VIRGINIA ELECTRIC AND POWER COMPANY
RICHMOND, VIRGINIA 23261

March 3, 2000

U.S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D.C. 20555

Serial No. 00-109
NAPS/JHL
Docket Nos. 50-338
50-339
License Nos. NPF-4
NPF-7

Gentlemen:

VIRGINIA ELECTRIC AND POWER COMPANY
NORTH ANNA POWER STATION UNITS 1 AND 2
REVISION TO EMERGENCY PLAN IMPLEMENTING PROCEDURE

Pursuant to 10 CFR 50.54(q), enclosed are recent revisions to North Anna Power Station Emergency Plan Implementing Procedures. The revisions do not implement actions that decrease the effectiveness of our Emergency Plan. The Emergency Plan and Implementing Procedures continue to meet the standards of 10 CFR 50.47(b).

Please update your manual by performing the actions described in Attachment 1, Tabulation of Changes.

Very truly yours,

W. R. Matthews
Site Vice President

Commitments Stated or Implied: None.

Enclosures

cc: U.S. Nuclear Regulatory Commission (2 copies)
Region II
Atlanta Federal Center
61 Forsyth St., SW, Suite 23T85
Atlanta, GA 30303

Mr. M. J. Morgan
NRC Senior Resident Inspector
North Anna Power Station

A045

ATTACHMENT 1
TABULATION OF CHANGES

VIRGINIA ELECTRIC AND POWER COMPANY
REVISION TO NORTH ANNA POWER STATION
EMERGENCY PLAN IMPLEMENTING PROCEDURES

Enclosed are recent revisions to North Anna Power Station Emergency Plan Implementing Procedures (EPIPs). Please take the following actions in order to keep your manual updated.

REMOVE AND DESTROY	DATED	INSERT	EFFECTIVE DATE
EPIP-4.15, Rev. 10	8/14/98	EPIP-4.15, Rev. 11	2/28/00
EPIP-4.16, Rev. 13	11/10/98	EPIP-4.16, Rev. 14	2/28/00
EPIP-4.34, Rev. 1	1/1/94	EPIP-4.34, Rev. 2	2/28/00
EPIP-5.03, Rev. 15	12/11/97	EPIP-5.03, Rev. 16	2/28/00

Emergency Plan Privacy and Proprietary Material has been removed. Reference Generic Letter No. 81-27.

NORTH ANNA POWER STATION
LIST OF NAPS EMERGENCY PLAN IMPLEMENTATION PROCEDURES
CHECK DMIS FOR LATEST DOCUMENT INFORMATION

DOCUMENT NUMBER	REV	APPROVAL **DATE**	EFFECT** **DATE**	DOCUMENT TITLE
EPIP-1.01	032	09/07/99	10/01/99	EMERGENCY MANAGER CONTROLLING PROCEDURE
EPIP-1.02	011	09/07/99	10/01/99	RESPONSE TO NOTIFICATION OF UNUSUAL EVENT
EPIP-1.03	014	09/07/99	10/01/99	RESPONSE TO ALERT
EPIP-1.04	014	09/07/99	10/01/99	RESPONSE TO SITE AREA EMERGENCY
EPIP-1.05	016	09/07/99	10/01/99	RESPONSE TO GENERAL EMERGENCY
EPIP-1.06	002	02/02/95	02/08/95	PROTECTIVE ACTION RECOMMENDATIONS
EPIP-2.01	020	03/26/99	05/17/99	NOTIFICATION OF STATE AND LOCAL GOVERNMENTS
EPIP-2.02	014	01/04/99	01/29/99	NOTIFICATION OF NRC
EPIP-2.04	003	08/07/92	08/07/92	TRANSMITTAL OF PLANT, RADIOLOGICAL AND EMERGENCY STATUS
EPIP-3.02	018	12/17/97	01/07/98	ACTIVATION OF TECHNICAL SUPPORT CENTER
EPIP-3.03	012	12/20/93	01/01/94	ACTIVATION OF OPERATIONAL SUPPORT CENTER
EPIP-3.04	015	07/14/98	07/20/98	ACTIVATION OF LOCAL EMERGENCY OPERATIONS FACILITY
EPIP-3.05	001	09/07/99	10/01/99	AUGMENTATION OF EMERGENCY RESPONSE ORGANIZATION
EPIP-4.01	016	05/12/99	05/17/99	RADIOLOGICAL ASSESSMENT DIRECTOR CONTROLLING PROCEDURE
EPIP-4.02	011	05/02/96	05/10/96	RADIATION PROTECTION SUPERVISOR CONTROLLING PROCEDURE
EPIP-4.03	011	12/20/93	01/01/94	DOSE ASSESSMENT TEAM CONTROLLING PROCEDURE
EPIP-4.04	009	11/21/94	11/28/94	EMERGENCY PERSONNEL RADIATION EXPOSURE
EPIP-4.05	009	01/28/00	02/04/00	RESPIRATORY PROTECTION AND KI ASSESSMENT
EPIP-4.06	009	12/21/95	12/28/95	PERSONNEL MONITORING AND DECONTAMINATION
EPIP-4.07	013	02/02/95	02/08/95	PROTECTIVE MEASURES
EPIP-4.08	012	07/19/95	07/21/95	INITIAL OFFSITE RELEASE ASSESSMENT
EPIP-4.09	011	07/19/95	07/21/95	SOURCE TERM ASSESSMENT
EPIP-4.10	010	04/23/98	04/28/98	DETERMINATION OF X/Q

NORTH ANNA POWER STATION
LIST OF NAPS EMERGENCY PLAN IMPLEMENTATION PROCEDURES
CHECK DMIS FOR LATEST DOCUMENT INFORMATION

