VIRGINIA ELECTRIC AND POWER COMPANY
RICHMOND, VIRGINIA 23261

October 11, 2000

United States Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D. C. 20555-0001

Serial No. 00-507
SS&L/BAG R0
Docket No. 50-280
50-281
License No. DPR-32
DPR-37

Gentlemen:

VIRGINIA ELECTRIC AND POWER COMPANY
SURRY POWER STATION UNITS 1 AND 2
REVISIONS TO EMERGENCY PLAN IMPLEMENTING PROCEDURES

Pursuant to 10 CFR 50.54(q), enclosed are revisions to ten Surry Power Station Emergency Plan Implementing Procedures. The revisions do not implement actions which 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 the enclosed tabulation of changes.

Very truly yours,

R. H. Blount, Site Vice President
Surry Power Station

Enclosure

Commitments contained in this letter: None.

cc: U. S. Nuclear Regulatory Commission (2 copies)
Region II
Sam Nunn Atlanta Federal Center
61 Forsyth Street S.W., Suite 23 T85
Atlanta, Georgia 30303-8931

Mr. R. A. Musser
NRC Senior Resident Inspector
Surry Power Station

A045

Serial No. 00-507
Surry EPIP Revisions

VIRGINIA ELECTRIC AND POWER COMPANY
REVISION TO SURRY POWER STATION
EMERGENCY PLAN IMPLEMENTING PROCEDURE

Enclosed are revisions to Surry Power Station Emergency Plan Implementing Procedures. Please take the following actions in order to keep your manual updated with the most recent revisions.

REMOVE AND DESTROY:	EFFECTIVE DATE:	INSERT:	EFFECTIVE DATE:
EPIP-1.01, Rev. 41	07/14/00	EPIP-1.01, Rev. 42	10/06/00
EPIP-1.06, Rev. 2	02/01/95	EPIP-1.06, Rev. 3	10/06/00
EPIP-2.01, Rev. 26	06/04/99	EPIP-2.01, Rev. 27	10/06/00
EPIP-3.03, Rev. 12	09/11/95	EPIP-3.03, Rev. 13	09/28/00
EPIP-4.07, Rev. 7	02/01/95	EPIP-4.07, Rev. 8	10/06/00
EPIP-4.08, Rev. 12	11/04/99	EPIP-4.08, Rev. 13	09/28/00
EPIP-4.13, Rev. 4	01/01/94	EPIP-4.13, Rev. 5	09/28/00
EPIP-4.17, Rev. 9	01/21/99	EPIP-4.17, Rev. 10	09/28/00
EPIP-4.29, Rev. 8	08/06/00	EPIP-4.29, Rev. 9	09/22/00
EPIP-5.07, Rev. 9	09/17/98	EPIP-5.07, Rev. 10	09/28/00

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

LEVEL 2 EMERGENCY PLAN IMPLEMENTING PROCEDURE

NUMBER	PROCEDURE TITLE	REVISION
EPIP-1.01	EMERGENCY MANAGER CONTROLLING PROCEDURE (With 2 Attachments)	42
		PAGE 1 of 7

PURPOSE

To initially assess a potential emergency condition and initiate corrective actions.

ENTRY CONDITIONS

Any one of the following:

1. Another station procedure directs initiation of this procedure.
2. A potential emergency condition is reported to the Shift Supervisor.

Approvals on File

Effective Date 10/06/00

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED

* *

CAUTION: Declaration of the highest emergency class for which an Emergency Action Level is exceeded shall be made.

* *

NOTE: The ERFCS is potentially unreliable in the event of an earthquake. Therefore, ERFCS parameters should be evaluated for accuracy should an earthquake occur.

_____ 1 EVALUATE EMERGENCY ACTION LEVELS:

a) Determine event category using Attachment 1, Emergency Action Level Table Index

b) Review EAL Tab associated with event category

c) Use Control Room monitors, ERFCS, and outside reports to get indications of emergency conditions listed in the EAL Table

d) Verify EAL - CURRENTLY EXCEEDED

d) IF basis for EAL no longer exists when discovered AND no other reasons exist for an emergency declaration, THEN do the following:

- RETURN TO procedure in effect.
- GO TO VPAP-2802, NOTIFICATIONS AND REPORTS, to make one-hour, non-emergency reports for classification without declaration.

IF EAL was NOT exceeded, THEN RETURN TO procedure in effect.

(STEP 1 CONTINUED ON NEXT PAGE)

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED

1 EVALUATE EMERGENCY ACTION LEVELS: (Continued)

e) Record procedure initiation:

- By: _____

Date: _____

Time: _____

f) Initiate a chronological log of events

g) Declare position of Station Emergency Manager

NOTE: Assembly, accountability and/or initiation of facility staffing may not be desired during certain situations (e.g., security event, severe weather, anticipated grid disturbance) or may have already been completed. These activities should be implemented as quickly as achievable given the specific situation.

_____ 2 CHECK - CONDITIONS ALLOW FOR NORMAL IMPLEMENTATION OF EMERGENCY RESPONSE ACTIONS

IF deviation from normal emergency response actions warranted, THEN do the following:

a) Refer to Attachment 2, Considerations for Operations Response Under Abnormal Conditions.

b) Consider applicability of 50.54(x).

c) IF classification/assembly announcement deferred, THEN GO TO Step 4.

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
_____ 3	NOTIFY PLANT STAFF OF ALERT OR HIGHER CLASSIFICATION:	
	a) Check classification - Alert OR HIGHER	a) GO TO Step 4.
	b) Check if emergency assembly and accountability - PREVIOUSLY CONDUCTED	b) Do the following: 1) Sound emergency alarm and make announcement on station Gai-Tronics system as follows: "(Emergency classification) has been declared due to _____". "All emergency response personnel report to your assigned stations. All other personnel report to your Emergency Assembly Area". 2) Repeat RNO Step 3.b.1. 3) GO TO Step 4.
	c) Sound emergency alarm and make announcement on station Gai-Tronics system as follows: "(Emergency classification) has been declared due to _____"	
	d) Repeat Step 3.c	

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED

* *

CAUTION: All further instructions should be continued through unless otherwise directed to hold.

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_____ 4 INITIATE SUPPORTING PROCEDURES:

a) Direct Emergency Communicators to initiate the following:

1) EPIP-2.01, NOTIFICATION OF STATE AND LOCAL GOVERNMENTS

2) EPIP-2.02, NOTIFICATION OF NRC

b) Check if classification announcement made using Gai-Tronics system

b) Notify the following to initiate controlling procedures:

- HP Shift Supervisor: EPIP-4.01, RADIOLOGICAL ASSESSMENT DIRECTOR CONTROLLING PROCEDURE
- Security Shift Supervisor: EPIP-5.09, SECURITY TEAM LEADER CONTROLLING PROCEDURE

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
	5 CHECK TSC - ACTIVATED	IF TSC NOT activated, THEN do the following: a) Have STA report to the Control Room. b) Notify Operations Manager-On-Call (OMOC) or Superintendent Operations. c) Evaluate initiation of Operations Department directive for augmenting staff resources during Emergency Plan activation. d) Evaluate having Radiological Assessment Director report to the Control Room.
	6 INITIATE EPIP FOR EMERGENCY CLASSIFICATION IN EFFECT: • **Notification of Unusual Event** - EPIP-1.02, RESPONSE TO NOTIFICATION OF UNUSUAL EVENT • **Alert** - EPIP-1.03, RESPONSE TO ALERT • **Site Area Emergency** - EPIP-1.04, RESPONSE TO SITE AREA EMERGENCY • **General Emergency** - EPIP-1.05, RESPONSE TO GENERAL EMERGENCY	

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
_____ 7	NOTIFY OFFSITE AUTHORITIES OF EMERGENCY TERMINATION: a) State and local governments (made by LEOF or CEOF when activated) b) NRC	
_____ 8	NOTIFY STATION PERSONNEL ABOUT THE FOLLOWING: • Emergency termination • Facility de-activation • Selective release of personnel • Completion and collection of procedures • Recovery	
_____ 9	TERMINATE EPIP-1.01: • Give completed EPIPs, forms and other applicable records to the Emergency Procedures Coordinator in the TSC • Completed By: _____ Date: _____ Time: _____	• Give to STA <u>AND</u> Notify Records Management that used EPIPs require replacement.

-END-

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CAUTION:
- Declaration of the highest emergency class for which an EAL is exceeded shall be made.
- Emergency Action Levels shall be conservatively classified based on actual or anticipated plant conditions.

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	CONDITION/APPLICABILITY	INDICATION	CLASSIFICATION
1.	Inability to reach required unit operating condition within T.S. time limits ABOVE CSD CONDITION	Intentional reduction in power, load, or temperature IAW T.S. Action Statement - HAS COMMENCED AND T.S. Action Statement time limit for condition change - CANNOT BE MET	NOTIFICATION OF UNUSUAL EVENT
2.	Loss of Function needed for unit HSD condition ABOVE CSD CONDITION	a) Inability to attain the minimum required heat sink as indicated by loss of the following: • Main Feedwater System AND • Auxiliary Feedwater AND • Auxiliary Feedwater Crosstie OR b) Loss of High Head flowpath as indicated by loss of the following: • Normal Charging System AND • High Head SI System	SITE AREA EMERGENCY

	CONDITION/APPLICABILITY	INDICATION	CLASSIFICATION
3.	Loss of cooling function needed for Cold Shutdown and Refueling Condition CSD & RSD	• Secondary System cooling capability - UNAVAILABLE AND • Loss of any of the following systems: • Service Water • Component Cooling • Residual Heat Removal AND • RCS temperature GREATER THAN 140° F	ALERT
4.	Failure of a safety or relief valve to close after pressure reduction ALL CONDITIONS	• RCS • RCS pressure - LESS THAN 2000 psig OR Overpressure Mitigation System - ENABLED AND • Any indication after lift or actuation that Pressurizer Safety or PORV - REMAINS OPEN AND • Flow - NON-ISOLABLE • MAIN STEAM Excessive flow through Steam Generator Safety or PORV as indicated by rapid RCS cooldown rate - GREATER THAN 50° F per hour	NOTIFICATION OF UNUSUAL EVENT

	CONDITION/APPLICABILITY	INDICATION	CLASSIFICATION
5.	Failure of the reactor to trip (ATWT) POWER OPS & HSD	• Reactor trip setpoint and coincidences - EXCEEDED AND • Automatic reactor trip from RPS - FAILED AND • Manual reactor trip from Control Room - FAILED	SITE AREA EMERGENCY
6.	Trip following ATWT that takes the reactor subcritical POWER OPS & HSD	• Reactor trip setpoint and coincidences - EXCEEDED AND • Automatic reactor trip from RPS - FAILED AND • Manual reactor trip - REQUIRED AND • Manual reactor trip from Control Room - SUCCESSFUL	ALERT

	CONDITION/APPLICABILITY	INDICATION	CLASSIFICATION
7.	Loss of plant communications capability ALL CONDITIONS	• Station PBX phone system - FAILED AND • Station Gai-Tronics system - FAILED AND • Station UHF radio system - FAILED	NOTIFICATION OF UNUSUAL EVENT
8.	Inability to monitor a significant transient in progress ABOVE CSD CONDITION	• Most (>75%) or all visual annunciator alarms on panels "A" to "K" - NOT AVAILABLE AND • All computer monitoring capability (e.g., plant computer, ERFCS) - NOT AVAILABLE AND • Significant transient - IN PROGRESS (e.g., reactor trip, SI, turbine runback >25% thermal reactor power, thermal power oscillations >10%) AND • Inability to directly monitor any one of the following using Control Room indications: • Subcriticality • Core Cooling • Heat Sink • Vessel Integrity • Containment Integrity	SITE AREA EMERGENCY

	CONDITION/APPLICABILITY	INDICATION	CLASSIFICATION
9.	Unplanned loss of safety system annunciators with compensatory indicators unavailable or a transient in progress ABOVE CSD CONDITION	• Unplanned loss of most (>75%) or all visual annunciator alarms on panels "A" to "K" for GREATER THAN 15 minutes AND • All computer monitoring capability (e.g., plant computer, ERFCS) - NOT AVAILABLE OR Significant transient - INITIATED OR IN PROGRESS (e.g., reactor trip, SI, turbine runback >25% thermal reactor power, thermal power oscillations >10%)	ALERT
10.	Unplanned loss of most or all safety system annunciators for greater than 15 minutes ABOVE CSD CONDITION	Unplanned loss of most (>75%) or all visual annunciator alarms on panels "A" to "K" for GREATER THAN 15 minutes	NOTIFICATION OF UNUSUAL EVENT
11.	Evacuation of Main Control Room with control NOT established within 15 minutes ALL CONDITIONS	Evacuation of the Control Room with stable shutdown control NOT established within 15 minutes	SITE AREA EMERGENCY
12.	Evacuation of Main Control Room required ALL CONDITIONS	Evacuation of the Control Room with stable shutdown control established within 15 minutes	ALERT

	CONDITION/APPLICABILITY	INDICATION	CLASSIFICATION
1.	RCS leak rate exceeds makeup capacity ABOVE CSD CONDITION	• Primary system leak (LOCA) - IN PROGRESS AND • Safety Injection - REQUIRED AND • RCS subcooling based on Core Exit Thermocouples - LESS THAN 30° F OR RCS inventory cannot be maintained based on pressurizer level or RVLIS indication	SITE AREA EMERGENCY
2.	RCS leak rate limit - EXCEEDED ABOVE CSD CONDITION	• Primary system leak determined to be - GREATER THAN 50 gpm AND • Pressurizer level can be - RESTORED AND MAINTAINED	ALERT
3.	Leak rate requiring plant shutdown IAW T.S. ABOVE CSD CONDITION	Intentional reduction in power, load, or temperature IAW T.S. 3.1.C leakage limit Action Statement - HAS COMMENCED	NOTIFICATION OF UNUSUAL EVENT

CONDITION/APPLICABILITY	INDICATION	CLASSIFICATION
4. Steam generator tube rupture with loss of offsite power ABOVE CSD CONDITION	• Steam generator tube rupture - IN PROGRESS AND • Offsite power to unit specific Transfer Buses (Unit 1: D & F; Unit 2: E & F) - NOT AVAILABLE AND • Atmospheric steam release from ruptured Steam Generator - OCCURRING OR REQUIRED	SITE AREA EMERGENCY
5. Excessive Primary to Secondary leakage with loss of offsite power ABOVE CSD CONDITION	• Intentional reduction in power, load, or temperature IAW T.S. 3.1.C.6 leakage limit Action Statement - HAS COMMENCED AND • Offsite power to unit specific Transfer Buses (Unit 1: D & F; Unit 2: E & F) - NOT AVAILABLE	ALERT
6. Gross Primary to Secondary leakage ABOVE CSD CONDITION	• Steam Generator tube rupture - IN PROGRESS AND • Safety Injection - REQUIRED	ALERT

	CONDITION/APPLICABILITY	INDICATION	CLASSIFICATION
7.	Loss of 2 of 3 fission product barriers with potential loss of 3rd barrier ALL CONDITIONS	Any two of a), b) or c) exist and the third is imminent: a) Fuel clad integrity failure as indicated by any of the following: • RCS specific activity - GREATER THAN OR EQUAL TO 300 µCi/gm dose equivalent I-131 OR 5 or more core exit thermocouples - GREATER THAN 1200° F OR CHRRMS (Inside) Containment High Range Radiation Monitor: RM-RMS-127 or -227, RM-RMS-128 or -228: GREATER THAN 2×10^3 R/hr OR Outside Containment High Range Radiation Monitor: RM-RMS-161 or -261, GREATER THAN 6.3×10^2 mR/hr b) Loss of RCS integrity as indicated by any of the following: • PORV failed open OR Loss of reactor coolant c) Loss of containment integrity as indicated by any of the following: • Containment pressure GREATER THAN 60 psia and NOT decreasing OR Release path to environment - EXISTS	GENERAL EMERGENCY

	CONDITION/APPLICABILITY	INDICATION	CLASSIFICATION
8.	Fuel failure with steam generator tube rupture ALL CONDITIONS	Any two of a), b) or c) exists and the third is imminent: a) Fuel clad integrity failure as indicated by any of the following: • RCS specific activity GREATER THAN OR EQUAL TO 300 µCi/gm dose equivalent I-131 OR 5 or more core exit thermocouples - GREATER THAN 1200° F OR High Range Letdown Radiation Monitor: 1-CH-RM-118, 2-CH-RM-218: GREATER THAN 7.0×10^6 cpm b) S/G tube rupture as indicated by both of the following: • Safety Injection - REQUIRED AND • Steam generator tube rupture - IN PROGRESS c) Loss of Secondary integrity associated with ruptured S/G pathway as indicated by: • Steam discharge to atmosphere OR Loss of secondary coolant outside containment - IN PROGRESS	GENERAL EMERGENCY

CONDITION/APPLICABILITY	INDICATION	CLASSIFICATION
1. Core damage with possible loss of coolable geometry ABOVE CSD CONDITION	a) Fuel clad failure as indicated by any of the following: • RCS Specific activity GREATER THAN 60 µCi/gm dose equivalent I-131 OR High Range Letdown Radiation Monitor: 1-CH-RM-118, 2-CH-RM-218: GREATER THAN 1.4×10^6 cpm AND b) Loss of cooling as indicated by any of the following: • 5 confirmed core exit thermocouples - GREATER THAN 1200° F OR Core delta T - ZERO OR Core delta T - RAPIDLY DIVERGING	SITE AREA EMERGENCY

	CONDITION/APPLICABILITY	INDICATION	CLASSIFICATION
2.	Severe Fuel Clad Damage ABOVE CSD CONDITION	• RCS specific activity GREATER THAN 300 µCi/gm dose equivalent I-131 OR High Range Letdown Radiation Monitor: Either of the following indications occur within 30 minutes and remain for at least 15 minutes: 1-CH-RM-118, 2-CH-RM-218: GREATER THAN 5.8×10^4 cpm	ALERT
3.	Fuel clad damage indication ABOVE CSD CONDITION	• Intentional reduction in power, load, or temperature IAW T.S. 3.1.D reactor coolant activity limit Action Statement - HAS COMMENCED OR High Range Letdown Radiation Monitor: Either of the following indications occur within 30 minutes and remain for at least 15 minutes: 1-CH-RM-118, 2-CH-RM-218: GREATER THAN 5.8×10^3 cpm	NOTIFICATION OF UNUSUAL EVENT

	CONDITION/APPLICABILITY	INDICATION	CLASSIFICATION
4.	Probable large radioactivity release initiated by LOCA with ECCS failure leading to core degradation ABOVE CSD CONDITION	• Loss of reactor or secondary coolant - IN PROGRESS AND • RCS specific activity - GREATER THAN 300 μCi/gm dose equivalent I-131 OR CHRRMS (Inside) Containment High Range Radiation Monitor: RM-RMS-127 or -227, RM-RMS-128 or -228: GREATER THAN 2 x 10^3 R/hr AND • High or Low Head ECCS flow - NOT being delivered to the core (if expected by plant conditions)	GENERAL EMERGENCY
5.	Probable large radioactivity release initiated by loss of heat sink leading to core degradation ABOVE CSD CONDITION	• Loss of Main Feedwater System and Condensate System AND • Loss of Auxiliary Feedwater System AND • RHR System - NOT OPERABLE	GENERAL EMERGENCY

	CONDITION/APPLICABILITY	INDICATION	CLASSIFICATION
6.	Probable large radioactivity release initiated by failure of protection system to bring reactor subcritical and causing core degradation ABOVE CSD CONDITION	• Reactor nuclear power after trip remains - GREATER THAN 5% AND • RCS pressure GREATER THAN 2485 psig and NOT decreasing OR Containment pressure and temperature - RAPIDLY INCREASING	GENERAL EMERGENCY
7.	Probable large radioactivity release initiated by loss of AC and all feedwater ABOVE CSD CONDITION	• Loss of all onsite and offsite AC power AND • Turbine Driven Auxiliary Feedwater Pump - NOT OPERABLE AND • Restoration of either of the above NOT LIKELY within 2 hours	GENERAL EMERGENCY

	CONDITION/APPLICABILITY	INDICATION	CLASSIFICATION
8.	Probable large radioactivity release initiated by LOCA with loss of ECCS and containment cooling ABOVE CSD CONDITION	• Loss of reactor or secondary coolant - IN PROGRESS AND • High or Low Head ECCS flow NOT being delivered to the core (if expected by plant conditions) AND • Containment RS sump temperature - GREATER THAN 190° F and NOT decreasing OR All Containment Spray and Recirculation Spray Systems - NOT OPERABLE	GENERAL EMERGENCY
9.	Major fuel damage accident with radioactive release to containment or fuel buildings ALL CONDITIONS	• Water level in reactor vessel during refueling - BELOW TOP OF CORE OR Water level in Spent Fuel Pit verified - BELOW TOP OF SPENT FUEL AND • Verified damage to irradiated fuel resulting in readings on Ventilation Vent Kaman Monitor: RM-VG-131 GREATER THAN 4.2×10^7 µCi/sec	SITE AREA EMERGENCY

	CONDITION/APPLICABILITY	INDICATION	CLASSIFICATION
10.	Fuel damage accident with release of radioactivity to containment or fuel buildings ALL CONDITIONS	• Verified accident involving damage to irradiated fuel AND • HP confirms fission product release from fuel OR Readings on Ventilation Vent Kaman Monitor: RM-VG-131 GREATER THAN 2.8 x 10^5 μCi/sec	ALERT
11.	Loss of cask/fuel containment barriers or accidental criticality ALL CONDITIONS	• Verified loss of all cask/fuel containment barriers AND • HP confirms fission product release	ALERT
12.	Spent Fuel Storage Facility accident ALL CONDITIONS	• Verified Spent Fuel Storage Cask seal leakage OR Spent Fuel Storage Cask dropped or mishandled	NOTIFICATION OF UNUSUAL EVENT

	CONDITION/APPLICABILITY	INDICATION	CLASSIFICATION
1.	Extremely high Containment radiation, pressure and temperature ABOVE CSD CONDITION	• Outside Containment High Range Radiation Monitor: RM-RMS-161 or -261, GREATER THAN 3.0×10^3 mR/hr OR CHRRMS (Inside) Containment High Range Radiation Monitor: RM-RMS-127 or -227, RM-RMS-128 or -228: GREATER THAN 9×10^3 R/hr AND • Containment pressure - GREATER THAN 45 psia and is NOT DECREASING OR Containment temperature - GREATER THAN 280° F	GENERAL EMERGENCY
2.	High Containment radiation, pressure and temperature ABOVE CSD CONDITION	• Outside Containment High Range Radiation Monitor: RM-RMS-161 or -261, GREATER THAN 6.3×10^2 mR/hr OR CHRRMS (Inside) Containment High Range Radiation Monitor: RM-RMS-127 or -227, RM-RMS-128 or -228: GREATER THAN 2×10^3 R/hr AND • Containment pressure - GREATER THAN 23 psia and NOT decreasing OR Containment temperature - GREATER THAN 200° F	SITE AREA EMERGENCY

