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PRC NC.EP-EP.ZZ-0309 000	3	A	1	H	138042
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PSEG NUCLEAR
ON-SITE IMPLEMENTING PROCEDURES
May 21, 2002

CHANGE PAGES FOR
REVISION #23

The Table of Contents forms a general guide to the current revision of each section of the Onsite EPEPs. The changes that are made in this TOC Revision #23 are shown below. Please check that your revision packet is complete and remove the outdated material listed below:

ADD			REMOVE		
Page	Description	Rev.	Page	Description	Rev.
ALL	TOC	23	ALL	TOC	22
NC.EP-EP.ZZ-0309		03	NC.EP-EP.ZZ-0309		02
NC.EP-EP.ZZ-0313		00			

313 is a new procedure. Salem facilities should use the Green 313 tab, Hope Creek facilities should use the Blue tab. Common facilities may use either color tab.

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EMERGENCY PLAN ONSITE IMPLEMENTING PROCEDURES
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NC.EP-EP.ZZ-0101(Q)	ACTIONS REQUIRED AT UNAFFECTED STATION	01	15	12/18/2001
NC.EP-EP.ZZ-0102(Q)	EMERGENCY COORDINATOR RESPONSE	04	22	11/09/2001
NC.EP-EP.ZZ-0201(Q)	TSC - INTEGRATED ENGINEERING RESPONSE	04	23	02/06/2002
NC.EP-EP.ZZ-0202(Q)	OPERATIONS SUPPORT CENTER (OSC) ACTIVATION AND OPERATIONS	04	28	03/14/2002
NC.EP-EP.ZZ-0203(Q)	ADMINISTRATIVE SUPPORT/ COMMUNICATION TEAM RESPONSE - TSC	03	15	03/14/2002
EPIP 204H	EMERGENCY RESPONSE CALLOUT/PERSONNEL RECALL	55	27	02/28/2002
EPIP 204S	EMERGENCY RESPONSE CALLOUT/PERSONNEL RECALL	55	26	02/28/2002
HC.EP-EP.ZZ-0205(Q)	TSC - POST ACCIDENT CORE DAMAGE ASSESSMENT	03	39	02/06/2002
SC.EP-EP.ZZ-0205(Q)	TSC - POST ACCIDENT CORE DAMAGE ASSESSMENT	02	82	02/06/2002
HC.EP-EP.ZZ-0301(Q)	SHIFT RADIATION PROTECTION TECHNICIAN RESPONSE	02	21	05/24/2001
SC.EP-EP.ZZ-0301(Q)	SHIFT RADIATION PROTECTION TECHNICIAN RESPONSE	03	35	05/24/2001

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NC.EP-EP.ZZ-0302 (Q)	RADIOLOGICAL ASSESSMENT COORDINATOR RESPONSE	04	19	05/24/2001
NC.EP-EP.ZZ-0303 (Q)	CONTROL POINT - RADIATION PROTECTION RESPONSE	01	25	09/14/2000
NC.EP-EP.ZZ-0304 (Q)	OPERATIONS SUPPORT CENTER (OSC) RADIATION PROTECTION RESPONSE	05	22	03/19/2002
NC.EP-EP.ZZ-0305 (Q)	POTASSIUM IODIDE (KI) ADMINISTRATION	00	10	02/29/2000
NC.EP-EP.ZZ-0306 (Q)	EMERGENCY AIR SAMPLING	00	12	02/29/2000
NC.EP-EP.ZZ-0307 (Q)	PLANT VENT SAMPLING	01	13	03/14/2002
NC.EP-EP.ZZ-0308 (Q)	PERSONNEL/VEHICLE SURVEY AND DECONTAMINATION	00	16	02/29/2000
NC.EP-EP.ZZ-0309 (Q)	DOSE ASSESSMENT (MIDAS) INSTRUCTIONS	03	44	05/21/2002
NC.EP-EP.ZZ-0310 (Q)	RADIATION PROTECTION SUPERVISOR - OFFSITE AND FIELD MONITORING TEAM RESPONSE	03	47	05/24/2001
NC.EP-EP.ZZ-0311 (Q)	CONTROL POINT - CHEMISTRY RESPONSE	01	17	01/09/2001
NC.EP-EP.ZZ-0312 (Q)	CHEMISTRY SUPERVISOR - CP/TSC RESPONSE	02	25	01/09/2001
NC.EP-EP.ZZ-0313 (Q)	ADVANCED DOSE ASSESSMENT (MIDAS) INSTRUCTIONS	00	39	05/21/2002

NC.EP-EP.ZZ-0309 (Q) Rev. 03

DOSE ASSESSMENT (MIDAS) INSTRUCTIONS

USE CATEGORY: II

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REVISION SUMMARY:

1. This revision satisfies the requirement for a biennial review.
2. This procedure consists of the standard instructions to perform dose assessment (MIDAS). The advanced MIDAS instructions that previously were contained in NC.EP-EP.ZZ-0309(Q) were moved to a separate procedure [NC.EP-EP.ZZ-0313(Q)]. Portions of this procedure were reformatted due to the removal of the advanced instructions and to enhance the user friendliness of this procedure. No revision bars were used, due to the extensive reformatting.
3. Steps 5.6.16 and 5.7.31.N were revised to tell the user to enter 20 for ambient temperature, since MIDAS does not use this value during dose assessment calculations.
4. Notes were added to sections 5.6 and 5.7 to tell the user to use 1.0 for the default DT300, if the delta t is not available.
5. Editorial and typographical corrections were made during this revision of the procedure.

IMPLEMENTATION REQUIREMENTS

Procedure Implementation Date: 5-21-2002

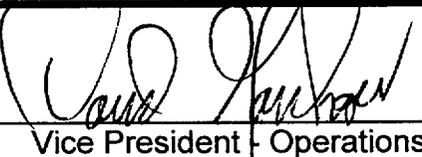
APPROVED:



EP Manager

5/16/02
Date

APPROVED:



Vice President - Operations

5/16/02
Date

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1.0 **PURPOSE**

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

2.0 **PREREQUISITES**

2.1 **Prerequisites to be Followed Prior to Implementing This Procedure**

Implement this procedure:

- Upon the declaration of an Unusual Event or higher emergency classification.
- At the request of the Operation Superintendent (OS).
- At the request of the Emergency Duty Officer (EDO).
- At the request of the Radiation Protection Duty Supervisor (RPDS) or Shift Radiation Protection Technician (SRPT).
- IAW HC.RP-AR.SP-0001(Q), Radiation Monitoring System Gaseous Monitor Alarm Response.

3.0 **PRECAUTIONS AND LIMITATIONS**

3.1 **Precautions and Limitations to be Followed Prior to Implementing this Procedure:**

3.1.1 **Sections/Steps in this procedure may be performed in the order deemed appropriate for the emergency situation. Only Sections/Steps that are applicable to the specific MIDAS dose assessment mode of operation that is being performed need to be followed.**

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 This procedure is limited to performance of basic dose assessment calculations (Automatic Mode, Manual Mode, and Isotopic Mode)

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

4.0 **EQUIPMENT REQUIRED**

Necessary equipment is provided in the Emergency Response Facilities.

5.0 **PROCEDURE**

NOTE

- Dose Assessment should be performed using 10 or 15-minute average RMS and Meteorological data, unless circumstances in Section 5.2 are met.
- Attachment 1, Operating Instructions for the VAX LA120 Terminal, should be referred to for directions on operating the VAX LA120.
- Attachment 2, Operating Instructions for Salem SPDS Radiological Screens, should be referred to for directions concerning operating the SPDS radiological screens, including the RM and RML Screens.

5.1 **Sign-on Instructions For MIDAS**

- 5.1.1 DEPRESS the **POWER** button. (The Microsoft Windows NT Screen will appear with a Begin Logon box displayed. The command inside the box will read, Press Ctrl + Alt + Delete to logon). _____
- 5.1.2 DEPRESS the **Ctrl, Alt, Delete** keys simultaneously. (The Logon Information box will be displayed with lines to enter User name and Password). _____
- 5.1.3 INPUT **midas** into the User name line. _____
- 5.1.4 INPUT **midas** into the Password line and depress the **RETURN** key. _____
- 5.1.5 POSITION the cursor on the **Midas** Icon and click the mouse twice. (The MIDAS unit selection screen will be displayed). _____
- 5.1.6 POSITION the mouse cursor **+** over the box of your selection (**Hope Creek, Salem Unit 1, or Salem Unit 2**) and click the mouse once. (Your selection will become highlighted). _____
- 5.1.7 POSITION the cursor over the **CONFIRM** box and click the mouse once. (The Function Selection screen will appear). _____

5.1.8 SELECT the appropriate Section for type of dose assessment mode from list below:

- Refer to **Section 5.2** to perform Dose Assessment **When Plant Vent Effluent Monitors Increase By A Factor of > 10.** _____

- Refer to **Section 5.3** for guidance concerning **Preplanned Alternate Methods** to perform Dose Assessment. _____

- Refer to **Section 5.4** for **Common MIDAS Commands:**
 - **Change Date and/or Time.** _____

 - **Exit MIDAS Utilizing CTRL, ALT, DELETE Keys.** _____

 - **Print a Screen, Report, Map, or an additional SSCL.** _____

- Refer to **Section 5.5** to perform Dose Assessment in **Automatic Mode.** _____

- Refer to **Section 5.6** to perform Dose Assessment in **Manual Mode.** _____

- Refer to **Section 5.7** to perform Dose Assessment in **Isotopic Mode.** _____

- Refer to **Section 5.8** to perform **Manipulate Maps Screens and Print Out a Map.** _____

- Refer to **Attachment 1** for **Operating Instructions for the VAX LA120 Terminal.** _____

- Refer to **Attachment 2** for **Operating Instructions for SALEM SPDS Radiological Screens.** _____

5.2 **Performance of Dose Assessment When Plant Vent Effluent Monitors Increase by a Factor of Greater Than Or Equal to ≥ 10 :**

NOTE

Salem and Hope Creek Plant Vent Effluent Monitors are:

- **SALEM PLANT VENT EFFLUENT MONITORS**
 - ◆ Unit 1 or 2 R41 A, B, C
 - ◆ Unit 1 or 2 R45 B, C
- **HOPE CREEK PLANT VENT EFFLUENT MONITORS**
 - ◆ SPV – 9RX606, 9RX607, 9RX581
 - ◆ NPV – 9RX602, 9RX603, 9RX591
 - ◆ FRVSV – 9RX640, 9RX610, 9RX611
 - ◆ HTV – 9RX516, 9RX517

5.2.1 IF any Plant Vent Effluent Monitor(s) increase by a factor of 10 or more, THEN perform the following:

- A. PERFORM dose assessment calculations in the manual mode using instantaneous value(s) In Accordance With (IAW) Section 5.6 of this procedure.
- B. WRITE on top of the Station Status Checklist Page 2 (SSCL), **"RELEASE RATE CALCULATED FROM INSTANTANEOUS MONITOR VALUES."**
- C. RECOMMEND radiological PARs using the SSCL, IAW SC.EP-EP.ZZ-0301(Q), HC.EP-EP.ZZ-0301(Q), OR NC.EP-EP.ZZ-0602(Q), as appropriate.
- D. ADVISE the appropriate person (OS, RAC, RSM) that, **"The SSCL and radiological PAR (if any) was calculated from instantaneous Plant Vent data and may not reflect actual radiological conditions. An additional SSCL will be forth coming in approximately 20 minutes."**

- E. PERFORM another dose assessment in approximately 15 to 20 minutes using 10 or 15-minute average data. _____

- F. Provide the SSCL and radiological PAR, if applicable, to the appropriate person (OS, RAC, RSM). _____

5.3 Preplanned Alternative Guidance

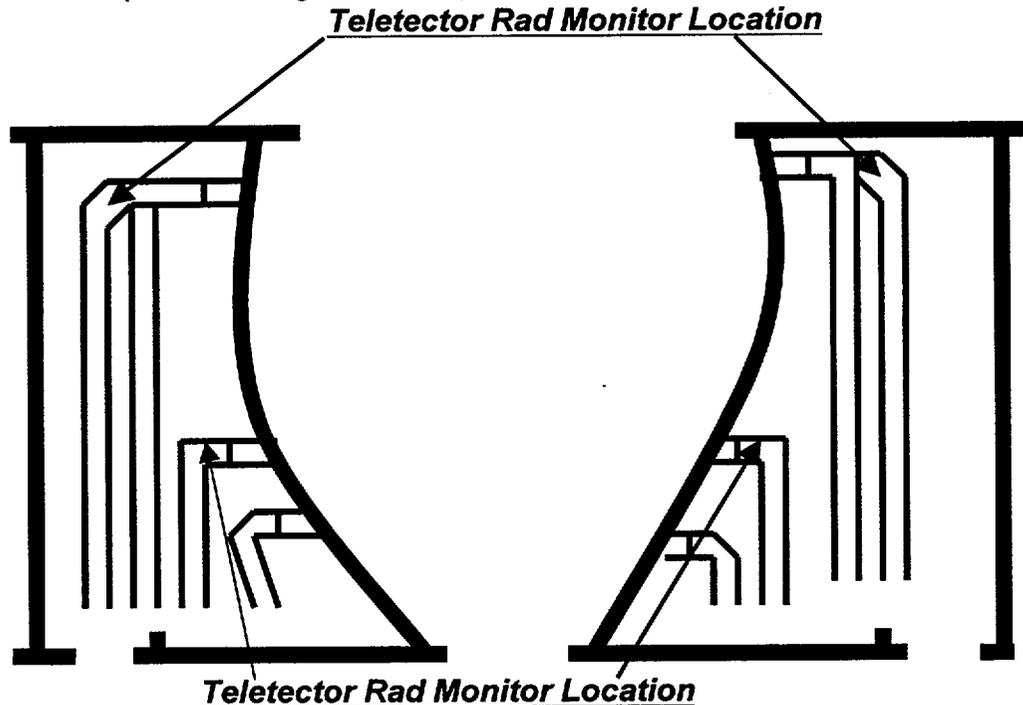
NOTE

SALEM UNIT 1/2 ONLY

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

5.3.1 PERFORM the appropriate steps listed below, to calculate a SSCL, when the normal method to perform dose assessment at SALEM UNIT 1 and/or SALEM UNIT 2 is NOT possible:

- A. IMPLEMENT Section 5.6, to perform dose assessment calculations using Main Steam Line (MSL) Teletector Readings. All contact teletector readings on the MSLs should be obtained on the curve of the line prior to the MSIV. (See the diagram below).



MAIN STEAM LINES 12, 14, 22, 24 ARE FOUND IN THE OUTSIDE PIPING PENETRATIONS.

MAIN STEAM LINES 11, 13, 21, 23 ARE ACCESSIBLE BY WAY OF THE CHILLER ROOMS AND ARE LOCATED IN THE INNER PIPE PENETRATIONS.