DOCUMENT NUMBER	REV	APPROVAL **DATE**	EFFECT** **DATE**	DOCUMENT TITLE
EPIP-4.13	008	12/20/93	01/01/94	OFFSITE RELEASE ASSESSMENT WITH ENVIRONMENTAL DATA
EPIP-4.14	007	12/20/93	01/01/94	INPLANT MONITORING
EPIP-4.15	011	02/18/00	02/28/00	ONSITE MONITORING
EPIP-4.16	014	02/18/00	02/28/00	OFFSITE MONITORING
EPIP-4.17	014	08/12/98	08/14/98	MONITORING OF EMERGENCY RESPONSE FACILITIES
EPIP-4.18	011	08/12/98	08/14/98	MONITORING OF LEOF
EPIP-4.21	008	12/20/93	01/01/94	EVACUATION AND REMOTE ASSEMBLY AREA MONITORING
EPIP-4.22	013	04/02/93	04/02/93	POST ACCIDENT SAMPLING OF CONTAINMENT AIR
EPIP-4.23	013	03/13/96	03/18/96	POST ACCIDENT SAMPLING OF REACTOR COOLANT
EPIP-4.24	010	07/20/99	07/22/99	GASEOUS EFFLUENT SAMPLING DURING AN EMERGENCY
EPIP-4.25	008	07/23/93	07/23/93	LIQUID EFFLUENT SAMPLING DURING AN EMERGENCY
EPIP-4.26	010	11/05/96	11/13/96	HIGH LEVEL ACTIVITY SAMPLE ANALYSIS
EPIP-4.28	007	01/09/97	01/14/97	TSC/LEOF RADIATION MONITORING SYSTEM
EPIP-4.30	004	01/04/99	01/08/99	USE OF MIDAS CLASS A MODEL
EPIP-4.31	003	06/20/94	06/20/94	USE OF MIDAS CLASS B MODEL
EPIP-4.33	002	04/23/98	04/28/98	HEALTH PHYSICS NETWORK COMMUNICATIONS
EPIP-4.34	002	02/18/00	02/28/00	FIELD TEAM RADIO OPERATOR INSTRUCTIONS
EPIP-5.01	011	12/11/96	12/17/96	TRANSPORTATION OF CONTAMINATED INJURED PERSONNEL
EPIP-5.03	016	02/18/00	02/28/00	PERSONNEL ACCOUNTABILITY
EPIP-5.04	008	07/20/99	07/22/99	ACCESS CONTROL
EPIP-5.05	013	06/25/96	07/02/96	SITE EVACUATION
EPIP-5.07	010	08/12/98	09/17/98	ADMINISTRATION OF RADIOPROTECTIVE DRUGS
EPIP-5.08	006	11/05/98	11/10/98	DAMAGE CONTROL GUIDELINE

NORTH ANNA POWER STATION
LIST OF NAPS EMERGENCY PLAN IMPLEMENTATION PROCEDURES
CHECK DMIS FOR LATEST DOCUMENT INFORMATION

DOCUMENT NUMBER	REV	APPROVAL **DATE**	EFFECT** **DATE**	DOCUMENT TITLE
EPIP-5.09	003	03/26/99	03/31/99	SECURITY TEAM LEADER CONTROLLING PROCEDURE
EPIP-6.01	007	05/12/99	05/17/99	RE-ENTRY/RECOVERY GUIDELINE

VIRGINIA POWER
NORTH ANNA POWER STATION
EMERGENCY PLAN IMPLEMENTING PROCEDURE

NUMBER	PROCEDURE TITLE	REVISION
EPIP-4.15	ONSITE MONITORING (With 2 Attachments)	11
		PAGE 1 of 10

PURPOSE

To provide for performance of onsite radiological surveys and confirmation of an effluent release.

LEVEL 2 DISTRIBUTION
This Document Should Be Verified
And Annotated To A Controlled Source
As Required to Perform Work

ENTRY CONDITIONS

Any of the following:

1. Direction from the Radiological Assessment Director.
2. Direction from the Radiation Protection Supervisor.
3. Activation by another EPIP.

Approvals on File

Effective Date 2/28/2000

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED

_____ 1 INITIATE PROCEDURE:

- By: _____

Date: _____

Time: _____

NOTE: The Monitoring Team should consist of two individuals. Only one individual need be an HP Technician.

_____ 2 ASK RPS FOR BRIEFING (RAD if RPS not assigned):

- Required monitoring locations
- Samples or surveys required
- Anticipated radiation levels
- Protective clothing, dosimetry, and/or respiratory protective gear
- Assignment of radio call group for radio communications

_____ 3 CHECK IF VEHICLE - REQUIRED: GO TO Step 5.

_____ 4 ASK RPS (RAD) FOR ASSISTANCE TO GET VEHICLE (as necessary)

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED

NOTE: One Emergency Kit and a set of instruments are located in Exposure Control. Additional supplies can be obtained from normal station supplies.

_____ 5 GET EQUIPMENT:

a) Get the following equipment from HP Office (additional portable survey equipment may be obtained from HP Instrument Issue area.):

1) Normal HP survey map of area to be monitored

OR

Use blank survey map provided on Attachment 1

2) Portable survey meter (minimum range of 0-1000 mR/hr)

3) Battery powered air sampler (if air sampling required)

4) RM-14 with HP-210 probe or similar radiation monitoring device (if field analysis of samples is required)

5) Poly bags for soil sample, plastic bottles for liquid samples, gas chambers and smears (get as needed for required sample medium)

b) Do operability check, as appropriate:

- Battery check
- Current calibration sticker
- Source check (if available)

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
_____ 6	CHECK PORTABLE RADIO - AVAILABLE: a) Get portable radio b) Set radio to call group designated by RPS (RAD) c) Confirm radio operability	IF operable portable ~~radio~~ NOT available, THEN use other means to periodically communicate with RPS (RAD) (e.g., Gai-Tronics, phone).
_____ 7	DO MONITORING: a) Go to required monitoring location (specified in Step 2) b) Use specified protective gear c) Use frisker or dose rate instrument to determine where plume or surface contamination exists d) Monitor personal exposure periodically	
_____ 8	CHECK DOSE RATE SURVEY - REQUIRED: a) Use portable survey meter with beta window open b) Go through plume in a cross wind direction c) Identify maximum dose rate with window open (mR/hr) d) Close beta window e) Identify maximum dose rate with window closed (mR/hr) f) Record results on survey map	GO TO Step 9.

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
_____ 9	CHECK AIR SAMPLE - REQUIRED:	GO TO Step 10.
	a) Insert a particulate filter and Silver Zeolite cartridge into air sampler	
	b) Check air sampler supplied with batteries	b) IF sampler NOT supplied with batteries, THEN connect sampler cables to a charged battery.
	c) Go to location of maximum dose rate or to location specified by RPS (RAD)	
	d) Turn on sampler	
	e) Get sample volume as directed (minimum 2.5 ft^3 sample)	
	f) Check gas sample - REQUIRED	f) GO TO Step 9.i.
	g) Verify 100 cc gas chamber	g) IF 1000 cc plastic gas chamber used, THEN do the following: 1) Open petcocks. 2) Attach aspirator bulb. 3) Aspirate about 10 times. 4) Shut petcocks. 5) Remove aspirator bulb. 6) GO TO Step 9.i.
	h) Take gas sample using 100 cc gas chamber 1) Open top of gas chamber 2) Wave chamber within plume area 3) Close chamber	

(STEP 9 CONTINUED ON NEXT PAGE)

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED

9 CHECK AIR SAMPLE - REQUIRED: (Continued)

i) Leave plume while sampler is running (follow good ALARA practices)

j) WHEN desired volume is collected, THEN do the following:

1) Turn off sampler

2) Disconnect cables (if applicable)

k) Separate particulate filter and cartridge

l) Put sample(s) in separate labeled container(s)

m) Record sample data on Attachment 2:

- Team Identification No.
- Air Sample ID.
- Date
- Time

- Location
- Sample volume, ft^3

_____ 10 CHECK SOIL SAMPLE - REQUIRED: GO TO Step 11.

a) Take soil approximately 1/4 to 1/2 inch deep from a 1 (one) ft^2 area

b) Put soil sample in labeled container

_____ 11 CHECK LIQUID SAMPLE - REQUIRED GO TO Step 13.

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED

_____ 12 ASSURE SAMPLE IDENTIFICATION INFORMATION RECORDED ON/ATTACHED TO LIQUID SAMPLE CONTAINER

_____ 13 LEAVE PLUME AREA:

a) Determine access control point

b) Monitor for contamination

_____ 14 ASK RPS (RAD) FOR FURTHER INSTRUCTIONS:

- Stay in field: GO TO Step 15

OR

- Return to station:

a) Take off protective clothing at access point

b) Take samples to Security or to location specified by RPS

c) GO TO Step 17

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
_____ 15	CHECK FIELD ANALYSIS OF AIR SAMPLES - REQUIRED:	IF field analysis NOT required, THEN GO TO Step 16.

a) Go to a low background area

b) Turn on frisker (or similar monitoring instrument)

c) Take background count rate

d) Record background count rate on Attachment 2

e) Take gross count rate:

1) Hold Silver Zeolite cartridge about 1/4 inch from detector with influent side of cartridge facing the detector

2) Record result on Attachment 2

f) Calculate NET count rate:

1) Subtract background count rate from gross count rate

2) Record result on Attachment 2

g) Calculate Conversion Factor (CF) for sample volume collected

$$\frac{3.33\ E\text{-}10}{\#\ ft^3} = CF$$

h) Calculate activity:

NET cpm x CF = Activity, µCi/ml

i) Record result on Attachment 2

j) Calculate Thyroid CDE dose rate:

Activity, µCi/ml x 1.57 E+9 = Thy CDE, mrem/hr

k) Record result on Attachment 2

l) Keep samples for later analysis

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
16	CHECK REPEAT SAMPLING OR SURVEYS - REQUIRED: a) Maintain ALARA while remaining in field b) RETURN TO Step 7	IF directed to return to station and disposition samples, THEN GO TO Step 17. IF directed to stand-by, THEN wait for additional instructions in low background area.
17	RETURN TO STATION AND DISPOSITION SAMPLES: a) Check samples - LESS THAN 10 mR/hr b) Send sample to the count room in a clean poly bag	a) IF samples GREATER THAN 10 mR/hr, THEN do the following: 1) Send samples to Hot Lab 2) Have EPIP-4.26, HIGH LEVEL ACTIVITY SAMPLE ANALYSIS, initiated. 3) IF RPS (RAD) indicates another sample of smaller volume required, THEN RETURN TO Step 7. IF additional sample NOT required, THEN GO TO Step 18.
18	ASSURE SURVEY FORMS ARE COMPLETED WITH THE FOLLOWING DATA: • Date • Time • Name • Instrument used and serial number	

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED

_____ 19 TERMINATE EPIP-4.15:

a) Do Emergency Kit Inspections PT

b) Give EPIP-4.15, forms, and other applicable records to the Radiation Protection Supervisor

c) Completed by: _____

Date: _____

Time: _____

-END-

NUMBER	ATTACHMENT TITLE	REVISION
EPIP-4.15	BLANK SURVEY FORM	11
ATTACHMENT 1		PAGE 1 of 1

Location _____ Date _____ Time _____

Purpose: [] Routine [] Non-Routine [] RWP Prep., for RWP No. _____ Reactor Power: #1 _____%

Type: [] Gamma [] Beta [] Neutron [] Smear GA [] Smear LA [] Smear HP [] Air Sample #2 _____%

Instrument Model	Serial #

[] All GA smears <1000 DPM/100cm^2 except as noted on map or smear worksheet

[] All GA smears <1000 DPM/100cm^2 [] All GA smears in DPM/100cm^2

[] All LA smears <1000 DPM/ft^2 [] All HP smears in HPs/smear

[] All HP smears < 1 HP/smear [] All gamma readings in mrem/hr

[] Air particulates + I_2 < 0.1 DAC [] All neutron readings in mrem/hr

[] _____ [] All beta readings in mrad/hr

Comments: _____ Survey RWP:

_____ _____

Survey Team Dose, mrem (SRD/DAD or calculated):_____ Submitted By (Print & Signature): _____ Reviewed By (Print & Signature): _____ Date: _____

[] General Area, O Contact; Δ GA Smear; <> LA Smear; Δ* HP Smear; AS Air Sample; LCK Locked Gate; *** Rad Barrier

NUMBER EPIP-4.15	ATTACHMENT TITLE DATA SHEET FOR FIELD ANALYSIS OF AIR SAMPLES	REVISION 11
ATTACHMENT 2		PAGE 1 of 1

TEAM IDENTIFICATION No.: ____________________

AIR SAMPLE ID.:	SAMPLER MODEL AND SERIAL NOs.:	
DATE / TIME:	LOCATION:	
GROSS CPM:	BACKGROUND (BKG) CPM:	NET CPM (GROSS - BKG):
AIR SAMPLE VOLUME (ft^3):		
ACTIVITY, μ Ci/ml = NET CPM x Conversion Factor (3.33 E-10 ÷ # ft^3)		
THYROID CDE, mrem/hr = Activity, μ Ci/ml x 1.57E+9		

AIR SAMPLE ID.:	SAMPLER MODEL AND SERIAL NOs.:	
DATE / TIME:	LOCATION:	
GROSS CPM:	BACKGROUND (BKG) CPM:	NET CPM (GROSS - BKG):
AIR SAMPLE VOLUME (ft^3):		
ACTIVITY, μ Ci/ml = NET CPM x Conversion Factor (3.33 E-10 ÷ # ft^3)		
THYROID CDE, mrem/hr = Activity, μ Ci/ml x 1.57E+9		

AIR SAMPLE ID.:	SAMPLER MODEL AND SERIAL NOs.:	
DATE / TIME:	LOCATION:	
GROSS CPM:	BACKGROUND (BKG) CPM:	NET CPM (GROSS - BKG):
AIR SAMPLE VOLUME (ft^3):		
ACTIVITY, μ Ci/ml = NET CPM x Conversion Factor (3.33 E-10 ÷ # ft^3)		
THYROID CDE, mrem/hr = Activity, μ Ci/ml x 1.57E+9		

VIRGINIA POWER
NORTH ANNA POWER STATION
EMERGENCY PLAN IMPLEMENTING PROCEDURE

NUMBER	PROCEDURE TITLE	REVISION
EPIP-4.16	OFFSITE MONITORING (With 1 Attachment)	14 PAGE 1 of 14

PURPOSE

Provide guidance to offsite monitoring teams for acquiring equipment, tracking effluent releases, performing sampling and transmitting data.