CONDITION/APPLICABILITY	INDICATION	CLASSIFICATION
3. High Containment radiation, pressure and temperature ABOVE CSD CONDITION	• Outside Containment High Range Radiation Monitor: RM-RMS-161 or -261 GREATER THAN 24 mR/hr OR CHRMMS (Inside) Containment High Range Radiation Monitor: RM-RMS-127 or -227, RM-RMS-128 or -228: GREATER THAN 1.54 R/hr AND • Containment pressure - GREATER THAN 17.7 psia OR Containment temperature - GREATER THAN 150° F	ALERT

	CONDITION/APPLICABILITY	INDICATION	CLASSIFICATION
1.	Release imminent or in progress and site boundary doses projected to exceed 1.0 Rem TEDE or 5.0 Rem Thyroid CDE ALL CONDITIONS	HP assessment indicates actual or projected doses at or beyond Site Boundary - GREATER THAN 1.0 Rem TEDE or 5.0 Rem Thyroid CDE	GENERAL EMERGENCY
2.	Release imminent or in progress and site boundary doses projected to exceed 100 mrem TEDE or 500 mrem Thyroid CDE ALL CONDITIONS	HP assessment indicates actual or projected doses at or beyond Site Boundary - GREATER THAN 100 mrem TEDE or 500 mrem Thyroid CDE	SITE AREA EMERGENCY

CONDITION/APPLICABILITY	INDICATION	CLASSIFICATION
3. High radiation or airborne contamination levels indicate a severe degradation in control of radioactive material ALL CONDITIONS	a) Valid unexpected readings on any of the following monitors have increased by a factor of 1000: • Control Room Area — RM-RMS-157 • Auxiliary Building Control Area — RM-RMS-154 • Auxiliary Building Drumming Area — RM-RMS-155 • Decontamination Building Area — RM-RMS-151 • Fuel Pit Bridge Area — RM-RMS-153 • New Fuel Storage Area — RM-RMS-152 • Laboratory Area — RM-RMS-158 • Sample Room Area — RM-RMS-156 OR b) Surry Radwaste Facility reports valid unexpected readings on any of the following monitors have increased by a factor of 1000: • Control Room — RRM-121 • Chemistry Laboratory — RRM-122 • Local Control Panel — RRM-129 • Bitumen Control Room — RRM-130	ALERT

CONDITION/APPLICABILITY	INDICATION	CLASSIFICATION
4. Effluent release GREATER THAN 10 times ODCM allowable limit ALL CONDITIONS	a) Any of the following monitors indicate valid readings above specified value for GREATER THAN 15 minutes: • Vent Vent Kaman RM-VG-131 GREATER THAN 2.84×10^5 µCi/sec • Process Vent Kaman RM-GW-130 GREATER THAN 4.59×10^7 µCi/sec • Discharge Tunnel RM-SW-120 or -220 GREATER THAN 3.3×10^5 cpm OR b) HP assessment (sample results or dose projections) indicates GREATER THAN 10 times ODCM allowable limit OR c) Surry Radwaste Facility Monitor GREATER THAN 10 times ODCM allowable limit as determined by HP: • RRM-101: Ventilation Stack Noble Gas monitor OR RRM-131: Liquid Effluent Monitor	ALERT

CONDITION/APPLICABILITY	INDICATION	CLASSIFICATION
5. Effluent release GREATER THAN ODCM allowable limit ALL CONDITIONS	a) Any of the following monitors indicate valid readings above specified value for GREATER THAN one hour: • Vent Vent Kaman RM-VG-131 GREATER THAN 2.84×10^4 µCi/sec • Process Vent Kaman RM-GW-130 GREATER THAN 4.59×10^6 µCi/sec • Discharge Tunnel RM-SW-120 or -220 GREATER THAN 3.3×10^4 cpm OR b) HP assessment (sample results or dose projections) indicate GREATER THAN 100% ODCM allowable limit OR c) Surry Radwaste Facility Monitor GREATER THAN 100% ODCM allowable limit as determined by HP: • RRM-101: Ventilation Stack Noble Gas monitor OR RRM-131: Liquid Effluent Monitor	NOTIFICATION OF UNUSUAL EVENT

	CONDITION/APPLICABILITY	INDICATION	CLASSIFICATION
1.	Major Secondary line break with Primary to Secondary leakage GREATER THAN 50 gpm and fuel damage indicated ABOVE CSD CONDITION	• Uncontrolled loss of secondary coolant - IN PROGRESS AND • RCS specific activity > 300 µCi/gm D.E. I-131 OR High Range Letdown Radiation Monitor on affected pathway 1-CH-RM-118, 2-CH-RM-218: > 7.0 x 10^6 cpm AND • Condenser Air Ejector Radiation Monitor on affected pathway 1-SV-RM-111, 2-SV-RM-211: > 1 x 10^7 cpm OR Vent Vent Kaman Monitor RM-VG-131 > 1.1 x 10^7 µCi/sec OR Steam Generator Blowdown Radiation Monitor on affected pathway 1-SS-RM-112 or -113, 2-SS-RM-212 or -213: GREATER THAN 1 x 10^7 cpm OR Main Steam Line High Range Radiation Monitor on affected pathway RM-RI-MS-124 or -224 RM-RI-MS-125 or -225 RM-RI-MS-126 or -226 GREATER THAN 1.94 mR/hr	SITE AREA EMERGENCY

CONDITION/APPLICABILITY	INDICATION	CLASSIFICATION
2. Major Secondary line break with Primary to Secondary leakage GREATER THAN 10 gpm ABOVE CSD CONDITION	a) Uncontrolled loss of secondary coolant - IN PROGRESS AND b) Condenser Air Ejector Monitor 1-SV-RM-111, 2-SV-RM-211: GREATER THAN 1 x 10^7 cpm OR Vent Vent Kaman Monitor RM-VG-131 GREATER THAN 2.84 x 10^5 µCi/sec OR Steam Generator Blowdown Radiation Monitor on affected pathway 1-SS-RM-112 or -113, 2-SS-RM-212 or -213: GREATER THAN 1 x 10^7 cpm	ALERT
3. Major Secondary line break ABOVE CSD CONDITION	Uncontrolled loss of secondary coolant - IN PROGRESS	NOTIFICATION OF UNUSUAL EVENT

CONDITION/APPLICABILITY	INDICATION	CLASSIFICATION
CAUTION: EAL A.2 is duplicated below for cross-reference/comparison to EAL H.1:		
Loss of Function needed for unit HSD condition ABOVE CSD CONDITION	a) Inability to attain the minimum required heat sink as indicated by loss of the following: • Main Feedwater System AND • Auxiliary Feedwater AND • Auxiliary Feedwater Crosstie OR b) Loss of High Head flowpath as indicated by loss of the following: • Normal Charging System AND • High Head SI System	SITE AREA EMERGENCY
1. Loss of offsite and onsite AC power for more than 15 minutes ALL CONDITIONS	The following conditions exist for GREATER THAN 15 minutes: • Offsite power to unit specific Transfer Buses (Unit 1: D & F; Unit 2: E & F) - NOT AVAILABLE AND • Station Service Buses A, B, & C - DE-ENERGIZED AND • Emergency Buses H & J - DE-ENERGIZED	SITE AREA EMERGENCY

CONDITION/APPLICABILITY	INDICATION	CLASSIFICATION
CAUTION: EAL A.2 is duplicated below for cross-reference/comparison to EAL H.2:		
Loss of Function needed for unit HSD condition ABOVE CSD CONDITION	a) Inability to attain the minimum required heat sink as indicated by loss of the following: • Main Feedwater System AND • Auxiliary Feedwater AND • Auxiliary Feedwater Crosstie OR b) Loss of High Head flowpath as indicated by loss of the following: • Normal Charging System AND • High Head SI System	SITE AREA EMERGENCY
2. Loss of all offsite and onsite AC power ALL CONDITIONS	• Offsite power to unit specific Transfer Buses (Unit 1: D & F; Unit 2: E & F) - NOT AVAILABLE AND • Station Service Buses A, B, & C - DE-ENERGIZED AND • Emergency Buses H & J - DE-ENERGIZED	ALERT

	CONDITION/APPLICABILITY	INDICATION	CLASSIFICATION
3.	Loss of offsite power or onsite AC power capability ALL CONDITIONS	• Offsite power to unit specific Transfer Buses (Unit 1: D & F; Unit 2: E & F) NOT AVAILABLE OR Unit Main Generator and both Emergency Diesel Generators - OUT OF SERVICE	NOTIFICATION OF UNUSUAL EVENT -
4.	Loss of all onsite DC power for GREATER THAN 15 minutes ALL CONDITIONS	The following conditions exist for GREATER THAN 15 minutes: • All Station Battery voltmeters - ZERO (0) VOLTS AND • No light indication available to Reserve Station Service Breakers 15D1, 15E1 and 15F1	SITE AREA EMERGENCY
5.	Loss of all onsite DC power ALL CONDITIONS	• All Station Battery voltmeters - ZERO (0) VOLTS AND • No light indication available to Reserve Station Service Breakers 15D1, 15E1, and 15F1	ALERT

	CONDITION/APPLICABILITY	INDICATION	CLASSIFICATION
1.	Fire resulting in degradation of safety systems ABOVE CSD CONDITION	• Fire which causes major degradation of a safety system function required for protection of the public AND • Affected systems are caused NOT to be operable as defined by T.S. 1.0.D and T.S. 3.0.2	SITE AREA EMERGENCY
2.	Fire potentially affecting station safety systems ABOVE CSD CONDITION	Fire which has potential for causing a safety system NOT to be operable as defined by T.S. 1.0.D and and T.S. 3.0.2	ALERT
3.	Fire lasting GREATER THAN 10 minutes ALL CONDITIONS	Fire in the Protected Area or Switchyard which is not under control within 10 minutes after Fire Brigade - DISPATCHED	NOTIFICATION OF UNUSUAL EVENT

	CONDITION/APPLICABILITY	INDICATION	CLASSIFICATION
1.	Loss of Station physical control ALL CONDITIONS	• Shift Supervisor has been informed that the Security force has been neutralized by attack, resulting in loss of physical control of station OR Shift Supervisor has been informed of intrusion into one or more Vital Areas which are occupied or controlled by an aggressor	GENERAL EMERGENCY
2.	Imminent loss of physical Station control ALL CONDITIONS	Supervisor Security Shift has notified the Shift Supervisor of imminent intrusion into a Vital Area	SITE AREA EMERGENCY
3.	Ongoing Security compromise or bomb potentially affecting station safety systems ALL CONDITIONS	Supervisor Security Shift has notified the Shift Supervisor of a confirmed un-neutralized intrusion into the Protected Area OR Shift Supervisor notified of a verified bomb discovered on or near a safety related system	ALERT
4.	Security threat, unauthorized attempted entry, or attempted sabotage ALL CONDITIONS	Supervisor Security Shift has recommended that the Operations Shift Supervisor declare a Notificiation of Unusual Event IAW applicable Security Contingency Plan Implmenting Procedures	NOTIFICATION OF UNUSUAL EVENT

	CONDITION/APPLICABILITY	INDICATION	CLASSIFICATION
1.	Aircraft damage to vital plant systems ABOVE CSD CONDITION	Aircraft crash adversely affects vital structures by impact or fire	SITE AREA EMERGENCY
2.	Aircraft crash on the facility ALL CONDITIONS	• Aircraft crash within the Protected Area or Switchyard	ALERT
3.	Aircraft crash or unusual aircraft activity ALL CONDITIONS	• Confirmed notification of aircraft crash within the site boundary OR Unusual aircraft activity in the vicinity of the site as determined by the Shift Supervisor or Supervisor Security Shift	NOTIFICATION OF UNUSUAL EVENT
4.	Severe explosive damage ABOVE CSD CONDITION	Explosion which results in severe degradation of any systems required for safe shutdown	SITE AREA EMERGENCY
5.	Explosion damage to facility ALL CONDITIONS	Unplanned explosion resulting in damage to plant structure or equipment that affects plant operations	ALERT
6.	Onsite explosion ALL CONDITIONS	Confirmed report of unplanned explosion within Protected Area or Switchyard	NOTIFICATION OF UNUSUAL EVENT

	CONDITION/APPLICABILITY	INDICATION	CLASSIFICATION
7.	Entry of toxic or flammable gases or liquids into plant vital areas other than the Control Room ABOVE CSD CONDITION	• Uncontrolled release of toxic or flammable agents into Vital Areas AND • Evacuation of Vital Area other than Control Room - REQUIRED OR Loss of a safety system function required for protection of the public	SITE AREA EMERGENCY
8.	Entry of toxic or flammable gases or liquids into plant facility ALL CONDITIONS	Uncontrolled release of toxic or flammable agent which causes: • Evacuation of personnel from plant areas AND • Safety related equipment to be rendered inoperable	ALERT
9.	Onsite or nearsite release of toxic or flammable liquids or gases ALL CONDITIONS	Unplanned release of toxic or flammable agents which may affect safety of station personnel or equipment	NOTIFICATION OF UNUSUAL EVENT

	CONDITION/APPLICABILITY	INDICATION	CLASSIFICATION
10.	Severe missile damage to safety systems ABOVE CSD CONDITION	Missile impact causing severe degradation of safety systems required for unit shutdown	SITE AREA EMERGENCY
11.	Missile damage to safety related equipment or structures ABOVE CSD CONDITION	Notification of missile impact causing damage to safety related equipment or structures	ALERT
12.	Turbine failure with penetration POWER	Failure of turbine/ generator rotating equipment resulting in casing penetration	ALERT
13.	Turbine rotating component failure with no casing penetration POWER & STARTUP	Failure of turbine/ generator rotating component resulting in unit trip	NOTIFICATION OF UNUSUAL EVENT

	CONDITION/APPLICABILITY	INDICATION	CLASSIFICATION
1.	Earthquake GREATER THAN DBE levels ABOVE CSD CONDITION	• Earthquake which activates the Event Alarm on the Strong Motion Accelerograph AND • Safety related systems are significantly degraded by earthquake OR AP-37.00, SEISMIC EVENT, calculations indicate horizontal motion of 0.15g or GREATER	SITE AREA EMERGENCY
2.	Earthquake GREATER THAN OBE levels ALL CONDITIONS	• Confirmed earthquake which activates Event Alarm on the Strong Motion Accelerograph AND • Safety related equipment is rendered inoperable by earthquake OR AP-37.00, SEISMIC EVENT, calculations indicate horizontal motion of 0.07g or GREATER	ALERT
3.	Earthquake detected ALL CONDITIONS	Confirmed earthquake which activates the Event Alarm on the Strong Motion Accelerograph	NOTIFICATION OF UNUSUAL EVENT

CONDITIONS/APPLICABILITY	INDICATION	CLASSIFICATION
4. Tornado striking facility ALL CONDITIONS	Tornado visually detected striking structures within the Protected Area or Switchyard	ALERT
5. Tornado within Protected Area or Switchyard ALL CONDITIONS	Tornado visually detected within Protected Area or Switchyard	NOTIFICATION OF UNUSUAL EVENT
6. Sustained winds in excess of design levels experienced or projected ABOVE CSD CONDITION	Sustained winds 150 mph OR GREATER experienced or projected	SITE AREA EMERGENCY
7. Hurricane winds near design basis level experienced or projected ALL CONDITIONS	Hurricane winds 120 mph OR GREATER experienced or projected	ALERT
8. Hurricane force winds projected onsite within 12 hours ALL CONDITIONS	• "Inland High Wind Warning for Hurricane Force Winds" in effect for Surry County OR Sustained hurricane force winds (GREATER THAN 73 mph) projected onsite within 12 hours	NOTIFICATION OF UNUSUAL EVENT

	CONDITION/APPLICABILITY	INDICATION	CLASSIFICATION
9.	Flood or low water level above design levels ALL CONDITIONS	• Flood in the James River - GREATER THAN +27 feet MSL (station operating level) OR Water level in the James River - LESS THAN -9 feet MSL as indicated by loss of Emergency SW Pump suction	SITE AREA EMERGENCY
10.	Flood or low water level near design levels ALL CONDITIONS	• Flood in the James River - GREATER THAN +21 feet MSL (Emergency Service Water Pump House entrance is at +21 1/6 feet) but LESS THAN +27 feet MSL (Site Area Emergency criteria) OR Water level in Surry Power Station Intake Canal - LESS THAN +23 1/2 feet and decreasing	ALERT
11.	Flood or low water level ALL CONDITIONS	• Flood in the James River - GREATER THAN +12 feet MSL (CW pump motors and entrance to the CW pump pits are at +12 1/2 feet MSL) but LESS THAN +21 feet MSL (Alert criteria) OR Water level in Surry Power Station Intake Canal (CW-LI-101, -201) - LESS THAN +23 1/2 feet and NOT increasing	NOTIFICATION OF UNUSUAL EVENT

	CONDITION/APPLICABILITY	INDICATION	CLASSIFICATION
1.	Any major internal or external event which singly or in combination cause massive damage to station facilities or may warrant evacuation of the public ALL CONDITIONS	Shift Supervisor/ Station Emergency Manager judgement	GENERAL EMERGENCY
2.	Station conditions which may warrant notification of the public near the site ALL CONDITIONS	Shift Supervisor/ Station Emergency Manager judgement	SITE AREA EMERGENCY
3.	Station conditions which have the potential to degrade or are actually degrading the level of safety of the station ALL CONDITIONS	Shift Supervisor/ Station Emergency Manager judgement	ALERT

	CONDITION/APPLICABILITY	INDICATION	CLASSIFICATION
4.	Station conditions which warrant increased awareness of state and/ or local authorities ALL CONDITIONS	Shift supervisor judgment that any of the following exist: • Unit shutdown is other than a controlled shutdown OR Unit is in an uncontrolled condition during operation OR A condition exists which has the potential for escalation and, therefore, warrants notification	NOTIFICATION OF UNUSUAL EVENT

NUMBER	ATTACHMENT TITLE	REVISION
EPIP-1.01	CONSIDERATIONS FOR OPERATIONS RESPONSE UNDER ABNORMAL CONDITIONS	42
ATTACHMENT 2		PAGE 1 of 1

This attachment provides procedural guidance for controlling selected emergency response actions when their implementation would have adverse results.

Station Emergency Manager (SEM) approval is required before any required action is postponed, suspended or modified. The guidance below is not all-inclusive.

SECURITY EVENT RESPONSE:

IF implementation of emergency response facility activation or assembly of personnel for accountability could compromise Security Plan response strategies or create a personnel safety hazard due to movement of personnel, THEN consider postponing or suspending emergency response actions until threat has been resolved.

UNANTICIPATED HAZARDOUS CONDITIONS EXIST (e.g., tornado or toxic release):

IF assembling personnel for accountability or activating emergency response facilities could endanger plant personnel, THEN consider postponing emergency assembly. (Consider implementing alternative notification methods on an ad hoc basis, e.g., selectively notify personnel in unaffected areas or defer notifications until hazardous conditions are resolved.)

IF notifying augmentation could create a safety hazard for personnel coming to the station, THEN consider postponing augmentation notification. (Consider implementing alternative notification methods on an ad hoc basis, e.g., selectively notify personnel reporting to unaffected areas or defer notifications until the hazardous condition is resolved.)

ANTICIPATED SITUATION (e.g., forecasted severe weather or grid disturbance):

IF all or part of the ERO has been staged in anticipation of a predicted event, THEN notify Security to omit performance of augmentation notification (as described in EPIP-3.05, AUGMENTATION OF EMERGENCY RESPONSE ORGANIZATION).

IF adequate controls have been established to continually account for personnel staged in anticipation of a predicted event, THEN notify Security to omit performance of initial accountability (as described in EPIP-5.03, PERSONNEL ACCOUNTABILITY).

IF a decision has been made to staff the Central EOF in lieu of the LEOF, THEN notify Security that performance of EPIP-3.04, ACTIVATION OF LOCAL EMERGENCY OPERATIONS FACILITY, is not required.

IF environmental conditions are hazardous, THEN consult with Security Team Leader about suspending procedural requirements for staging road blocks (IAW EPIP-5.04, ACCESS CONTROL).

NUMBER	PROCEDURE TITLE	REVISION
EPIP-1.06	PROTECTIVE ACTION RECOMMENDATIONS (With 3 Attachments)	3 PAGE 1 of 3

PURPOSE

Give guidance to the Station Emergency Manager or Recovery Manager regarding determination of Protective Action Recommendations.

ENTRY CONDITIONS

Any one of the following:

1. Activation by EPIP-1.05, RESPONSE TO GENERAL EMERGENCY.
2. Activation by CPIP-1.0, CORPORATE RESPONSE MANAGER ACTIVATION.
3. Activation by CPIP-6.0, LEOF RECOVERY MANAGER GUIDANCE.
4. As directed by the Station Emergency Manager or Recovery Manager.

Approvals on File

Effective Date 10/06/00

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED

_____ 1 INITIATE PROCEDURE:

- By: _____

  Date: _____

  Time: _____

NOTE: The initial notification of General Emergency and an applicable Protective Action Recommendation (PAR) must be made to the State within 15 minutes following declaration of the General Emergency.