B. IMPLEMENT **Section 5.6**, to perform dose assessment calculations based on the **R45 monitor values**. _____

C. PERFORM steps 1 and 2 for Salem Unit 1/2 to calculate a value using the **R16 monitor** that can be used by MIDAS to perform dose assessment calculations, if the 1/2 R41A monitor is not operational. _____

1 DIVIDE the R16 value by 3.55E+07 to calculate a uCi/cc value. This calculated value will be used in MIDAS to perform a dose assessment calculation. _____

$$\frac{\text{_____ (cpm)}}{3.55E+07 \text{ (cpm/uCi/cc)}} = \text{_____ uCi/cc}$$

2 INPUT the uCi/cc value into MIDAS under the R45 monitor header using **Manual MIDAS Mode (Section 5.6)**. _____

5.3.2 IF **ISOTOPIC DATA** is available, THEN IMPLEMENT **Section 5.7**, to perform dose assessment calculations based on isotopic sample values for Hope Creek, Salem Unit 1, or Salem Unit 2. _____

5.4 Common Commands For MIDAS

5.4.1 PERFORM the following steps to change the DATE and/or TIME for the PC based MIDAS dose assessment system for Hope Creek, Salem Unit 1, and Salem Unit 2:

- A. **POWER UP** the computer. (The Microsoft Windows NT Screen will appear with a Begin Logon box displayed. The command inside the box will read: Press Ctrl + Alt + Delete to logon). _____
- B. **DEPRESS** the **Ctrl, Alt, Delete** keys simultaneously. (The Logon Information box will be displayed with blanks to enter User name and Password). _____
- C. **INPUT admin** into the User name blank. _____
- D. **INPUT secret** into the Password blank and depress the **RETURN** key. (The Main Windows screen will be displayed with several icons. The CAPTURE Eze97 screen will appear momentarily, while it loads and then be displayed in a box in the lower left hand corner next to the Start box). _____
- E. **POSITION** the cursor over the **MY COMPUTER** icon and double click the mouse. (The MY COMPUTER box will be displayed with different icons in the box). _____
- F. **POSITION** the cursor over the **CONTROL PANEL** icon and double click the mouse. (The DATE/TIME icon will be displayed with several other icons). _____
- G. **Position** the cursor over the **DATE/TIME** icon and double click the mouse. (The DATE/TIME PROPERTIES screen will be displayed with the current month, date, and time highlighted). _____
- H. **IF** the DATE/TIME Properties screen is not displayed, **THEN POSITION** the cursor over the **DATE & TIME** file and click the mouse once. _____
- I. **POSITION** the cursor on the **DOWN ARROW** adjacent to the month, and click the mouse once. _____
- J. **PERFORM** the following to change the **MONTH**:
 - **POSITION** the cursor over the appropriate month and click the mouse once. _____

- K. PERFORM the following to change the **YEAR**:
- POSITION the cursor on the **UP or DOWN ARROW** next to the **CURRENT YEAR** box and click the mouse until the appropriate year is displayed. _____
- L. PERFORM the following to change the **CALENDAR DATE**:
- POSITION the cursor on the **CALENDAR DATE** you wish to change and click the mouse once. _____
- M. PERFORM the following to change the **CURRENT HOUR**:
- POSITION the cursor to the left side of the **CURRENT HOUR** that is displayed in the time box, and click the mouse until the appropriate hour is displayed.
[EXAMPLE: For 12:15:30 it would look like 12I:15:30. (I is the cursor)]. _____
- N. PERFORM the following to change the **CURRENT MINUTE**:
- POSITION the cursor to the left side of the **CURRENT MINUTE** that is displayed in the time box, and click the mouse until the appropriate minute is displayed.
[EXAMPLE: For 12:15:30 it would look like 12:15I:30.(I is the cursor)]. _____
- O. PERFORM the following to change the **CURRENT SECOND**:
- POSITION the cursor to the left side of the **CURRENT SECOND** that is displayed in the time box, and click the mouse until the appropriate minute is displayed.
[EXAMPLE: For 12:15:30 it would look like 12:15:30I. (I is the cursor)]. _____
- P. PERFORM the following to change from **PM to AM or AM to PM**:
- POSITION the cursor on the displayed **AM/PM** and click the mouse once. Use the **UP or DOWN ARROW** adjacent to the time box to change the **AM/PM** by clicking the mouse once. _____

Q. PERFORM the following to **APPLY THE CHANGES, EXIT OUT OF THIS MODE, AND RUN MIDAS:**

1. POSITION the cursor on the **APPLY** box and click the mouse once. _____
2. POSITION the cursor on the **OK** box and click the mouse once. _____
3. POSITION the cursor over the **X** located in the upper right hand corner of the **CONTROL PANEL** box and click the mouse once. _____
4. POSITION the cursor over the **X** located in the upper right hand corner of the **MY COMPUTER** box and click the mouse once. _____
5. POSITION the cursor on the **START** and click the mouse once. (The **WINDOWS NT WORKSTATION** box will be displayed). _____
6. POSITION the cursor on the **SHUT DOWN** box and click the mouse once. (The **SHUT DOWN WINDOWS** box will be displayed). _____
7. POSITION the cursor on the close **ALL PROGRAMS and LOG ON AS A DIFFERENT USER** circle and click the mouse once. (The circle will become filled in). _____
8. POSITION the cursor over the **YES** box and click the mouse once. (The computer will start to close all programs. The **BEGIN LOGON** box will appear). _____
9. DEPRESS the **Ctrl, Alt, Delete** keys simultaneously. (The Logon Information box will be displayed with lines to enter User name and Password). _____
10. INPUT **midas** into the User name line. _____
11. INPUT **midas** into the Password line and depress the **RETURN/ENTER** key. _____
12. POSITION the cursor over the **Midas** icon and double click the mouse. (The **MIDAS Program** will start). _____

5.4.2 PERFORM the following steps to **EXIT MIDAS** using **CTRL, ALT, and DELETE** keys for Hope Creek, Salem Unit 1, and Salem Unit 2:

- A. DEPRESS the **CTRL, ALT, and Delete** keys simultaneously. (The Windows NT Security box will be displayed). _____
- B. MOVE the cursor to the **Shut Down** box and click the mouse once. (The Shutdown Computer box will be displayed with the Shutdown circle filled in). _____
- C. MOVE cursor to the **OK** box and click the mouse once. (The MIDAS – FROZEN box will be displayed). _____
- D. MOVE the cursor to the **End Task** box and click the mouse once. The computer will begin to restart. (All data inputted and dose assessment calculations will be lost). _____
- E. POSITION the cursor over the **RESET** box and click the mouse once to reset data that is displayed in a data box. _____

NOTE

- The Station Status Checklist (SSCL) will printout automatically after the dose assessment calculations have finished.
- Step 5.4.3 provides instructions for using the SSCL Box to print an additional SSCL.
- Step 5.4.3 provides instructions for using the SSCL Box to print a SSCL to the screen, if the printer is malfunctioning. A blank SSCL page 2 can be found in ECG Attachment 8 or obtained from Communicator Number 2.

5.4.3 PERFORM the following to **PRINT A SSCL**.

- A. POSITION the cursor to the **SSCL Box** located on the **Reports Screen**. _____
- B. CLICK the mouse. The latest SSCL will be printed to the screen and the printer. _____

5.4.4 PERFORM the following to PRINT A SCREEN, REPORT, OR MAP:

A. DEPRESS ALT + ENTER _____

B. DEPRESS PRINT SCREEN keys. _____

C. DEPRESS the ALT + ENTER keys to
EXIT the print option and to continue with normal MIDAS
operation. _____

5.5 **PERFORM THE FOLLOWING TO PRODUCE A SSCL PAGE 2 USING THE AUTOMATIC DOSE ASSESSMENT MODE**

NOTE

- IF at any time while performing Automatic Data Acquisition, the following appears on the screen:

**NO RESPONSE FROM DADIS – (HOPE CREEK/SALEM) TO DADIS DATA COLLECTION FROM DADIS WAS TERMINATED
ENTER OPTION: [YE] TRY DATA COLLECTION AGAIN
[NO] PROCEED WITH MANUAL ENTRY**

Respond in the following manner:

Select YE. IF the above message appears again, Select NO and proceed with data entry IAW Section 5.6.

- Dose Assessment MIDAS in automatic mode will not function correctly unless all appropriate Plant Vent Effluent monitor(s) and the Meteorological data are operational. Section 5.6 of this procedure should be used, if the appropriate Plant Vent Monitoring data point(s) or the Meteorological data point(s) are **NOT** available.

- 5.5.1 POSITION the cursor over **ACCIDENT DOSE CALCULATIONS (AC)** box and click the mouse once. (Your selection will become highlighted). _____
- 5.5.2 POSITION the cursor over the **CONFIRM** box and click the mouse once. (It will become highlighted and the Accident Dose Calculations (AC) screen will appear). _____
- 5.5.3 POSITION the cursor over the **Quick Dose Projection AUTO REAL TIME (Menu A)** box and click the mouse once. (Your selection will become highlighted). _____
- 5.5.4 POSITION the cursor over the **CONFIRM** box and click the mouse once. MIDAS will start to perform dose assessment calculations. (The calculating screen will appear. The SSCL will automatically printout and the 10-mile map will appear on the screen). _____
- 5.5.5 POSITION the cursor to the **CONTINUE** box on the bottom of the screen and click the mouse once. (The **NEXT REPORT** box will replace the **CONTINUE** box). _____

5.5.6 POSITION the cursor over the **NEXT REPORT** box and click the mouse once. (The **MORE REPORTS** box will replace the **NEXT REPORT** box). _____

5.5.7 POSITION the cursor over the **MORE REPORTS** box and click the mouse once. (The More Reports Selection screen will appear). _____

NOTE

- Step 5.5.8 provides instructions for utilizing the SSCL Box to print a SSCL to the screen, if the printer is malfunctioning.
- Step 5.5.8 provides instructions for utilizing the SSCL Box to print an additional SSCL.
- A blank SSCL page 2 can be found in ECG Attachment 8 or obtained from Communicator 2.

5.5.8 IF a SSCL needs be printed to the screen or an additional SSCL printed out, THEN:

A. POSITION the cursor over the **SSCL Box** and click the mouse once. _____

B. POSITION the cursor over the **CONFIRM** box and click the mouse once. (The SSCL will be printed to the screen, and if the printer is functioning, an additional SSCL will be printed out). _____

5.5.9 POSITION the cursor over the **EXIT** box and click the mouse once. (The box will become highlighted). _____

5.5.10 CLICK the mouse again. (The Function Selection screen will appear). _____

5.5.11 IF another dose assessment calculation and SSCL is needed, THEN REPEAT steps 5.5.1 through 5.5.9. _____

5.5.12 IF you need to exit the MIDAS program, THEN:

A. POSITION the cursor over the **EXIT** box and click the mouse twice. (The Unit Selection screen will appear). _____

B. POSITION the cursor over the **EXIT** box, click the mouse twice. _____

5.6 **PERFORM THE FOLLOWING TO PRODUCE A SSCL
PAGE 2 USING THE MANUAL DOSE ASSESSMENT
MODE**

NOTE

Manual Mode Dose Assessment, should be performed IF:

- A Plant Vent Effluent monitor is not operational.
- A surveillance of the Plant Vent Effluent monitor is ongoing.
- Automatic radiological data acquisition is not operational.
- Automatic meteorological data acquisition is not operational.
- To input the total isotopic noble gas and iodine 131 value.

- 5.6.1 POSITION the cursor over the **ACCIDENT DOSE CALCULATIONS (AC)** box and click the mouse once. (Your selection will become highlighted). _____
- 5.6.2 POSITION the cursor over the **CONFIRM** box and click the mouse once. (Your selection will become highlighted and the Accident Dose Calculations (AC) screen will appear). _____
- 5.6.3 POSITION the cursor over **MANUAL ENTRY ON SPREADSHEET (MENU C)** and click the mouse once. Your selection will become highlighted. _____
- 5.6.4 POSITION the cursor over the **CONFIRM** box and click the mouse once. (The box will become highlighted and the Scenario Data Table Control screen will appear). _____
- 5.6.5 SELECT the **appropriate box** by referring to the below guidance, And, position the cursor in that box:
- IF this is the first initial input or the first input after a radiological release \geq technical specifications, THEN SELECT **START NEW SCENARIO** box and click the mouse once. (The **START NEW SCENARIO** and **WARNING CURRENT DATA WILL BE ERASED** boxes will become highlighted). _____
 - IF this is updating dose assessment calculations, THEN SELECT **CURRENT SCENARIO EDIT** box and click the mouse once. (The **CURRENT SCENARIO EDIT** box will become highlighted). _____

- IF a previous dose assessment run has been calculated by MIDAS, and the user wishes to view the plume map from that previous run and **NOT** obtain a **VALID SSCL**, THEN **SELECT CURRENT SCENARIO NO EDIT** box and click the mouse once. (The **CURRENT SCENARIO NO EDIT** box will become highlighted).

NOTE

15-minute average Meteorological conditions should be inputted every 15 minutes. (MIDAS will treat the release as a puff release that lasted only 15 minutes, if appropriate 15-minute increments are not inputted).

- 5.6.6 **POSITION** the cursor over the **CONFIRM** box and click the mouse once. (The box will become highlighted and the Meteorological Spread Sheet screen will appear with the current time highlighted. A blue rectangle will be displayed under the **SPD33P (MPH)** column).

NOTE

The 300 foot wind speed should be used for the 33 foot wind speed, if the 33 foot wind speed is not available.

- 5.6.7 **MOVE** the blue rectangle down the **SPD33 (MPH)** column until it is next to the highlighted time using the down arrow key.
- 5.6.8 **INPUT appropriate data** for the 33 foot elevation wind speed.

NOTE

The 33 foot wind speed should be used for the 300 foot wind speed, if the 300 foot wind speed is not available.

- 5.6.9 **MOVE** the blue rectangle over to the **SPD300 (MPH)** column using the right arrow key.
- 5.6.10 **INPUT appropriate data** for the 300 foot elevation wind speed.
- 5.6.11 **MOVE** the blue rectangle over to the **DIR33P (DEG)** using the right right arrow key.

5.6.12 INPUT **appropriate data** for the 33 foot elevation wind direction. _____

NOTE

The Default Value of one (1.0) should be used for DT300, if the delta t data is not available. This will produce an "E" stability class.

5.6.13 MOVE the blue rectangle over to the **DT300 (DEG C)** using the right arrow key. _____

5.6.14 INPUT **appropriate data** for the 300 - 33 foot delta temperature. _____

NOTE

MIDAS does not use the value for the ambient temperature. Twenty (20) degrees should be used for ambient temperature.

5.6.15 MOVE the blue rectangle over to the **TEM33 (DEG C)** using the right arrow key to input the ambient temperature. _____

5.6.16 INPUT **20** for the ambient temperature. _____

5.6.17 MOVE the blue rectangle over to the **RAINFL (IN)** using the right arrow key. _____

5.6.18 INPUT **appropriate data for the 15-minute average rainfall.**
(The values 0.08 for Heavy, 0.02 for Moderate, and 0.01 for Light, rainfall may be used if actual rainfall in inches is not known). _____

5.6.19 DEPRESS the **ENTER** key. _____

5.6.20 IF all inputs are correct, THEN Depress the **X** key. (The Gaseous Vent and Flow screen will appear with the current time highlighted). _____

5.6.21 IF all inputs are **NOT** correct, THEN use the arrow keys to go back to the appropriate column(s) and input correct data and depress the **X** key. (The Gaseous Vent and Flow screen will appear with the current time highlighted). _____

5.6.22 Refer to the **NOTE** below for guidance concerning which monitor(s) and value(s) to select and input into MIDAS. _____

NOTE**FOR HOPE CREEK AND SALEM UNIT 1 & 2**

- 10 or 15 Minute Average Plant vent (PV) monitor data and PV flow rates should be inputted every 15 Minutes.
- Monitoring Points with – DI next to them (i.e. FRVS – DI, R45 - DI) should be used to input the total I -131 isotopic value in uCi/cc, when available from a plant vent sample.