ENTRY CONDITIONS

Activation by another EPIP.

Approvals on File

Effective Date 2/28/2000

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED

_____ 1 INITIATE PROCEDURE:

- By: _____

Date: _____

Time: _____

NOTE: Offsite Monitoring Teams consist of two individuals. Only one need be an HP Technician.

_____ 2 ASSIGN INDIVIDUALS TO TEAM

_____ 3 GET BRIEFING FROM RPS:

- Required monitoring location(s)
- Sampling and surveys required
- Anticipated radiation levels
- Protective clothing, dosimetry and/or respirator gear required

- Location to report survey data (TSC, LEOF or CEOF)
- Arrangements for return of samples to station for analysis
- Assignment of radio call group for radio communications

_____ 4 OBTAIN TRANSPORTATION:

a) Get vehicle:

- Use HP vehicle (primary method of transportation)
- Use Station Management vehicle
- Ask RPS or RAD for assistance in obtaining alternate vehicle

b) Verify vehicle has at least 1/4 tank of gas

b) IF fuel level less than 1/4 tank, THEN fill gas tank prior to departure.

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
_____ 5	GET EMERGENCY KIT FROM EXPOSURE CONTROL FACILITY a) Verify following contents: • Battery powered air sampler • RM-14 with HP-210 probe or similar monitoring device • E-520 or similar monitoring device • Package of Silver Zeolite cartridges • Particulate filters • Noble gas chambers and aspirator bulb • Plastic bags • Trowel or metal dust pan b) Do operability checks: • Battery check • Current calibration sticker • Source check (if available) • SRDs zeroed (if being used) c) Record instrument data on Attachment 1	a) IF additional instruments needed, THEN get instruments, e.g., from Instrument Issue Room or Calibration Lab.
_____ 6	RECORD MONITORING TEAM DATA ON ATTACHMENT 1: • Team Identification Number • Names	

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED

NOTE: Radio contact should be with the TSC until the LEOF (or CEOF) is activated and control of Offsite Teams is transferred.

_____ 7 ESTABLISH RADIO CONTACT:

a) Establish radio contact with command facility (TSC, LEOF or CEOF) using designated radio call group

b) Announce:

"Mobile (vehicle number) to (TSC, LEOF or CEOF) base. Our location is _____"

c) Ask for a telephone number that can be used in case of radio failure

_____ 8 GO TO DESIGNATED MONITORING LOCATION:

a) Use protective gear as required

b) Refer to maps in Emergency Kit for directions to monitoring location, as needed

IF NO location designated, THEN go to Security and wait for further instructions (periodically check with command facility).

NOTE: Dosimetry (SRDs/DADs) should be periodically checked while performing monitoring activities.

_____ 9 RECORD DOSIMETER READING IN MONITORING DATA SECTION OF ATTACHMENT 1

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED

NOTE:
- Completed samples should be placed in clean containers (e.g., plastic bags) and labeled with the following information: (1) Team Identification Number, (2) Name, (3) Location, (4) Date, (5) Time, and (6) Volume (if applicable).
- Samples should be kept for later laboratory analysis.

_____ 10 DETERMINE SAMPLING REQUIREMENTS:

- Track plume: GO TO Step 11
- Noble gas sample: GO TO Step 12
- Air sample: GO TO Step 13
- Field analysis of air sample: GO TO Step 14
- Soil sample: GO TO Step 15
- Snow or ice sample: GO TO Step 16

IF directed to return to station, THEN GO TO Step 17.

IF no immediate action required, THEN wait in low background area for further instructions.

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
_____ 11	DO PLUME MONITORING:	
	a) Get portable survey instrument	
	b) Open beta window	
	c) Go through plume in a crosswind direction (maintain parallel position with station) while doing the following:	
	1) Hold instrument out of window	
	2) Observe readings (readings should increase upon approaching plume centerline, and then decrease past centerline)	2) IF no readings observed, THEN do the following: a) Notify command facility of readings. b) GO TO Step 11.e.
	d) Determine maximum dose rate (centerline of plume)	
	e) Close beta window and observe readings	
	f) Record Monitoring Data on Attachment 1	
	g) Notify command facility of the following: • Dosimetry readings • Monitoring location • Monitoring readings	
	h) Check if additional sampling - REQUIRED	h) IF NO additional actions required, THEN go to low background area and wait for further instructions (periodically check with command facility).
	i) RETURN TO Step 8	

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
_____ 12	TAKE NOBLE GAS SAMPLE:	
	a) Go to plume centerline or to location specified by command facility	
	b) Get gas chamber from Emergency Kit	
	c) Obtain air sample	
	d) Put sample in labeled container	
	e) Notify command facility of the following: • Dosimetry readings • Monitoring location • Monitoring readings	
	f) Check if additional sampling - REQUIRED	f) IF NO additional actions required, THEN go to low background area and wait for further instructions (periodically check with command facility).
	g) RETURN TO Step 8	

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
_____ 13	GET AIR SAMPLE:	
	a) Ask command facility to determine sample volume required	
	b) Get air sampler	
	c) Insert a particulate filter and Silver Zeolite cartridge in sampler	
	d) Check if sample required during periods of high moisture (e.g., precipitation, heavy fog):	d) GO TO Step 13.e.
	1) Isolate sample from moisture	
	2) Notify command facility about weather conditions	
	e) Get sample:	
	1) Turn sampler - ON	
	2) Get volume specified by command facility (Get at least a 2.5 ft^3 air sample)	
	3) Go out of plume area while sampler is running (maintain ALARA)	
	4) Turn sampler OFF after desired volume is collected	
	5) Leave plume area	
	f) Put particulate filter and Silver Zeolite cartridge in separate labeled bags	

(STEP 13 CONTINUED ON NEXT PAGE)

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
13	GET AIR SAMPLE: (Continued)	
	g) Record Air Sample Data on Attachment 1: • Sample ID • Date • Time • Location • Volume	
	h) Notify command facility of the following: • Dosimetry readings • Monitoring location • Monitoring readings	
	i) Check if field analysis of air sample - REQUIRED	i) RETURN TO Step 8.
_____ 14	DO FIELD ANALYSIS OF AIR SAMPLE:	
	a) Go to a low background area	
	b) Turn RM-14 (frisker) - ON	b) IF frisker NOT operable, THEN GO TO Step 15.
	c) Allow instrument readings to stabilize	
	d) Determine background CPM	
	e) Record background CPM on Attachment 1	
	f) Hold silver zeolite cartridge about 1/4 inch from detector with influent side facing the detector	

(STEP 14 CONTINUED ON NEXT PAGE)

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED

14 DO FIELD ANALYSIS OF AIR SAMPLE: (Continued)

g) Check gross cpm - ON SCALE

g) Do the following:

1) Monitor sample using radiation monitoring device.