_____ 2 USE ATTACHMENT 2, PROTECTIVE ACTION RECOMMENDATION MATRIX TO DETERMINE INITIAL PAR

_____ 3 COMPLETE ATTACHMENT 3, PROTECTIVE ACTION RECOMMENDATION FORM:

a) Fill in Item 1 (Downwind Sectors)

b) Mark appropriate PAR box in Item 2

c) Sign and date form

_____ 4 HAVE EMERGENCY COMMUNICATORS NOTIFY OFFSITE AUTHORITIES OF PAR:

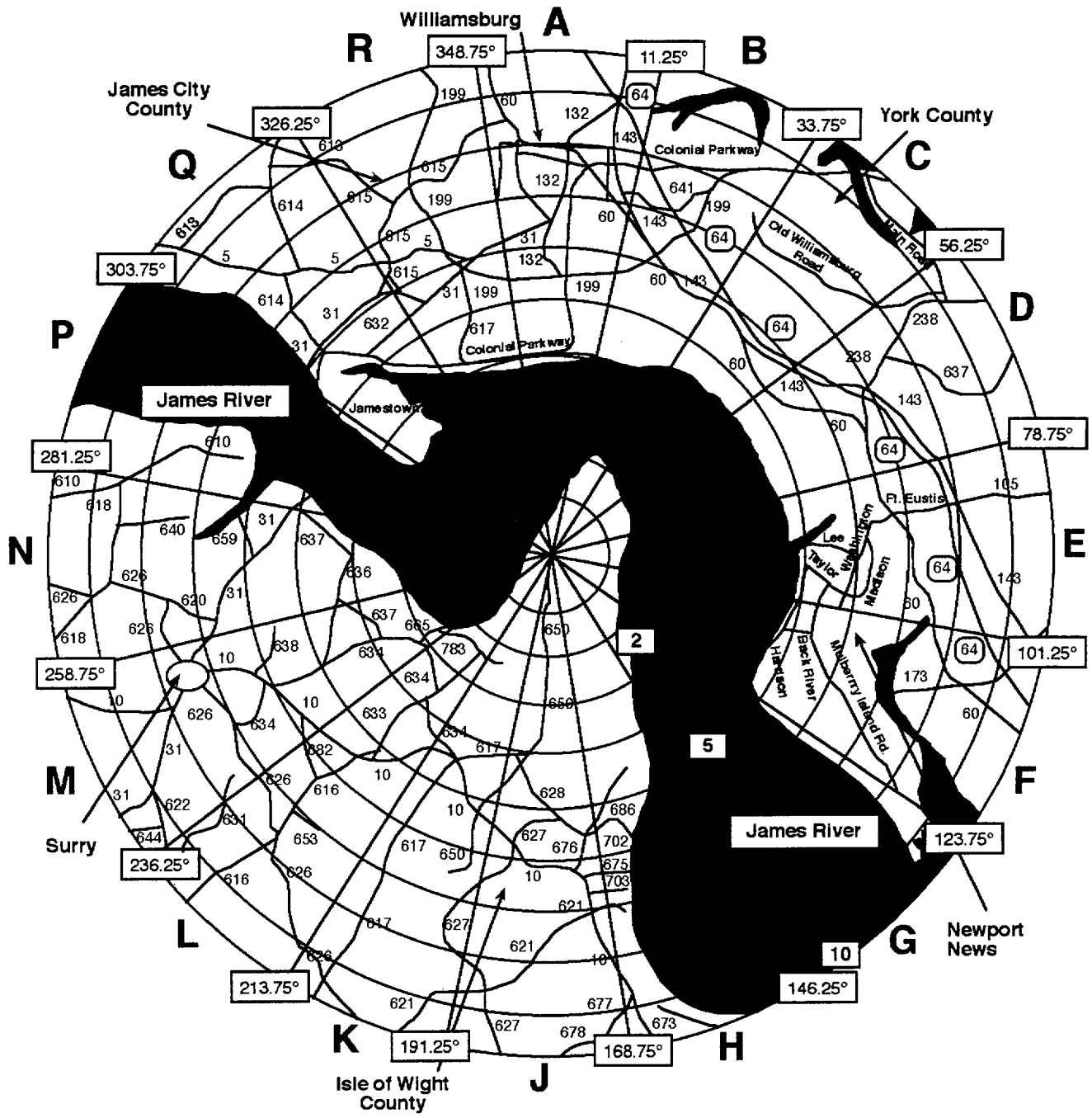
- State Emergency Operations Center notified IAW EPIP-2.01, NOTIFICATION OF STATE AND LOCAL GOVERNMENTS

- NRC notified IAW EPIP-2.02, NOTIFICATION OF NRC (notification made from Control Room or TSC, when activated)

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
_____ 5	HAVE RADIOLOGICAL ASSESSMENT DIRECTOR (RAD) IMPLEMENT EPIP-4.07, PROTECTIVE MEASURES [RADIOLOGICAL ASSESSMENT COORDINATOR (RAC) IF IN LEOF]	
_____ 6	CHECK IF RADIOLOGICAL-BASED PAR RECOMMENDS PROTECTIVE ACTIONS IN ANY NEW AREA(s)	IF PAR in effect - UNCHANGED, THEN GO TO Step 8.
_____ 7	RETURN TO STEP 3	
_____ 8	CHECK EMERGENCY - TERMINATED	IF RAD/RAD recommends a PAR change, THEN RETURN TO Step 6.
_____ 9	TERMINATE EPIP-1.06: • Give completed EPIP-1.06, forms, and other applicable records to TSC Emergency Procedures Coordinator or LEOF Services Coordinator • Completed by:_____ Date:_____ Time:_____	

-END-

NUMBER	ATTACHMENT TITLE	REVISION
EPIP-1.06	SECTOR MAP	3
ATTACHMENT 1		PAGE 1 of 1



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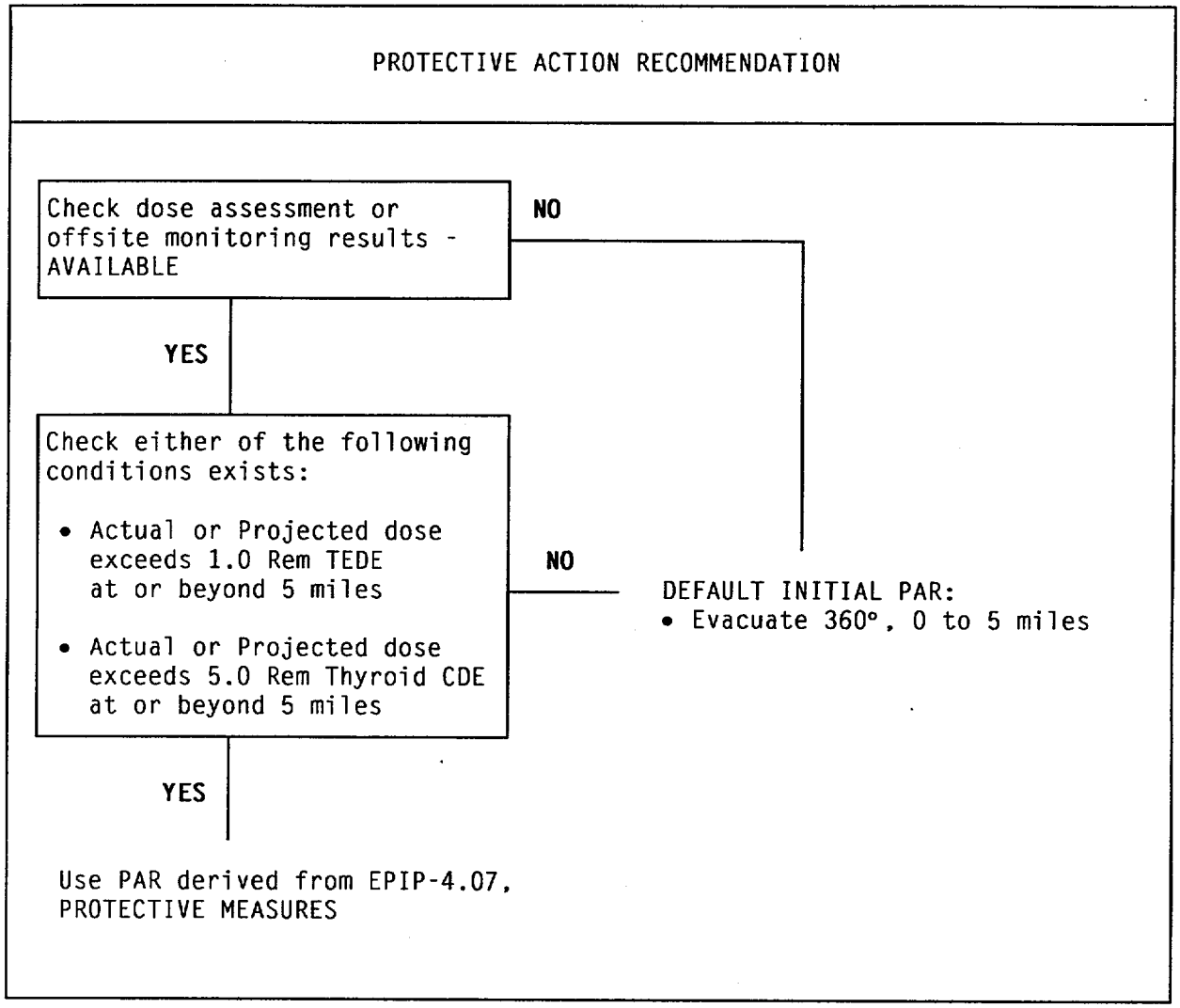
NUMBER	ATTACHMENT TITLE	REVISION
EPIP-1.06	PROTECTIVE ACTION RECOMMENDATION MATRIX	3
ATTACHMENT 2	SPS	PAGE 1 of 1



NUMBER	ATTACHMENT TITLE	REVISION
EPIP-1.06	PROTECTIVE ACTION RECOMMENDATION FORM	3
ATTACHMENT 3		PAGE 1 of 1

NOTE:
- Downwind sectors (primary plus 2 buffer sectors) may be determined from the State/Local Emergency Communicator, facility maps, or Attachment 1, Sector Map.
- Wind direction is always given as the compass point the wind blows from, which is opposite from the primary downwind sector. Example: Wind direction from East North East (ENE) means Sector M is primary.
- Recommendations for sheltering may be made at the discretion of the Station Emergency Manager / Recovery Manager.

1. DOWNWIND SECTORS: _____ _____ _____

2. PROTECTIVE ACTION RECOMMENDATION:

[ ] DEFAULT INITIAL PAR:

Evacuate 360° from 0 to 5 miles.

[ ] EXPANDED PAR:

[ ] Evacuate 360° from 0 to ___ miles.

[ ] Evacuate downwind sectors from ___ to ___ miles.

[ ] Shelter 360° from ___ to ___ miles.

[ ] Shelter downwind sectors from ___ to ___ miles.

[ ] Shelter unaffected sectors from ___ to ___ miles.

APPROVED BY: _____ _____ / _____

Station Emergency Manager or Recovery Manager — Date / Time

EMERGENCY PLAN IMPLEMENTING PROCEDURE

NUMBER	PROCEDURE TITLE	REVISION
EPIP-2.01	NOTIFICATION OF STATE AND LOCAL GOVERNMENTS (With 3 Attachments)	27 **PAGE** 1 of 17

PURPOSE

To initially notify State and local governments of the declaration of an emergency and to provide status updates related to the event.

ENTRY CONDITIONS

Any of the following:

1. An emergency has been declared.

2. Entry directed by Station Emergency Manager.

Approvals on File

Effective Date 10/06/00

1. REPORT OF EMERGENCY UPDATE/CONDITION CHANGE CRITERIA

   WHEN either of the following conditions exist:

   - Scheduled Report of Emergency to State and Local Governments - DUE
   - Change in emergency conditions (e.g., classification, event termination, offsite assistance, site evacuation, worsening prognosis, release of radioactive material, Protective Action Recommendation)

   THEN RETURN TO Step 3 to prepare new emergency message.

NOTE: Transmittal of a Report of Emergency to State and Local Governments takes precedence over preparing a new radiological status message, responding to requests for meteorological information and turning-over duties to relief.

2. REPORT OF RADIOLOGICAL STATUS CONDITION CHANGE CRITERIA

   WHEN updated Radiological Status report provided by radiological assessment organization, THEN RETURN TO Step 15 to prepare new radiological status message.

3. METEOROLOGICAL INFORMATION REQUEST CRITERIA

   IF requested to acquire on-site meteorological information, THEN GO TO Step 19.

4. SHIFT RELIEF OR INTERFACILITY TURNOVER CRITERIA

   WHEN shift relief or interfacility turnover occurs, THEN GO TO Step 26.

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED

_____ 1 INITIATE PROCEDURE:

- By: _____

Date: _____

Time: _____

Location: _____

_____ 2 CHECK FIRST REPORT OF EMERGENCY FOR EVENT - REQUIRED

IF procedure previously initiated, THEN continue from step in effect identified during relief/turnover.

NOTE:
- The initial notification of any emergency classification must be completed within 15 minutes of declaring the emergency class.
- Items 2 through 5 and 7 may be checked [ ] Not Required for the initial report of any emergency classification.
- Attachment 1, Instructions for Completing Report of Emergency to State and Local Governments, can be referenced as needed.

_____ 3 RECORD INFORMATION ON ATTACHMENT 2 (REPORT OF EMERGENCY TO STATE AND LOCAL GOVERNMENTS)

_____ 4 CHECK EMERGENCY - REMAINS IN EFFECT

IF emergency terminated before message sent, THEN do the following:

a) Record that event has been terminated in Item 8.

b) Record "N/A" in Items 10, 11, 12 and 13.

_____ 5 HAVE SEM/RM APPROVE REPORT (initial at top of Attachment 2)

1. REPORT OF EMERGENCY UPDATE/CONDITION CHANGE CRITERIA

   WHEN either of the following conditions exist:

   - Scheduled Report of Emergency to State and Local Governments - DUE
   - Change in emergency conditions (e.g., classification, event termination, offsite assistance, site evacuation, worsening prognosis, release of radioactive material, Protective Action Recommendation)

   THEN RETURN TO Step 3 to prepare new emergency message.

NOTE: Transmittal of a Report of Emergency to State and Local Governments takes precedence over preparing a new radiological status message, responding to requests for meteorological information and turning-over duties to relief.

2. REPORT OF RADIOLOGICAL STATUS CONDITION CHANGE CRITERIA

   WHEN updated Radiological Status report provided by radiological assessment organization, THEN RETURN TO Step 15 to prepare new radiological status message.

3. METEOROLOGICAL INFORMATION REQUEST CRITERIA

   IF requested to acquire on-site meteorological information, THEN GO TO Step 19.

4. SHIFT RELIEF OR INTERFACILITY TURNOVER CRITERIA

   WHEN shift relief or interfacility turnover occurs, THEN GO TO Step 26.

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED

_____ 6 RECORD TIME NOTIFICATION STARTED

NOTE: Outbound calls through the PBX system are made by dialing 8-1-(area code)-###-####. Using unrestricted PBX telephones, outbound calls may be made by dialing 9-1-(area code)-###-#### (area code not required for outbound calls within local calling area). No prefix (8-, 9-) is needed when using a direct outside line.

_____ 7 SEND REPORT OF EMERGENCY TO STATE AND LOCAL GOVERNMENTS (i.e., Initial or Follow-up Report, as required):

a) Check Instaphone - CLEAR OF CONFLICTING MESSAGE TRAFFIC

a) IF Instaphone NOT available, THEN do the following:

1) Call State EOC on DEM ARD (Alternate: (804) 674-2400).

2) Notify State EOC Duty Officer of need to transmit message.

3) WHEN Instaphone available for message transmittal, THEN GO TO Step 7.b.

b) Use Instaphone to contact State and local Emergency Operations Centers (EOCs)

b) IF Instaphone NOT operable, THEN GO TO Step 11.

c) Perform initial roll-call (check boxes as EOC(s) answer)

d) Read Items 1 through 9

e) Check each EOC answers acknowledgement roll-call (check associated box as EOC(s) answer)

e) IF any EOC does NOT respond, THEN circle locality name on Attachment 2.

f) Repeat any items upon request

(STEP 7 CONTINUED ON NEXT PAGE)

1. REPORT OF EMERGENCY UPDATE/CONDITION CHANGE CRITERIA

   WHEN either of the following conditions exist:

   - Scheduled Report of Emergency to State and Local Governments - DUE
   - Change in emergency conditions (e.g., classification, event termination, offsite assistance, site evacuation, worsening prognosis, release of radioactive material, Protective Action Recommendation)

   THEN RETURN TO Step 3 to prepare new emergency message.

NOTE: Transmittal of a Report of Emergency to State and Local Governments takes precedence over preparing a new radiological status message, responding to requests for meteorological information and turning-over duties to relief.

2. REPORT OF RADIOLOGICAL STATUS CONDITION CHANGE CRITERIA

   WHEN updated Radiological Status report provided by radiological assessment organization, THEN RETURN TO Step 15 to prepare new radiological status message.

3. METEOROLOGICAL INFORMATION REQUEST CRITERIA

   IF requested to acquire on-site meteorological information, THEN GO TO Step 19.

4. SHIFT RELIEF OR INTERFACILITY TURNOVER CRITERIA

   WHEN shift relief or interfacility turnover occurs, THEN GO TO Step 26.

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
7	SEND REPORT OF EMERGENCY TO STATE AND LOCAL GOVERNMENTS (i.e., Initial or Follow-up Report, as required): (Continued)	
	g) Record date and time transmittal of Items 1 through 9 completed	
	h) Check message reports emergency - REMAINS IN EFFECT	h) GO TO Step 12.
	i) Use DEM ARD phone to contact State EOC (Alternate: (804) 674-2400 (ask for Duty Officer))	i) IF all means of communications with State EOC are inoperable, THEN do the following: 1) Use Instaphone to transmit Items 10 and 11 to local EOCs. 2) Record the following on second page of Attachment 2: • "Transmitted Items 10 and 11 to local EOCs." • Date and time transmitted to each local EOC. 3) GO TO Step 9.
	j) Read Items 10, 11 and 12	
	k) Consult with State EOC Duty Officer to determine desired update message schedule	
	l) Record following at Item 13: • Update message schedule • State EOC Duty Officer's name	
_____ 8	RECORD DATE AND TIME TRANSMITTAL OF ITEMS TO STATE EOC COMPLETE	

CONTINUOUS ACTION PAGE FOR EPIP-2.01

1. REPORT OF EMERGENCY UPDATE/CONDITION CHANGE CRITERIA

   WHEN either of the following conditions exist:

   - Scheduled Report of Emergency to State and Local Governments - DUE
   - Change in emergency conditions (e.g., classification, event termination, offsite assistance, site evacuation, worsening prognosis, release of radioactive material, Protective Action Recommendation)

   THEN RETURN TO Step 3 to prepare new emergency message.

NOTE: Transmittal of a Report of Emergency to State and Local Governments takes precedence over preparing a new radiological status message, responding to requests for meteorological information and turning-over duties to relief.

2. REPORT OF RADIOLOGICAL STATUS CONDITION CHANGE CRITERIA

   WHEN updated Radiological Status report provided by radiological assessment organization, THEN RETURN TO Step 15 to prepare new radiological status message.

3. METEOROLOGICAL INFORMATION REQUEST CRITERIA

   IF requested to acquire on-site meteorological information, THEN GO TO Step 19.

4. SHIFT RELIEF OR INTERFACILITY TURNOVER CRITERIA

   WHEN shift relief or interfacility turnover occurs, THEN GO TO Step 26.

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
9	VERIFY ALL LOCAL EOCs ANSWERED ACKNOWLEDGEMENT ROLL CALL	IF any EOC(s) did NOT answer roll call, THEN do the following: a) Use telephone to call EOC(s) that did not answer. b) Refer to the table below for order of priority and list of local EOC phone numbers: c) IF State EOC notified, THEN read Items 1 through 9. IF NO communications with State EOC, THEN read Items 1 through 11. d) Record the following on Attachment 2: • Method of contact. • Reason Instaphone failed (if known). • Date and time of contact.
10	GO TO STEP 12	

Surry	(757) 294-5264
James City	(757) 566-0112
Isle of Wight	(757) 357-2151 (local) (757) 357-3191 (local)
Williamsburg	(757) 220-2331
Newport News	(757) 247-2578
York	(757) 890-3603

1. REPORT OF EMERGENCY UPDATE/CONDITION CHANGE CRITERIA

   WHEN either of the following conditions exist:

   - Scheduled Report of Emergency to State and Local Governments - DUE
   - Change in emergency conditions (e.g., classification, event termination, offsite assistance, site evacuation, worsening prognosis, release of radioactive material, Protective Action Recommendation)

   THEN RETURN TO Step 3 to prepare new emergency message.

NOTE: Transmittal of a Report of Emergency to State and Local Governments takes precedence over preparing a new radiological status message, responding to requests for meteorological information and turning-over duties to relief.

2. REPORT OF RADIOLOGICAL STATUS CONDITION CHANGE CRITERIA

   WHEN updated Radiological Status report provided by radiological assessment organization, THEN RETURN TO Step 15 to prepare new radiological status message.

3. METEOROLOGICAL INFORMATION REQUEST CRITERIA

   IF requested to acquire on-site meteorological information, THEN GO TO Step 19.

4. SHIFT RELIEF OR INTERFACILITY TURNOVER CRITERIA

   WHEN shift relief or interfacility turnover occurs, THEN GO TO Step 26.

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED

NOTE: Other personnel may assist by making notifications simultaneously using other telephones.

_____ 11 SEND REPORT OF EMERGENCY TO STATE AND LOCAL GOVERNMENTS USING ALTERNATIVE MEANS:

a) Call State EOC:

1) Use DEM ARD (Alternate: (804) 674-2400, ask for EOC Duty Officer)

2) Read entire Attachment 2

3) Record date/time transmittal to State EOC complete

b) Call each local EOC and read Items 1 through 9:

Surry	(757) 294-5264
James City	(757) 566-0112
Isle of Wight	(757) 357-2151 (local) (757) 357-3191 (local)
Williamsburg	(757) 220-2331
Newport News	(757) 247-2578
York	(757) 890-3603

c) Record date/time transmittal of Items 1 through 9 complete

_____ 12 NOTIFY SEM/RM TRANSMITTAL WAS SENT

1. REPORT OF EMERGENCY UPDATE/CONDITION CHANGE CRITERIA

   WHEN either of the following conditions exist:

   - Scheduled Report of Emergency to State and Local Governments - DUE
   - Change in emergency conditions (e.g., classification, event termination, offsite assistance, site evacuation, worsening prognosis, release of radioactive material, Protective Action Recommendation)

   THEN RETURN TO Step 3 to prepare new emergency message.

NOTE: Transmittal of a Report of Emergency to State and Local Governments takes precedence over preparing a new radiological status message, responding to requests for meteorological information and turning-over duties to relief.

2. REPORT OF RADIOLOGICAL STATUS CONDITION CHANGE CRITERIA

   WHEN updated Radiological Status report provided by radiological assessment organization, THEN RETURN TO Step 15 to prepare new radiological status message.

3. METEOROLOGICAL INFORMATION REQUEST CRITERIA

   IF requested to acquire on-site meteorological information, THEN GO TO Step 19.

4. SHIFT RELIEF OR INTERFACILITY TURNOVER CRITERIA

   WHEN shift relief or interfacility turnover occurs, THEN GO TO Step 26.

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
_____ 13	KEEP ATTACHMENT 2 WITH THIS PROCEDURE	
_____ 14	CHECK IF ITEM 12 ON REPORT OF EMERGENCY TO STATE AND LOCAL GOVERNMENTS INDICATES REPORT OF RADIOLOGICAL CONDITIONS - REQUIRED	GO TO Step 17.

1. REPORT OF EMERGENCY UPDATE/CONDITION CHANGE CRITERIA

   WHEN either of the following conditions exist:

   - Scheduled Report of Emergency to State and Local Governments - DUE
   - Change in emergency conditions (e.g., classification, event termination, offsite assistance, site evacuation, worsening prognosis, release of radioactive material, Protective Action Recommendation)

   THEN RETURN TO Step 3 to prepare new emergency message.

NOTE: Transmittal of a Report of Emergency to State and Local Governments takes precedence over preparing a new radiological status message, responding to requests for meteorological information and turning-over duties to relief.

2. REPORT OF RADIOLOGICAL STATUS CONDITION CHANGE CRITERIA

   WHEN updated Radiological Status report provided by radiological assessment organization, THEN RETURN TO Step 15 to prepare new radiological status message.

3. METEOROLOGICAL INFORMATION REQUEST CRITERIA

   IF requested to acquire on-site meteorological information, THEN GO TO Step 19.

4. SHIFT RELIEF OR INTERFACILITY TURNOVER CRITERIA

   WHEN shift relief or interfacility turnover occurs, THEN GO TO Step 26.

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED

NOTE:
- The initial Report of Radiological Conditions must be transmitted to the State EOC (or State representatives in the LEOF/CEOF) as soon as possible following the release of radioactive material.
- Follow-up reports should be issued approximately every 60 minutes or when there are changes in radiological conditions. Time should be measured from when transmittal of a message begins, or if delivered, from the time of delivery.