FOR HOPE CREEK ONLY

- The following monitoring points are available for use in manual dose assessment mode:
(NPV-P, NPV-I, NPV-NG, NPV-DI), (SPV-P, SPV-I, SPV-NG, SPV-DI), (FRVS-NG, FRVS-DI), (HTV-NG, HTV-DI)

FOR SALEM UNIT 1 & 2 ONLY

- Follow the below guidance to help in making the correct decision of which R41 monitor value to use. Only **ONE** should be used in MIDAS for performing dose assessment.
 - **R41A** should be used if values are between **1E-08 uCi/cc to 9.99E-02 uCi/cc.**
 - **R41B** should be used if values are **> 1E-01 uCi/cc to 9.99E+01 uCi/cc.**
 - **R41C** should be used if values are **> 1E+02 uCi/cc to 1E+05 uCi/cc.**
- **The R45 monitors** are to be used **ONLY** if the R41B or R41C monitor values are not available.

Follow the below guidance in making the correct decision of which R45 monitor value to use. Only **ONE** should be used in MIDAS for performing dose assessment.

- **R45B** should be used if values are **> 1E-03 uCi/cc to 1E+01 uCi/cc.**
- **R45C** should be used if values are **> 1E+01 uCi/cc to 1E+05 uCi/cc.**
- **R46:** Dose assessment may be performed using the **R46 monitor** value during a primary to secondary leak or SGTR and entered in the R46MSL column in MIDAS.
- **Using Contact TELETECTOR VALUES From The MAIN STEAM LINES In MIDAS.**
 - Refer to section 5.2 concerning where contact readings on the Main Steam Lines should be taken.
 - The Teletector value obtained from contact reading on the MSL **MUST** be multiplied by the **Correction Factor of 9.33E-05** prior to being used in MIDAS.
 - The value should be entered in the R46MSL column.
 - The flow rate in lbs/hr may be obtained from the Control Room. (The value 4.50E+05 lbs/hr should be used as the default flow rate, if the actual flow rate is not known).
- **R44:** The **R44 Monitor** values should be used for “WHAT IF” type Calculations or if the Containment has been breached and an unmonitored release is progress
 - The flow rate range for the R44's is 1 to 1000 cfm, with the 1000 being the worse case (most conservative) scenario.

5.6.23 MOVE the blue rectangle over to the right until the monitor of interest is highlighted using right arrow key. _____

NOTE

Hope Creek's Hardened Torus Vent should be inputted in uCi/second. **NO** Plant Vent Flow Rate should be inputted. All other Plant Vent Effluent data for **Hope Creek and Salem Unit 1 & 2** should be inputted in uCi/cc and include Plant Vent Flow Rates for each monitor that was inputted.

5.6.24 INPUT appropriate **10 or 15 minute average radiological data**, or instantaneous data, if the criteria listed in Section 5.2 are met. _____

5.6.25 MOVE the blue rectangle over to the right one position to flow rate for the monitor selected. _____

5.6.26 INPUT appropriate **flow rate** in cfm. _____

5.6.27 DEPRESS the **ENTER** key. _____

5.6.28 IF all inputs are correct, THEN DEPRESS the **X** key _____

5.6.29 IF an input is incorrect, THEN correct it and DEPRESS the **X** key. (The DBA Accident Type Selection screen will appear with the **UNKNOWN MIX** box highlighted). _____

NOTE

Unless directed by the RAC or RSM, **UNKNOWN MIX** should be used.

5.6.30 POSITION the cursor over the **CONFIRM** box and click the mouse once. (The **WARNING - SOURCE IS ZERO FOR SELECTED POINT(S)**, with the points of that the user didn't input data for will appear). _____

5.6.31 POSITION the cursor over the **CONTINUE** box and click the mouse once. (The box will become highlighted and the Release Timing Selection screen will appear with the Trip Date, Release Start Same As Trip Date, and Duration (Minutes) boxes will become highlighted). _____

5.6.32 INPUT the duration of a release in minutes by performing the following:

- A. POSITION the cursor over the **REMAINING DURATION (MIN)** box and **CLICK** the mouse once. (A pop-up screen will appear in the upper right hand corner of the screen). _____
- B. POSITION the cursor over the **appropriate number(s)** you wish to enter (**use 240 minutes for a four hour default release, if the duration of a release is not known**) and **CLICK** the mouse once. (The number you chose will be displayed in the top portion of the pop-up screen). _____
- C. POSITION the cursor over the **EN** box and **CLICK** the mouse once. (The value selected will now appear in the highlighted **REMAINING DURATION (MINUTES)** box). _____
- D. IF the information was inputted incorrectly, THEN position the cursor over the **CL** box and **CLICK** the mouse once to clear the entire input that is displayed in the top portion of pop-up screen and reenter. _____
- E. POSITION the cursor over the **CONFIRM** box and click the mouse once. (MIDAS will start to perform calculations. The calculating screen will appear. The SSCL will automatically printout and the 10-mile TEDE 4-DAY map will appear on the screen). _____

5.6.33 MOVE the cursor to the **CONTINUE** box on the bottom of the screen and click the mouse once. (The **NEXT REPORT** box will replace the **CONTINUE** box). _____

5.6.34 POSITION the cursor over the **NEXT REPORT** box and click the mouse once. (The **MORE REPORTS** box will replace the **NEXT REPORT** box). _____

5.6.35 POSITION the cursor over the **MORE REPORTS** box and click the mouse once. (The More Reports Selection screen will appear). _____

NOTE

- Step 5.6.36 provides instructions for using the SSCL Box to print a SSCL to the screen if the printer is malfunctioning.
- Step 5.6.36 provides instructions for using the SSCL Box to print an additional SSCL.
- A blank SSCL page 2 can be found in ECG Attachment 8 or obtained from Communicator 2.

5.6.36 IF a SSCL needs be printed to the screen or an additional SSCL is needed to be printed, THEN:

A. POSITION the cursor over the **SSCL** Box and click the mouse once. _____

B. POSITION the cursor over the **CONFIRM** box and click the mouse once. (The SSCL will be printed to the screen, and if the printer is functioning, an additional SSCL will be printed out). _____

5.6.37 POSITION the cursor over the **EXIT** box and click the mouse once. (The box will become highlighted). _____

5.6.38 CLICK the mouse again. (The Function Selection screen will appear). _____

5.6.39 IF another dose assessment calculation and SSCL is needed, THEN REPEAT steps 5.6.1 through 5.6.38. _____

5.6.40 IF you need to exit the MIDAS program, THEN:

A. POSITION the cursor over the **EXIT** box and click the mouse twice. (The Unit Selection screen will appear). _____

B. POSITION the cursor over the **EXIT** box, click the mouse twice. _____

5.7 **PERFORM THE FOLLOWING TO PRODUCE A SSCL PAGE 2 USING THE ISOTOPIC DOSE ASSESSMENT MODE**

NOTE

- Dose Assessment should be performed in Isotopic Mode, if Dose Assessment calculations are being performed using Isotopic Plant Vent Grab Sample data.
- IF at any time while performing Automatic Data Acquisition, the following appears on the screen:

**NO RESPONSE FROM DADIS - HOPE CREEK TO DADIS
DATA COLLECTION FROM DADIS WAS TERMINATED
ENTER OPTION: [YE] TRY DATA COLLECTION AGAIN
[NO] PROCEED WITH MANUAL ENTRY**

Respond in the following manner: Choose NO and proceed with following the steps listed in this section (5.7) of this procedure.

- 5.7.1 POSITION the cursor over the **ACCIDENT DOSE CALCULATIONS (AC)** box and **CLICK** the mouse once. (Your selection will become highlighted). _____
- 5.7.2 POSITION the cursor over the **CONFIRM** box and **CLICK** the mouse once. (Your selection will become highlighted and the Accident Dose Calculations (AC) screen will appear). _____
- 5.7.3 POSITION the cursor over **ADVANCED CALCS ALL SCREENS (MENU X)** and **CLICK** the mouse once. Your selection will become highlighted. _____
- 5.7.4 POSITION the cursor over the **CONFIRM** box and **CLICK** the mouse once. (The box will become highlighted. MIDAS will attempt to collect automatic data . The Miscellaneous Parameters screen will then appear). _____
- 5.7.5 PERFORM the following to highlight appropriate selections:
- A. POSITION the cursor over the **RESET** box and **CLICK** the mouse. Boxes will no longer be highlighted. _____
 - B. POSITION the cursor over the **MANUAL** box and **CLICK** the mouse once. _____

- C. POSITION the cursor over the appropriate **RELEASE POINT(S)** and **CLICK** the mouse once. The box will become highlighted. _____
- D. POSITION the cursor over the **FLOW EX VEL (CFM)** box for the release point chosen and **CLICK** the mouse once. (A pop-up screen will appear). _____
- E. INPUT the exit velocity flow rate using the pop-up screen by positioning the cursor over the correct **value(s)** and **CLICKING** the mouse once. _____
 - **Exit Velocity For HOPE CREEK: ZERO (0)** for all REL PTs.
 - **Exit Velocity For SALEM: ZERO (0)** for REL PTs. 1 and 4
 - **Exit Velocity For SALEM: (95)** for REL PT 2
- F. INPUT the exit velocity flow rate using the pop-up screen by positioning the cursor over the **correct value(s)**, selected from above, and **CLICKING** the mouse once. _____
- G. POSITION the cursor over the **EN** box when the appropriate values are inputted and **CLICK** the mouse once. (The box will become highlighted with the flow rate inside the box). _____
- H. POSITION the cursor over the **MAX DIST DOWNWIND (MILES)** box and **CLICK** the mouse once. A pop-up screen will appear. _____
- I. INPUT **10** using the pop-up screen. _____
- J. POSITION the cursor over the **EN** box and **CLICK** the mouse once. (The box will become highlighted with 10 appearing inside the box). _____
- 5.7.6 POSITION the cursor over the **AUTO SCENARIO INTEGRATION** box and **CLICK** the mouse once. (The box will become highlighted). _____
- 5.7.7 POSITION the cursor over the **CONFIRM** box and **CLICK** the mouse once. (The box will become highlighted and Run Mode and Integration screen will appear). _____
- 5.7.8 POSITION the cursor over the **PROJECTED (FORECAST) DOSE** box and **CLICK** the mouse once. _____

- 5.7.9 POSITION the cursor over the **START DATE INTEG. CURRENT** Box and **CLICK** the mouse once. _____
- 5.7.10 IF the **PROJ. TIMES (HRS)** box doesn't have **.25, 1, 4, 24** displayed and highlighted inside of the box, THEN POSITION the cursor over the **PROJ. TIMES (HRS)** box and **CLICK** the mouse once. (A pop-up screen will appear in the upper right of the screen). _____
- 5.7.11 INPUT **.25, 1, 4, 24** using the pop-up screen. _____
- 5.7.12 POSITION the cursor over the **EN** box when the appropriate values are inputted and **CLICK** the mouse once. (The box will become highlighted with the values displayed inside the box). _____
- 5.7.13 POSITION the cursor over the **CONFIRM** box and **CLICK** the mouse once. (The box will become highlighted and the Release Option Selection screen will appear). _____
- 5.7.14 POSITION the cursor over the **MANUAL ENTRY OF ISOTOPE CONCENTRATION** box and **CLICK** the mouse once. (The box will become highlighted). _____
- 5.7.15 POSITION the cursor over the **CONFIRM** box and **CLICK** the mouse once. (The Isotope Concentrations screen for the release point selected will appear). _____
- 5.7.16 POSITION the cursor over the **RESET** box and **CLICK** the mouse. _____
- 5.7.17 POSITION the cursor over the **appropriate isotope box(es)** and **CLICK** the mouse once. [The box(es) will become highlighted and a pop up screen will appear in the right corner of the screen]. _____
- 5.7.18 POSITION the cursor over the **appropriate number(s)** you wish to enter and **CLICK** the mouse once. (The number you chose will be displayed in the top portion of the pop up screen). _____
- 5.7.19 IF the value(s) displayed is correct, THEN PLACE the cursor over the **EN** box and **CLICK** the mouse once. (The value selected will be displayed in the box). _____
- 5.7.20 IF the value is incorrect, THEN position the cursor over the **CL** box and **CLICK** the mouse once. (This will clear the input that is displayed in the top portion of the pop-up screen and allow you to reenter the value(s). _____

- 5.7.21 POSITION the cursor over the **SAMPLE STREAM FLOW RATE (CFM)** box to input the plant vent flow rate and **CLICK** the mouse once. (The box will become highlighted and a pop-up screen will appear in the right corner of the screen). _____
- 5.7.22 Input the **appropriate value(s)** using the pop-up screen. _____
- 5.7.23 IF the value(s) displayed is correct, THEN PLACE the cursor over the **EN** box and **CLICK** the mouse once. (The value selected will be displayed in the box). _____
- 5.7.24 IF the value(s) is incorrect, THEN position the cursor over the **CL** box and **CLICK** the mouse once. (This will clear the input that is displayed in the top portion of the pop-up screen and allow you to reenter the value(s)). _____
- 5.7.25 POSITION the cursor over the **CONFIRM** box and **CLICK** the mouse once. (The Release Timing Selection screen will appear). _____
- 5.7.26 POSITION the cursor over the **RELEASE CURRENT TIME** box and **CLICK** the mouse once. _____
- 5.7.27 POSITION the cursor over the **DURATION (MINUTES)** box and **CLICK** the box once. A pop-up screen will appear in the upper right corner of the screen. _____
- 5.7.28 INPUT the duration of the release in minutes (**240 minutes if the release duration is unknown**) using the pop-up screen. _____
- IF the value(s) displayed is correct, THEN PLACE the cursor over the **EN** box and **CLICK** the mouse once. (The value selected will be displayed in the box). _____
 - IF the value is incorrect, THEN position the cursor over the **CL** box and **CLICK** the mouse once. (This will clear the input that is displayed in the top portion of the pop-up screen and allow you to reenter the value(s)). _____
- 5.7.29 **CLICK** the mouse once. (The **DURATION** box will become highlighted with the value displayed in the box). _____
- 5.7.30 POSITION the cursor over the **CONFIRM** box and click the mouse once. (The Weather Selection screen will appear). _____

5.7.31 PERFORM the following steps to input meteorological data :

NOTE

- The user will **NOT** be prompted for the SPD33P (MPH) if the release is an elevated release.
- The 300 foot wind speed should be used for the 33 foot wind speed, if the 33 foot wind speed is not available.

- A. POSITION the cursor over the **DIR33P (DEG)** box and CLICK the mouse once to input the 33 foot elevation from wind direction. _____
- B. POSITION the cursor over the **appropriate number(s)** you wish to enter and CLICK the mouse once. (The number you chose will be displayed in the top portion of the pop-up screen). _____
- C. MOVE the cursor over the **EN** box and CLICK the mouse once. [The value chosen will be displayed in specific weather parameter box that is being inputted (i.e. DIR33P DEG)]. _____
- D. POSITION the cursor over the **SPD33P (MPH)** box and CLICK the mouse once to input the 33 foot elevation wind speed. _____
- E. POSITION the cursor over the **appropriate number(s)** you wish to enter and CLICK the mouse once. (The number you chose will be displayed in the top portion of the pop-up screen). _____
- F. MOVE the cursor over the **EN** box and CLICK the mouse once. [The value chosen will be displayed in specific weather parameter box that is being inputted (i.e. SPD33P MPH)]. _____

NOTE

- The user will **NOT** be prompted for the SPD300 (MPH) if the release is a ground release.
- The 33 foot wind speed should be used for the 300 foot wind speed, if the 300 foot wind speed is not available.