2) Notify command facility of results.

3) Ask if another sample of smaller volume should be taken.

4) IF another sample required, THEN RETURN TO Step 13.

IF converting readings, THEN GO TO Step 15.

h) Determine gross CPM

i) Record gross CPM on Attachment 1

j) Calculate net CPM:

GROSS CPM - BACKGROUND CPM = NET CPM

k) Record net CPM on Attachment 1

l) Calculate Conversion Factor (CF) for sample volume collected

$$\frac{3.33\ E\text{-}10}{\#\ ft^3} = CF$$

m) Calculate activity:

NET CPM x CF = Activity, µCi/ml

n) Record activity on Attachment 1

(STEP 14 CONTINUED ON NEXT PAGE)

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED

14 DO FIELD ANALYSIS OF AIR SAMPLE: (Continued)

o) Calculate Thyroid CDE dose rate:

Activity, µCi/ml x 1.57 E+9 = Thy CDE, mrem/hr

p) Record Thyroid CDE dose rate on Attachment 1

q) Put sample in labeled bag

r) Ensure air sample parameters are recorded on Attachment 1.

s) Notify command facility of the following:

- Dosimetry readings
- Monitoring location
- Monitoring readings

t) Check if additional sampling - REQUIRED

t) IF NO additional actions required, THEN go to low background area and wait for further instructions (periodically check with command facility).

u) RETURN TO Step 8

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
_____ 15	GET SOIL SAMPLE:	
	a) Mark off an approximate 1 (one) ft^2 area	
	b) Remove the top 1/4 to 1/2 inch layer of soil	
	c) Place soil in labeled container	
	d) Notify command facility of location	
	e) Check if additional sampling - REQUIRED	e) IF additional sampling NOT required, THEN go to a low background area and wait for further instructions (periodically check with command facility).
	f) RETURN TO Step 8	
_____ 16	GET SNOW OR ICE SAMPLE:	
	a) Check snow sample - REQUIRED	a) Ask control facility for special instruction (e.g., ice sampling).
	b) Get meteorological data about snowfall during and after release	
	c) Record snowfall data: • Snowfall during release: ___inches • Snowfall after release: ___inches	
	d) Mark off a 3 ft^2 area	

(STEP 16 CONTINUED ON NEXT PAGE)

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
16	GET SNOW OR ICE SAMPLE: (Continued)	
	e) Get dose rate reading at 1 meter and surface: • _____mR/hr at 1 meter • _____mR/hr at surface	
	f) Check if snow sample being collected during release	f) IF sampling snowfall after termination of release, THEN remove corresponding layer of non-contaminated snow from the marked off area.
	g) Collect about 2 pounds of snow layer fallen during release	
	h) Put sample in double plastic bags	
	i) Close sample bag	
	j) Maintain bag in upright position to prevent leakage	
	k) Label container	
	l) Notify command facility of location	
	m) Check if additional sampling - REQUIRED	m) IF additional sampling NOT required, THEN go to a low background area and wait for further instructions (periodically check with command facility).
	n) RETURN TO Step 8	

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED

_____ 17 PREPARE SAMPLE(s) FOR LABORATORY ANALYSIS:

a) Keep all samples for analysis

b) Ensure samples are in clean containers

c) Ensure samples are properly labeled:

- Name
- Team ID
- Date
- Time

- Volume (if applicable)
- Location

d) Bring samples to location specified by command facility (e.g., Security)

_____ 18 TERMINATE EPIP-4.16:

a) Do Emergency Kit Inspection PT

b) Give completed EPIP-4.16, forms and other applicable records to the Radiation Protection Supervisor

c) Completed by: _____

Date: _____

Time: _____

-END-

TEAM IDENTIFICATION No.: _____

NAME(s): _____; _____

INSTRUMENT DATA:

INSTRUMENT	MODEL No.	SERIAL No.

MONITORING DATA:

LOCATION	DATE / TIME	DAD/SRD READING	WINDOW OPEN mR/hr	WINDOW CLOSED mR/hr

ADDITIONAL REMARKS: _____

_____

_____

AIR SAMPLE DATA: NEXT PAGE

AIR SAMPLE DATA:

AIR SAMPLE ID.:		
DATE / TIME:	LOCATION:	
GROSS CPM:	BACKGROUND (BKG) CPM:	NET CPM (GROSS - BKG):
AIR SAMPLE VOLUME (ft^3):		
ACTIVITY, μ Ci/ml = NET CPM x Conversion Factor (3.33 E-10 ÷ # ft^3)		
THYROID CDE, mrem/hr = Activity, μ Ci/ml x 1.57E+9		

AIR SAMPLE ID.:		
DATE / TIME:	LOCATION:	
GROSS CPM:	BACKGROUND (BKG) CPM:	NET CPM (GROSS - BKG):
AIR SAMPLE VOLUME (ft^3):		
ACTIVITY, μ Ci/ml = NET CPM x Conversion Factor (3.33 E-10 ÷ # ft^3)		
THYROID CDE, mrem/hr = Activity, μ Ci/ml x 1.57E+9		

AIR SAMPLE ID.:		
DATE / TIME:	LOCATION:	
GROSS CPM:	BACKGROUND (BKG) CPM:	NET CPM (GROSS - BKG):
AIR SAMPLE VOLUME (ft^3):		
ACTIVITY, μ Ci/ml = NET CPM x Conversion Factor (3.33 E-10 ÷ # ft^3)		
THYROID CDE, mrem/hr = Activity, μ Ci/ml x 1.57E+9		

VIRGINIA POWER
NORTH ANNA POWER STATION
EMERGENCY PLAN IMPLEMENTING PROCEDURE

NUMBER	PROCEDURE TITLE	REVISION
EPIP-4.34	FIELD TEAM RADIO OPERATOR INSTRUCTIONS (With 4 Attachments)	2
		PAGE 1 of 9

PURPOSE

Provide guidance to the Field Team Radio Operator (FTRO) to control Offsite Monitoring Team activities including:

1. Confirmation of radiological releases.
2. Plume tracking.
3. Determining radiological composition of release.

ENTRY CONDITIONS

Any one of the following:

1. Release of radioactive material in conjunction with a Site Area Emergency or General Emergency condition.
2. Direction by the Radiological Assessment Director or the Radiological Assessment Coordinator.
3. Activation by another EPIP.