_____ 15 GET REPORT OF RADIOLOGICAL CONDITIONS FOR THE STATE:

a) Check if either of the following Radiological Status reports available:

- MIDAS Radiological Status report

OR

- EPIP-4.03, DOSE ASSESSMENT TEAM CONTROLLING PROCEDURE, Attachment 1, Radiological Status

a) IF NO Radiological Status report available, THEN do the following:

1) Determine from radiological assessment organization when report will be available.

2) Notify SEM/RM about delay.

3) WHEN Radiological Status report becomes available, THEN continue in this procedure.

b) Get Radiological Status report from radiological assessment organization

c) Check report - COMPLETE

c) IF blank items remain on Radiological Status report, THEN return report to radiological assessment organization for completion.

1. REPORT OF EMERGENCY UPDATE/CONDITION CHANGE CRITERIA

   WHEN either of the following conditions exist:

   - Scheduled Report of Emergency to State and Local Governments - DUE
   - Change in emergency conditions (e.g., classification, event termination, offsite assistance, site evacuation, worsening prognosis, release of radioactive material, Protective Action Recommendation)

   THEN RETURN TO Step 3 to prepare new emergency message.

NOTE: Transmittal of a Report of Emergency to State and Local Governments takes precedence over preparing a new radiological status message, responding to requests for meteorological information and turning-over duties to relief.

2. REPORT OF RADIOLOGICAL STATUS CONDITION CHANGE CRITERIA

   WHEN updated Radiological Status report provided by radiological assessment organization, THEN RETURN TO Step 15 to prepare new radiological status message.

3. METEOROLOGICAL INFORMATION REQUEST CRITERIA

   IF requested to acquire on-site meteorological information, THEN GO TO Step 19.

4. SHIFT RELIEF OR INTERFACILITY TURNOVER CRITERIA

   WHEN shift relief or interfacility turnover occurs, THEN GO TO Step 26.

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
_____ 16	SEND REPORT OF RADIOLOGICAL CONDITIONS TO THE STATE:	
	a) Attach Radiological Status report to Attachment 3	
	b) Follow Attachment 3 Part I, Instructions for Virginia Power/Surry Emergency Communicator	
	c) Check Report of Radiological Conditions to the State - SENT VIA FACSIMILE MACHINE	c) IF Radiological Status report communicated verbally or delivered, THEN GO TO Step 16.g.
	d) Allow 5 minutes for State EOC Duty Officer to verify receipt of message	
	e) Check receipt of message - VERIFIED BY STATE EOC DUTY OFFICER	e) IF receipt of message NOT verified, THEN do the following: 1) Call State EOC on DEM ARD (Alternate: (804) 674-2400). 2) Ask State EOC Duty Officer if message received. 3) IF receipt of message verified, THEN GO TO Step 16.f. IF message NOT received, THEN do the following: a) Follow Attachment 3 Part I Item 6 instructions. b) GO TO Step 16.g.
	f) Record Date/Time verified on Attachment 3 Part III Item 1	
	g) Notify SEM/RM transmittal - SENT	
	h) Keep Attachment 3 with this procedure	

1. REPORT OF EMERGENCY UPDATE/CONDITION CHANGE CRITERIA

   WHEN either of the following conditions exist:

   - Scheduled Report of Emergency to State and Local Governments - DUE
   - Change in emergency conditions (e.g., classification, event termination, offsite assistance, site evacuation, worsening prognosis, release of radioactive material, Protective Action Recommendation)

   THEN RETURN TO Step 3 to prepare new emergency message.

NOTE: Transmittal of a Report of Emergency to State and Local Governments takes precedence over preparing a new radiological status message, responding to requests for meteorological information and turning-over duties to relief.

2. REPORT OF RADIOLOGICAL STATUS CONDITION CHANGE CRITERIA

   WHEN updated Radiological Status report provided by radiological assessment organization, THEN RETURN TO Step 15 to prepare new radiological status message.

3. METEOROLOGICAL INFORMATION REQUEST CRITERIA

   IF requested to acquire on-site meteorological information, THEN GO TO Step 19.

4. SHIFT RELIEF OR INTERFACILITY TURNOVER CRITERIA

   WHEN shift relief or interfacility turnover occurs, THEN GO TO Step 26.

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED

NOTE: Follow-up reports of emergency conditions must be provided to State and local governments approximately every 60 minutes (from previous message notification start time) or when there are changes in emergency conditions, unless otherwise agreed upon with the State.

_____ 17 CHECK ANY OF THE FOLLOWING MESSAGE UPDATE CONDITIONS - EXISTS:

- Status of any of the following Report of Emergency items - CHANGED:
  - Emergency class (including event termination)
  - Offsite Assistance Required
  - Site Evacuation
  - Prognosis Worsening
  - Radioactive Release
  - Protective Action Recommendation

OR

- Updated Radiological Status report provided by radiological assessment organization

OR

- Follow-up report due IAW schedule established with State EOC Duty Officer

WHEN Report of Emergency message update conditions satisfied, THEN RETURN TO Step 3.

WHEN Report of Radiological Conditions message update conditions satisfied, THEN RETURN TO Step 15.

IF termination message has been sent, THEN GO TO Step 27.

_____ 18 RETURN TO APPLICABLE STEP AS INDICATED BELOW:

Report of Emergency to State and Local Governments	RETURN TO Step 3
Report of Radiological Conditions to the State	RETURN TO Step 15

1. REPORT OF EMERGENCY UPDATE/CONDITION CHANGE CRITERIA

   WHEN either of the following conditions exist:

   - Scheduled Report of Emergency to State and Local Governments - DUE
   - Change in emergency conditions (e.g., classification, event termination, offsite assistance, site evacuation, worsening prognosis, release of radioactive material, Protective Action Recommendation)

   THEN RETURN TO Step 3 to prepare new emergency message.

NOTE: Transmittal of a Report of Emergency to State and Local Governments takes precedence over preparing a new radiological status message, responding to requests for meteorological information and turning-over duties to relief.

2. REPORT OF RADIOLOGICAL STATUS CONDITION CHANGE CRITERIA

   WHEN updated Radiological Status report provided by radiological assessment organization, THEN RETURN TO Step 15 to prepare new radiological status message.

3. METEOROLOGICAL INFORMATION REQUEST CRITERIA

   IF requested to acquire on-site meteorological information, THEN GO TO Step 19.

4. SHIFT RELIEF OR INTERFACILITY TURNOVER CRITERIA

   WHEN shift relief or interfacility turnover occurs, THEN GO TO Step 26.

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED

NOTE:
- Data may be obtained from meteorological panel charts (via TSC staff communicating with Control Room when ERFCS not available), ERFCS (group reviews or EMCOMM, activated by typing EMCOMM and pressing the gray button labeled LAST), the computer modem or local data logger (described in O-AP-20.03, LOSS OF METEOROLOGICAL MONITORING INSTRUMENTATION).
- Both the ERFCS EMCOMM feature and ERFCS Group Review #39, COMERDS-1, Common ERDS Points, contain meteorological information averaged over the previous 15 minutes. ERFCS Group Review #39 presents averaged ambient temperature in degrees Fahrenheit (°F).

_____ 19 CHECK ON-SITE METEOROLOGICAL INFORMATION - AVAILABLE

IF on-site data NOT available, THEN do the following:

a) Get regional information from one of the following:
   - Company Weather Center: (804) 273-3025.
   - National Weather Service (NWS): (800) 737-8624.
   - Have HP initiate EPIP-4.10, DETERMINATION OF X/Q.

b) Give meteorological information to requestor.

c) RETURN TO procedure step in effect.

1. REPORT OF EMERGENCY UPDATE/CONDITION CHANGE CRITERIA

   WHEN either of the following conditions exist:

   - Scheduled Report of Emergency to State and Local Governments - DUE
   - Change in emergency conditions (e.g., classification, event termination, offsite assistance, site evacuation, worsening prognosis, release of radioactive material, Protective Action Recommendation)

   THEN RETURN TO Step 3 to prepare new emergency message.

NOTE: Transmittal of a Report of Emergency to State and Local Governments takes precedence over preparing a new radiological status message, responding to requests for meteorological information and turning-over duties to relief.

2. REPORT OF RADIOLOGICAL STATUS CONDITION CHANGE CRITERIA

   WHEN updated Radiological Status report provided by radiological assessment organization, THEN RETURN TO Step 15 to prepare new radiological status message.

3. METEOROLOGICAL INFORMATION REQUEST CRITERIA

   IF requested to acquire on-site meteorological information, THEN GO TO Step 19.

4. SHIFT RELIEF OR INTERFACILITY TURNOVER CRITERIA

   WHEN shift relief or interfacility turnover occurs, THEN GO TO Step 26.

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED

_____ 20 GET ON-SITE METEOROLOGICAL INFORMATION AS REQUESTED:

a) Refer to specified step(s) to acquire requested information:

Temperature	Step 21
Wind Speed	Step 22
Wind Direction	Step 23
Affected Sectors	Steps 23 and 24
Stability Class	Step 25

b) Give meteorological information to requestor

c) RETURN TO procedure step in effect

_____ 21 DETERMINE TEMPERATURE:

a) Get temperature from Main Tower Temperature indicator

b) Check temperature is in °F

b) IF temperature °C, THEN change scale from °F to °C using the following formula:
°F = (°C x 1.8) + 32

NOTE: Primary source of wind speed is the Main Tower Lower Level indicator. Alternate sources are (1) Backup Tower, and (2) Main Tower Upper Level.

_____ 22 GET WIND SPEED

1. REPORT OF EMERGENCY UPDATE/CONDITION CHANGE CRITERIA

   WHEN either of the following conditions exist:

   - Scheduled Report of Emergency to State and Local Governments - DUE
   - Change in emergency conditions (e.g., classification, event termination, offsite assistance, site evacuation, worsening prognosis, release of radioactive material, Protective Action Recommendation)

   THEN RETURN TO Step 3 to prepare new emergency message.

NOTE: Transmittal of a Report of Emergency to State and Local Governments takes precedence over preparing a new radiological status message, responding to requests for meteorological information and turning-over duties to relief.

2. REPORT OF RADIOLOGICAL STATUS CONDITION CHANGE CRITERIA

   WHEN updated Radiological Status report provided by radiological assessment organization, THEN RETURN TO Step 15 to prepare new radiological status message.

3. METEOROLOGICAL INFORMATION REQUEST CRITERIA

   IF requested to acquire on-site meteorological information, THEN GO TO Step 19.

4. SHIFT RELIEF OR INTERFACILITY TURNOVER CRITERIA

   WHEN shift relief or interfacility turnover occurs, THEN GO TO Step 26.

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED

NOTE:
- An approximate average wind direction for the previous 15 minutes should be determined.
- Primary source of wind direction is the Main Tower Lower Level indicator. Alternate sources are (1) Backup Tower, and (2) Main Tower Upper Level.
- Wind direction is always given as the compass point the wind blows from. Example: Wind direction is from East North East (ENE).

_____ 23 GET WIND DIRECTION IN TERMS OF COMPASS POINT WIND BLOWING FROM:

DEGREES	COMPASS POINT	DEGREES	COMPASS POINT	DEGREES	COMPASS POINT
0-11	N	192-214	SSW	350-371	N
12-34	NNE	215-236	SW	372-394	NNE
35-56	NE	237-259	WSW	395-416	NE
57-79	ENE	260-281	W	417-439	ENE
80-101	E	282-304	WNW	440-461	E
102-124	ESE	305-326	NW	461-484	ESE
125-146	SE	327-349	NNW	485-506	SE
147-169	SSE			507-529	SSE
170-191	S			530-540	S

1. REPORT OF EMERGENCY UPDATE/CONDITION CHANGE CRITERIA

   WHEN either of the following conditions exist:

   - Scheduled Report of Emergency to State and Local Governments - DUE
   - Change in emergency conditions (e.g., classification, event termination, offsite assistance, site evacuation, worsening prognosis, release of radioactive material, Protective Action Recommendation)

   THEN RETURN TO Step 3 to prepare new emergency message.

NOTE: Transmittal of a Report of Emergency to State and Local Governments takes precedence over preparing a new radiological status message, responding to requests for meteorological information and turning-over duties to relief.

2. REPORT OF RADIOLOGICAL STATUS CONDITION CHANGE CRITERIA

   WHEN updated Radiological Status report provided by radiological assessment organization, THEN RETURN TO Step 15 to prepare new radiological status message.

3. METEOROLOGICAL INFORMATION REQUEST CRITERIA

   IF requested to acquire on-site meteorological information, THEN GO TO Step 19.

4. SHIFT RELIEF OR INTERFACILITY TURNOVER CRITERIA

   WHEN shift relief or interfacility turnover occurs, THEN GO TO Step 26.

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED

NOTE: Affected sectors are recorded using alphabetic designations.

_____ 24 DETERMINE DOWNWIND SECTORS:

COMPASS POINT	DOWNWIND SECTORS	COMPASS POINT	DOWNWIND SECTORS
N	H - J - K	S	R - A - B
NNE	J - K - L	SSW	A - B - C
NE	K - L - M	SW	B - C - D
ENE	L - M - N	WSW	C - D - E
E	M - N - P	W	D - E - F
ESE	N - P - Q	WNW	E - F - G
SE	P - Q - R	NW	F - G - H
SSE	Q - R - A	NNW	G - H - J

1. REPORT OF EMERGENCY UPDATE/CONDITION CHANGE CRITERIA

   WHEN either of the following conditions exist:

   - Scheduled Report of Emergency to State and Local Governments - DUE
   - Change in emergency conditions (e.g., classification, event termination, offsite assistance, site evacuation, worsening prognosis, release of radioactive material, Protective Action Recommendation)

   THEN RETURN TO Step 3 to prepare new emergency message.

NOTE: Transmittal of a Report of Emergency to State and Local Governments takes precedence over preparing a new radiological status message, responding to requests for meteorological information and turning-over duties to relief.

2. REPORT OF RADIOLOGICAL STATUS CONDITION CHANGE CRITERIA

   WHEN updated Radiological Status report provided by radiological assessment organization, THEN RETURN TO Step 15 to prepare new radiological status message.

3. METEOROLOGICAL INFORMATION REQUEST CRITERIA

   IF requested to acquire on-site meteorological information, THEN GO TO Step 19.

4. SHIFT RELIEF OR INTERFACILITY TURNOVER CRITERIA

   WHEN shift relief or interfacility turnover occurs, THEN GO TO Step 26.

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED

NOTE:
- Main Tower Delta T is the preferred source of stability class. Sigma Theta (Backup Tower) is the secondary source.
- The value closer to "G" should be used if unable to distinguish Delta T or Sigma Theta value.
- Numerical ranges presented below for Delta T and Sigma Theta are less than the range of the chart recorder and indicator in the Control Room. Indications are not expected to read outside the ranges found on these tables.

_____ 25 DETERMINE STABILITY CLASS:

MAIN TOWER DELTA T			BACKUP TOWER SIGMA THETA		
DELTA T (°C)		STABILITY CLASS	SIGMA THETA (°)		STABILITY CLASS
≤ -0.67	=	A	≥ 22.5	=	A
-0.66 to -0.60	=	B	22.4 to 17.5	=	B
-0.59 to -0.53	=	C	17.4 to 12.5	=	C
-0.52 to -0.18	=	D	12.4 to 7.5	=	D
-0.17 to +0.53	=	E	7.4 to 3.8	=	E
+0.54 to +1.41	=	F	3.7 to 2.1	=	F
> +1.41	=	G	< 2.1	=	G

1. REPORT OF EMERGENCY UPDATE/CONDITION CHANGE CRITERIA

   WHEN either of the following conditions exist:

   - Scheduled Report of Emergency to State and Local Governments - DUE
   - Change in emergency conditions (e.g., classification, event termination, offsite assistance, site evacuation, worsening prognosis, release of radioactive material, Protective Action Recommendation)

   THEN RETURN TO Step 3 to prepare new emergency message.

NOTE: Transmittal of a Report of Emergency to State and Local Governments takes precedence over preparing a new radiological status message, responding to requests for meteorological information and turning-over duties to relief.

2. REPORT OF RADIOLOGICAL STATUS CONDITION CHANGE CRITERIA

   WHEN updated Radiological Status report provided by radiological assessment organization, THEN RETURN TO Step 15 to prepare new radiological status message.

3. METEOROLOGICAL INFORMATION REQUEST CRITERIA

   IF requested to acquire on-site meteorological information, THEN GO TO Step 19.

4. SHIFT RELIEF OR INTERFACILITY TURNOVER CRITERIA

   WHEN shift relief or interfacility turnover occurs, THEN GO TO Step 26.

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED

NOTE: Responsibilities may be transferred to relief within a facility or to another facility, e.g., Control Room to TSC, Control Room to LEOF or CEOF, or TSC to LEOF or CEOF.

_____ 26 TRANSFER RESPONSIBILITY FOR STATE/LOCAL NOTIFICATIONS:

a) Notify SEM (or RM if in LEOF/CEOF)

b) Tell relief Emergency Communicator about current event status

c) Review most recently completed Attachments 2 and 3 with relief

d) Tell relief Emergency Communicator when next notification is due

e) Provide this procedure and all attachments or send copies of attachments to relief

f) Have relief/turnover recorded in event log

g) Check - INTERFACILITY TURNOVER HAS BEEN COMPLETED

g) RETURN TO step in effect prior to relief.

1. REPORT OF EMERGENCY UPDATE/CONDITION CHANGE CRITERIA

   WHEN either of the following conditions exist:

   - Scheduled Report of Emergency to State and Local Governments - DUE
   - Change in emergency conditions (e.g., classification, event termination, offsite assistance, site evacuation, worsening prognosis, release of radioactive material, Protective Action Recommendation)

   THEN RETURN TO Step 3 to prepare new emergency message.

NOTE: Transmittal of a Report of Emergency to State and Local Governments takes precedence over preparing a new radiological status message, responding to requests for meteorological information and turning-over duties to relief.

2. REPORT OF RADIOLOGICAL STATUS CONDITION CHANGE CRITERIA

   WHEN updated Radiological Status report provided by radiological assessment organization, THEN RETURN TO Step 15 to prepare new radiological status message.

3. METEOROLOGICAL INFORMATION REQUEST CRITERIA

   IF requested to acquire on-site meteorological information, THEN GO TO Step 19.

4. SHIFT RELIEF OR INTERFACILITY TURNOVER CRITERIA

   WHEN shift relief or interfacility turnover occurs, THEN GO TO Step 26.

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED

_____ 27 TERMINATE PROCEDURE:

- Give EPIP-2.01, forms and other applicable records to the Control Room STA (TSC Emergency Procedures Coordinator or EOF Services Coordinator)

- Completed by: _____

  Date: _____

  Time: _____

-END-

1. REPORT OF EMERGENCY UPDATE/CONDITION CHANGE CRITERIA

   WHEN either of the following conditions exist:

   - Scheduled Report of Emergency to State and Local Governments - DUE
   - Change in emergency conditions (e.g., classification, event termination, offsite assistance, site evacuation, worsening prognosis, release of radioactive material, Protective Action Recommendation)

   THEN RETURN TO Step 3 to prepare new emergency message.

NOTE: Transmittal of a Report of Emergency to State and Local Governments takes precedence over preparing a new radiological status message, responding to requests for meteorological information and turning-over duties to relief.

2. REPORT OF RADIOLOGICAL STATUS CONDITION CHANGE CRITERIA

   WHEN updated Radiological Status report provided by radiological assessment organization, THEN RETURN TO Step 15 to prepare new radiological status message.

3. METEOROLOGICAL INFORMATION REQUEST CRITERIA

   IF requested to acquire on-site meteorological information, THEN GO TO Step 19.

4. SHIFT RELIEF OR INTERFACILITY TURNOVER CRITERIA

   WHEN shift relief or interfacility turnover occurs, THEN GO TO Step 26.

Form Field	Instructions for Preparing Form:
Approval (SEM or RM)	Leave blank. (The Station Emergency Manager (SEM) or Recovery Manager (RM) signs/initials this space after message is drafted.)
Message #	Record sequential message number on pages 1 and 2. A single numbering sequence is used for Reports of Emergency to State and Local Governments (Attachment 2) from the initial classification until the Emergency Plan is exited. The numbering sequence for Reports of Radiological Conditions to the State (Attachment 3) is separate.
Notification Start Time	Leave blank. (Enter notification start time when beginning transmittal of the approved message.)
Location	Check off facility from which notification will be made.
Roll Call	Leave blank. (Check off recipients of the emergency message when they answer the roll call.)

NOTE:
- **Information to complete Items 1-6 obtained from SEM/RM.**
- **Items 2, 3, 4, 5 and/or 7 may be checked 'Not Required' for a message reporting initial entry into the Emergency Plan or an emergency class change.**

Item 1 **Emergency Class.**

IF the message is an initial or follow-up report, THEN do the following:

a. Check block for applicable emergency class (classification).

b. Enter time (0001-2400) and date of declaration.

IF message is reporting emergency termination, THEN do the following:

a. Check Emergency Terminated block.

b. Leave Items 2 through 7 blank.

Form Field	Instructions for Preparing Form:
Item 2	**Assistance requested.** [ ] Not required may be checked for the initial report of an emergency class only. This item documents requests that have been made for on-site assistance from off-site organizations such as from fire departments, rescue squads or law enforcement agencies, including local law enforcement, Virginia State Police, Federal Bureau of Investigation, etc.). This item is NOT for requesting assistance. A check block for other off-site organizations and space to record a description of the off-site organization is provided, e.g., U.S. Department of Energy. Continue to record requests for assistance until the request has been canceled or off-site assistance has been released. For an ambulance, continue to record request for assistance until the ambulance has been released from the hospital.
Item 3	**Emergency Response Actions Underway.** [ ] Not required may be checked for the initial report of an emergency class only. Check blocks are provided for the following: [ ] Station monitoring teams dispatched offsite (teams may be dispatched for any emergency classification, but dispatch is generally required at the Site Area Emergency and General Emergency classifications) [ ] Station emergency personnel called in (unless special circumstances are involved, station emergency personnel are called-in at an Alert or higher emergency class, but may be called-in for a Notification of Unusual Event) [ ] Other (examples of other emergency response actions include dispatch of damage control teams, relocation of personnel from selected areas, etc.)

Form Field	Instructions for Preparing Form:
Item 4	**Evacuation of onsite personnel.** [ ] Not required may be checked for the initial report of an emergency class only. The Remote Assembly Area is selected in accordance with EPIP-5.05, SITE EVACUATION. An "Other" check block is provided in case personnel are evacuated to different location, e.g., local evacuation assembly center. Early release of personnel, i.e., non-essential personnel are sent home early, is reported in Item 8, Remarks / Description of event. Continue to record evacuation of onsite personnel until evacuated personnel released from the applicable Remote Assembly Area. NOTE: **Changes in the prognosis of situation should be explained in Item 8, Remarks / Description of event.**
Item 5	**Prognosis of situation.** [ ] Not required may be checked for the initial report of an emergency class only. The "Other" check block can be used to provide an indication of anticipated event termination, e.g., emergency will be terminated when unit reaches cold shutdown at or about 1700 hours. NOTE: **The magnitude of radioactive material released should be explained in Item 8, Remarks / Description of event, e.g., release is estimated to be confined to the site, release estimated to be within normal plant limits, site boundary dose rates are below offsite protective action levels.**
Item 6	**Release of radioactive material.** This is a required item for all emergency messages. The SEM/RM determines whether a release of radioactive material is occurring, has occurred, has occurred and has been terminated, or is projected to occur based on plant indications and/or consultation with the RAD/RAC.

