2.1.8. from step 2.1.7 and multiply that value by the beta correction factor of 5 for the mRad/hr.and record below:  
\_\_\_\_\_ mRad/hr.  
(Ground)
- 1.4. Subtract step 2.1.11 from step 2.1.12 for the corrected counts per minute (ccpm) for particulate samples and record below:  
\_\_\_\_\_ ccpm.
- 1.5. Calculate the particulate uCi/cc IAW Attachment 5, Air Activity vs. Count Rate Table, or IAW Attachment 6, Air Activity vs. Dose Rate Table and record below:  
\_\_\_\_\_ uCi/cc.
- 1.6. Subtract step 2.1.13 from step 2.1.14 for the corrected counts per minute (ccpm) for iodine samples and record below:  
\_\_\_\_\_ ccpm.
- 1.7. Calculate the iodine uCi/cc IAW Attachment 7, Direct Conversion Per Minute to uCi/cc for I-131 and record below:  
\_\_\_\_\_ uCi/cc.

## FORM - 2

PAGE 1 OF 1

## FIELD SAMPLING FORM

Communicate Data by Column Number:

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

Column	1	2	3	4	5	6	7	8	9	10	11	12	13
TIME	TEAM NAME	LOCATION	OPEN WINDOW GRD (mR/hr)	CLOSED WINDOW GRD (mR/hr)	OPEN WINDOW GA (mR/hr)	CLOSED WINDOW GA (mR/hr)	CART. READING (cpm)	CART. Background (cpm)	PART. READING (cpm)	PART. Background (cpm)	Air Sample ON	Air Sample OFF	Air Sample Flowrate (cfm)

## FORM - 3

Page 1 of 1

## DOSIMETRY LOG

NAME	DOSIMETER NUMBER	BADGE NUMBER	ISSUED DATE	RTN DATE	INITIAL VALUE (mRem)	END VALUE (mRem)	TOTAL DOSE (mRem)

## FORM – 4

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## FIELD MONITORING/CREST DATA vs. PROJECTED DATA

LOCATION DESIGNATION	CREST DESIGNATION	METER READING (mR/hr)	PROJECTED TEDE RATE (mR/hr)

## FORM - 5

Page 1 of 2

## KI SIDE EFFECTS/ADMINISTRATION SIGN OFF FORM

AUTHORIZED BY: \_\_\_\_\_

ADMINISTERED BY: \_\_\_\_\_

My signature indicates that I have read and understand Pages 1 & 2 of Attachment 10, Package Insert For Thyroid-Block Tablets.

PRINT NAME	SOCIAL SEC. NO.	INDIVIDUAL'S SIGNATURE	DATE/TIME	COMMENTS

## FORM - 5

Page 2 of 2

NAME OF INDIVIDUAL	BADGE NUMBER	KI DOSAGE	AUTHORIZED BY DATE/TIME	ADMINISTERED BY DATE/TIME	COMMENTS

## FORM - 6

Page 1 of 3

## FIELD MONITORING TEAM BRIEFING FORM

## 1.0 TEAM BRIEFING FORM

OTC/FTC \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_  
 (PRINT) (SIGN) (DATE)

Event Classification/Time: \_\_\_\_\_ / \_\_\_\_\_

Plant Conditions: \_\_\_\_\_

Wind Direction: (Expected Plume Direction)

- From: \_\_\_\_\_ (Degrees) To: \_\_\_\_\_ (Degrees)
- From: \_\_\_\_\_ To: \_\_\_\_\_

Specific Monitoring Location(s) (If Applicable)

- From: \_\_\_\_\_ To: \_\_\_\_\_  
 (Landmarks if Applicable)

Initial Areas or Locations To Be Surveyed: (Refer to Onsite  
 Emergency Monitoring Locations Map or 10 Mile EPZ map located  
 in the Field Monitoring Kit, as appropriate).

Wind Speed: \_\_\_\_\_ (MPH)



FORM – 6

Page 2 of 3

Protective Clothing Requirements: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**NOTE**

Ensure Field Monitoring Team members are respirator qualified prior to instructing them to wear respirators.

Respiratory Protection Requirements: \_\_\_\_\_

\_\_\_\_\_

Additional Specific Radiological Concerns: \_\_\_\_\_

\_\_\_\_\_

**Phonetic Alphabet Name for Offsite Team Leader and Members of the Field Monitoring Team:**

- **Alpha Team:** Name of Team Leader: \_\_\_\_\_  
Name of Team Member: \_\_\_\_\_
- **Bravo Team:** Name of Team Leader: \_\_\_\_\_  
Name of Team Member: \_\_\_\_\_
- **Charlie Team:** Name of Team Leader: \_\_\_\_\_  
Name of Team Member: \_\_\_\_\_