- G. POSITION the cursor over the **SPD300 (MPH)** box and **CLICK** the mouse once to input the 300 foot elevation wind speed. _____
- H. POSITION the cursor over the **appropriate number(s)** you wish to enter and **CLICK** the mouse once. (The number you chose will be displayed in the top portion of the pop-up screen). _____
- I. MOVE the cursor over the **EN** box and **CLICK** the mouse once. (The value chosen will be displayed in specific weather parameter box). _____

NOTE

The Default Value of one (1.0) should be used for DT300, if the delta t data is not available. This will produce an "E" stability class.

- J. POSITION the cursor over the **DT300 (DEG.C)** box and **CLICK** the mouse once to input the 300 - 33 foot delta temperature. (The box will become highlighted). _____
- K. POSITION the cursor over the **appropriate number(s)** you wish to enter and **CLICK** the mouse once. (The number you chose will be displayed in the top portion of the pop-up screen). _____
- L. MOVE the cursor over the **EN** box and **CLICK** the mouse once. (The value chosen will be displayed in specific weather parameter box). _____

NOTE

MIDAS does not use the value used for the ambient temperature. Twenty (20) degrees should be used.

- M. POSITION the cursor over the **TEMP33 (DEG.C)** box and **CLICK** the mouse once to input the ambient temperature. (The box will become highlighted). _____
- N. INPUT the value 20 and **CLICK** the mouse once. (The number 20 will be displayed in the top portion of the pop-up screen). _____

- O. MOVE the cursor over the **EN** box and **CLICK** the mouse once. (The value chosen will be displayed in specific weather parameter box). _____
- P. POSITION the cursor over the **RAIN (INCHES)** box and **CLICK** the mouse once to input the 15 minute average precipitation. (The box will become highlighted). _____

NOTE

The following values may be inputted if actual rainfall data is not known:

- 0.08 = (Heavy Rainfall)
- 0.02 = (Moderate Rainfall)
- 0.01 = (Light Rainfall)
- The number Zero "0", if it is not raining.

- Q. POSITION the cursor over the **appropriate number(s)** you wish to enter and **CLICK** the mouse once. (The number you chose will be displayed in the top portion of the pop-up screen). _____
- R. MOVE the cursor over the **EN** box and **CLICK** the mouse once. (The value chosen will be displayed in specific weather parameter box). _____

NOTE

The three boxes labeled **PCT CLOUD COVER REQUIRES SPEED, USE LAST MET DATE** and **USE DEFAULT MET** should **NOT** be used.

- S. POSITION the cursor over **CONFIRM** box and **CLICK** the mouse once. (The Release Point Data screen will appear). _____
- 5.7.32 POSITION the cursor over the **CONTINUE** box and **CLICK** the mouse once. (The box will become highlighted and Summary of Meteorological Data screen will appear). _____

5.7.33 POSITION the cursor over **CONTINUE** box and **CLICK** the mouse once. (The calculating screen will appear, while PC MIDAS performs dose assessment calculations. The SSCL will automatically printout and the 10 mile TEDE 4-DAY map will appear on the screen after the calculations are finished.) _____

5.7.34 POSITION the cursor to the **CONTINUE** box on the bottom of the screen and **CLICK** the mouse once. (The **NEXT REPORT** box will replace the **CONTINUE** box). _____

5.7.35 POSITION the cursor over the **NEXT REPORT** box and **CLICK** the mouse once. (The **MORE REPORTS** box will replace the **NEXT REPORT** box). _____

5.7.36 POSITION the cursor over the **MORE REPORTS** box and **CLICK** the mouse once. (The More Reports Selection screen will appear). _____

NOTE

- Step 5.7.37 provides instructions for utilizing the SSCL Box to print a SSCL to the screen, if the printer is malfunctioning.
- Step 5.7.37 provides instructions for utilizing the SSCL Box to print an additional SSCL.
- A blank SSCL page 2 can be found in ECG Attachment 8 or obtained from Communicator 2.

5.7.37 IF a SSCL needs be printed to the screen or an additional SSCL printed out, THEN:

A. POSITION the cursor over the **SSCL** Box and **CLICK** the mouse once. _____

B. POSITION the cursor over the **CONFIRM** box and **CLICK** the mouse once. (The SSCL will be printed to the screen, and if the printer is functioning, an additional SSCL will be printed out). _____

5.7.38 POSITION the cursor over the **EXIT** box and **CLICK** the mouse once. (The **EXIT** box will become highlighted). _____

5.7.39 **CLICK** the mouse again. (The Function Selection screen will appear). _____

5.7.40 IF another dose assessment calculation and SSCL is needed,
THEN REPEAT steps 5.7.1 through 5.7.38. _____

5.7.41 IF you need to exit the MIDAS program, THEN:

- A. POSITION the cursor over the **EXIT** box and click the mouse twice. (The Unit Selection screen will appear). _____
- B. POSITION the cursor over the **EXIT** box, click the mouse twice. _____

5.8 **PERFORM THE APPROPRIATE OPERATIONAL INSTRUCTIONS TO MANIPULATE MAP SCREENS AND PRINTOUT MAPS**

NOTE

This section (5.8) should be used to access different map functions and options.

5.8.1 PERFORM the following to **PRINT a SCREEN, REPORT, or MAP:**

- A. DEPRESS **ALT + ENTER, PRINT SCREEN** keys. _____
- B. DEPRESS depress the **ALT + ENTER** keys to exit the print option and to continue with normal MIDAS operation. _____

5.8.2 PERFORM the Following Steps to Display A POI Dose Rate:

- A. POSITION the cursor over the **POI** box located at the bottom of the map screen and **CLICK** the mouse once. (The Operational Choices menu located at the bottom of the screen next to the POI box is replaced with the **CURSOR HERE TO EXIT** box). _____
- B. POSITION the cursor **+** to the POI on the map you wish to know the dose rates at and **CLICK** the mouse once. (The dose rate of the POI will appear). _____
- C. POSITION the cursor to the **CURSOR HERE TO EXIT** box and **CLICK** the cursor once to return to the other map command options. _____

5.8.3 PERFORM the following steps to draw map features onto a map:

- A. POSITION the cursor over the **MAP FEATURES** box and **CLICK** the mouse once. (A Pop-up box will appear at the right side of the screen). _____
- B. POSITION the cursor over the option(s) selected (**WIND SPIDER, COUNTY BOUNDARIES, ERPAS, and/or TEXT**) to be drawn on the map and **CLICK** the mouse once. (The options selected will become highlighted). _____
- C. POSITION the cursor over the **CONFIRM** box and **CLICK** the mouse once. (The Confirm box will become highlighted and the map will be redrawn with the option(s) selected illustrated on it). _____

5.8.4 PERFORM the following to add another or remove the Map Feature Selected Perform.

- A. POSITION the cursor over the **MAP FEATURES** box and CLICK the mouse once. (A Pop-up box will appear at the right side of the screen). _____
- B. POSITION the cursor over the option(s) selected (**WIND SPIDER, COUNTY BOUNDARIES, ERPAS, and/or TEXT**) to be added to or removed from the map and CLICK the mouse once. (Any additional options selected will be highlighted, while options to be removed from the map will go from being highlighted to not being highlighted). _____
- C. POSITION the cursor over the **CONFIRM** box and click the mouse once. (The Confirm box will become highlighted and the map will be redrawn with the option(s) selected either deleted or illustrated on it). _____

5.8.5 PERFORM the following to select an area on a map to blowup:

- A. POSITION the cursor over the **SELECT AREA** box and CLICK the mouse once. (The Operational Choices menu located on the bottom of the screen will disappear). _____
- B. POSITION the cursor to one edge of the area you wish to enlarge on the screen and CLICK the mouse once. (A black dot will appear where the cross hairs of the cursor was). _____
- C. POSITION the cursor to other edge of the area you wish to enlarge on the screen and CLICK the mouse once. (A black dot will appear where the cross hairs of the cursor was and the area you selected will appear on the screen enlarged with the Operational Choices menu reappearing on the bottom of the screen. This can be done as many times as the user wishes). _____
- D. POSITION the cursor over the **RESTORE** box and CLICK the mouse once to return the map to its original size. _____

5.8.6 PERFORM the following steps to project the plume into the future using the current meteorological and radiological conditions:

- A. POSITION the cursor over the **CONTINUE** box and CLICK the mouse once. (The Operational Choices menu located at the bottom of the screen will disappear being replaced by the PROJ. TIME 0.25 (HOURS), CONFIRM and NEXT REPORT boxes). _____
- B. POSITION the cursor over the **PROJ. TIME 4.00 (HOURS)** box and:
 - 1. CLICK the mouse to change the projection time to 24.00 hours. _____
 - 2. CLICK the mouse again to change the projection time to 0.25 hours. _____
 - 3. CLICK the mouse again to change the projection time to 1.00 hours. _____
 - 4. CLICK the mouse again to change the projection time back to 4.00 hours. _____
- C. POSITION the cursor over the **CONFIRM** box when the appropriate projection time has been selected and CLICK the mouse once. (The map will be redrawn showing the plume and radiological conditions projected into the future by the time increment chosen by the user. The map Operational Choices menu will also reappear at the bottom of the screen). _____

5.8.7 PERFORM the following steps to change the plume back to 4.00 hour projection time:

- A. POSITION the cursor over the **CONTINUE** box and CLICK the mouse once. (The Operational Choices menu located at the bottom of the screen will disappear being replaced by the PROJ. TIME with 1.00, 4.00, or 24.00 HOURS, CONFIRM and NEXT REPORT boxes). _____
- B. POSITION the cursor over the **PROJ. TIME** box and CLICK the mouse until 4.00 (HOURS) appears. _____
- C. POSITION the cursor over the **CONFIRM** box and CLICK the mouse once. (The map will be redrawn showing the plume and radiological conditions returned to their original state. The map Operational Choices menu will also reappear at the bottom of the screen). _____

5.8.8 PERFORM the following steps to change the distance of a map displayed:

NOTE

A map **MUST** be already displayed prior to varying the map's distance.

- A. POSITION the cursor over the **CONTINUE** box and CLICK the mouse once. (The CONTINUE box will be replaced by the NEXT REPORT box). _____
- B. POSITION the mouse over the **NEXT REPORT** box and CLICK the mouse once. (The NEXT REPORT box will be replaced by the MORE REPORTS box). _____
- C. POSITION the cursor over the **MORE REPORTS** box and CLICK the mouse once. (The More Reports Selection Screen will appear). _____
- D. POSITION the mouse over the Report Plot the user would like to select and CLICK the mouse once. (The selection will become highlighted. Maps can be only drawn using REPORT PLOT choices). _____
- E. POSITION the cursor over the **CONFIRM** box and CLICK the mouse once. The box will become highlighted and the Report Parameter Selection screen will appear with the user's selection enclosed in a box in the middle of the screen. _____
- F. POSITION the cursor over the **CONFIRM** box and CLICK the mouse once. (The Map Scale Selection screen will appear with the current map distance appearing highlighted in a box in the upper left-hand corner of the screen). _____
- G. POSITION the cursor over **MAP SCALE (MILES)** box and CLICK the mouse once. (A pop-up screen will appear in the upper right hand corner). _____
- H. POSITION the cursor over the appropriate number(s) you wish to enter and CLICK the mouse once. (The number(s) you chose will be displayed at the top of the pop-up screen). _____

- I. POSITION the cursor over the **EN** box in the pop-up screen and **CLICK** the mouse once. _____
- J. IF the number(s) displayed in the top of the pop up screen is incorrect, THEN position the cursor over the **CL** box and **CLICK** the mouse once. (This will clear the entire input that is displayed in the top of the pop up screen). _____
- K. POSITION the cursor over **CONFIRM** box and **CLICK** the mouse once. (The **CONFIRM** box will become highlighted and the map will be drawn to the scale selected). _____

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 EPA 400, Manual of Protective Action Guides And Protective Actions For Nuclear Incidents

7.1.2 MIDAS Documentation Volumes 1-5

7.1.3 Nuclear Business Unit Emergency Plan

7.2 **Cross References**

7.2.1 NC.EP-EP.ZZ-0310(Q), Radiation Protection Supervisor – Offsite
and Field Monitoring Team Response

7.2.2 HC.EP-EP.ZZ-0301(Q), Shift Radiation Protection Response

7.2.3 SC.EP-EP.ZZ-0301(Q), Shift Radiation Protection Response

ATTACHMENT 1

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OPERATING INSTRUCTIONS FOR THE VAX LA120 TERMINAL

1.0 METEOROLOGICAL DATA

1.1 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 TYPE **MET** and depress the **RETURN** key. _____

NOTE

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

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

1.2 Perform The Following Steps to Obtain Archived Meteorological Data:

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

1.2.2 TYPE **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). _____

1.2.5 IF you want data from another date and time, THEN go to Step 1.2.6. _____

ATTACHMENT 1

Page 2 of 3

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).

- ENTER "Y" if the information is **correct**.
- ENTER "N" if the information is **not correct** and reenter data as shown in Step 1.2.6.

1.2.7 **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).

- ENTER "Y" if the information is **CORRECT**.
- ENTER "N" if the information is **NOT CORRECT** and reenter data as shown in Step 1.2.7.

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 **TYPE EOF** and depress the **RETURN** key. (A prompt should be displayed asking for PASSWORD).

2.1.3 **TYPE** the letters **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.)

ATTACHMENT 1

Page 3 of 3

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 TYPE **EOF** and depress the **RETURN** key. (A prompt should be displayed asking for PASSWORD). _____

2.2.3 TYPE **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 6 (15 Minute Historical Data)**.
(Current system date and time should be displayed. A prompt should be displayed for start date and time) _____

2.2.7 DEPRESS the **RETURN** key for 15 minute average RMS and MET data. (Your selection will be printed). _____

ATTACHMENT 2

Page 1 of 3

OPERATING INSTRUCTIONS FOR SALEM SPDS RADIOLOGICAL SCREENS

1.0 SALEM 1 & 2 SPDS RADIOLOGICAL SCREEN INSTRUCTIONS1.1 Follow The Steps Below In The Listed Order, To Display SPDS Radiological Screens.**NOTE**

- Values in Red are in HIGH HIGH ALARM.
- Values in YELLOW with are in HIGH ALARM.
- Form – 1, SPDS RMS Log, may be used to record SPDS RMS values.

11.1.1 DEPRESS the **UNIT MASTER MENU** Key

1.1.2 DEPRESS and hold the "**SHIFT**" key, while depressing the **Number 5 Key**. [Radiation Monitor Screen 1 will be displayed. This screen (Radiation Monitor Screen 1) consists of instantaneous values for the RMS monitors listed below].

- R46A-E Main Steam Line Mon
- R44A/B Containment Post LOCA Rad Mon
- R11A Containment Particulate
- R12A Containment Noble Gas
- R12B Containment Iodine
- R44A/B Integ Dose Containment Post LOCA Rad Mon

1.1.3 DEPRESS and hold the "**SHIFT**" key, while depressing the **Number 2 Key**. (Radiation Monitor Screen 2 will be Displayed). This screen (Radiation Monitor Screen 2) consists of RMS instantaneous monitor values listed below).