Form Field	Instructions for Preparing Form:
Item 7	**Meteorological data.**

[ ] Not required may be checked for the initial report of an emergency class only.

[ ] Not available may be checked when waiting for meteorological information will delay transmission of a message. Efforts to obtain meteorological data from alternative sources should not delay sending emergency messages.

Check [ ] Based on onsite measurements when meteorological information is acquired from onsite instruments.

Onsite measurements may be acquired from any of the following:

- ERFCS EMCOMM feature (15-minute average) (activated by typing EMCOMM and pressing the gray button labeled LAST)
- ERFCS Group Review #39, COMERDS-1, Common ERDS Points (15-minute average)
- Control Room meteorological panel charts (approximate average for previous 15 minutes) (communicate with Control Room staff when ERFCS not available in other facilities)
- O-AP-20.03, LOSS OF METEOROLOGICAL MONITORING INFORMATION.

Multiple indications of wind direction and wind speed are available. The priority for using these indications is:

1 Main Tower Lower Level

2 Backup Tower

3 Main Tower Upper Level

[Instructions for Item 7, Meteorological data, continued on following page.]

Form Field	Instructions for Preparing Form:
Item 7 [continued]	**Meteorological data.**

Check [ ] Based on offsite regional data when onsite measurements are NOT available. Regional wind speed and wind direction data may be obtained from the following in the order indicated:

1 Company Weather Center, (804) 273-3025

2 National Weather Service (NWS), (800) 737-8624

Use the following table to convert indicated degree reading to compass point wind blowing from.

DEGREES	COMPASS POINT
0-11 or 350-371	N (NORTH)
12-34 or 372-394	NNE (NORTH NORTHEAST)
35-56 or 395-416	NE (NORTHEAST)
57-79 or 417-439	ENE (EAST NORTHEAST)
80-101 or 440-461	E (EAST)
102-124 or 462-484	ESE (EAST SOUTHEAST)
125-146 or 485-506	SE (SOUTHEAST)
147-169 or 507-529	SSE (SOUTH SOUTHEAST)
170-191 or 530-540	S (SOUTH)
192-214	SSW (SOUTH SOUTHWEST)
215-236	SW (SOUTHWEST)
237-259	WSW (WEST SOUTHWEST)
260-281	W (WEST)
282-304	WNW (WEST NORTHWEST)
305-326	NW (NORTHWEST)
327-349	NNW (NORTH NORTHWEST)

Record wind direction in compass point wind is blowing from.

Record wind speed.

Form Field	Instructions for Preparing Form:
Item 8	**Remarks / Description of event.** Write Remarks / Description of event in plain language. Avoid technical jargon, abbreviations and acronyms. Explain any change in the prognosis of situation (Item 5) reported in the previous message. IF Item 6 indicated a radiological release is occurring or has occurred, THEN remarks should be entered placing the release in context, e.g., release is estimated to be confined to the site, release estimated to be within normal plant limits, site boundary dose rates are below offsite protective action levels. Avoid repeating Remarks / Description of event from the previous message.
Item 9	**Emergency Communicator identification.** Enter name of Emergency Communicator.
Roll Call	Leave blank. (Check off recipients of the emergency message when they answer the roll call.)
Message Close-Out	Leave blank. (Check off facility from which notification was made and enter date/time after transmitting Items 1-9.)
Item 10	**Downwind sectors.** IF Item 1 indicates the emergency class is a Notification of Unusual Event, Alert or Site Area Emergency, THEN check [ ] None. IF Item 1 indicates the emergency class is a General Emergency, THEN copy downwind sectors from EPIP-1.06, PROTECTIVE ACTION RECOMMENDATION, Attachment 3, in Item 10.

Form Field	Instructions for Preparing Form:
Item 11	**Recommended offsite protective actions.** IF Item 1 indicates the emergency class is a Notification of Unusual Event, Alert or Site Area Emergency, THEN check [ ] None. IF Item 1 indicates the emergency class is a General Emergency, THEN copy recommended offsite protective action from EPIP-1.06, PROTECTIVE ACTION RECOMMENDATION, Attachment 3, in Item 11.
Item 12	**Report of Radiological Conditions.** IF Item 6 indicates a release of radioactive material has NOT occurred and is NOT projected, THEN check [ ] We will not issue a Report of Radiological Conditions. IF a Report of Radiological Conditions is required AND all the following conditions are met: • LEOF (or CEOF) - RESPONSIBLE FOR STATE NOTIFICATIONS • Department of Emergency Management - PRESENT • Department of Health (Radiological Health Programs) representative - PRESENT THEN check [ ] We will provide the Report of Radiological Conditions to the State representatives in the LEOF (CEOF). IF a Report of Radiological Conditions is required AND has to be transmitted to the State EOC, THEN check [ ] We will transmit a Report of Radiological Conditions to the State EOC.
Item 13	**Update schedule and name of State EOC Duty Officer.** Leave blank. (Update schedule and identification of State EOC Duty Officer is determined in consultation with the State EOC Duty Officer after message is transmitted.)
Message Close-Out	Leave blank. (Check off facility from which notification was made and enter date/time after transmitting Items 10-13.)

NUMBER	ATTACHMENT TITLE	REVISION
EPIP-2.01	REPORT OF EMERGENCY TO STATE AND LOCAL GOVERNMENTS	27
ATTACHMENT 2		PAGE 1 of 2

APPROVAL: (SEM or RM): _____; MESSAGE # _____; TIME NOTIFICATION STARTED: _____

This is Surry Power Station [] Control Room [] TSC [] LEOF [] CEOF. Standby for a roll-call followed by an emergency message. Use a Report of Emergency form to copy this message. **(Conduct a roll-call and check boxes as each party answers)**

[] Surry County [] State EOC [] Williamsburg [] York County
[] James City County [] Isle of Wight County [] Newport News

The emergency message is as follows: **(READ SLOWLY)**

Item 1: Emergency Class:

[] Notification of Unusual Event [] Site Area Emergency
[] Alert [] General Emergency

Declared at _____ on _____
(24-hr time) (date)

[] Emergency Terminated

Item 2: Assistance requested:
[] None
____ (#) Fire Units from _____
____ (#) Rescue Units from _____
____ (#) Police Units from _____
[] Other_____
[] Not Required

Item 3: Emergency response actions underway:
[] None
[] Station monitoring teams dispatched offsite
[] Not Required
[] Station emergency personnel called in
[] Other _____

Item 4: Evacuation of onsite personnel: [] No; [] Yes, evacuated to:
[] Not Required
[] Primary Remote Assembly Area
[] Secondary Remote Assembly Area
[] Other

Item 5: Prognosis of situation: [] Improving [] Stable
[] Not Required [] Worsening [] Other_____

Item 6: Release of radioactive material:
[] Has NOT occurred and is NOT projected
[] Has occurred and is now terminated
[] Is presently occurring
[] Is projected to occur

Item 7: Meteorological data is:
[] Based on onsite measurements; [] Based on offsite regional data;
[] Wind direction is from the _____; [] Wind speed is _____ mph
[] Not available
[] Not Required

(ATTACHMENT 2 CONTINUED ON NEXT PAGE)

MESSAGE # _____

Item 8: Remarks / Description of event: _____

_____

_____

Item 9: This is (name) _____/Emergency Communicator.
Please acknowledge receipt of this message. **(Conduct roll-call and check boxes)**

[] Surry County [] State EOC [] Williamsburg [] York County
[] James City County [] Isle of Wight County [] Newport News

This is Surry Power Station [] Control Room [] TSC [] LEOF [] CEOF out at _____ on _____.
(24-hr time) (date)

NOTE: The following information is for state use only. Transmit to State EOC using the DEM ARD.

This is Surry Power Station [] Control Room [] TSC [] LEOF [] CEOF. Continuing the emergency message:

Item 10: Downwind sectors are:
[] None
[] Sectors ____, ____, ____

Item 11: Recommended offsite protective actions are:

[] None

[] Evacuate:
[] None
[] 360° from 0 miles to _____ miles.
[] Downwind sectors from _____ miles to _____ miles.

[] Shelter:
[] None
[] 360° from _____ miles to _____ miles.
[] Downwind sectors from _____ miles to _____ miles.
[] Unaffected sectors from _____ miles to _____ miles.

Item 12: [] We will transmit a Report of Radiological Conditions to the State EOC.
[] We will provide the Report of Radiological Conditions to the State representatives in the LEOF (CEOF).
[] We will not issue a Report of Radiological Conditions.

Item 13: Update schedule: [] 60 minute; [] Other _____.

Name of State EOC Duty Officer:_____.

This is Surry Power Station [] Control Room [] TSC [] LEOF [] CEOF out at _____ on _____.
(24-hr time) (date)

NUMBER	ATTACHMENT TITLE	REVISION
EPIP-2.01	REPORT OF RADIOLOGICAL CONDITIONS TO THE STATE	27
ATTACHMENT 3		PAGE 1 of 1

PART I. Instructions for Surry Emergency Communicator:

1. Check name of facility: [ ] Control Room [ ] TSC [ ] Local EOF [ ] Central EOF

2. Record Message #: ___ Communicator's name: _____ Call-back #: (___) ___-_____

3. Check which report is attached and record the report number and run time (as appropriate):

   _____ MIDAS Radiological Status computer printout (2 pages) Report # _____ Run Time _____
   _____ Radiological Status attachment from EPIP-4.03 (1 page) Report # _____

4. Have Station Emergency Manager (SEM) / Recovery Manager (RM) approve transmittal:

   APPROVED FOR TRANSMITTAL: _____ (SEM / RM initials) DATE: __/__/__ TIME: __:__

5. IF report can be delivered to both VDES AND VDH staff in EOF, THEN GO TO PART I, ITEM 6.
   IF report will be sent by facsimile, THEN notify State EOC Report of Radiological Conditions will be sent by facsimile (Use DEM ARD or (804) 674-2400) and request receipt confirmation.

6. Deliver report to both VDEM AND VDH staff in EOF:
   a. Date/Time Message Delivered to VDEM Representative in Local/Central EOF: __/__/__ __:__
   b. Date/Time Message Delivered to VDH Representative in Local/Central EOF: __/__/__ __:__
   c. Record N/A by Part II and Part III below.

   IF report will be sent by facsimile, THEN ask facsimile machine operator to transmit this message.

   IF transmittal of report by facsimile NOT achieveable, THEN do the following:
   a. Notify State EOC using DEM ARD or call (804) 674-2400
   b. Identify yourself and your location
   c. Ask EOC Duty Officer to use a Report of Radiological Conditions form to copy message
   d. Read the attached report
   e. Record when message transmittal completed: Date/Time Message Completed: __/__/__ __:__
   f. Record N/A by Part II and Part III below.

PART II. Instructions for Facsimile Machine Operator:

1. Record Facsimile Operator's name : _____ Date/Time Sent: __/__/__ __:__

2. Transmit this message to State EOC facsimile machine (804) 674-2419.
   IF facsimile transmission NOT successful, THEN RETURN message to Emergency Communicator.

3. Return original report to State and Local Emergency Communicator.

PART III. Instructions for State EOC Duty Officer:

1. Notify Surry Emergency Communicator report received. Date/Time Verified: __/__/__ __:__
   (Use DEM ARD or see PART I, Item 2 above for call-back number). Receipt Verification

2. Forward message to EOC Operations Officer for distribution to State Radiological Health Programs and Information & Planning representatives.

VIRGINIA POWER
SURRY POWER STATION
EMERGENCY PLAN IMPLEMENTING PROCEDURE

NUMBER	PROCEDURE TITLE	REVISION
EPIP-3.03	ACTIVATION OF OPERATIONAL SUPPORT CENTER (With 5 Attachments)	13 PAGE 1 of 5

PURPOSE

To provide guidance to OSC personnel.

ENTRY CONDITIONS

Any one of the following:

1. Declaration of an Alert, Site Area Emergency or General Emergency.
2. Entry from another EPIP.
3. Direction by the Station Emergency Manager.

Approvals on File

Effective Date 9/28/00

1. EMERGENCY OPERATING PROCEDURE (EOP) AND ACCIDENT MITIGATION TASK ACTIVITY SUPPORT:

   IF immediate implementation of urgent damage control actions have been directed (e.g., EOP or Accident Mitigation Tasks), THEN do the following:

   a. Ensure activities are given appropriate priority and dispatch is expedited.

   b. Ask EMD to ensure RAD is advised to support activity.

2. RELOCATION TO ALTERNATE OSC CRITERIA:

   IF Primary OSC is uninhabitable for any reason, THEN go to the Alternate OSC (ALARA Conference Room):

   a. IF adverse radiological conditions exist, THEN consult with HP to determine route of lowest dose.

   b. Collect EPIP-3.03 attachments and logs.

   c. Take supplies, e.g., emergency kits, tools, portable radios, etc. (Administrative supplies, EPIPs and a base radio are already in place.)

   d. Consider sending advance team to Alternate OSC to establish continuous communications with OSC field teams.

   e. Notify SEM (or EMD) and OSC field teams of relocation plans, i.e., planned route and schedule.

   f. IF planned route changes during transit, THEN notify SEM (or EMD).

   g. Maintain control of OSC personnel during transit.

   h. Notify SEM (or EMD) and OSC field teams when relocated.

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED

_____ 1 INITIATE EPIP-3.03:

- By: _____

Date: _____

Time: _____

_____ 2 DO ACCOUNTABILITY:

a) Use sequential badge number list to record badge numbers of OSC personnel

b) Get badge number list from Mechanical Shop

c) Give both badge number lists to Security

_____ 3 INITIATE PERSONNEL LOG

NOTE:
- The OSC Director, 3 electrical, 3 mechanical and 2 instrument personnel (total 9) must be accounted for in order to declare the OSC activated.
- Attachment 1 provides a description of OSC minimum and fully-staffed organizations, and includes guidelines for selected fully-staffed OSC positions.

_____ 4 CHECK IF OSC MINIMUM STAFF POSITIONS - FILLED

IF OSC minimum staff positions NOT filled, THEN do the following:

- GO TO Step 6.
- Declare OSC activated when positions are filled.

_____ 5 DECLARE OSC ACTIVATED

1. EMERGENCY OPERATING PROCEDURE (EOP) AND ACCIDENT MITIGATION TASK ACTIVITY SUPPORT:

   IF immediate implementation of urgent damage control actions have been directed (e.g., EOP or Accident Mitigation Tasks), THEN do the following:

   a. Ensure activities are given appropriate priority and dispatch is expedited.

   b. Ask EMD to ensure RAD is advised to support activity.

2. RELOCATION TO ALTERNATE OSC CRITERIA:

   IF Primary OSC is uninhabitable for any reason, THEN go to the Alternate OSC (ALARA Conference Room):

   a. IF adverse radiological conditions exist, THEN consult with HP to determine route of lowest dose.

   b. Collect EPIP-3.03 attachments and logs.

   c. Take supplies, e.g., emergency kits, tools, portable radios, etc. (Administrative supplies, EPIPs and a base radio are already in place.)

   d. Consider sending advance team to Alternate OSC to establish continuous communications with OSC field teams.

   e. Notify SEM (or EMD) and OSC field teams of relocation plans, i.e., planned route and schedule.

   f. IF planned route changes during transit, THEN notify SEM (or EMD).

   g. Maintain control of OSC personnel during transit.

   h. Notify SEM (or EMD) and OSC field teams when relocated.

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED

_____ 6 NOTIFY EMD (or SEM) OF THE FOLLOWING:

- Number of personnel by discipline
- Overall staffing (minimum staff organization filled, fully staffed organization filled)

NOTE: The Shift Supervisor/Station Emergency Manager may direct immediate implementation of urgent damage control actions. Attachments to this EPIP and any other necessary documentation, including Procedure Action Requests, may be completed after the fact should this situation occur.

_____ 7 USE ATTACHMENT 2, DAMAGE CONTROL TASK LOG, TO LIST TASKS THAT WILL BE WORKED

NOTE: Instructions for completing Attachment 4, Damage Control Task Guide Sheet, are provided in Attachment 3, Instructions for Preparing Damage Control Task Guide Sheets. This function may be delegated.

_____ 8 INITIATE ATTACHMENT 4, DAMAGE CONTROL TASK GUIDE SHEET, FOR EACH TASK TO BE WORKED

1. EMERGENCY OPERATING PROCEDURE (EOP) AND ACCIDENT MITIGATION TASK ACTIVITY SUPPORT:

   IF immediate implementation of urgent damage control actions have been directed (e.g., EOP or Accident Mitigation Tasks), THEN do the following:

   a. Ensure activities are given appropriate priority and dispatch is expedited.

   b. Ask EMD to ensure RAD is advised to support activity.

2. RELOCATION TO ALTERNATE OSC CRITERIA:

   IF Primary OSC is uninhabitable for any reason, THEN go to the Alternate OSC (ALARA Conference Room):

   a. IF adverse radiological conditions exist, THEN consult with HP to determine route of lowest dose.

   b. Collect EPIP-3.03 attachments and logs.

   c. Take supplies, e.g., emergency kits, tools, portable radios, etc. (Administrative supplies, EPIPs and a base radio are already in place.)

   d. Consider sending advance team to Alternate OSC to establish continuous communications with OSC field teams.

   e. Notify SEM (or EMD) and OSC field teams of relocation plans, i.e., planned route and schedule.

   f. IF planned route changes during transit, THEN notify SEM (or EMD).

   g. Maintain control of OSC personnel during transit.

   h. Notify SEM (or EMD) and OSC field teams when relocated.

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED

_____ 9 USE CHECKLIST BELOW TO MONITOR DAMAGE CONTROL ACTIVITIES:

__	IF new tasks assigned, THEN RETURN TO Step 7
__	Use all available means to expedite Accident Mitigation Task activities
__	Use Attachment 5, Damage Control Task Team Status, to monitor the status of each task (normally used by OSC Damage Control Coordinator)
__	Keep EMD (or SEM) informed about significant changes and developments
__	Coordinate Damage Control Team interface with Operations when combined activities are planned
__	Ensure protective gear requirements are coordinated with Health Physics
__	Keep OSC and Damage Control personnel informed about event status and corrective actions being taken
__	Ensure tools and equipment are acquired to support timely task performance
__	Consider the need for relief or offsite assistance
__	IF relief shift needs to be developed/modified, THEN assign OSC staff member(s) to develop/modify relief shift roster (OSC Fully-Staffed Organization at Attachment 1 provides a list of OSC ERO positions)
__	Ask TSC for technical assistance as necessary
__	Consult with EMD (or SEM) about corrective action strategy as needed
__	WHEN emergency terminated, THEN GO TO Step 10

1. EMERGENCY OPERATING PROCEDURE (EOP) AND ACCIDENT MITIGATION TASK ACTIVITY SUPPORT:

   IF immediate implementation of urgent damage control actions have been directed (e.g., EOP or Accident Mitigation Tasks), THEN do the following:

   a. Ensure activities are given appropriate priority and dispatch is expedited.

   b. Ask EMD to ensure RAD is advised to support activity.

2. RELOCATION TO ALTERNATE OSC CRITERIA:

   IF Primary OSC is uninhabitable for any reason, THEN go to the Alternate OSC (ALARA Conference Room):

   a. IF adverse radiological conditions exist, THEN consult with HP to determine route of lowest dose.

   b. Collect EPIP-3.03 attachments and logs.

   c. Take supplies, e.g., emergency kits, tools, portable radios, etc. (Administrative supplies, EPIPs and a base radio are already in place.)

   d. Consider sending advance team to Alternate OSC to establish continuous communications with OSC field teams.

   e. Notify SEM (or EMD) and OSC field teams of relocation plans, i.e., planned route and schedule.

   f. IF planned route changes during transit, THEN notify SEM (or EMD).

   g. Maintain control of OSC personnel during transit.

   h. Notify SEM (or EMD) and OSC field teams when relocated.

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED

_____ 10 TERMINATE EPIP-3.03:

a) Restore OSC to state of readiness

b) Direct personnel in OSC to return to normal station organization

c) Give completed EPIP-3.03, forms and other applicable records to the Emergency Procedures Coordinator in TSC

d) Completed by: _____

Date: _____

Time: _____

-END-

OSC MINIMUM STAFF ORGANIZATION

(1) OSC Director
(3) Mechanical Damage Control Team Members
(3) Electrical Damage Control Team Members
(2) Instrument Damage Control Team Members

NOTE: Onshift First Aid Team and Fire Team Members who have other emergency duties, e.g., Control Room Operators and Security Officers will not report to the OSC, but will remain in their normal duties unless activated to respond to a first aid emergency or fire.

OSC FULLY-STAFFED ORGANIZATION

(1) OSC Director
(1) OSC Damage Control Coordinator
(1) OSC Radio Operator
(1) OSC Administrative Support Coordinator
(1) OSC Mechanical Support Coordinator
(1) OSC Electrical Support Coordinator
(1) OSC Instrument Support Coordinator
(1) OSC Maintenance Engineering Support Coordinator
(1) OSC Operations Coordinator
(1) OSC Radiological Protection Coordinator
(1) OSC Material Management Support Coordinator
(1) OSC Safety/Loss Prevention Support Coordinator
(2) First Aid Team Members
(5) Fire Team Members (including 1 Scene Leader)
(3) Mechanical Damage Control Team Members*
(3) Electrical Damage Control Team Members*
(2) Instrument Damage Control Team Members*
N/A Auxiliary Operators**

NOTE: * Although the number of Damage Control Team Members listed for the fully-staffed organization is the same as that of the minimum staff, greater numbers should be on hand as dictated by the needs of the event.

** There is no minimum number of operators necessary to consider the OSC fully staffed. The Shift Supervisor determines when auxiliary operators and the relief shift go to the OSC.

STAFF GUIDELINES

1. OSC DIRECTOR
   - Coordinates activities of the Damage Control Team, Fire Team and First Aid Team.
   - Accounts for and maintains staffing levels for personnel reporting to OSC, including development of relief shifts for extended activation.
   - Approves Damage Control Task Guide Sheets prior to Damage Control Task Team dispatch.

2. OSC DAMAGE CONTROL COORDINATOR
   - Monitors status of Damage Control Task Team using EPIP-3.03, Attachment 5, Damage Control Task Team Status.
   - Keeps OSC Director informed about Damage Control Task Team status.
   - Selects and dispatches Damage Control Task Team leaders and members.

3. OSC RADIO OPERATOR
   - Maintains communications with Damage Control Task Teams and keeps OSC Damage Control Coordinator informed of team status.

4. OSC ADMINISTRATIVE SUPPORT COORDINATOR
   - Helps OSC Director maintain continuous accountability of OSC personnel.
   - Maintains status boards up-to-date.