Approvals on File

Effective Date 2/28/2000

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED

_____ 1 INITIATE PROCEDURE:

- By: _____

  Date: _____

  Time: _____

NOTE: The Radiological Assessment Director (RAD) is the Health Physics approval authority in the TSC while the Radiological Assessment Coordinator (RAC) has approval authority in the LEOF/CEOF.

_____ 2 GET STATUS UPDATE FROM RAD/RAC:

a) Emergency Classification

b) Initial offsite release calculations

c) Current monitor readings

d) Current meteorological data:

- Wind speed
- Wind direction (from)
- Stability Class

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED

NOTE:
- A minimum of two (2) Offsite Monitoring Teams must be dispatched (i.e., sent into the field) at a Site Area Emergency or General Emergency.
- The first available monitoring team should be used for near-site monitoring. As resources become available, additional teams should be sent to preselected monitoring locations.

_____ 3 DETERMINE STATUS OF OFFSITE MONITORING TEAMS:

- Unavailable - GO TO Step 4

OR

- Assembled and on stand-by - GO TO Step 5

OR

- Dispatched - GO TO Step 6

_____ 4 ASSEMBLE MONITORING TEAMS FOR STANDBY IF MANPOWER IS AVAILABLE

WHEN manpower available, THEN GO TO Step 5.

_____ 5 ASK RAD/RAC IF OFFSITE MONITORING SHOULD BE INITIATED

IF monitoring NOT required, THEN GO TO Step 22.

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
_____ 6	REVIEW THE FOLLOWING WITH THE RAD/RAC: a) Meteorological conditions to determine team placement b) Projected offsite dose rates at anticipated monitoring locations c) Protective measures for team: • Protective clothing • Respiratory equipment • Radio-protective drugs d) Radiological composition of release e) Plume direction f) Number of teams needed g) Exposure limits	
_____ 7	ESTABLISH RADIO CONTACT: a) Set radio to call group "EP 1"	a) Ask RAC, Dose Assessment Team Leader (in TSC) or RPS (in HP Office) for radio call group assigned to Offsite Monitoring Teams.
	b) Use radio to establish communications	b) IF radio communications can NOT be established, THEN ask RAC for assistance.
	c) Give monitoring team your phone number in case of radio failure	
	d) Use Attachment 4, OFFSITE MONITORING TEAM INFORMATION, to record messages and data	

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
	NOTE: Attachment 1, FACTORS CONTROLLING THE AREA AFFECTED BY A RELEASE, provides an estimate of plume width at 1 and 2 miles downwind for Stability Classes A through G.	
_____ 8	ESTABLISH MONITORING LOCATIONS:	
	a) Verify teams previously dispatched	a) IF teams have NOT been dispatched, THEN do the following: 1) Review offsite maps to determine preselected monitoring locations. 2) Send teams to preselected location in downwind sector
	b) Calculate time until plume reaches monitoring location: Time (hours) = Distance from plant (miles) / Wind speed (mph)	
	c) Have teams find plume centerline AND Report location once centerline is located	
	d) Have teams periodically check exposure	
	e) Check if maximum plume concentration expected at location other than pre-selected point	e) GO TO Step 9.
	f) Identify off-centerline location using offsite map (in facility or Emergency Kit)	
	g) Identify location using sector designation and distance in miles (example: A-2)	

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
____ 9	DETERMINE SAMPLE MEDIUM TO BE COLLECTED: • Particulate and iodine • Gas • Soil • Snow/ice	
____ 10	VERIFY AIR SAMPLE - REQUIRED	IF air sample NOT required, THEN GO TO Step 15.
____ 11	HAVE TEAM GET 10 FT^3 SAMPLE IF TIME AND DOSE RATES PERMIT (minimum 2.5 ft^3 sample volume)	
____ 12	CHECK IF COUNT ROOM ANALYSIS OF INITIAL CONFIRMATORY SAMPLE IS REQUIRED	GO TO Step 15.
____ 13	HAVE INITIAL CONFIRMATORY SAMPLE DELIVERED TO THE SECURITY BUILDING AND COORDINATE TRANSPORT TO COUNT ROOM	
____ 14	RECOMMEND SAMPLE BE ANALYZED IMMEDIATELY TO DETERMINE TEDE/DDE RATIO	
____ 15	CALCULATE ESTIMATED TEDE DOSE USING ATTACHMENT 2, DETERMINATION OF TEDE/DDE RATIO	

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED

_____ 16 CALCULATE THYROID CDE DOSE RATES USING ATTACHMENT 3, DETERMINATION OF THYROID OFFSITE DOSE RATE FROM SAMPLE ANALYSIS

_____ 17 RECORD THE FOLLOWING ON ATTACHMENT 4, OFFSITE MONITORING TEAM INFORMATION:

a) Monitoring Data

- Current location
- Maximum dose rates

b) Dosimetry readings

c) Estimated TEDE dose

d) Thyroid CDE dose rate

e) Plume width and location

f) Air sample data

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED

NOTE: Unexpected readings may result from plume rise, looping or cloud meander.

_____ 18 CONTINUE PLUME TRACKING:

a) Get dose rates and location at plume centerline

b) Check if unexpected readings occur — b) GO TO Step 18.d.

c) Have team travel downwind until plume is located

d) Review Attachment 1, FACTORS CONTROLLING THE AREA AFFECTED BY A RELEASE, concerning plume width

_____ 19 GET FIXED ENVIRONMENTAL SAMPLES AND TLDs AS REQUIRED

NOTE: Additional sampling of chronic exposure pathways is not normally within the scope of initial response actions, but may be performed as a follow-up action when time permits.

_____ 20 CHECK IF CHRONIC EXPOSURE PATHWAY SAMPLING IS REQUIRED: — GO TO Step 21.

a) Direct teams to prepare for additional sampling

b) Ask team to get samples from chronic exposure pathway:

- Milk
- Water
- Crops

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
_____ 21	CHECK IF CONTINUED MONITORING IS REQUIRED: a) Consult with RAD/RAC b) RETURN TO Step 8	GO TO Step 22.
_____ 22	TERMINATE EPIP-4.34: • Give completed EPIP-4.34, forms and other applicable records to the RAD/RAC • Completed by: _____ Date: _____ Time: _____	

-END-

The area affected by a release is dependent on the atmospheric stability class and wind speed and direction, among other variables such as precipitation and terrain. From a practical standpoint, only stability class, which affects the width of the affected area, and wind speed and direction, which affect the length and direction of the area, will be considered.