ATTACHMENT 2

Page 2 of 3

- R45B Plant Vent Accident Mon (Medium Range Noble Gas)
- R45C Plant Vent Accident Mon (High Range Noble Gas)
- R16 Plant Vent Gas Effluent
- R41A Low Range Noble Gas
- R41B Mid Range Noble Gas
- R41C High Range Noble Gas
- R43 Aux Building Roof Mon
- Unit 1 or 2 Noble Gas Release Rate
- Combined Noble Gas Release Rate

1.1.4 DEPRESS and hold the "**SHIFT**" key, while depressing the **Number 3 Key**. (Radiation Monitor Screen 3 will be displayed). This screen (Radiation Monitor Screen 3) consists of RMS 15 minute average monitor values listed below).

- R46A-E Main Steam Line Mon
- R44A/B Containment Post LOCA Rad Mon
- R11A Containment Particulate
- R12A Containment Noble Gas
- R12B Containment Iodine

1.1.5 DEPRESS and hold the "**SHIFT**" key, while depressing the **Number 4 Key**. (Radiation Monitor Screen 4 will be displayed.) This screen (Radiation Monitor Screen 4) consists of RMS 15 minute average monitor values listed below).

- Plant Vent Airflow to Atmosphere (Plant Vent Flow Rate)

ATTACHMENT 2

Page 3 of 3

- R45B Plant Vent Accident Mon (Medium Range Noble Gas)
- R45C Plant Vent Accident Mon (High Range Noble Gas)
- R16 Plant Vent Gas Effluent
- R41A Low Range Noble Gas
- R41B Mid Range Noble Gas
- R41C High Range Noble Gas
- R43 Aux Building Roof Mon

1.1.6 RECORD RMS values on Form - 1, SPDS RMS Log (Salem Only).

2.0 SALEM 1 & 2 SPDS RADIOLOGICAL SCREEN TRENDING INSTRUCTIONS

2.1 Perform The Steps Listed Below In The Listed Order, To Trend SPDS Radiological Monitors.

2.1.1 DISPLAY the screen that lists the monitor you want to trend.

2.1.2 DEPRESS the "DATA ENTRY FORWARD" key to move the cursor to the radiation monitor that is to be trended.

2.1.3 DEPRESS the "TREND" key.

2.1.4 DEPRESS the "Page Down" key to display the trending of the monitor.

2.1.5 DEPRESS the "Page Up" key to return to Radiation Monitor Screen 1.

3.0 RML SCREEN INSTRUCTIONS

DEPRESS The RML Key To Display The Dome Screen (Instantaneous RMS Values will be displayed).

4.0 RML SCREEN INSTRUCTIONS

DEPRESS The RM Key To Display Any **Abnormal Or Potentially Abnormal Radiological Releases In Progress.**

FORM - 1

Page 1 of 1

SPDS RMS LOG (SALEM ONLY)

Date/Time: ____ - ____ - ____ / ____ : ____
 Unit ____

Salem

Location on SPDS	Monitor Number	Description of Monitor	Value of Monitor	Units
Screen 1/3	R46A	Main Steam Line Mon	_____	mR/hr
Screen 1/3	R46B	Main Steam Line Mon	_____	mR/hr
Screen 1/3	R46C	Main Steam Line Mon	_____	mR/hr
Screen 1/3	R46D	Main Steam Line Mon	_____	mR/hr
Screen 1/3	R46E	Main Steam Line Mon	_____	mR/hr
Screen 1/3	R44A	CNTMT Post LCOA Mon	_____	R/hr
Screen 1/3	R44B	CNTMT Post LOCA Mon	_____	R/hr
Screen 1/3	R11A	CNTMT Particulate Mon	_____	cpm
Screen 1/3	R12A	CNTMT Noble Gas Mon	_____	cpm
Screen 1/3	R12B	CNTMT Iodine Mon	_____	cpm
Screen 4	R16	Plant Vent Gas Mon	_____	cpm
Screen 2/4	R41A	Low Range Noble Gas Mon	_____	uCi/cc
Screen 2/4	R41B	Mid Range Noble Gas Mon	_____	uCi/cc
Screen 2/4	R41C	High Range Noble Gas Mon	_____	uCi/cc
Screen 2/4	R45B	Plant Vent Accident Mon (Min Range Noble Gas Back-up)	_____	uCi/cc
Screen 2/4	R45C	Plant Vent Accident Mon (High Range Noble Gas Back-up)	_____	uCi/cc

ADVANCED DOSE ASSESSMENT (MIDAS) INSTRUCTIONS

USE CATEGORY: II

PSE&G

REVISION SUMMARY:

CONTROL

COPY # EP10059

- 1. This revision satisfies the requirement for a biennial review.
- 2. This procedure consists of the advanced instructions to perform dose assessment (MIDAS) that were previously contained in NC.EP-EP.ZZ-0309(Q). The advanced MIDAS instructions were reformatted in this procedure to enhance the user friendliness. No revision bars were used in this procedure, due to the extensive reformatting.
- 3. Steps 5.5.22.Q and 5.6.22.K were revised to tell the user to enter 20 for ambient temperature, since MIDAS does not use this value during dose assessment calculations.
- 4. Sections 5.5 and 5.6 were revised to tell the user to use 1.0 for the default DT300, if the delta t is not available.

IMPLEMENTATION REQUIREMENTS

Procedure Implementation Date: 5-21-2002

APPROVED: [Signature] 5/16/02
 EP Manager Date

APPROVED: [Signature] 5/16/02
 Vice President - Operations Date

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1.0 PURPOSE

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

2.0 PREREQUISITES

2.1 Prerequisites to be Followed Prior to Implementing This Procedure

Implement this procedure:

- Upon the declaration of an Unusual Event or higher emergency classification.
- At the request of the Operation Superintendent (OS).
- At the request of the Emergency Duty Officer (EDO).
- At the request of the Radiation Protection Duty Supervisor (RPDS) or Shift Radiation Protection Technician (SRPT).

3.0 PRECAUTIONS AND LIMITATIONS

3.1 Precautions and Limitations to be Followed Prior to Implementing this Procedure:

- 3.1.1 It is recommended that initials be used in the place keeping sign-offs, instead of checkmarks, if more than one person may implement this procedure.
- 3.1.2 Steps in this procedure may be performed in the order deemed appropriate for the emergency situation. Only steps that are applicable to the specific MIDAS dose assessment mode of operation that is being performed need be followed.
- 3.1.3 Personnel who implement this procedure shall be trained and qualified IAW the Emergency Plan.
- 3.1.4 This procedure is limited to performance of advanced dose assessment calculations [**Dose Assessment Based On Back Calculation, Liquid Release (Swimmers), DAPA Values , Default UFSAR, and Default NUREG 1228 Modes**] and instructions on manipulation of map screens, including printing out of map screens.

4.0 **EQUIPMENT REQUIRED**

Necessary equipment is provided in the Emergency Response Facilities.

5.0 **PROCEDURE**

NOTE

- Dose Assessment should be performed using 10 or 15-minute average RMS and Meteorological data, unless circumstances in step 5.1.1 are met.
- Attachment 1, Operation of the VAX LA120 Terminal, should be referred to for operational directions for the VAX LA120.
- Attachment 2, Instructions for Salem SPDS Displays, should be referred to for operational directions for the radiological SPDS screens, including the RM and RML screens.

5.1 **Sign-on Instructions For MIDAS**

- 5.1.1 DEPRESS the **POWER** button. (The Microsoft Windows NT Screen will appear with a Begin Logon box displayed. The command inside the box will read, Press Ctrl + Alt + Delete to logon). _____
- 5.1.2 DEPRESS the **Ctrl, Alt, Delete** keys simultaneously. (The Logon Information box will be displayed with lines to enter User name and Password). _____
- 5.1.3 INPUT **midas** into the User name line. _____
- 5.1.4 INPUT **midas** into the Password line and depress the **RETURN** key. _____
- 5.1.5 POSITION the cursor on the **Midas** icon and click the mouse twice. (The MIDAS unit selection screen will be displayed). _____
- 5.1.6 POSITION the mouse cursor + over the box of your selection (**Hope Creek, Salem Unit 1, or Salem Unit 2**) and click the mouse once. (Your selection will become highlighted). _____
- 5.1.7 POSITION the cursor over the **CONFIRM** box and click the mouse once. (The Function Selection screen will appear). _____

5.1.8 SELECT the appropriate Section for type of dose assessment mode from list below:

- Refer to **Section 5.2** to perform Dose Assessment Using Back Calculation. _____
- Refer to **Section 5.3** to perform Dose Assessment for Swimmers based on a Liquid Release. _____
- Refer to **Section 5.4** to perform Dose Assessment from DAPA Values. _____
- Refer to **Section 5.5** to perform "What If" Dose Assessment calculations using Default mode. _____
- Refer to **Section 5.6** to perform "What If" Dose Assessment calculations using Default 1228 mode. _____
- Refer to **Attachment 1** for **Operating Instructions for the VAX LA120 Terminal**. _____
- Refer to **Attachment 2** for Operating Instructions for SALEM SPDS Radiological Screens. _____

5.2 **PERFORM THE FOLLOWING TO PRODUCE A SSCL PAGE 2 USING THE BACK CALCULATION DOSE ASSESSMENT MODE**

NOTE

- Back Calculation Dose Assessment should be used if dose assessment values are needed based on onsite or offsite field team meter results.
- While performing Back Calculation and the following appears on the screen:
**NO RESPONSE FROM DADIS - HOPE CREEK TO DADIS
 DATA COLLECTION FROM DADIS WAS TERMINATED
 ENTER OPTION: [YE] TRY DATA COLLECTION AGAIN
 [NO] PROCEED WITH MANUAL ENTRY**

Respond in the following manner: Choose NO and proceed with following the steps listed in section 5.2 of this procedure.

5.2.1 POSITION the cursor over the **ACCIDENT DOSE CALCULATIONS (AC)** box and CLICK the mouse once. (Your selection will become highlighted). _____

- 5.2.2 POSITION the cursor over the **CONFIRM** box and **CLICK** the mouse once. (Your selection will become highlighted and the Accident Dose Calculations (AC) screen will appear). _____
- 5.2.3 POSITION the cursor over the **FIELD TEAM STRAIGHT LINE (MENU E)** box and **CLICK** the mouse once. The box will become highlighted. _____
- 5.2.4 POSITION the cursor over the **CONFIRM** box and **CLICK** the Mouse once. (The Field Monitoring Parameter Selection screen will then appear). _____
- 5.2.5 POSITION the cursor over the **RESET** box and **CLICK** the mouse once. (The highlighted boxes will now be cleared and data may now be inputted). _____
- 5.2.6 POSITION the cursor over the **GROUND** box and **CLICK** the mouse once. (The box will become highlighted) _____
- 5.2.7 POSITION the cursor over the **FIELD MONITOR READING (MR/HR)** box and **CLICK** the mouse once. (The box will become highlighted and a pop-up screen will appear in the upper right side of the screen). _____
- 5.2.8 POSITION the cursor over the **appropriate number(s)** you wish to enter and **CLICK** the mouse once. (The number you chose will be displayed in the top portion of the pop-up screen). _____
- 5.2.9 POSITION the cursor over the **EN** box and **CLICK** the mouse once. (The value selected will be displayed in the FIELD MONITOR READING box). _____
- 5.2.10 POSITION the cursor over the **DISTANCE FROM THE PLANT (MILES)** box and **CLICK** the mouse once. (The box will become highlighted and a pop-up screen will appear in the upper right side of the screen). _____
- 5.2.11 POSITION the cursor over the **appropriate number(s)** you wish to enter and **CLICK** the mouse once. (The number you chose will be displayed in the top portion of the pop-up screen). _____
- 5.2.12 POSITION the cursor over the **EN** box and **CLICK** the mouse once. (The value selected will be displayed in the FIELD MONITOR READING box). _____

- 5.2.13 POSITION the cursor over the **SILVER ZEOLITE (CPM)** box and CLICK the mouse once. (The box will become highlighted and a pop-up screen will appear in the upper right side of the screen). _____
- 5.2.14 POSITION the cursor over the **appropriate number(s)** you wish to enter and CLICK the mouse once. (The number you chose will be displayed in the top portion of the pop-up screen). _____
- 5.2.15 POSITION the cursor over the **EN** box and CLICK the mouse once. (The value selected will be displayed in the FIELD MONITOR READING box). _____
- 5.2.16 POSITION the cursor over the **CONFIRM** box and CLICK the mouse once. IF the calculating screen appears, THEN MIDAS is starting to perform dose assessment calculations. The SSCL will automatically printout and the 10 mile TEDE 4-DAY map will appear on the screen. _____
- 5.2.17 IF the Meteorological Spread Sheet screen appears, THEN input **appropriate meteorological values**. _____
- 5.2.18 POSITION the cursor to the **CONTINUE** box on the bottom of the screen and CLICK the mouse once. (The NEXT REPORT box will replace the CONTINUE box). _____
- 5.2.19 POSITION the cursor over the **NEXT REPORT** box and CLICK the mouse once. (The MORE REPORTS box will replace the NEXT REPORT box). _____
- 5.2.20 POSITION the cursor over the **MORE REPORTS** box and CLICK the mouse once. (The More Reports Selection screen will appear). _____

NOTE

- Step 5.2.21 provides instructions for utilizing the SSCL Box to print a SSCL to the screen, if the printer is malfunctioning.
- Step 5.2.21 provides instructions for utilizing the SSCL Box to print an additional SSCL.
- A blank SSCL page 2 can be found in ECG Attachment 8 or obtained from Communicator 2.

5.2.21 IF a SSCL needs be printed to the screen or an additional SSCL printed out, THEN:

- A. POSITION the cursor over the **SSCL** Box and CLICK the mouse once. _____
- B. POSITION the cursor over the **CONFIRM** box and CLICK the mouse once. (The SSCL will be printed to the screen, and if the printer is functioning, an additional SSCL will be printed out). _____

5.2.22 POSITION the cursor over the **EXIT** box and CLICK the mouse once. (The EXIT box will become highlighted). _____

5.2.23 CLICK the mouse again. (The Function Selection screen will appear). _____

5.2.24 IF another dose assessment calculation and SSCL is needed, THEN REPEAT steps 5.2.1 through 5.2.23. _____

5.2.25 IF you need to exit the MIDAS program, THEN:

- A. POSITION the cursor over the **EXIT** box and click the mouse twice. (The Unit Selection screen will appear). _____
- B. POSITION the cursor over the **EXIT** box, click the mouse twice. _____

5.3 The Following Steps Should Be Performed To Calculate Liquid Release Dose Assessment For Swimmers

NOTE

Liquid Release Dose Assessment for Swimmers should be performed IAW Section 5.3 of this procedure.

5.3.1 PERFORM the following to perform dose assessment for swimmers.

A. OBTAIN the gross liquid release activity from chemistry and record the value in Space A. _____

B. SELECT the Dose Rate Conversion Factor from below. _____

Gamma External Dose Equivalent = 1.44E-06 mRem/hr/pCi/l
 Beta/Gamma Skin Dose Equivalent = 1.72E-06 mRem/hr/pCi/l

C. RECORD the value in Space D. _____

D. OBTAIN the exposure time. _____

E. RECORD in Space E. _____

NOTE

- The average yearly dilution factor for routine releases is 1.00E-03.
- The default dilution factor is 1.00E+00 and should be used if the dilution factor is unknown.