5. OSC MAINTENANCE SUPPORT STAFF
   - Plans damage control tasks.
   - Coordinates assignments of Damage Control Task Team leaders and members with OSC Damage Control Coordinator.
   - Briefs and debriefs Damage Control Task Team leaders and members.
   - Ensures documentation of task is complete.

6. OSC OPERATIONS COORDINATOR
   - Monitors Emergency Operations Communications Network.
   - Interfaces with the OSC Director on operational matters.

7. OSC RADIOLOGICAL PROTECTION COORDINATOR
   - Monitors Radiological Protection Communications Network.
   - Keeps OSC Director informed about radiological conditions.
   - Briefs Damage Control Teams on radiological conditions and route to briefing room/jobsite.

8. OSC MATERIAL MANAGEMENT SUPPORT COORDINATOR
   - Helps locate and transfer material from the warehouse.

9. OSC SAFETY/LOSS PREVENTION COORDINATOR
   - Coordinates activities of the Fire Team and First Aid Team.

NUMBER	ATTACHMENT TITLE	REVISION
EPIP-3.03	DAMAGE CONTROL TASK LOG	13
ATTACHMENT 2		PAGE 1 of 1

TASK NUMBER	DESCRIPTION OF TASK	TEAM LEADER	WHEN RESOLVED

BLOCK #	INSTRUCTIONS
1	Record task number. (Assigned by OSC Director)
2	Record task description. (Assigned by OSC Director)
3	NOTE: • Criteria for choosing the Team Leader and Team Member(s) should include consideration of experience, respirator qualification, and emergency exposure selection criteria (e.g., physical health, age). • The Team Leader and Team Member(s) should be selected early enough to be involved in task planning to the extent practical. Record the name and TLD # of the Team Leader.
4	Record the names and TLD #s of Team Members.
5	List tools and equipment needed for task, and list radio I.D. number (when appropriate). Tools and equipment should be gathered immediately.
6	List protective gear, e.g., respiratory protection, anti-contamination clothing, rubber gloves, safety glasses, etc. Active coordination with Health Physics may be necessary.
7	List instructions for task. Instructions may simply be to troubleshoot a component. More complex tasks may require procedures to be used. When an existing procedure is appropriate as written, then it should be listed and used. New procedures may be written or existing procedures may be modified for emergency use. When time permits and personnel are available, the normal administrative process for non-intent procedure changes may be used or SNSOC may convene to review and approve new procedures and change of intent procedure changes. However, the Shift Supervisor/SEM may direct immediate implementation of urgent damage control actions and unilaterally authorize use of a new or changed procedure. When this occurs, documentation will be developed for SNSOC review when time permits and personnel are available.

[Instructions continued on following page.]

BLOCK #	INSTRUCTIONS
8	The individual performing the task briefing will record their name and the date/time briefing was completed.
9	Normally, the OSC Radiation Protection Coordinator will sign signifying that the team has been briefed on radiological conditions, and that a route has been cleared to the briefing room/job site. The OSC Director may mark block 9 N/A or sign block 9 in the absence of the OSC Radiation Protection Coordinator.
10	The OSC Director signs to document approval of the task. The OSC Director is expected to use good judgement when approving tasks, the SEM and other TSC personnel when appropriate.
11	The Damage Control Task Team Leader records actions performed.

NUMBER	ATTACHMENT TITLE	REVISION
EPIP-3.03	DAMAGE CONTROL TASK GUIDE SHEET	13
ATTACHMENT 4		PAGE 1 of 1

1. TASK NUMBER	2. TASK DESCRIPTION
3. TEAM LEADER TLD #	4. TEAM MEMBERS TLD #
5. TOOLS AND EQUIPMENT	PRI. OSC: x2538 ALT. OSC: x2542 RADIO I.D. # _____
6. PROTECTIVE GEAR	
7. INSTRUCTIONS (ATTACH PROCEDURES OR INSTRUCTIONS AS NEEDED)	
8. TASK BRIEFING CONDUCTED BY DATE/TIME _____/_____	
9. R.P. CLEARANCE	10. APPROVAL OSC DIRECTOR
11. ACTIONS PERFORMED: (COMPLETED BY DAMAGE CONTROL TASK TEAM LEADER)	

GENERAL INSTRUCTIONS TO DAMAGE CONTROL TASK TEAM LEADER:
1. KEEP OSC INFORMED ABOUT LOCATION AND STATUS.
2. NOTIFY OSC IMMEDIATELY UPON TASK COMPLETION.
3. RETURN COMPLETED DAMAGE CONTROL TASK GUIDE SHEET TO OSC.

NUMBER	ATTACHMENT TITLE	REVISION
EPIP-3.03	DAMAGE CONTROL TASK TEAM STATUS	13
ATTACHMENT 5		PAGE 1 of 1

TASK NUMBER	TASK DESCRIPTION	RADIO I.D. #
TEAM LEADER	TEAM MEMBERS	

Time Damage Control Task Team dispatched from OSC: _____

Time notified of arrival of team at RCA entrance: _____

Time notified of entry of team into RCA: _____

Time notified of arrival of team at job site: _____

TIME:	STATUS:
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Page ___ of ___ [CONTINUE ON REVERSE OR ON ADDITIONAL PAGES AS NEEDED]

NUMBER	PROCEDURE TITLE	REVISION
EPIP-4.07	PROTECTIVE MEASURES (With 3 Attachments)	8 PAGE 1 of 4

PURPOSE

Give guidance to Radiological Assessment Director/Coordinator for assessing projected doses to population at risk and for determining protective action recommendations.

ENTRY CONDITIONS

Any of the following:

1. Activation by EPIP-4.01, RADIOLOGICAL ASSESSMENT DIRECTOR CONTROLLING PROCEDURE.
2. Activation by CPIP-6.2, RADIOLOGICAL ASSESSMENT COORDINATOR.
3. Activation by EPIP-1.06, PROTECTIVE ACTION RECOMMENDATIONS.
4. As directed by the Station Emergency Manager or Recovery Manager.

Approvals on File

Effective Date 10/06/00

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED

NOTE: EPIP-1.06, PROTECTIVE ACTION RECOMMENDATIONS, provides for issuing an initial default PAR to evacuate 360° between 0 and 5 miles upon classification of any General Emergency unless actual or projected doses beyond 5 miles exceed 1.0 Rem TEDE or 5.0 Rem Thyroid CDE.

_____ 1 INITIATE PROCEDURE:

- By: _____

  Date: _____

  Time: _____

_____ 2 CHECK IF MIDAS RESULTS AVAILABLE

IF MIDAS results NOT available, THEN do the following:

a) Get results of EPIP-4.08, INITIAL OFFSITE RELEASE ASSESSMENT.

b) Determine downwind sectors.

c) Determine distance out to which the following are met or exceeded:

- 1.0 Rem TEDE.
- 5.0 Rem Thyroid CDE.

_____ 3 CHECK PROJECTED DOSE BEYOND 5 MILES ≥ EITHER OF THE FOLLOWING:

- 1.0 Rem TEDE
- 5.0 Rem Thyroid CDE

IF dose < 1.0 Rem TEDE AND < 5.0 Rem Thyroid CDE beyond 5 miles, THEN do the following:

a) Notify SEM/RM that initial default PAR is bounding.

b) GO TO Step 8.

_____ 4 CHECK OFFSITE FIELD SURVEY DATA - AVAILABLE

IF offsite survey data NOT available, THEN GO TO Step 6.

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
_____ 5	CHECK FIELD SURVEY DATA RESULTS CORRELATE WITH PROJECTED DOSES	IF field survey data results differ from projected doses, THEN consult with SEM/RM to determine which will be used to develop PAR.
	NOTE: Entry of remarks (Item 3) on Attachment 2 is optional. The remarks section can be used to describe the basis for radiological PARs, i.e., dose projection or sampling results, rationale for sheltering unaffected areas, whether areas beyond 10 miles affected, etc.	
_____ 6	USE ATTACHMENT 2 TO PREPARE RADIOLOGICAL PROTECTIVE ACTION RECOMMENDATION	
_____ 7	VERIFY DISTANCE(s) AT WHICH DOSE THRESHOLDS MET OR EXCEEDED - < 10 MILES	IF dose thresholds met or exceeded beyond 10 miles, THEN initiate Attachment 3, Consideration of Protective Action Recommendations Beyond 10 Miles.
_____ 8	CHECK EMERGENCY - TERMINATED	IF new dose projections or field survey results in area(s) where evacuation NOT previously recommended meet or exceed either of the following: • 1.0 Rem TEDE • 5.0 Rem Thyroid CDE THEN RETURN TO Step 4.

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED

_____ 9 TERMINATE EPIP-4.07:

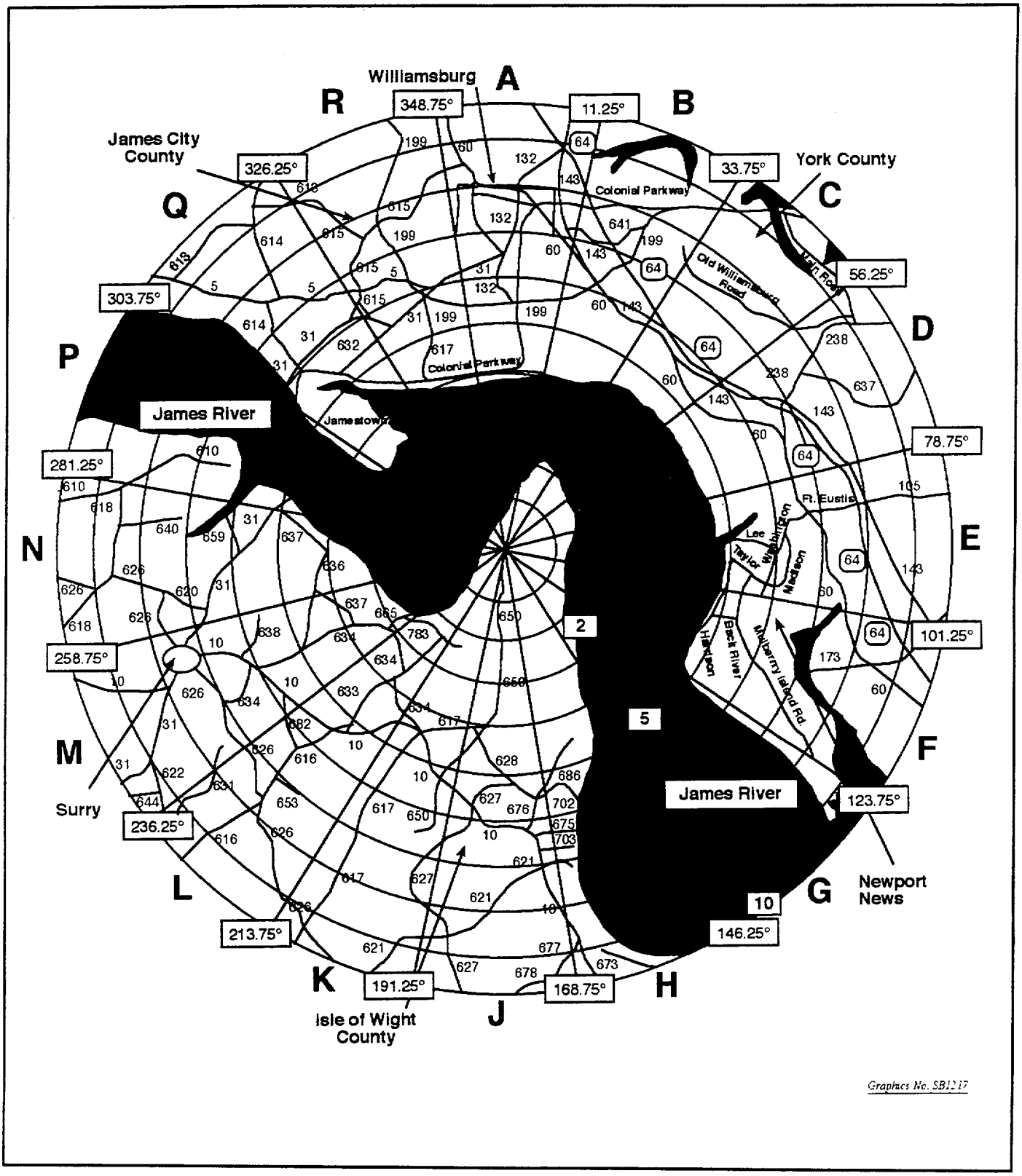
- Give completed EPIP-4.07, forms, and other applicable records to TSC Emergency Procedures Coordinator or LEOF Services Coordinator
- Completed By: _____

  Date: _____

  Time: _____

-END-

NUMBER	ATTACHMENT TITLE	REVISION
EPIP-4.07	SECTOR MAP	8
ATTACHMENT 1		PAGE 1 of 1



NUMBER	ATTACHMENT TITLE	REVISION
EPIP-4.07	RADIOLOGICAL PROTECTIVE ACTION RECOMMENDATION	8
ATTACHMENT 2		PAGE 1 of 1

NOTE: • Sectors are depicted on Attachment 1, Sector Map.

• Evacuation dose thresholds: 1.0 Rem TEDE and 5.0 Rem Thyroid CDE.

1. IF an evacuation dose threshold is met or exceeded between 5 and 10 miles in one sector, THEN record affected and adjacent sectors in a clockwise direction, e.g., if dose is ≥ 1.0 Rem TEDE at 6 miles in Sector R, then record downwind sectors as Q R A.

   IF an evacuation dose threshold is met or exceeded between 5 and 10 miles in between two and thirteen sectors, THEN record affected and adjacent sectors in a clockwise direction as a range, e.g., if dose is ≥ 1.0 Rem TEDE at 6 miles in Sectors Q and R, then record downwind sectors (P-Q-R-A) as P - A.

   IF an evacuation dose threshold is met or exceeded between 5 and 10 miles in 14 or more sectors, THEN record A - R.

   DOWNWIND SECTORS: _____ _____ _____

2. IF an evacuation dose threshold is met or exceeded between 5 and 10 miles in between one and thirteen sectors, THEN record the following:

   Example: [√] Evacuate 360° from 0 to 5 miles.
   [√] Evacuate downwind sectors from 5 to 10 miles.

   IF an evacuation dose threshold is met or exceeded between 5 and 10 miles in fourteen or more sectors, THEN record the following:

   Example: [√] Evacuate 360° from 0 to 10 miles.
   [ ] Evacuate downwind sectors from ___ to ___ miles.

   RADIOLOGICAL PROTECTIVE ACTION RECOMMENDATION:

   [ ] Evacuate 360° from 0 to ___ miles.

   [ ] Evacuate downwind sectors from ___ to ___ miles.

3. REMARKS: _____

   _____

RECOMMENDED BY: _____ _____ / _____

Radiological Assessment Director or Radiological Assessment Coordinator — Date / Time

FORWARD COMPLETED ATTACHMENT 2 TO STATION EMERGENCY MANAGER / RECOVERY MANAGER

__ 1. VERIFY PROJECTED DOSES MEET OR EXCEED 1 REM TEDE OR 5 REM THYROID CDE AT OR BEYOND 10 MILES:

a. Review dose projection results

b. Evaluate assumptions incorporated into dose projections:

- Accident default values and technical basis for MIDAS and EPIP calculations (refer to EPIP-4.30, USE OF MIDAS CLASS A MODEL)
- Projections using actual sample results versus default isotopic inventory
- Event and release duration
- Plume arrival time at 10 mile distance

c. Evaluate field team measurements (if available)

NOTE:
- Protective actions for areas within the 10-mile EPZ should be implemented prior to recommending protective actions for areas beyond 10 miles.
- Field measurements and evacuation status for areas within the 10-mile EPZ should be considered before recommending protective actions beyond 10 miles.

__ 2. CONFER WITH SEM/RM:

a. Review dose projections, associated assumptions, and field measurement results (if available)

b. Evaluate options:

- Using field team real-time measurements to calculate dose
- Impact of extended PAR beyond 10 miles:
  - Affect on evacuees departing the 10-mile EPZ
  - Location of public Evacuation Assembly Centers
  - No designated evacuation routes beyond 10 miles
  - Some protective action zones extend beyond the 10 mile EPZ boundary due to geopolitical boundaries

__ 3. REVIEW DOSE PROJECTION RESULTS AND FIELD MEASUREMENTS WITH STATE REPRESENTATIVE (if in LEOF/CEOF):

- Consult with DEM On-Scene Coordinator/designee
- Compare Surry Power Station and State monitoring team results

__ 4. ASSIST SEM/RM IN DERIVATION OF EXTENDED PAR (IF DEEMED PRUDENT BASED ON THE ABOVE CONSIDERATIONS):

- Determine the distance out to which evacuation dose is exceeded (e.g., 1 Rem TEDE or 5 Rem Thyroid CDE)
- Evaluate plume width as determined by field measurements or ingestion pathway dose projections (lateral distance from centerline should be used because Protective Action Zones are not defined beyond 10 miles)

__ 5. VERIFY PAR (IF ISSUED) IS OFFICIALLY TRANSMITTED TO OFFSITE AGENCIES:

a. State EOC (via State and Local Communicator using EPIP-2.01, NOTIFICATION OF STATE AND LOCAL GOVERNMENTS)

b. State representative, e.g., State On-Scene Coordinator (if in LEOF/CEOF)

c. NRC (via HPN Communicator if HPN activated, or by ENS Communicator)

LEVEL 2 DISTRIBUTION

VIRGINIA POWER
SURRY POWER STATION
EMERGENCY PLAN IMPLEMENTING PROCEDURE

NUMBER	PROCEDURE TITLE	REVISION
EPIP-4.08	INITIAL OFFSITE RELEASE ASSESSMENT (With 6 Attachments)	13
		PAGE 1 of 12

PURPOSE

Use of backup (manual) dose assessment calculations to assess consequences of actual or potential offsite releases.

ENTRY CONDITIONS

Any of the following:

1. EPIP-4.01, RADIOLOGICAL ASSESSMENT DIRECTOR CONTROLLING PROCEDURE.
2. EPIP-4.03, DOSE ASSESSMENT TEAM CONTROLLING PROCEDURE.
3. CPIP-6.2, RADIOLOGICAL ASSESSMENT COORDINATOR.
4. Direction by the Station Emergency Manager.

Approvals on File

Effective Date 9/28/00

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED

_____ 1 INITIATE PROCEDURE:

- By: _____

Date: _____

Time: _____

NOTE: An initial offsite release assessment should be performed within 15 minutes of declaration of a General Emergency.

_____ 2 CHECK IF CURRENT EVENT CLASSIFICATION - NOTIFICATION OF UNUSUAL EVENT OR ALERT

IF unknown, THEN GO TO Step 3

OR

IF Site Area or General Emergency, THEN GO TO NOTE prior to Step 6.

NOTE: Evaluation of percent technical specifications in this procedure makes assumptions about flow rate, isotopic mixture and detector response. Further analysis upon completion of this procedure will be necessary to quantify releases.

_____ 3 CHECK IF EMERGENCY INVOLVES LIQUID RELEASE

GO TO NOTE prior to Step 5.

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED

NOTE: Results of Discharge Tunnel and SRF Liquid Monitor are not additive. The Discharge Tunnel is considered the final liquid effluent release point.

_____ 4 DETERMINE PERCENT TECHNICAL SPECIFICATION FOR LIQUID RELEASE:

a) Get monitor indications:

- Discharge Tunnel:_____cpm
- SRF RRM-131:_____cpm

b) Use the following equations:

Discharge Tunnel:
cpm x 3.0E-3 = % Tech Spec

_____ x 3.0E-3 = _____%

RRM-131:
cpm x 3.37E-4 = % Tech. Spec.

_____ x 3.37E-4 = _____%

c) Compare percent Tech Spec with emergency classification criteria:

- Percent Tech Spec GREATER THAN OR EQUAL TO 1000% - ALERT
- Percent Tech Spec GREATER THAN OR EQUAL TO 100% - NOTIFICATION OF UNUSUAL EVENT
- Percent Tech Spec LESS THAN 100% - RELEASE WITHIN LIMITS

d) Notify RAD or RAC of event classification based on percent Tech Spec for liquid release

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED

NOTE: Surry Radwaste Facility (SRF) Vent Monitor RRM-101 information is available from the SRF Control Room.

_____ 5 DETERMINE PERCENT TECH SPEC FOR GASEOUS RELEASE:

IF NO gaseous release, THEN GO TO Step 10.

a) Get highest value of the following:

- VG-110 (cpm)
- VG-131 (μCi/sec and μCi/cc)
- GW-102 (cpm)
- GW-130 (μCi/sec and μCi/cc)
- SV-111 (cpm)
- SV-211 (cpm)
- RRM-101 (cpm)

a) IF all values are NOT available, THEN get value of monitor in alarm.

b) Get vacuum (inches Hg) for the following:

- VG-110
- GW-102

b) IF all values or value for monitor in alarm NOT available, THEN ask RAD or RAC to determine (as applicable):

- If monitor count rate correction needed.
- Estimated vacuum values for monitor(s).

c) Check - INCHES Hg > 3

c) GO TO Step 5.e.

d) Correct monitor count rates for vacuum

$$\frac{\text{Monitor cpm}}{(30 - \text{inches Hg})/30} = \text{Corrected cpm}$$

(STEP 5 CONTINUED ON NEXT PAGE)

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
5	DETERMINE PERCENT TECH SPEC FOR GASEOUS RELEASE: (Continued)	
	e) Get effluent flow rate (cfm) of the following: • Vent Vent flow rate • Process Vent flow rate • Air ejector flow rate • SRF Vent flow rate	e) IF flow rate NOT available, THEN use design flow rate: • Vent Vent = 172,000 cfm • Process Vent = 310 cfm • Air Ejector = 25 cfm • SRF Vent = 51,340 cfm
	f) Record on Attachment 1 AND Determine total percent Tech Spec	
	g) Compare percent Tech Spec with emergency classification criteria: • Percent Tech Spec GREATER THAN OR EQUAL TO 1000% - ALERT • Percent Tech Spec GREATER THAN OR EQUAL TO 100% - NOTIFICATION OF UNUSUAL EVENT • Percent Tech Spec LESS THAN 100% - RELEASE WITHIN LIMITS	
	h) Notify RAD or RAC of event classification based on percent Tech Spec for gaseous release	

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED

NOTE:
- No release through Air Ejector(s) should be assumed if Air Ejector is diverted to containment.
- The total dose rate from each pathway should be calculated using Attachment 2, 3 and/or 4 if the release is from more than one pathway.

_____ 6 DETERMINE SITE BOUNDARY DOSE RATE (mrem/hr) FOR VENTILATION RELEASE:

a) Ask SEM (via RAD or RAC) to have someone observe the increasing or decreasing trends of the monitor

b) Check if release pathway is through any of the following:
- Process Vent
- Vent Vent
- Air Ejector
- SRF Vent

b) IF release is through the Main Steam System, THEN GO TO Step 7

OR

IF release is from containment leakage, THEN GO TO Step 8.