The width of an affected area as a function of stability class and distance from the release point is illustrated by the following table. The table lists the different stability classes and lists the width of an area in feet which will contain a certain percent of the maximum calculated concentrations (or doses). The percentages considered are 90, 50 and 10%. The distances are 1 and 2 miles from a release point. These tables may be used as guidelines on what to tell the monitoring team to expect, such as in Stability Class F, where the team would be looking for a small area of rapidly increasing concentration if the cloud is approached from the side.

STABILITY CLASS	PERCENT OF MAXIMUM	AREA WIDTH (feet) 1 Mile Distance	2 Mile Distance
A	90	878	1632
	50	2256	4195
	10	4109	7641
B	90	653	1227
	50	1676	3152
	10	3053	5741
C	90	472	887
	50	1213	2279
	10	2209	4152
D	90	319	595
	50	819	1530
	10	1492	2787
E	90	235	433
	50	603	1112
	10	1098	2027
F	90	161	299
	50	414	768
	10	754	1399
G	90	97	179
	50	249	460
	10	453	843

Wind speed affects the area since higher speeds cause the cloud to arrive sooner, but concentrations are reduced. The affected area will be downwind of the release point. If the direction is variable, the area with the highest average downwind direction will be affected the greatest.

NUMBER	ATTACHMENT TITLE	REVISION
EPIP-4.34	DETERMINATION OF TEDE/DDE RATIO	2
ATTACHMENT 2		PAGE 1 of 1

NOTE: TEDE = DDE + CEDE, when applied to emergency worker dose.

____ 1. Get Ratio TEDE/DDE from actual sample results AND GO TO Step 4 of this attachment

OR

IF sample results NOT available, THEN continue this instruction

____ 2. Get Ratio TEDE/DDE from MIDAS report AND GO TO Step 4 of this attachment

OR

IF MIDAS results NOT available, THEN continue this instruction

____ 3. Use default TEDE/DDE ratio:

ACCIDENT TYPE	RATIO	ACCIDENT TYPE	RATIO
MSLB	50	VCT Rupture	1
SGTR	3	LOCA with melt	4
Fuel Handling	1.5	LOCA, no melt	2
WGDT Rupture	1	Locked Rotor	13

NOTE: SRD or DAD readings are equivalent to DDE.

____ 4. Determine estimated TEDE dose:

$$\text{DDE dose from DAD or SRD} \times \text{Ratio } \frac{\text{TEDE}}{\text{DDE}} = \text{TEDE dose}$$

____ 5. Record resulting estimated TEDE dose on Attachment 4.

____ 6. Determine DDE limit:

$$\frac{\text{Remaining dose, rem from Attachment 4} - \text{Estimated TEDE, rem from Step 4 above}}{\text{Ratio TEDE/DDE}} = \text{DDE limit, rem}$$

NUMBER	ATTACHMENT TITLE	REVISION
EPIP-4.34	DETERMINATION OF THYROID OFFSITE DOSE RATE FROM SAMPLE ANALYSIS	2
ATTACHMENT 3		PAGE 1 of 1

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
__1.	DETERMINE EQUIVALENT I-131 ACTIVITY FROM AIR SAMPLE ANALYSIS:	
	a) Check if sample data given in counts per minute (cpm)	a) IF data given in µCi/ml, THEN GO TO Step 2.
	b) Get data from monitoring team(s):	
	• Background cpm: _____	
	• Gross (sample) cpm: _____	
	c) Calculate NET counts per minute:	
	Gross cpm - Background cpm = NET cpm	
	d) Calculate Conversion factor (CF) for sample volume collected:	
	$\frac{3.33\ E\text{-}10}{\#\ ft^3} = CF$	
	e) Calculate activity:	
	NET cpm x CF = Activity, µCi/ml	
__2.	CALCULATE THYROID CDE DOSE RATE USING THE FOLLOWING CALCULATION:	
	Activity, µCi/ml x 1.57 E+9 = Thyroid CDE, mrem/hr	
__3.	RECORD RESULTS ON ATTACHMENT 4	

NUMBER	ATTACHMENT TITLE	REVISION
EPIP-4.34	OFFSITE MONITORING TEAM INFORMATION	2
ATTACHMENT 4		PAGE 1 of 2

TEAM IDENTIFICATION No.: _____

TEAM MEMBER DATA:

NAME(s)	BADGE No.	REMAINING DOSE	COMMENTS

MONITORING DATA:

NOTE: Use "Remarks" spaces to make notes about a specific monitoring or air sample point (e.g., plume width, terrain). Use back of form to log instructions to team, pertinent comments, etc.

LOCATION	DATE / TIME	DAD/SRD READING	ESTIMATED TEDE DOSE*	WINDOW OPEN	WINDOW CLOSED
	REMARKS:				
	REMARKS:				
	REMARKS:				

* **Estimate using Attachment 2.**

AIR SAMPLE DATA:

AIR SAMPLE ID.:	DATE / TIME:	LOCATION:
GROSS CPM:	BKG CPM:	NET CPM (GROSS - BKG):
AIR SAMPLE VOLUME (ft^3):	ACTIVITY, $\mu Ci/ml$** =	
THYROID CDE, mR/hr = Activity, μ Ci/ml x 1.57E+9 =		
REMARKS:		

** **Determine using Attachment 3.**

AIR SAMPLE ID.:	DATE / TIME:	LOCATION:
GROSS CPM:	BKG CPM:	NET CPM (GROSS - BKG):
AIR SAMPLE VOLUME (ft^3):	ACTIVITY, $\mu Ci/ml$** =	
THYROID CDE, mR/hr = Activity, μ Ci/ml x 1.57E+9 =		
REMARKS:		

** **Determine using Attachment 3.**

FIELD TEAM RADIO OPERATOR LOG

DATE/TIME:	COMMENTS:

VIRGINIA POWER
NORTH ANNA POWER STATION
EMERGENCY PLAN IMPLEMENTING PROCEDURE

NUMBER	PROCEDURE TITLE	REVISION
EPIP-5.03	PERSONNEL ACCOUNTABILITY	16
	(With No Attachments)	PAGE 1 of 10

PURPOSE

1. To identify those personnel who are missing inside the Protected Area within 30 minutes following announcement that an Alert or higher emergency classification has been declared.