F. OBTAIN the dilution factor from chemistry or use the default value.

G. RECORD value in Space F.

- H. **MULTIPLY** the value in Space A by the value in Space B. (The value calculated will be the total concentration of the liquid release).
- I. **RECORD** the value in space C.
- J. **MULTIPLY** the values from Spaces C, D, E and F to (The calculated value will be the External Dose Equivalent (EDE) dose).
- K. **RECORD** the value in Space G.

$$\frac{\text{A. } \underline{\hspace{2cm}}}{\text{Gross Liquid Activity (uCi/ml)}} * \frac{\text{B. } 1.00\text{E}+09}{\text{Conversion Factor}} = \frac{\text{C. } \underline{\hspace{2cm}}}{\text{Total Concentration (pCi/l)}}$$

$$\frac{\text{D. } \underline{\hspace{2cm}}}{\text{DRCF (mRem/hr/pCi/l)}} * \frac{\text{E. } \underline{\hspace{2cm}}}{\text{Exposure Time}} * \frac{\text{F. } \underline{\hspace{2cm}}}{\text{Dilution Factor (Hours)}}$$

$$\frac{\text{G. } \underline{\hspace{2cm}}}{\text{EDE in mRem}}$$

5.4 The Following Steps Should Be Performed To Calculate Dose Assessment DAPA Values (Leakage From The Drywell)

NOTE

Section 5.4 of this procedure is for **HOPE CREEK ONLY** and should be used to perform **Leakage from the Drywell** Dose Assessment using DAPA Values.

- 5.4.1 OBTAIN the DAPA "A" or "B" monitor value (which ever one is the highest) and record this value on the horizontal axis of Table 1 – 1, Drywell (Primary Containment) High Range Monitor Response (DAPA) R/hr. _____
- 5.4.2 MULTIPLY the leak rate in uCi/sec by 1.00E-03 to obtain percent of Drywell Leakage. [The leak rate in uCi/sec may be obtained from the RM-11 or the VAX LA120. IF the Reactor Building Ventilation hasn't been isolated, THEN use 9RX580 (FRVS Effluent Monitor Reading)]. [IF the Reactor Building Ventilation has been isolated, THEN use 9RX680 (SPV Effluent Monitor Reading)]. _____
- 5.4.3 RECORD the percent of Drywell Leakage on Table 1-1 by choosing the most appropriate diagonal line. (100% 2 hrs, 100%, 10%, 1.0%,0.5%, or 0.1%) _____
- 5.4.4 LOCATE where the DAPA monitor value and the percent leakage intersect on Table 1 - 1. _____
- 5.4.5 DRAW a line from this point of intersection to Scale "A" titled Release Rate (uCi/sec). _____
- 5.4.6 PERFORM the following steps to determine the X/Q value on Scale "B":
 - A. DIVIDE the wind speed (mph) by 2.24 to obtain the wind speed in m/sec. _____
 - B. RECORD the wind speed in the wind speed blank (Step 5.4.7). _____
 - C. REFER to Table 1 - 2 for an elevated release

OR

REFER to Table 1 - 3 for a ground release and locate the specific distance of interest. _____

- D. FOLLOW the appropriate table over to the right to the current Stability Class. _____
- E. MULTIPLY this value by 1.00E-06. _____
- F. RECORD the value in the Xu/Q blank (Step 5.4.7). _____
- G. DIVIDE the Xu/Q value by the wind speed in m/sec. and record the value in the X/Q blank. _____

5.4.7 LOCATE the approximate X/Q value on Scale "B" and plot the value. _____

$\frac{Xu/Q}{\text{wind speed (m/sec)}} = \frac{X/Q}{1}$
--

5.4.8 DRAW a straight line from the point of interest on Scale "A" to the X/Q value located on Scale "B". _____

5.4.9 CONTINUE TO DRAW the line to the point of intersection on Scale "C". _____

5.4.10 DETERMINE by interpolation the approximate value of the intercept point on Scale "C". (This is the projected external dose equivalent (EDE) offsite dose rate in mRem/hr). _____

5.4.11 MULTIPLY this value by four to obtain a four-hour projected EDE dose. _____

NOTE
The TEDE + 4 to EDE Correction Factor is 1.

5.4.12 MULTIPLY the EDE dose by 1 to obtain the four-hour projected TEDE dose. _____

5.5 Perform The Following To Produce A SSCL Page 2 Using Default Dose Assessment Mode

NOTE

- While performing "WHAT IF" DEFAULT dose assessment calculations, the following appears on the screen:
**NO RESPONSE FROM DADIS – (HOPE CREEK/SALEM) TO DADIS DATA COLLECTION FROM DADIS WAS TERMINATED
 ENTER OPTION: [YE] TRY DATA COLLECTION AGAIN
 [NO] PROCEED WITH MANUAL ENTRY**
 Respond in the following manner:
 Choose **NO** and proceed with Section 5.5 of this procedure.
- Section 5.5 of this procedure should only be used to perform "WHAT IF" DEFAULT dose assessment calculations and should **NOT** be used for event classifications or protective action recommendations.

- 5.5.1 POSITION the cursor over the **ACCIDENT DOSE CALCULATIONS (AC)** box and **CLICK** the mouse once. (Your selection will become highlighted). _____
- 5.5.2 POSITION the cursor over the **CONFIRM** box and **CLICK** the mouse once. (Your selection will become highlighted and the Accident Dose Calculations (AC) screen will appear). _____
- 5.5.3 POSITION the cursor over **ADVANCED CALCS ALL SCREENS (MENU X)** and **CLICK** the mouse once. (Your selection will become highlighted). _____
- 5.5.4 POSITION the cursor over the **CONFIRM** box and **CLICK** the mouse once. (The box will become highlighted. MIDAS will attempt to collect automatic data . The Miscellaneous Parameters screen will then appear). _____
- 5.5.5 PERFROM the following to highlight appropriate selections:
- A. POSITION the cursor over the **RESET** box and **CLICK** the mouse. No boxes will now be highlighted. _____
 - B. POSITION the cursor over the **MANUAL** box and **CLICK** the mouse once. _____

- C. POSITION the cursor over the appropriate **RELEASE POINT(S)** and **CLICK** the mouse once. (The box will become highlighted). _____
- D. POSITION the cursor over the **FLOW EX VEL (CFM)** box for the release point chosen and **CLICK** the mouse once. (A pop-up screen will appear). _____
- E. INPUT the exit velocity flow rate using the pop-up screen by positioning the cursor over the **correct value(s)** and **CLICKING** the mouse once. _____
 - **Exit Velocity For HOPE CREEK:** ZERO (0) for all REL PTs.
 - **Exit Velocity For SALEM:** ZERO (0) for REL PTs. 1 and 4
 - **Exit Velocity For SALEM:** 95 for REL PT 2
- F. INPUT the exit velocity flow rate using the pop-up screen by positioning the cursor over the **correct Value(s)**, selected from above, and **CLICKING** the mouse once. _____
- G. POSITION the cursor over the **EN** box when the appropriate values are inputted and **CLICK** the mouse once. (The box will become highlighted with the flow rate inside the box). _____
- H. POSITION the cursor over the **MAX DIST DOWNWIND (MILES)** box and **CLICK** the mouse once. A pop-up screen will appear. _____
- I. INPUT 10 using the pop-up screen. _____
- J. POSITION the cursor over the **EN** box and **CLICK** the mouse once. (The box will become highlighted with 10 appearing inside the box). _____

5.5.6 POSITION the cursor over the **AUTO SCENARIO INTEGRATION** box and **CLICK** the mouse once. (The box will become highlighted). _____

5.5.7 POSITION the cursor over the **CONFIRM** box and **CLICK** the mouse once. (The box will become highlighted and Run Mode and Integration screen will appear). _____

- 5.5.8 POSITION the cursor over the **PROJECTED (FORECAST) DOSE** box. _____
- 5.5.9 IF the **PROJECTED (FORECAST) DOSE** is highlighted, THEN GO to step 5.5.11. _____
- 5.5.10 IF the **PROJECTED (FORECAST) DOSE** box is not highlighted, THEN place the cursor on the box and **CLICK** the mouse once. _____
- 5.5.11 POSITION the cursor over the **START DATE INTEG. CURRENT** Box and **CLICK** the mouse once. _____
- 5.5.12 IF the **PROJ. TIMES (HRS)** box **DOES** have **.25, 1, 4, 24** inside of the box and is highlighted, THEN go to Step 5.5.14. _____
- 5.5.13 IF the **PROJ. TIMES (HRS)** box **DOESN'T** have **.25, 1, 4, 24** inside of box, THEN POSITION the cursor over the **PROJ. TIMES (HRS)** box and **CLICK** the mouse once. (A pop-up screen will appear in the upper right of the screen). _____
 - A. INPUT **.25, 1, 4, 24** using the pop-up screen. _____
 - B. POSITION the cursor over the **EN** box and **CLICK** the mouse once. _____
- 5.5.14 POSITION the cursor over the **CONFIRM** box and **CLICK** the mouse once. (The box will become highlighted and the Release Option Selection screen will appear). _____
- 5.5.15 POSITION the cursor over the **DEFAULT DBA ACCIDENT** box and **CLICK** the mouse once. (The box will become highlighted). _____
- 5.5.16 POSITION the cursor over the **CONFIRM** box and **CLICK** the mouse once. (The Design Basis Accident Selection screen for the release point selected will appear). _____
- 5.5.17 POSITION the cursor over the **appropriate accident** and **CLICK** the mouse once. (The box will become highlighted) _____
- 5.5.18 POSITION the cursor over the **appropriate selection(s)** and **CLICK** the mouse once. (The Release Timing Selection screen will appear). _____

5.5.19 POSITION the cursor over the **TRIP CURRENT TIME** box and CLICK the mouse once. _____

5.5.20 POSITION the cursor over the **CONFIRM** box and CLICK the mouse once. (The box will become highlighted and the Release Option Selection screen will appear). _____

5.5.21 POSITION the cursor over the **CONFIRM** box and CLICK the mouse once. (**DO NOT ENTER ANY VALUES IN THE DURATION OR REMAINING DURATION BOXES.** The Weather Selection screen will appear). _____

5.5.22 PERFORM the following steps to input meteorological data :

NOTE

The user will **NOT** be prompted for the **SPD33P (MPH)** if the release is an elevated release.

- A. POSITION the cursor over the **SPD33P (MPH)** box and CLICK the mouse once to input the 33 foot elevation wind speed. _____
- B. POSITION the cursor over the **appropriate number(s)** you wish to enter and CLICK the mouse once. (The number you chose will be displayed in the top portion of the pop-up screen). _____
- C. MOVE the cursor over the **EN** box and CLICK the mouse once. [The value chosen will be displayed in specific weather parameter box that is being inputted (i.e. SPD33P MPH)]. _____

NOTE

The user will **NOT** be prompted for the **SPD300 (MPH)** if the release is a ground release.

- D. POSITION the cursor over the **SPD300 (MPH)** box and CLICK the mouse once to input the 300 foot elevation wind speed. _____

- E. POSITION the cursor over the **appropriate number(s)** you wish to enter and **CLICK** the mouse once. (The number you chose will be displayed in the top portion of the pop-up screen). _____
- F. MOVE the cursor over the **EN** box and **CLICK** the mouse once. (The value chosen will be displayed in specific weather parameter box). _____

NOTE

The Default Value of one (1.0) should be used for DT300, if the delta t data is not available. This will produce an "E" stability class.

- G. POSITION the cursor over the **DT300 (DEG.C)** box and **CLICK** the mouse once to input the 300 - 33 foot delta temperature. (The box will become highlighted). _____
- H. POSITION the cursor over the **appropriate number(s)** you wish to enter and **CLICK** the mouse once. (The number you chose will be displayed in the top portion of the pop-up screen). _____
- I. MOVE the cursor over the **EN** box and **CLICK** the mouse once. (The value chosen will be displayed in specific weather parameter box). _____

NOTE

MIDAS does not use ambient temperature value. Twenty (20) degrees should be used for ambient temperature.

- J. POSITION the cursor over the **TEMP33 (DEG.C)** box and **CLICK** the mouse once to input the ambient temperature.(The box will become highlighted). _____
- K. POSITION the cursor over the appropriate number **20** and **CLICK** the mouse once. (The number 20 will be displayed in the top portion of the pop-up screen). _____
- L. MOVE the cursor over the **EN** box and **CLICK** the mouse once. (The value chosen will be displayed in specific weather parameter box). _____

- M. POSITION the cursor over the **DIR33P (DEG.C)** box and CLICK the mouse once to input the 33 foot wind direction. (The box will become highlighted). _____
- N. POSITION the cursor over the **appropriate number(s)** you wish to enter and CLICK the mouse once. (The number you chose will be displayed in the top portion of the pop-up screen). _____
- O. MOVE the cursor over the **EN** box and CLICK the mouse once. (The value chosen will be displayed in specific weather parameter box). _____
- P. POSITION the cursor over the **RAIN (INCHES)** box and CLICK the mouse once to input the 15 minute average precipitation. (The box will become highlighted). _____

NOTE

The following values of values may be inputted if actual rainfall data is not known:

- 0.08 = (Heavy Rainfall)
- 0.02 = (Moderate Rainfall)
- 0.01 = (Light Rainfall)
- The number Zero "0" if it is not raining.

- Q. POSITION the cursor over the **appropriate number(s)** You wish to enter and CLICK the mouse once. (The number you chose will be displayed in the top portion of the pop-up screen). _____
- R. MOVE the cursor over the **EN** box and CLICK the mouse once. (The value chosen will be displayed in specific weather parameter box). _____

NOTE

The **PCT CLOUD COVER REQUIRES SPEED, USE LAST MET DATE**, and **USE DEFAULT MET** boxes should **NOT** be used.

S. POSITION the cursor over **CONFIRM** box and CLICK the mouse once. (The Rad Monitoring Channel screen will appear). _____

5.5.23 POSITION the cursor over the **CONTINUE** box and CLICK the mouse once. (The box will become highlighted and Release Point Data screen will appear). _____

5.5.24 POSITION the cursor over the **CONTINUE** box and CLICK the mouse once. (The box will become highlighted and the Summary of Meteorological Data screen will appear). _____

5.5.25 POSITION the cursor over **CONTINUE** box and CLICK the mouse once. (The calculating screen will appear, while PC MIDAS performs dose assessment calculations. The SSCL will automatically printout and the 10 mile TEDE 4-DAY map will appear on the screen after the calculations are finished). _____

5.5.26 POSITION the cursor to the **CONTINUE** box on the bottom of the screen and CLICK the mouse once. (The NEXT REPORT box will replace the CONTINUE box). _____

5.5.27 POSITION the cursor over the **NEXT REPORT** box and CLICK the mouse once. (The MORE REPORTS box will replace the NEXT REPORT box). _____

5.5.28 POSITION the cursor over the **MORE REPORTS** box and CLICK the mouse once. (The More Reports Selection screen will appear). _____

NOTE

- Step 5.5.29 provides instructions for utilizing the SSCL Box to print a SSCL to the screen, if the printer is malfunctioning.
- Step 5.5.29 provides instructions for utilizing the SSCL Box to print an additional SSCL.
- A blank SSCL page 2 can be found in ECG Attachment 8 or obtained from Communicator 2.