(STEP 6 CONTINUED ON NEXT PAGE)

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED

6 DETERMINE SITE BOUNDARY DOSE RATE (mrem/hr) FOR VENTILATION RELEASE: (Continued)

c) Check if monitors for affected pathway - OPERABLE:

- Kaman Science
- Eberline (SRF)
- Victoreen

c) IF Kaman Science Monitor inoperable or offscale, THEN do the following:

1) Get parameters:

- Stability Class
- Wind Speed (mph)
- mR/hr from VG-123 or GW-122
- Flow rate (cfm)

2) GO TO Step 6.e.

OR

IF SRF Eberline Monitor inoperable, THEN ask RAD or RAC for guidance.

OR

IF Victoreen Monitor offscale or inoperable, THEN do the following:

1) Use Kaman Science Monitor

2) GO TO Step 6.d.

(STEP 6 CONTINUED ON NEXT PAGE)

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED

6 DETERMINE SITE BOUNDARY DOSE RATE (mrem/hr) FOR VENTILATION RELEASE: (Continued)

d) Get the following information from RAD or RAC:

1) Monitor number of interest

2) Highest cpm (corrected for vacuum if necessary), µCi/sec and µCi/cc from monitor of interest

3) Flow rate (cfm) for release pathway

4) Stability Class

5) Wind Speed

e) Record above data on Attachment 2

f) Get X/Q and conversion factors from Attachment 5:

- Site Boundary X/Q for Stability Class in effect
- Monitor Conversion Factor (MCF) based on accident type
- TEDE DCF
- THY DCF

g) Record X/Q, wind speed and conversion factors on Attachment 2.

h) Determine Site Boundary TEDE and THY CDE, mrem/hr, using Attachment 2

i) Record results of Attachment 2 on Attachment 6

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED

NOTE:
- No release is assumed from the AFWPT pathway if the AFWPT is isolated.
- Results of Attachments 2 and 3 are cumulative if the release is through both the Main Steam System and Ventilation System.

_____ 7 DETERMINE SITE BOUNDARY DOSE RATE (mrem/hr) - MAIN STEAM SYSTEM:

a) Check if actual or potential release pathway through Main Steam Safety Valves or Auxiliary Feedwater Pump Turbine Exhaust (AFWPT)

a) GO TO Step 8.

b) Get number and mR/hr of the monitor(s) of interest from SEM (via RAD or RAC):

Unit 1	Unit 2
Main Steam	Main Steam
MS-124 (A Safety Valves)	MS-224 (A Safety Valves)
MS-125 (B Safety Valves)	MS-225 (B Safety Valves)
MS-126 (C Safety Valves)	MS-226 (C Safety Valves)
Unit 1 AFWPT	Unit 2 AFWPT
MS-129	MS-229

c) Get the following information from RAD or RAC:

- Stability Class
- Wind Speed
- Number of Main Steam Safety Valves that have lifted or may potentially lift
- Status of AFWPT isolation

(STEP 7 CONTINUED ON NEXT PAGE)

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED

7 DETERMINE SITE BOUNDARY DOSE RATE (mrem/hr) - MAIN STEAM SYSTEM: (Continued)

d) Get X/Q and conversion factors from Attachment 5:

- Site Boundary X/Q for Stability Class in effect
- Monitor Conversion Factor (MCF) based on accident type
- TEDE DCF
- THY DCF

e) Record X/Q, wind speed, # valves and conversion factors on Attachment 3

f) Determine Site Boundary TEDE and THY CDE, mrem/hr, using Attachment 3

g) Record results of Attachment 3 on Attachment 6

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED

NOTE: Results of Attachments 2, 3 and 4 are cumulative if the release is through the Ventilation System, Main Steam System and Containment.

_____ 8 DETERMINE SITE BOUNDARY DOSE RATE (mrem/hr) - CONTAINMENT LEAKAGE:

a) Check if actual or potential release pathway from Containment Leakage

a) IF NO release pathway from containment, THEN GO TO Step 9.

b) Get CHRRMS reading, R/hr

Unit 1	Unit 2
RMS-127	RMS-227
RMS-128	RMS-228

c) Get the following information from RAD or RAC:

- Stability Class
- Wind Speed

d) Get X/Q and conversion factors from Attachment 5:

- Site Boundary X/Q for Stability Class in effect
- Monitor Conversion Factor (MCF) based on accident type
- TEDE DCF
- THY DCF

e) Record X/Q, wind speed and conversion factors on Attachment 4

f) Determine Site Boundary TEDE and THY CDE, mrem/hr, using Attachment 4

g) Record results of Attachment 4 on Attachment 6

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED

_____ 9 DETERMINE DOSE RATES, mrem/hr, AT 2, 5 AND 10 MILES:

a) Use Attachment 6

b) Add results of appropriate release pathways:

- Vent (Attachment 2)
- Main Steam (Attachment 3)
- Containment (Attachment 4)

c) Determine Stability Class correction factor for distance of interest

d) Do calculation

AND

Determine TEDE and THY CDE at 2, 5 and 10 miles

e) Report results to RAD or RAC

_____ 10 TERMINATE EPIP-4.08:

- Give completed EPIP-4.08, forms and other applicable records to the RAD or RAC
- Completed by: _____

Date: _____

Time: _____

-END-

NUMBER	ATTACHMENT TITLE	REVISION
EPIP-4.08	% TECHNICAL SPECIFICATION WORKSHEET	13
ATTACHMENT 1		PAGE 1 of 1

Date:_____; Time:_____

% TECH. SPEC.

VENT VENT:

	CPM *	x	CFM	x	CF	=	% TS
VG-110:	_____	x	_____	x	4.96 E-8	=	_____
	µCi/sec	x	CF			=	% TS
VG-131:	_____	x	3.52 E-3			=	_____
	µCi/cc	x	CFM		CF	=	% TS
VG-131:	_____	x	_____	x	1.66	=	_____

Highest % TS _____

* Correction for vacuum may be necessary. Refer to Step 5.c.

PROCESS VENT:

	CPM *	x	CFM	x	CF	=	% TS
GW-102:	_____	x	_____	x	3.07 E-9	=	_____
	µCi/sec	x	CF			=	% TS
GW-130:	_____	x	2.18 E-5			=	_____
	µCi/cc	x	CFM		CF	=	% TS
GW-130:	_____	x	_____	x	1.03 E-2	=	_____

Highest % TS _____

* Correction for vacuum may be necessary. Refer to Step 5.c.

UNIT 1 AIR EJECTOR:

	CPM	x	CFM	x	CF	=	% TS
SV-111:	_____	x	_____	x	2.01 E-5	=	_____

UNIT 2 AIR EJECTOR:

	CPM	x	CFM	x	CF	=	% TS
SV-211:	_____	x	_____	x	2.01 E-5	=	_____

SURRY RADWASTE FACILITY:

	CPM	x	CFM	x	CF	=	% TS
RRM-101:	_____	x	_____	x	1.74 E-6	=	_____

TOTAL % TECH. SPECS.: _____

Completed by: _____

Date/Time: _____ / _____

NOTE: • Site Boundary X/Q, Monitor Conversion Factors (MCF), TEDE Dose Conversion Factors (TEDE DCF) and Thyroid CDE Factors (THY DCF) are provided on Attachment 5.

• VG-123 and GW-122 should only be used when KAMAN or Normal Range Monitors are offscale or inoperable.

Date:_____; Time:_____

VENT VENT:

		TEDE mrem/hr	THY CDE mrem/hr
	(CPM * x CFM x X/Q x MCF) / WINDSPEED = mrem-Ci/Rem-m^3		
VG-110:	(_____ x _____ x _____ x _____) / _____ = _____		
	(µCi/sec x 1.0E-3 x X/Q) / WINDSPEED = mrem-Ci/Rem-m^3		
VG-131:	(_____ x 1.0E-3 x _____) / _____ = _____		
	(µCi/cc x CFM x 4.72E-1 x X/Q) / WINDSPEED = mrem-Ci/Rem-m^3		
VG-131:	(_____ x _____ x 4.72E-1 x _____) / _____ = _____		
	(mr/hr x CFM x X/Q x MCF) / WINDSPEED = mrem-Ci/Rem-m^3		
VG-123:	(_____ x _____ x _____ x _____) / _____ = _____		

HIGHEST mrem-Ci/Rem-m^3 x TEDE DCF = _____

HIGHEST mrem-Ci/Rem-m^3 x THY DCF = _____

* Correction for vacuum may be necessary. Refer to Steps 6.d.2 and 5.c.

PROCESS VENT:

		TEDE mrem/hr	THY CDE mrem/hr
	(CPM * x CFM x X/Q x MCF) / WINDSPEED = mrem-Ci/Rem-m^3		
GW-102:	(_____ x _____ x _____ x _____) / _____ = _____		
	(µCi/sec x 1.0E-3 x X/Q) / WINDSPEED = mrem-Ci/Rem-m^3		
GW-130:	(_____ x 1.0E-3 x _____) / _____ = _____		
	(µCi/cc x CFM x 4.72E-1 x X/Q) / WINDSPEED = mrem-Ci/Rem-m^3		
GW-130:	(_____ x _____ x 4.72E-1 x _____) / _____ = _____		
	(mr/hr x CFM x X/Q x MCF) / WINDSPEED = mrem-Ci/Rem-m^3		
GW-122:	(_____ x _____ x _____ x _____) / _____ = _____		

HIGHEST mrem-Ci/Rem-m^3 x TEDE DCF = _____

HIGHEST mrem-Ci/Rem-m^3 x THY DCF = _____

* Correction for vacuum may be necessary. Refer to Steps 6.d.2 and 5.c.

AIR EJECTOR:

TEDE mrem/hr THY CDE mrem/hr

(CPM x CFM x X/Q x MCF) / WINDSPEED = mrem-Ci/Rem-m^3

SV-111: (_____ x _____ x _____ x _____) / _____ = _____

SV-211: (_____ x _____ x _____ x _____) / _____ = _____

TOTAL OF AIR EJECTORS

[ ] x [TEDE DCF] [ ]

[ ] x [THY DCF] [ ]

SURRY RADWASTE FACILITY:

(CPM x CFM x X/Q x MCF) / WINDSPEED = mrem-Ci/Rem-m^3

RRM-101: (_____ x _____ x _____ x _____) / _____ = _____

x

[TEDE DCF] [ ]

TOTAL VENT RELEASE:

SUM OF: VENT VENT, PROCESS VENT, AIR EJECTORS, SRF:

SUM TEDE mrem/hr SUM THY CDE mrem/hr

Completed by: _____

Date/Time: _____ / _____

NUMBER	ATTACHMENT TITLE	REVISION
EPIP-4.08	MAIN STEAM RELEASE - SITE BOUNDARY DOSE RATE	13
ATTACHMENT 3		PAGE 1 of 2

NOTE: • Site Boundary X/Q, Monitor Conversion Factors (MCF), TEDE Dose Conversion Factors (TEDE DCF) and Thyroid CDE Factors (THY DCF) are provided on Attachment 5.

Date:_____; Time:_____

UNIT 1 MAIN STEAM:

	(mr/hr	x	# Valves	x	X/Q	x	MCF	) / WINDSPEED =	mrem-Ci/Rem-m^3
MS-124:	(_____	x	_____	x	_____	x	_____	) / _____ =	_____
MS-125:	(_____	x	_____	x	_____	x	_____	) / _____ =	_____
MS-126:	(_____	x	_____	x	_____	x	_____	) / _____ =	_____

TOTAL OF UNIT 1 MAIN STEAM

		TEDE mrem/hr	THY CDE mrem/hr
	x TEDE DCF:		
	x THY DCF:		

UNIT 1 AFWPT:

	(mr/hr	x	X/Q	x	MCF	) / WINDSPEED =	mrem-Ci/Rem-m^3
MS-129:	(_____	x	_____	x	_____	) / _____ =	_____

		TEDE mrem/hr	THY CDE mrem/hr
	x TEDE DCF:		
	x THY DCF:		

NOTE: • Site Boundary X/Q, Monitor Conversion Factors (MCF), TEDE Dose Conversion Factors (TEDE DCF) and Thyroid CDE Factors (THY DCF) are provided on Attachment 5.

Date:_____; Time:_____

TEDE mrem/hr THY CDE mrem/hr

UNIT 2 MAIN STEAM:

	(mr/hr	x	# Valves	x	X/Q	x	MCF	) / WINDSPEED =	mrem-Ci/Rem-m^3
MS-224:	(_____	x	_____	x	_____	x	_____	) / _____ =	_____
MS-225:	(_____	x	_____	x	_____	x	_____	) / _____ =	_____
MS-226:	(_____	x	_____	x	_____	x	_____	) / _____ =	_____

TOTAL OF UNIT 2 MAIN STEAM

[ ] x [TEDE DCF:] [ ]

x [THY DCF:] [ ]

UNIT 2 AFWPT:

	(mr/hr	x	X/Q	x	MCF	) / WINDSPEED =	mrem-Ci/Rem-m^3
MS-229:	(_____	x	_____	x	_____	) / _____ =	_____

x [TEDE DCF:] [ ]

x [THY DCF:] [ ]

TOTAL MAIN STEAM RELEASE: (SUM MS AND AFWPT)

[ ] mrem/hr [ ] mrem/hr

Completed by: _____

Date/Time: _____ / _____

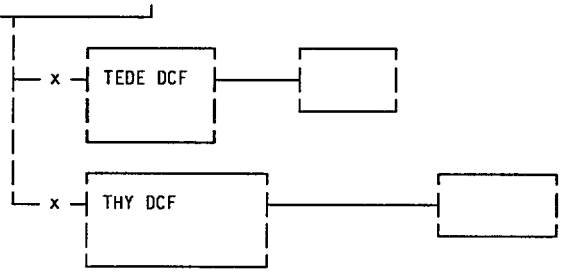
NUMBER	ATTACHMENT TITLE	REVISION
EPIP-4.08	CONTAINMENT RELEASE - SITE BOUNDARY DOSE RATE	13
ATTACHMENT 4		PAGE 1 of 1

NOTE:
- Site Boundary X/Q, Monitor Conversion Factors (MCF), TEDE Dose Conversion Factors (TEDE DCF) and Thyroid CDE Factors (THY DCF) are provided on Attachment 5.
- The CHRRMS Monitor Conversion Factor is calculated for design leak rate of 0.1% per day.

Date:_____; Time:_____

	TEDE mrem/hr	THY CDE mrem/hr
CONTAINMENT:		

RMS-127
RMS-128
RMS-227 (R/hr x MCF x X/Q) / WINDSPEED = [mrem-Ci/rem-m^3]
RMS-228: (_____ x _____ x _____) / _____ = [_____]



Completed by: _____
Date/Time: _____/_____

NUMBER	ATTACHMENT TITLE	REVISION
EPIP-4.08	SITE BOUNDARY X/Q VALUES, MONITOR CONVERSION FACTORS, TEDE FACTORS, AND THYROID CDE FACTORS	13
ATTACHMENT 5		PAGE 1 of 1

X/Q, SITE BOUNDARY:

STABILITY CLASS						
A	B	C	D	E	F	G
4.82 E-5	1.61 E-4	3.28 E-4	7.54 E-4	1.2 E-3	1.87 E-3	2.44 E-3

MONITOR CONVERSION FACTORS (MCF):

MONITOR	MSLB	SGTR	FHA	WGDT	VCT	LOCA	PRI. GAS	LKD. ROTOR	NORMAL	SRF
VG-110	1.3E-8	1.3E-8	1.4E-8	------	------	7.6E-9	1.3 E-8	------	1.4E-8	------
VG-123	22.8	15.3	56.6	------	------	1.47	16.2	------	36.6	------
GW-102	------	------	------	1.07E-7	1.31E-7	------	------	------	1.38E-7	------
GW-122	------	------	------	58.1	17.4	------	------	------	37.5	------
MS-1(2)24 MS-1(2)25 MS-1(2)26	5.6E+3	4.5E+3	------	------	------	------	------	3.87E+2	2.2E+3	------
MS-1(2)29	1.2E+4	1.25E+4	------	------	------	------	------	1.9E+3	7.5E+3	------
SV-111 SV-211	6.4E-6	6.6E-6	------	------	6.45E-6	3.9E-5	6.6E-6	3.6E-6	6.6E-6	------
RMS-1(2)27 RMS-1(2)28	------	------	------	------	------	7.3E-2	1.6E-1	-------	------	------
RRM-101	------	------	------	------	------	------	------	-------	1.9E-8	2.6E-7

TEDE DOSE CONVERSION FACTORS (TEDE DCF):

MSLB	SGTR	FHA	WGDT	VCT	LOCA	PRI. GAS	LKD. ROTOR	SRF
5.5E+3	2.8E+3	3.1E+1	1.78E+1	4.0E+1	1.4E+3	1.4E+2	7.2E+3	2.1E+2

THYROID CDE DOSE CONVERSION FACTORS (THY DCF):

	MSLB	SGTR	FHA	WGDT	VCT	LOCA	PRI. GAS	LKD. ROTOR	SRF
UNFILTERED	2.0E+4	5.7E+3	6.8E-1	0	0	7.9E+3	6.6E+1	3.7E+4	0
FILTERED	2.5E+2	6.9E+1	6.8E-2	0	0	7.9E+2	6.6E+0	------	0

NUMBER	ATTACHMENT TITLE	REVISION
EPIP-4.08	DETERMINATION OF 2, 5 AND 10 MILE DOSE RATES	13
ATTACHMENT 6		PAGE 1 of 1

	STABILITY CLASS CORRECTION FACTOR						
MILES	A	B	C	D	E	F	G
2	1.37E-2	1.12E-2	4.27E-2	6.37E-2	8.33E-2	1.28E-1	2.38E-1
5	6.02E-3	2.36E-3	8.84E-3	1.59E-2	2.42E-2	3.74E-2	7.79E-2
10	3.11E-3	1.24E-3	2.80E-3	5.84E-3	1.00E-2	1.55E-2	3.24E-2

CALCULATION:

SUM OF TEDE:
ATT. 2: _____
ATT. 3: _____
ATT. 4: _____
SUM: _____

TEDE DOSE RATE, SITE BOUNDARY mrem/hr

x

CORRECTION FACTOR 2 miles: = TEDE mrem/hr 2 miles:

CORRECTION FACTOR 5 miles: = TEDE mrem/hr 5 miles:

CORRECTION FACTOR 10 miles: = TEDE mrem/hr 10 miles:

SUM OF THY CDE:
ATT. 2: _____
ATT. 3: _____
ATT. 4: _____
SUM: _____

THY. CDE DOSE RATE SITE BOUNDARY mrem/hr

x

CORRECTION FACTOR 2 miles: = THY CDE mrem/hr 2 miles:

CORRECTION FACTOR 5 miles: = THY CDE mrem/hr 5 miles:

CORRECTION FACTOR 10 miles: = THY CDE mrem/hr 10 miles:

VIRGINIA POWER
SURRY POWER STATION
EMERGENCY PLAN IMPLEMENTING PROCEDURE

NUMBER	PROCEDURE TITLE	REVISION
EPIP-4.13	OFFSITE RELEASE ASSESSMENT WITH ENVIRONMENTAL DATA (With 2 Attachments)	5
		PAGE 1 of 5

PURPOSE

To confirm onsite dose projections using environmental data.

ENTRY CONDITIONS

Activation by EPIP-4.03, DOSE ASSESSMENT TEAM CONTROLLING PROCEDURE.

Approvals on File

Effective Date 9/28/00

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED

_____ 1 INITIATE PROCEDURE:

- By: _____

  Date: _____

  Time: _____

_____ 2 EVALUATE OPTIONS FOR FOLLOW-UP ASSESSMENT:

- Thyroid CDE dose rate to be determined from air sample analysis: GO TO Step 3
- DDE and TEDE dose rate (from direct radiation readings) NOT taken at plume centerline: GO TO Step 4
- DDE and TEDE dose rate (from direct radiation) readings taken at plume centerline: GO TO Step 5
- Monitoring Team to be relocated: RETURN TO EPIP-4.03, DOSE ASSESSMENT TEAM CONTROLLING PROCEDURE
- Emergency terminated - GO TO Step 8

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED

_____ 3 DETERMINE THYROID CDE DOSE RATE FROM OFFSITE SAMPLE ANALYSIS:

a) Check sample analysis results in counts per minute

a) IF sample analysis results in µCi/ml, THEN GO TO Step 3.b.

1) Get background count rate (cpm) and volume (cubic feet) from Offsite Monitoring Team

2) Calculate NET counts per minute:

SAMPLE cpm - BACKGROUND cpm = NET cpm

3) Calculate conversion factor (CF) for specific sample volume collected:

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

4) Calculate activity:

NET cpm x CONVERSION FACTOR = ACTIVITY (µCi/ml)

b) Calculate Thyroid CDE dose rate:

ACTIVITY (µCi/ml) x 1.57E+9 = DOSE RATE (mrem/hr)

c) Check sample taken at centerline

c) IF sample NOT taken at centerline, THEN GO TO Step 4.

d) Record the following on Attachment 1:

- Team #
- Date and time
- Sample location
- Thyroid CDE dose rate

e) GO TO Step 6

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED

_____ 4 DETERMINE OFF-CENTERLINE DOSE RATE(s):

a) Determine X/Q:

1) Refer to EPIP-4.10, DETERMINATION OF X/Q

2) Determine centerline X/Q perpendicular to sample location

3) Determine X/Q at sample location

b) Calculate centerline dose rate:

$$\frac{\text{X/Q (Centerline)} \times \text{Dose Rate (mrem/hr Sample Location)}}{\text{X/Q (Sample Location)}} = \text{DOSE RATE AT CENTERLINE mrem/hr}$$

c) Use calculated centerline dose rate for DDE value

d) Determine estimated TEDE dose rate using Attachment 2

e) Record the following on Attachment 1:

- Team #
- Date and time
- Sample location
- Dose rate(s)

- Record that sample was taken off-centerline in the Remarks section

f) GO TO Step 6

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
_____ 5	DETERMINE DDE AND TEDE DOSE RATES FROM DIRECT RADIATION READINGS: a) Verify dose rate from Offsite Monitoring Team at centerline location b) Use centerline dose rate for DDE value c) Determine estimated TEDE dose rate using Attachment 2 d) Record the following on Attachment 1: • Team # • Date and time • Sample location • Dose rate(s)	a) IF dose rate provided from off-centerline location, THEN RETURN TO Step 4.
_____ 6	GIVE COMPLETED ATTACHMENT 1 TO DOSE ASSESSMENT TEAM LEADER	
_____ 7	RETURN TO STEP 2	
_____ 8	TERMINATE EPIP-4.13: • Give completed EPIP-4.13, forms and other applicable records to the Radiological Assessment Director/Radiological Assessment Coordinator • Completed by: _____ Date: _____ Time: _____ -END-	

NUMBER	ATTACHMENT TITLE	REVISION
EPIP-4.13	OFFSITE ENVIRONMENTAL DATA SHEET	5
ATTACHMENT 1		PAGE 1 of 1

TEAM #: _____

DATE/TIME: _____/_____

LOCATION: _____

DDE DOSE RATE: _____ mrem/hr

TEDE DOSE RATE: _____ mrem/hr

THYROID CDE DOSE RATE: _____ mrem/hr

REMARKS: _____

_____

_____

TEAM #: _____

DATE/TIME: _____/_____

LOCATION: _____

DDE DOSE RATE: _____ mrem/hr

TEDE DOSE RATE: _____ mrem/hr

THYROID CDE DOSE RATE: _____ mrem/hr

REMARKS: _____

_____

_____

NUMBER	ATTACHMENT TITLE	REVISION
EPIP-4.13	DETERMINATION OF TEDE/DDE RATIO	5
ATTACHMENT 2		PAGE 1 of 1

NOTE: TEDE = DDE + CEDE + 4 day Ground Shine, when applied to dose projections for protective action decision-making.