2. To maintain accountability of all personnel within the Protected Area until event termination.

ENTRY CONDITIONS

Any one of the following:

1. Announcement or other communication indicating that an Alert or higher emergency classification has been declared.

2. As directed by the Station Emergency Manager.

Approvals on File

Effective Date 2/28/2000

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
_____ 1	INITIATE EPIP-5.03: • By: _____ Date: _____ Time: _____	
_____ 2	PREPARE FOR ACCOUNTABILITY: a) Have Alarm Station Operator run Cardholder On-Site Report b) Assign two individuals to the accountability call-in telephones	
_____ 3	VERIFY ACCOUNTABILITY TO BE PERFORMED WITHOUT EVACUATION	IF accountability to be done with evacuation, THEN GO TO Step 10.
_____ 4	MAKE ACCOUNTABILITY ANNOUNCEMENT OVER GAI-TRONICS: a) "Attention all personnel; Attention all personnel, report to your designated Emergency Assembly Area. Emergency Assembly Area Leaders take accountability and report results to extension 2225 or 2227" b) Repeat announcement in Step 4.a	

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED

NOTE:
- Contractors who are not responding to the emergency and visitors will be processing through either the front Security Access Control Building or the adjacent Sallyport.
- Officers should remind exiting personnel to retain dosimetry and to report directly to the Administrative Annex Emergency Assembly Area.

_____ 5 CHECK IF PERSONNEL ARE TO EXIT THROUGH THE SALLYPORT

Do the following:

a) Control personnel exit through Security Building.

b) GO TO Step 7.

_____ 6 HAVE SALLYPORT GATES OPENED ABOUT 3 FEET

_____ 7 RECORD BADGE NUMBERS OF EXITING PERSONNEL

_____ 8 RECORD ACCOUNTABILITY RESULTS:

a) Mark accounted for badge numbers on Cardholder On-Site Report

- Badge numbers reported from Emergency Assembly Areas
- Badge numbers of personnel who exited the Protected Area

b) Identify missing personnel (Unmarked badge numbers represent missing personnel)

c) Record badge numbers of missing personnel on a separate sheet

_____ 9 GO TO STEP 13

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED

NOTE: In the event that environmental or other conditions preclude a timely evacuation, the Security Team Leader should be prepared to activate the Administrative Annex Emergency Assembly Area as an interim measure.

_____ 10 INITIATE ACCOUNTABILITY WITH EVACUATION:

a) Determine which Remote Assembly Area (RAA) will be activated

b) Have Security Officer get maps to designated RAA

c) Assign Officer(s) to collect badges and to distribute RAA Route Maps

d) Direct Security Officer(s) to make sure evacuees retain dosimetry

e) Check if personnel will be exiting through the Sallyport — e) GO TO Step 10.g.

f) Have Sallyport gates opened about 3 feet to speed evacuation process

g) Have Security Officers process badges concurrent with the evacuation

_____ 11 MAKE ACCOUNTABILITY ANNOUNCEMENT OVER GAI-TRONICS SYSTEM:

a) "Emergency Response Facility Leaders perform accountability and report results to extension 2225 or 2227"

b) Repeat announcement in Step 11.a

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
_____ 12	RECORD ACCOUNTABILITY RESULTS: a) Mark accounted for badge numbers on Cardholder On-Site Report • Badge numbers reported from Emergency Response Facilities • Badge numbers of personnel who exited the Protected Area b) Identify missing personnel (Unmarked badge numbers represent missing personnel) c) Record badge numbers of missing personnel on a separate sheet	
_____ 13	NOTIFY SEM OF ACCOUNTABILITY RESULTS (LIST OF MISSING PERSONNEL) (or EAD if TSC activated)	
_____ 14	CHECK PERSONNEL - MISSING	IF all personnel accounted, THEN GO TO Step 19.

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
_____ 15	ATTEMPT TO LOCATE MISSING PERSONNEL: a) Consider using the following means to locate missing personnel: • Page individual(s) over Gai-Tronics • Consult with individual(s) Supervisor or co-workers • Review Security Computer report for last entry • Consult with Radiological Protection to determine if individual(s) may be logged into the RCA b) Check missing individual(s) - LOCATED c) GO TO Step 17	b) IF missing individual(s) NOT located and search is to be conducted, THEN do the following: 1) Notify SEM (or EAD if TSC activated) 2) GO TO Step 16.

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED

* *

CAUTION: Searches of hazardous areas should be made by the Fire Team.

* *

NOTE: HP monitoring requirements may limit the number of Search and Rescue Teams that can be formed for searches within the RCA.

____ 16 INITIATE SEARCH FOR MISSING INDIVIDUAL(S):

a) Develop search plan and consider the following options:

- Start search from last known location
- Do route search if destination known
- Expand search radius from last known location
- Eliminate search of areas where exit records are maintained

b) Consider hazards:

- Radiation and contamination
- Toxic gases
- High pressure steam
- Structural damage
- Electrical hazards
- Natural events

(STEP 16 CONTINUED ON NEXT PAGE)

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
16	INITIATE SEARCH FOR MISSING INDIVIDUAL(S): (Continued)	
	c) Check if non-Security personnel are needed to augment search effort (including Fire Team members if search is in a hazardous area)	c) IF NO assistance required, THEN GO TO Step 16.e.
	d) Ask SEM to get personnel for augmented search effort (ask EAD if TSC activated)	
	e) Notify SEM of search plans and status of search efforts (notify EAD if TSC activated)	
	f) Check missing individual(s) - LOCATED	f) Continue search efforts until missing individual(s) found or SEM terminates search.
17	CHECK ANY INDIVIDUAL(S) - INJURED:	GO TO Step 18.
	a) Take precautions so that removal efforts do not aggravate injury	
	b) Consider radiological conditions as secondary to immediate medical treatment of severe injuries, unless acute radiation hazard exceeds injury hazard	
	c) Provide first aid	
	d) Move injured individual(s) to a safe area	

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
_____ 18	NOTIFY SEM OF SEARCH RESULTS (or EAD if TSC activated): a) Status of search (e.g., whether or not individuals have been located) b) Condition of individual(s) c) Provide additional data if individual(s) are injured: • Name(s) • Badge number(s) • Dosimetry numbers (e.g., SRD, DAD, TLD, if worn) • Location • Description of injury	
_____ 19	MAINTAIN CONTINUOUS PROTECTED AREA ACCOUNTABILITY: a) Have Alarm Station Operator run Cardholder On-Site Report about once every hour or as directed by the EAD b) Give list to the EAD in the TSC	
_____ 20	CHECK IF EMERGENCY HAS BEEN TERMINATED	RETURN TO Step 19.

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED

_____ 21 TERMINATE EPIP-5.03:

- Give EPIP-5.03, forms and other applicable records to the Security Team Leader
- Completed by: _____

  Date: _____

  Time: _____

-END-