5.5.29 IF a SSCL needs be printed to the screen or another SSCL printed out, THEN:

A. POSITION the cursor over the **SSCL** Box and **CLICK** the mouse once. _____

B. POSITION the cursor over the **CONFIRM** box and **CLICK** the mouse once. (The SSCL will be printed to the screen, and if the printer is functioning, another SSCL will be printed out). _____

5.5.30 POSITION the cursor over the **EXIT** box and **CLICK** the Mouse once. (The EXIT box will become highlighted). _____

5.5.31 **CLICK** the mouse again. (The Function Selection screen will appear). _____

5.5.32 IF another dose assessment calculation and SSCL is needed, THEN REPEAT steps 5.5.1 through 5.5.30. _____

5.5.33 IF you need to exit the MIDAS program, THEN:

A. POSITION the cursor over the **EXIT** box and click the mouse twice. (The Unit Selection screen will appear). _____

B. POSITION the cursor over the **EXIT** box, click the mouse twice. _____

5.6 Perform The Following To Produce A SSCL Page 2 Using The Default Dose Assessment Based On NUREG 1228 Mode

NOTE

- While performing NUREG 1228 "WHAT IF" DEFAULT dose assessment calculations, the following appears on the screen:
**NO RESPONSE FROM DADIS – (HOPE CREEK/SALEM) TO DADIS
DATA COLLECTION FROM DADIS WAS TERMINATED
ENTER OPTION: [YE] TRY DATA COLLECTION AGAIN
 [NO] PROCEED WITH MANUAL ENTRY**
Respond in the following manner:
Choose **NO** and proceed with Section 5.6 of this procedure.
- Section 5.6 of this procedure should only be used to perform "WHAT IF" NUREG 1228 DEFAULT dose assessment calculations and should **NOT** be used for event classifications or protective action recommendations.

- 5.6.1 POSITION the cursor over the **ACCIDENT DOSE CALCULATIONS (AC)** box and CLICK the mouse once. (Your selection will become highlighted). _____
- 5.6.2 POSITION the cursor over the **CONFIRM** box and CLICK the mouse once. [Your selection will become highlighted and the Accident Dose Calculations (AC) screen will appear]. _____
- 5.6.3 POSITION the cursor over **ADVANCED CALCS ALL SCREENS (MENU X)** and CLICK the mouse once. (Your selection will become highlighted). _____
- 5.6.4 POSITION the cursor over the **CONFIRM** box and CLICK the mouse once. (The box will become highlighted. MIDAS will attempt to collect automatic data. The Miscellaneous Parameters screen will then appear). _____
- 5.6.5 PERFORM the following to highlight appropriate selections:
- A. POSITION the cursor over the **RESET** box and CLICK the mouse. No boxes will now be highlighted. _____
 - B. POSITION the cursor over the **MANUAL** box and CLICK the mouse once. _____

- C. POSITION the cursor over the appropriate **RELEASE POINT(S)** and **CLICK** the mouse once. (The box will become highlighted). _____
 - D. POSITION the cursor over the **FLOW EX VEL (CFM)** box for the release point chosen and **CLICK** the mouse once. (A pop-up screen will appear). _____
 - E. INPUT the **exit velocity flow rate** using the pop-up screen by positioning the cursor over the correct values and **CLICKING** the mouse once. _____
 - **Exit Velocity For HOPE CREEK: ZERO (0)** for all REL PTs.
 - **Exit Velocity For SALEM: ZERO (0)** for REL PTs. 1 and 4
 - **Exit Velocity For SALEM: 95** for REL PT 2
 - F. POSITION the cursor over the **EN** box when the appropriate values are inputted and **CLICK** the mouse once. (The box will become highlighted with the flow rate inside the box). _____
 - G. POSITION the cursor over the **MAX DIST DOWNWIND (MILES)** box and **CLICK** the mouse once. A pop-up screen will appear. _____
 - H. INPUT **10** using the pop-up screen. _____
 - I. POSITION the cursor over the **EN** box and **CLICK** the mouse once. (The box will become highlighted with 10 appearing inside the box). _____
- 5.6.6 POSITION the cursor over the **AUTO SCENARIO INTEGRATION** box and **CLICK** the mouse once. (The box will become highlighted). _____
- 5.6.7 POSITION the cursor over the **CONFIRM** box and **CLICK** the mouse once. (The box will become highlighted and Run Mode and Integration screen will appear). _____
- 5.6.8 POSITION the cursor over the **PROJECTED (FORECAST) DOSE** box. _____
- 5.6.9 IF the **PROJECTED (FORECAST) DOSE** is highlighted, THEN GO to step 5.6.11. _____

- 5.6.10 IF the **PROJECTED (FORECAST) DOSE** box is not highlighted, THEN position the cursor over the box and **CLICK** the mouse once. _____
- 5.6.11 POSITION the cursor over the **START DATE INTEG. CURRENT** Box. _____
- 5.6.12 IF the **PROJ. TIMES (HRS)** box **DOES** have **.25, 1, 4, 24** inside of the box and is highlighted, THEN go to Step 5.6.14. _____
- 5.6.13 IF the **PROJ. TIMES (HRS)** box doesn't have **.25, 1, 4, 24** inside of it and is not highlighted, THEN POSITION the cursor over the **PROJ. TIMES (HRS)** box and **CLICK** the mouse once. (A pop-up screen will appear in the upper right of the screen). _____
- A. INPUT **.25, 1, 4, 24** using the pop-up screen. _____
- B. POSITION the cursor over the **EN** box and **CLICK** the mouse once. _____
- 5.6.14 POSITION the cursor over the **CONFIRM** box and **CLICK** the mouse once. (The box will become highlighted and the Release Option Selection screen will appear). _____
- 5.6.15 POSITION the cursor over the **EVENT TREE NUREG 1228** box and **CLICK** the mouse once. (The box will become highlighted). _____
- 5.6.16 POSITION the cursor over the **CONFIRM** box and **CLICK** the mouse once. (The Event Tree NUREG 1228 Selection screen for the different NUREG 1228 default accidents will appear). _____
- 5.6.17 POSITION the cursor over the **appropriate accident** and **CLICK** the mouse once. (Choices for the specific accident selected will appear). _____
- 5.6.18 POSITION the cursor over the **appropriate selection(s)** and **CLICK** the mouse once. (The Release Timing Selection screen will appear). _____
- 5.6.19 POSITION the cursor over the **TRIP CURRENT TIME** box and **CLICK** the mouse once. _____
- 5.6.20 POSITION the cursor over the **RELEASE START SAME AS TRIP DATE** box and **CLICK** the mouse once. _____

5.6.21 POSITION the cursor over the **CONFIRM** box and CLICK the mouse once. (**DO NOT ENTER ANY VALUES IN THE DURATION OR REMAINING DURATION BOXES.** The Weather Selection screen will appear).

5.6.22 PERFORM the following steps to input meteorological data :

NOTE

The user will **NOT** be prompted for the **SPD33P (MPH)** if the release is an elevated release.

- A. POSITION the cursor over the **SPD33P (MPH)** box and CLICK the mouse once to input the 33 foot elevation wind speed.
- B. POSITION the cursor over the **appropriate number(s)** You wish to enter and CLICK the mouse once. (The number you chose will be displayed in the top portion of the pop-up screen).
- C. MOVE the cursor over the **EN** box and CLICK the mouse once. [The value chosen will be displayed in specific weather parameter box that is being inputted (i.e. SPD33P MPH)].

NOTE

The user will **NOT** be prompted for the **SPD300 (MPH)** if the release is a ground release.

- D. POSITION the cursor over the **SPD300 (MPH)** box and CLICK the mouse once to input the 300 foot elevation wind speed.
- E. POSITION the cursor over the **appropriate number(s)** You wish to enter and CLICK the mouse once. (The number you chose will be displayed in the top portion of the pop-up screen).

- F. MOVE the cursor over the **EN** box and **CLICK** the mouse once. (The value chosen will be displayed in specific weather parameter box).
-

NOTE

The Default Value of one (1.0) should be used for DT300, if the delta t data is not available. This will produce an "E" stability class.

- G. POSITION the cursor over the **DT300 (DEG.C)** box and **CLICK** the mouse once to input the 300 - 33 foot delta temperature. (The box will become highlighted).
-
- H. POSITION the cursor over the **appropriate number(s)** you wish to enter and **CLICK** the mouse once. (The number you chose will be displayed in the top portion of the pop-up screen).
-
- I. MOVE the cursor over the **EN** box and **CLICK** the mouse once. (The value chosen will be displayed in specific weather parameter box).
-

NOTE

MIDAS does not use the value used for the ambient temperature. Twenty (20) degrees should be used.

- J. POSITION the cursor over the **TEMP33 (DEG.C)** box and **CLICK** the mouse once to input the ambient temperature. (The box will become highlighted).
-
- K. INPUT the value **20** and **CLICK** the mouse once. (The number 20 will be displayed in the top portion of the pop-up screen).
-
- L. MOVE the cursor over the **EN** box and **CLICK** the mouse once. (The value chosen will be displayed in specific weather parameter box).
-

- M. POSITION the cursor over the **DT300 (DEG.C)** box and **CLICK** the mouse once to input the 300 - 33 foot delta temperature. (The box will become highlighted). _____
- N. POSITION the cursor over the **appropriate number(s)** you wish to enter and **CLICK** the mouse once. (The number you chose will be displayed in the top portion of the pop-up screen). _____
- O. MOVE the cursor over the **EN** box and **CLICK** the mouse once. (The value chosen will be displayed in specific weather parameter box). _____
- P. POSITION the cursor over the **RAIN (INCHES)** box and **CLICK** the mouse once to input the 15 minute average precipitation. (The box will become highlighted). _____

NOTE

The following values may be inputted if actual rainfall data is not known:

- 0.08 = (Heavy Rainfall)
- 0.02 = (Moderate Rainfall)
- 0.01 = (Light Rainfall)
- The number Zero "0" if it is not raining.

- Q. POSITION the cursor over the **appropriate number(s)** You wish to enter and **CLICK** the mouse once. (The number you chose will be displayed in the top portion of the pop-up screen). _____
- R. MOVE the cursor over the **EN** box and **CLICK** the mouse once. (The value chosen will be displayed in specific weather parameter box). _____

NOTE

The **PCT CLOUD COVER** REQUIRES **SPEED**, **USE LAST MET DATE**, and **USE DEFAULT MET** boxes should **NOT** be used.

S. POSITION the cursor over **CONFIRM** box and CLICK the mouse once. (The Rad Monitoring Channel screen will appear). _____

5.6.23 POSITION the cursor over the **CONTINUE** box and CLICK the mouse once. (The box will become highlighted and Release Point Data screen will appear). _____

5.6.24 POSITION the cursor over the **CONTINUE** box and CLICK the mouse once. (The box will become highlighted and the Summary of Meteorological Data screen will appear). _____

5.6.25 POSITION the cursor over **CONTINUE** box and CLICK the mouse once. (The calculating screen will appear, while PC MIDAS performs dose assessment calculations. The SSCL will automatically printout and the 10 mile TEDE 4-DAY map will appear on the screen after the calculations are finished). _____

5.6.26 POSITION the cursor to the **CONTINUE** box on the bottom of the screen and CLICK the mouse once. (The **NEXT REPORT** box will replace the **CONTINUE** box). _____

5.6.27 POSITION the cursor over the **NEXT REPORT** box and CLICK the mouse once. (The **MORE REPORTS** box will replace the **NEXT REPORT** box). _____

5.6.28 POSITION the cursor over the **MORE REPORTS** box and CLICK the mouse once. (The More Reports Selection screen will appear). _____

NOTE

- Step 5.6.29 provides instructions for utilizing the SSCL Box to print a SSCL to the screen, if the printer is malfunctioning.
- Step 5.6.29 provides instructions for utilizing the SSCL Box to print an additional SSCL.
- A blank SSCL page 2 can be found in ECG Attachment 8 or obtained from Communicator 2.

5.6.29 IF a SSCL needs to be printed to the screen or another SSCL printed out, THEN:

- A. POSITION the cursor over the **SSCL** Box and CLICK the mouse once. _____
- B. POSITION the cursor over the **CONFIRM** box and CLICK the mouse once. (The SSCL will be printed to the screen, and if the printer is functioning, another SSCL will be printed out). _____

5.6.30 POSITION the cursor over the **EXIT** box and CLICK the Mouse once. (The EXIT box will become highlighted). _____

5.6.31 CLICK the mouse again. (The Function Selection screen will appear). _____

5.6.32 IF another dose assessment calculation and SSCL is needed, THEN REPEAT steps 5.6.1 through 5.6.30. _____

5.6.33 IF you need to exit the MIDAS program, THEN:

- A. POSITION the cursor over the **EXIT** box and click the mouse twice. (The Unit Selection screen will appear). _____
- B. POSITION the cursor over the **EXIT** box, click the mouse twice. _____

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**

7.1.1 EPA 400, Manual of Protective Action Guides And Protective Actions For Nuclear Incidents

7.1.2 MIDAS Documentation Volumes 1-5

7.1.3 PSEG Nuclear Emergency Plan

7.2 **Cross References**

7.2.1 NC.EP-EP.ZZ-0310(Q), Radiation Protection Supervisor – Offsite and Field Monitoring Team Response

7.2.2 HC.EP-EP.ZZ-0301(Q), Shift Radiation Protection Response

7.2.3 SC.EP-EP.ZZ-0301(Q), Shift Radiation Protection Response

ATTACHMENT 1

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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 TYPE M E T 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 meteorological data will be printed out every 15 minutes.

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

1.2 Perform The Following Steps to Obtain Archived Meteorological Data:

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

1.2.2 TYPE M E T 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).

ATTACHMENT 1

Page 2 of 3

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

1.2.5 IF you want data from 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). _____

- ENTER **"Y"** if the information is **CORRECT**. _____
- ENTER **"N"** if the information is **NOT CORRECT** and reenter data as shown in Step 1.2.6. _____

1.2.7 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). _____

- ENTER **"Y"** if the information is **CORRECT**. _____
- ENTER **"N"** if the information is **NOT CORRECT** and reenter data as shown in Step 1.2.7. _____

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 TYPE **E O F** and depress the **RETURN** key. (A prompt should be displayed asking for PASSWORD). _____

2.1.3 TYPE **E O F U S E R** and depress the **RETURN** key. (The EOF Plant Menu should be displayed.) _____

ATTACHMENT 1

PAGE 3 OF 3

- 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 TYPE **E O F** and depress the **RETURN** key. (A prompt should be displayed asking for PASSWORD). _____
- 2.2.3 TYPE **E O F U S E R** 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 6 (15 Minute Historical Data)**.
(Current system date and time should be displayed. A prompt should be displayed for start date and time) _____
- 2.2.7 DEPRESS the **RETURN** key for 15 minute average RMS and MET data. (Your selection will be printed). _____

ATTACHMENT 2

Page 1 of 3

INSTRUCTIONS FOR SALEM SPDS DISPLAYS

1.0

SALEM 1 & 2 SPDS RADIOLOGICAL SCREEN INSTRUCTIONS

1.1

Follow The Steps Below In The Listed Order, To Display SPDS Radiological Screens.NOTE

- Values in Red are in HIGH HIGH ALARM.
- Values in YELLOW with are in HIGH ALARM.
-
- Form – 1, SPDS RMS Log, may be used to record SPDS RMS values.

1.1.1 DEPRESS the UNIT MASTER MENU Key

1.1.2 DEPRESS and hold the "SHIFT" key, while depressing the **Number 5 Key**. (Radiation Monitor Screen 1 will be displayed). This screen (Radiation Monitor Screen 1) consists of instantaneous values for the RMS monitors listed below).

- R46A-E Main Steam Line Mon
- R44A/B Containment Post LOCA Rad Mon
- R11A Containment Particulate
- R12A Containment Noble Gas
- R12B Containment Iodine
- R44A/B Integ Dose Containment Post LOCA Rad Mon

1.1.3 DEPRESS and hold the "SHIFT" key, while depressing the **Number 2 Key**. (Radiation Monitor Screen 2 will be displayed). This screen consists (Radiation Monitor Screen 2) of RMS instantaneous monitor values listed below).

ATTACHMENT 2

Page 2 of 3

- R45B Plant Vent Accident Mon (Medium Range Noble Gas)
- R45C Plant Vent Accident Mon (High Range Noble Gas)
- R16 Plant Vent Gas Effluent
- R41A Low Range Noble Gas
- R41B Mid Range Noble Gas
- R41C High Range Noble Gas
- R43 Aux Building Roof Mon
- Unit 1 or 2 Noble Gas Release Rate
- Combined Noble Gas Release Rate

1.1.4 DEPRESS and hold the "**SHIFT**" key, while depressing the **Number 3 Key**. (Radiation Monitor Screen 3 will be displayed). This screen (Radiation Monitor Screen 3) consists of RMS 15 minute average monitor values listed below).

- R46A-E Main Steam Line Mon
- R44A/B Containment Post LOCA Rad Mon
- R11A Containment Particulate
- R12A Containment Noble Gas
- R12B Containment Iodine

1.1.5 DEPRESS and hold the "**SHIFT**" key, while depressing the **Number 4 Key**. (Radiation Monitor Screen 4 will be displayed). This screen (Radiation Monitor Screen 4) consists of RMS 15 minute average monitor values listed below).

- Plant Vent Airflow to Atmosphere (Plant Vent Flow Rate)
- R45B Plant Vent Accident Mon (Medium Range Noble Gas)

ATTACHMENT 2

Page 3 of 3

- R45C Plant Vent Accident Mon (High Range Noble Gas)
- R16 Plant Vent Gas Effluent
- R41A Low Range Noble Gas
- R41B Mid Range Noble Gas
- R41C High Range Noble Gas
- R43 Aux Building Roof Mon

1.1.6 RECORD RMS values on Form - 1, SPDS RMS Log (Salem Only). _____

2.0 SALEM 1 & 2 SPDS RADIOLOGICAL SCREEN TRENDING INSTRUCTIONS

2.1 Perform The Steps Listed Below In The Listed Order, To Trend SPDS Radiological Monitors.

2.1.1 DISPLAY the screen that lists the monitor you want to trend. _____

2.1.2 DEPRESS the "DATA ENTRY FORWARD" key to move the cursor to the radiation monitor that is to be trended. _____

2.1.3 DEPRESS the "TREND" key. _____

2.1.4 DEPRESS the "Page Down" key to display the trending of the monitor. _____

2.1.5 DEPRESS the "Page Up" key to return to Radiation Monitor Screen 1. _____

3.0 RML SCREEN INSTRUCTIONS

DEPRESS The **RML** Key To Display The Dome Screen. _____
 (Instantaneous RMS Values will be displayed).

4.0 RML SCREEN INSTRUCTIONS

DEPRESS The **RM** Key To Display Any **Abnormal Or Potential Abnormal Radiological Releases In Progress.** _____

FORM - 1

Page 1 of 1

SPDS RMS LOG (SALEM ONLY)

Date/Time: ____ - ____ - ____ / ____ : ____

Salem Unit ____

Location on SPDS	Monitor Number	Description of Monitor	Value of Monitor	Units
Screen 1/3	R46A	Main Steam Line Mon	_____	mR/hr
Screen 1/3	R46B	Main Steam Line Mon	_____	mR/hr
Screen 1/3	R46C	Main Steam Line Mon	_____	mR/hr
Screen 1/3	R46D	Main Steam Line Mon	_____	mR/hr
Screen 1/3	R46E	Main Steam Line Mon	_____	mR/hr
Screen 1/3	R44A	CNTMT Post LCOA Mon	_____	R/hr
Screen 1/3	R44B	CNTMT Post LOCA Mon	_____	R/hr
Screen 1/3	R11A	CNTMT Particulate Mon	_____	cpm
Screen 1/3	R12A	CNTMT Noble Gas Mon	_____	cpm
Screen 1/3	R12B	CNTMT Iodine Mon	_____	cpm
Screen 4	R16	Plant Vent Gas Mon	_____	cpm
Screen 2/4	R41A	Low Range Noble Gas Mon	_____	uCi/cc
Screen 2/4	R41B	Mid Range Noble Gas Mon	_____	uCi/cc
Screen 2/4	R41C	High Range Noble Gas Mon	_____	uCi/cc
Screen 2/4	R45B	Plant Vent Accident Mon (Min Range Noble Gas Back-up)	_____	uCi/cc
Screen 2/4	R45C	Plant Vent Accident Mon (High Range Noble Gas Back-up)	_____	uCi/cc

TABLE 1-1
Page 1 of 1
DRYWELL LEAK RATE NOMOGRAM
RELEASE RATE (UCI/SEC)

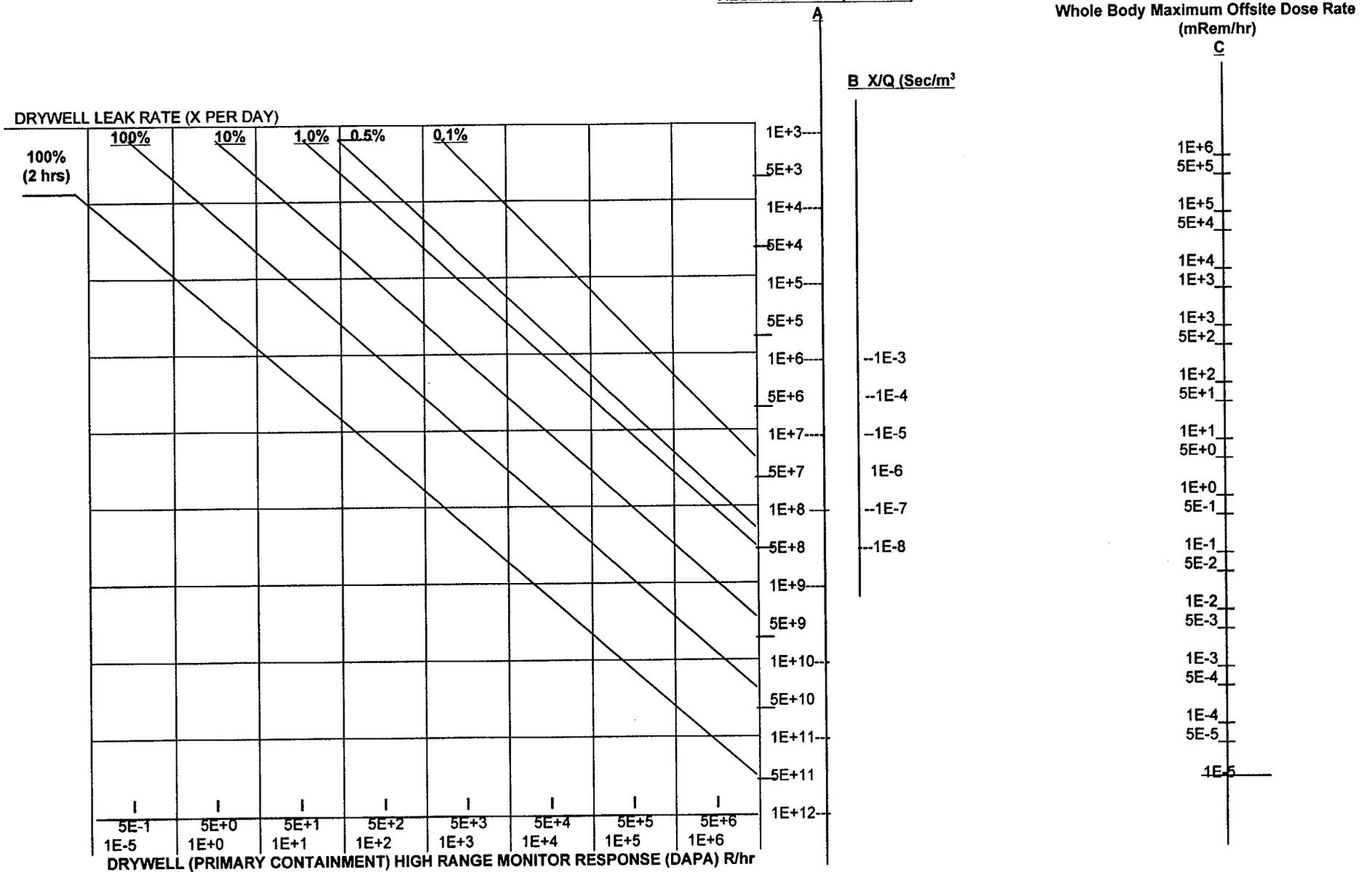


TABLE 1 - 2
Page 1 of 1
Xu/Q VALUES FOR ELEVATED RELEASES AT HOPE CREEK
(MULTIPLY ALL VALUES BY 1.0E-06)
STABILITY CLASS

MILES	METERS	A	B	C	D	E	F	G
0.06	100	47.6	9.5	103.2	1.1E-09	1.9E-18	6.4E-49	-----
0.12	200	120.2	105.9	338.9	5.7E-01	1.1E-03	1.7E-13	5.5E-39
0.19	300	77.5	113.3	270.1	16.5	0.72	7.8E-06	4.7E-19
0.25	400	42.7	87.8	194.0	47.4	7.6	7.2E-03	4.8E-11
0.31	500	24.7	65.1	142.0	70.3	22.4	0.22	5.6E-07
0.37	600	15.3	48.9	107.5	81.2	39.3	1.5	1.3E-04
0.44	700	10.1	37.6	84.0	83.7	53.7	4.9	4.1E-03
0.50	800	7.0	29.6	67.4	81.7	63.9	10.6	0.042
0.56 (MEA)	900	5.1	23.8	55.3	77.5	70.3	18.1	0.22
0.79	1270	1.8	12.4	30.5	58.8	73.3	46.6	5.7
1.0	1609	1.1	7.8	20.1	45.6	65.3	57.9	15.0
1.5	2414	0.77	3.5	9.7	27.7	46.1	57.7	31.7
2.0	3218	0.59	2.0	5.8	18.9	34.0	49.6	37.6
2.5	4023	0.48	1.3	3.9	13.9	26.3	42.0	38.3
3.0	4827	0.41	0.89	2.8	10.8	21.2	36.0	37.1
3.5	5632	0.36	0.65	2.1	8.7	17.6	31.2	35.1
4.0	6436	0.32	0.50	1.7	7.2	14.9	27.5	33.0
4.5	7241	0.28	0.40	1.3	6.1	12.9	24.4	31.0
5.0 (LPZ)	8045	0.26	0.34	1.1	5.2	11.3	22.0	29.1
5.5	8850	0.24	0.32	0.93	4.6	10.1	19.9	27.4
6.0	9654	0.22	0.29	0.80	4.0	9.0	18.2	25.8
6.5	10459	0.20	0.27	0.69	3.6	8.2	16.7	24.4
7.0	11263	0.19	0.25	0.60	3.2	7.4	15.4	23.1
7.5	12068	0.18	0.24	0.53	2.9	6.8	14.3	21.9
8.0	12872	0.17	0.22	0.47	2.7	6.3	13.3	20.8
8.5	13677	0.16	0.21	0.42	2.4	5.8	12.5	19.8
9.0	14481	0.15	0.20	0.38	2.3	5.4	11.7	18.9
9.5	15286	0.14	0.19	0.35	2.1	5.1	11.1	18.1
10.0 (EPZ)	16090	0.14	0.18	0.32	1.9	4.7	10.4	17.4
15.0	24135	0.096	0.13	0.17	1.1	2.8	6.6	12.2
20.0	32180	0.074	0.098	0.13	0.72	2.0	4.8	9.4
25.0	40225	0.060	0.080	0.11	0.52	1.5	3.7	7.6
30.0	48270	0.051	0.068	0.090	0.40	1.2	3.0	6.4
35.0	56315	0.045	0.059	0.078	0.32	0.98	2.5	5.5
40.0	64360	0.040	0.053	0.069	0.27	0.83	2.2	4.8
45.0	72405	0.036	0.047	0.062	0.22	0.71	1.9	4.3
50.0	80450	0.032	0.043	0.057	0.19	0.63	1.7	3.9

HOPE CREEK ELEVATED RELEASES

TABLE 1 - 3
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Xu/Q VALUES FOR GROUND RELEASES AT HOPE CREEK
(MULTIPLY ALL VALUES BY 1.0E-06)
STABILITY CLASS

MILES	METERS	A	B	C	D	E	F	G
0.06	100	351.2	417.0	473.7	517.9	534.9	546.9	552.3
0.12	200	174.6	257.9	344.4	439.8	488.7	525.1	542.6
0.19	300	83.0	159.0	243.5	361.4	435.8	497.1	529.3
0.25	400	43.0	103.6	175.7	295.1	384.3	466.0	513.3
0.31	500	24.6	71.5	131.0	242.5	337.6	433.8	495.5
0.37	600	15.2	51.8	100.8	201.5	296.7	402.2	476.4
0.44	700	10.1	39.0	79.7	169.4	261.6	371.9	456.7
0.50	800	7.0	30.4	64.5	144.2	231.7	343.5	436.7
0.56 (MEA)	900	5.0	24.2	53.3	124.2	206.3	317.1	416.7
0.79	1270	1.8	12.5	29.9	78.4	140.4	237.6	346.3
1.0	1609	1.1	7.9	19.8	56.3	104.8	189.0	296.6
1.5	2414	0.77	3.5	9.7	31.5	62.1	122.5	216.1
2.0	3218	0.59	2.0	5.8	20.7	42.4	88.1	166.9
2.5	4023	0.48	1.3	3.9	15.0	31.5	67.7	134.6
3.0	4827	0.41	0.89	2.8	11.4	24.7	54.4	112.1
3.5	5632	0.36	0.65	2.1	9.1	20.1	45.1	95.6
4.0	6436	0.32	0.50	1.7	7.5	16.9	38.3	83.1
4.5	7241	0.28	0.40	1.3	6.3	14.4	33.2	73.3
5.0 (LPZ)	8045	0.26	0.34	1.1	5.4	12.5	29.2	65.4
5.5	8850	0.24	0.32	0.93	4.7	11.0	26.0	59.0
6.0	9654	0.22	0.29	0.80	4.2	9.8	23.4	53.7
6.5	10459	0.20	0.27	0.69	3.7	8.9	21.2	49.2
7.0	11263	0.19	0.25	0.60	3.3	8.0	19.4	45.3
7.5	12068	0.18	0.24	0.53	3.0	7.3	17.8	42.0
8.0	12872	0.17	0.22	0.47	2.7	6.7	16.5	39.2
8.5	13677	0.16	0.21	0.42	2.5	6.2	15.3	36.6
9.0	14481	0.15	0.20	0.38	2.3	5.8	14.3	34.4
9.5	15286	0.14	0.19	0.35	2.1	5.4	13.3	32.4
10.0 (EPZ)	16090	0.14	0.18	0.32	2.0	5.0	12.5	30.6
15.0	24135	0.096	0.13	0.17	1.1	3.0	7.7	19.5
20.0	32180	0.074	0.098	0.13	0.72	2.1	5.4	14.2
25.0	40225	0.060	0.080	0.11	0.52	1.5	4.2	11.1
30.0	48270	0.051	0.068	0.090	0.40	1.2	3.3	9.1
35.0	56315	0.045	0.059	0.078	0.32	1.0	2.8	7.7
40.0	64360	0.040	0.053	0.069	0.27	0.8	2.4	6.7
45.0	72405	0.036	0.047	0.062	0.23	0.7	2.1	5.9
50.0	80450	0.032	0.043	0.057	0.19	0.6	1.8	5.2

HOPE CREEK GROUND RELEASES