____ 1. Get Ratio TEDE/DDE from actual sample results AND GO TO Step 5 of this this attachment

OR

IF sample results NOT available, THEN continue this instruction

____ 2. Get Ratio TEDE/DDE from MIDAS report AND GO TO Step 5 of this attachment

OR

IF MIDAS results NOT available, THEN continue this instruction

____ 3. Use results from EPIP-4.08 AND GO TO Step 5 of this attachment

OR

IF EPIP-4.08 results NOT available, THEN continue this instruction

____ 4. Use default TEDE/DDE ratio:

ACCIDENT TYPE	RATIO	ACCIDENT TYPE	RATIO
MSLB	49	VCT Rupture	1
SGTR	26	LOCA (MELT, GAP, PC)	3
Fuel Handling	1.5	Locked Rotor	13
WGDT Rupture	1	SRF	1

NOTE: Field direct radiation readings are equivalent to DDE for estimation purposes.

____ 5. Calculate estimated TEDE dose rate:

$$\text{DDE dose rate from field team} \times \text{Ratio } \frac{\text{TEDE}}{\text{DDE}} = \text{TEDE dose rate}$$

____ 6. Record resulting estimated TEDE dose rate on Attachment 1.

NUMBER	PROCEDURE TITLE	REVISION
EPIP-4.17	MONITORING OF EMERGENCY RESPONSE FACILITIES (With 6 Attachments)	10 PAGE 1 of 9

PURPOSE

To provide instructions for initial and periodic monitoring of emergency response facilities.

ENTRY CONDITIONS

Any one of the following:

1. EPIP-4.01, RADIOLOGICAL ASSESSMENT DIRECTOR CONTROLLING PROCEDURE.
2. EPIP-4.02, RADIATION PROTECTION SUPERVISOR CONTROLLING PROCEDURE.

Approvals on File

Effective Date 9/20/00

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
_____ 1	INITIATE PROCEDURE: • By: _____ Date: _____ Time: _____	
	NOTE: The priority for surveying facilities is normally as follows: Control Room, OSC, TSC, and Alternate OSC (if required).	
_____ 2	GET SURVEY ASSIGNMENT FROM RPS: _____	
_____ 3	GET PORTABLE SURVEY EQUIPMENT: • Portable air sampler with silver zeolite cartridge and particulate filter • Portable survey meter • Envelopes and smears	
_____ 4	CHECK EQUIPMENT: • Battery check • Current calibration sticker • Source check (if available)	Get replacement equipment.
_____ 5	GO TO ASSIGNED SURVEY AREA	
_____ 6	CHECK IF FACILITY ACCESS CONTROL IS TO BE ESTABLISHED	GO TO Step 10.
_____ 7	PUT UP SIGN INDICATING THAT MONITORING IS REQUIRED PRIOR TO ENTRY	

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED

_____ 8 PUT FRISKER AT ENTRANCE(S)

_____ 9 ESTABLISH FRISKING AREAS BETWEEN POTENTIALLY CONTAMINATED AREA AND CLEAN AREAS

_____ 10 USE APPROPRIATE ATTACHMENT TO RECORD SURVEY DATA:

- Control Room: Attachment 1
- OSC: Attachment 2
- TSC: Attachment 3
- Alternate OSC (ALARA Conference Room): Attachment 4

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED

_____ 11 DO MONITORING AND SURVEYS:

a) Do smear and direct radiation survey(s)

b) Take airborne iodine and particulate sample:

1) Load sampler with silver zeolite and particulate filter

2) Get approximate 10 ft^3 air sample if time permits (Get at least a 5 ft^3 air sample)

3) Record sample and survey parameters on appropriate attachment (specified in Step 10):

- Date/time
- Sample Volume
- Sample Locations
- Instrument(s) and serial number(s)

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED

_____ 12 DO AIR SAMPLE CARTRIDGE ANALYSIS:

a) Go to low background area

b) Turn on frisker

c) Allow frisker to stabilize

d) Get background count rate

e) Hold silver zeolite ¼ inch from detector with end of cartridge where air sample entered facing the detector for at least 30 seconds

f) Determine gross count rate

g) Calculate Net CPM
(Gross cpm - Background cpm)

h) Do % DAC screening:

1) Use Attachment 5

2) Plot Net CPM vs Volume

3) Record result on appropriate survey attachment

i) Put sample in a poly bag

j) Label sample:

- Date
- Time
- Volume
- Sample location

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED

_____ 13 DO PARTICULATE FILTER ANALYSIS:

a) Get background count rate

b) Count filter on frisker for at least 30 seconds

c) Determine gross count rate

d) Calculate Net CPM
(Gross cpm - Background cpm)

e) Do % DAC screening:

1) Use Attachment 5

2) Plot Net CPM vs Volume

3) Record result on appropriate survey attachment

f) Put sample in a poly bag

g) Label sample:

- Date
- Time
- Volume
- Sample location

_____ 14 NOTIFY THE FOLLOWING OF SURVEY RESULTS:

- RPS
- Senior individual in facility

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED

NOTE: Closure of the Main Control Room (MCR) missile and radiation shield door(s) may significantly reduce dose rates in MCR and/or MCR Annex.

_____ 15 TAKE RESPONSE ACTIONS ASSOCIATED WITH LISTED CONDITION BASED ON SAMPLE RESULTS (as appropriate):

CONDITION	RESPONSE
Air sample greater than or equal to 0.30 DAC (particulate plus iodine)	Consider supplying respiratory protection
Smear survey greater than 1000 disintegrations per minute (dpm)/100 square centimeters	• Rope off contaminated area • Consider distributing protective clothing
Direct radiation levels greater than or equal to 2 mR/hr	• Give dose rate meter to qualified user as designated by senior individual in facility • Issue SRDs (or DADs) • Complete Attachment 6 for each individual in facility

_____ 16 VERIFY AREA DEEMED HABITABLE BY RPS (OR RAD)

IF area NOT habitable, THEN do the following:

a) Control access to facility.

b) Give survey coverage for personnel relocating to alternate facilities.

c) RETURN TO Step 2.

_____ 17 ASK RPS FOR UPDATE ON RADIOLOGICAL CONDITIONS

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
_____ 18	CHECK IF RADIOLOGICAL CONDITIONS HAVE DEGRADED	GO TO Step 20.
_____ 19	ASK RPS TO DESIGNATE AREAS NEEDING IMMEDIATE SURVEY AND ACCESS CONTROL	
_____ 20	CHECK IF ALL AREAS DESIGNATED FOR INITIAL SURVEYS HAVE BEEN COMPLETED	RETURN TO Step 5.
_____ 21	CHECK IF CONTINUED MONITORING OR FOLLOW-UP SURVEYS - REQUIRED	GO TO Step 24.

_____ 22	CHECK FOLLOW-UP SURVEY - DUE:
	• Follow-up survey schedule established by RPS _____
	OR
	• Default survey schedule
	  • OSC - every hour
	  • TSC - every 4 hours
	  • CR - every 4 hours
	  • Alternate OSC - every hour
		WHEN follow-up survey due, THEN RETURN TO Step 5.

_____ 23	RETURN TO STEP 5	

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED

_____ 24 COMPLETE SURVEY DOCUMENTATION:

a) Complete all surveys:

- Instrument used with serial number
- Date and time of survey
- Name(s)

b) Ensure analysis results are attached to survey forms (if applicable)

_____ 25 TERMINATE EPIP-4.17:

- Give completed EPIP-4.17, forms, surveys and other applicable records to the Radiation Protection Supervisor

- Completed by: _____
  Date: _____
  Time: _____

-END-

NUMBER	ATTACHMENT TITLE	REVISION
EPIP-4.17	SURVEY MAP OF CONTROL ROOM	10
ATTACHMENT 1		PAGE 1 of 1

Location CONTROL ROOM 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

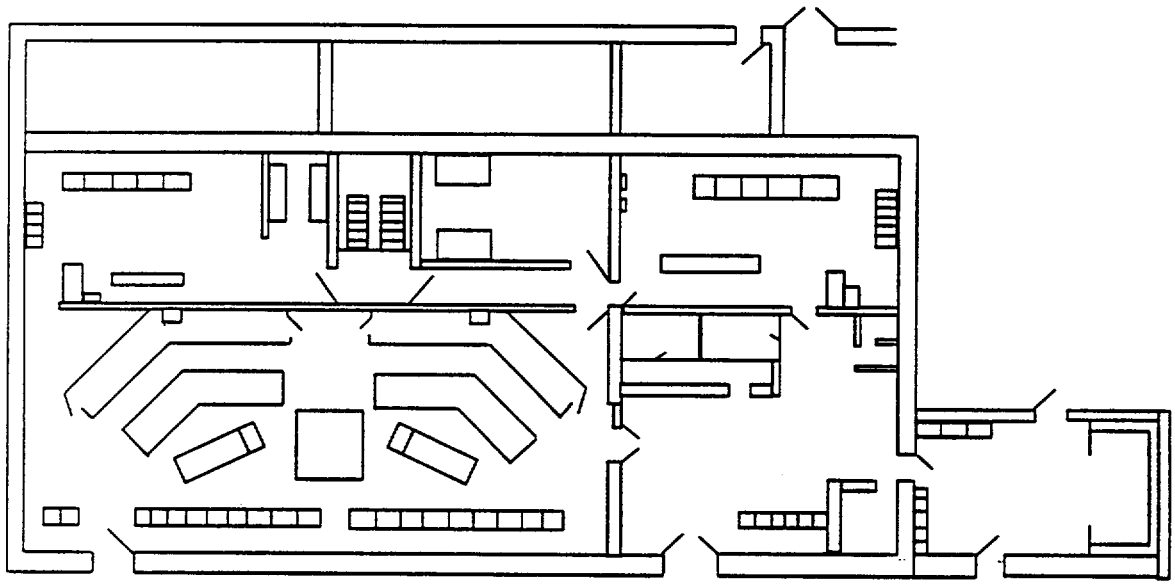
[] Air particulates + I$_2$ < 0.1 DAC [] All neutron readings in mrem/hr

[] _____ [] 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	ATTACHMENT TITLE	REVISION
EPIP-4.17	SURVEY MAP OF OSC	10
ATTACHMENT 2		PAGE 1 of 1

Location OSC 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

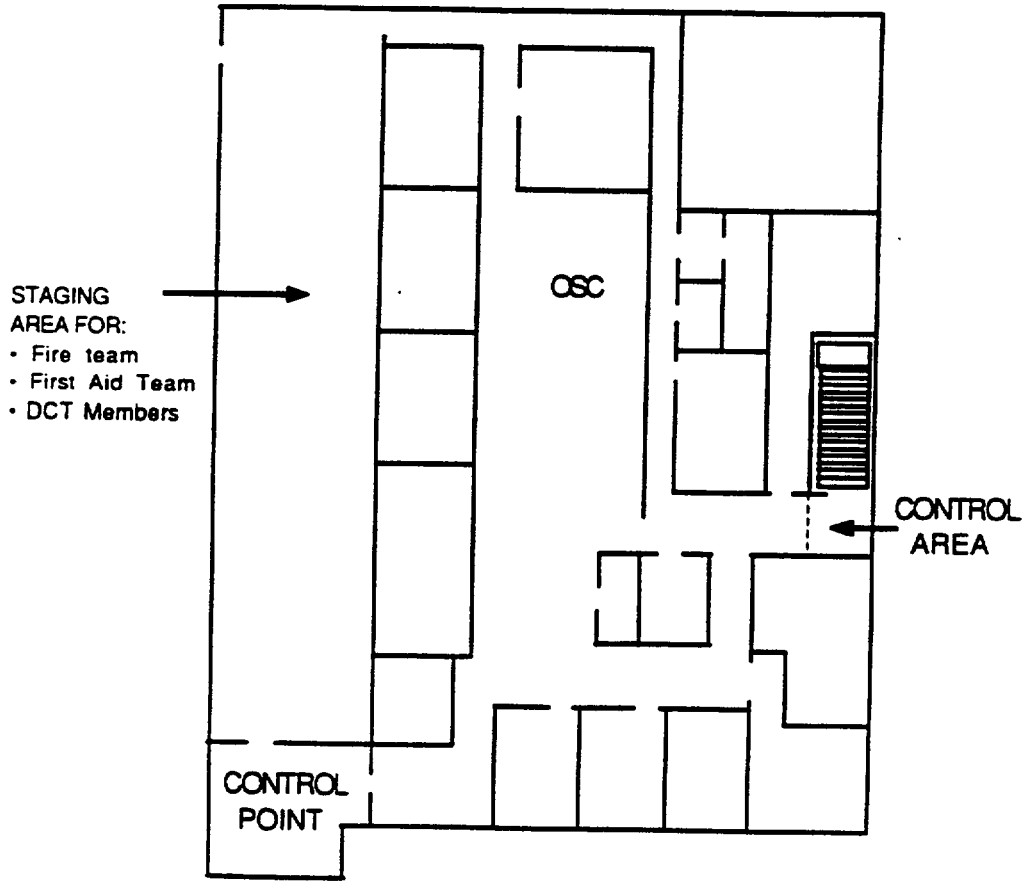
[] Air particulates + I$_2$ < 0.1 DAC [] All neutron readings in mrem/hr

[] _____ [] 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	ATTACHMENT TITLE	REVISION
EPIP-4.17	SURVEY MAP OF TSC	10
ATTACHMENT 3		PAGE 1 of 1

Location TSC 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

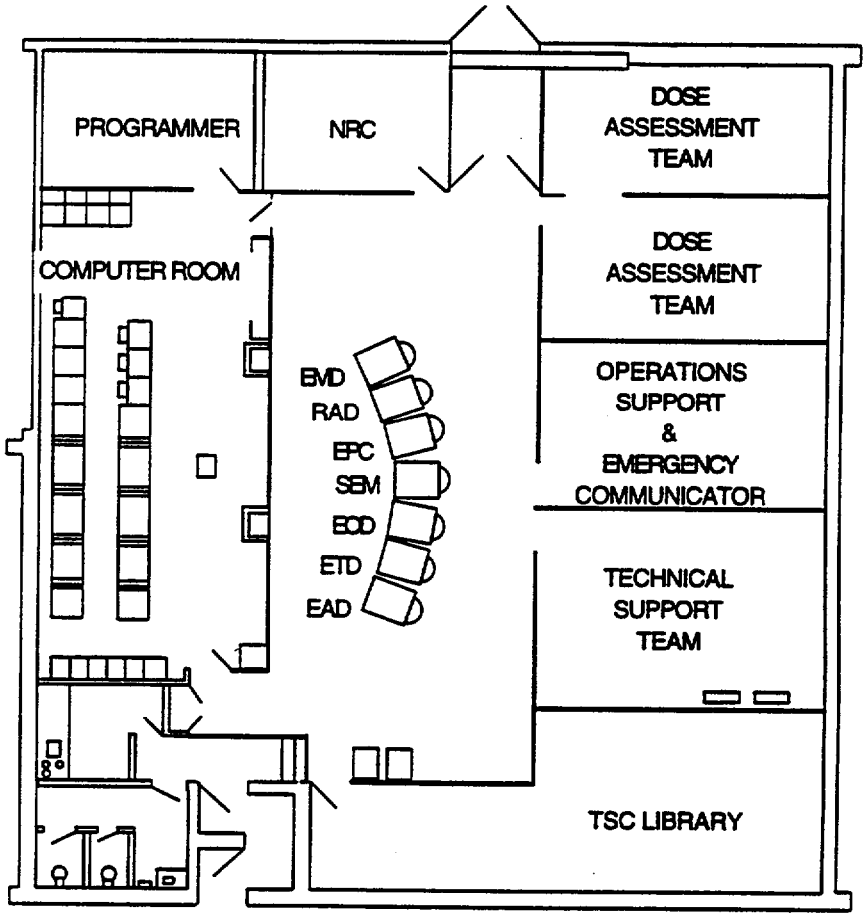
[] Air particulates + I_2 < 0.1 DAC [] All neutron readings in mrem/hr

[] _____ [] 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	ATTACHMENT TITLE	REVISION
EPIP-4.17	SURVEY MAP OF ALTERNATE OSC	10
ATTACHMENT 4		PAGE 1 of 1

Location ALTERNATE OSC 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

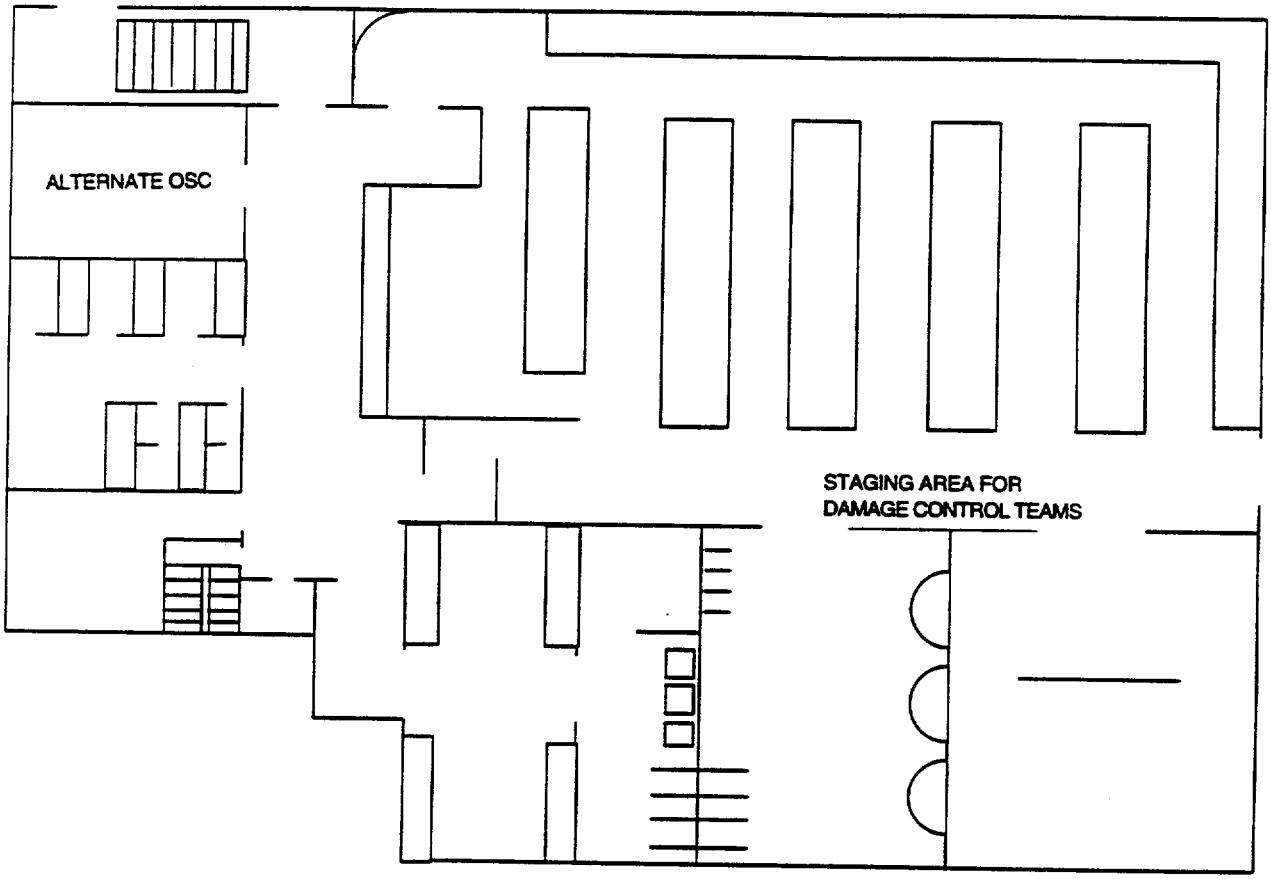
[] Air particulates + I_2 < 0.1 DAC [] All neutron readings in mrem/hr

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

Comments: _____ Survey RWP:

_____ _____

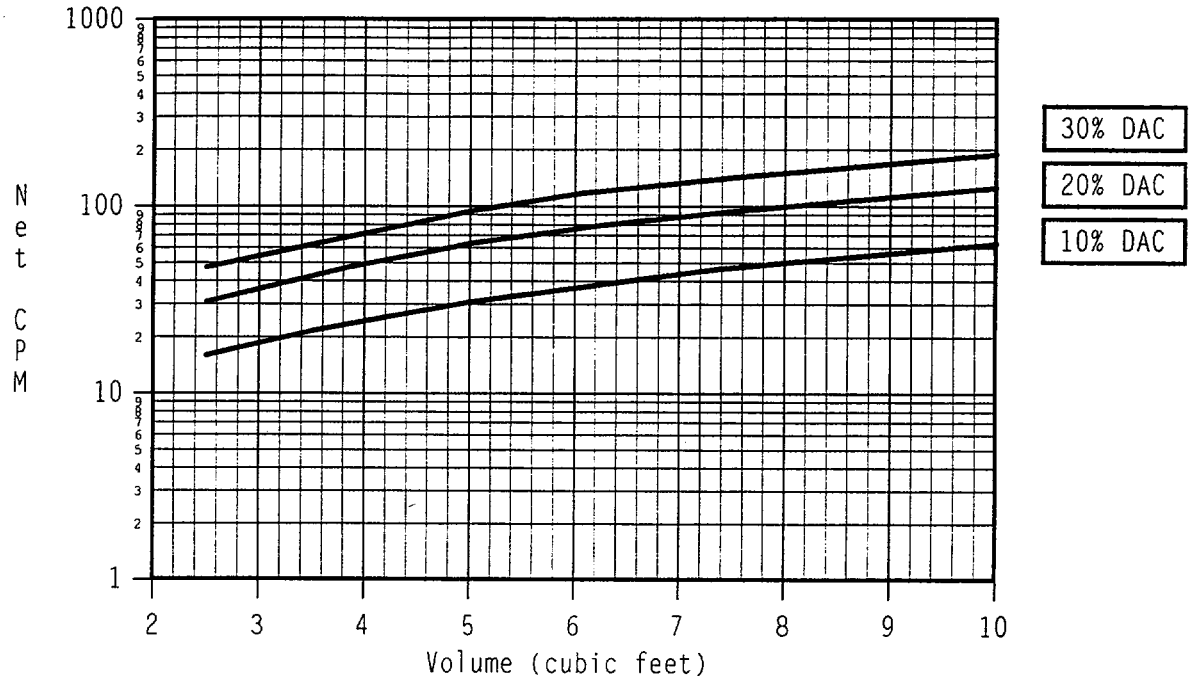
Survey Team Dose, mrem (SRD/DAD or calculated):_____ Submitted By (Print & Signature): _____ Reviewed By (Print & Signature): _____ Date: _____



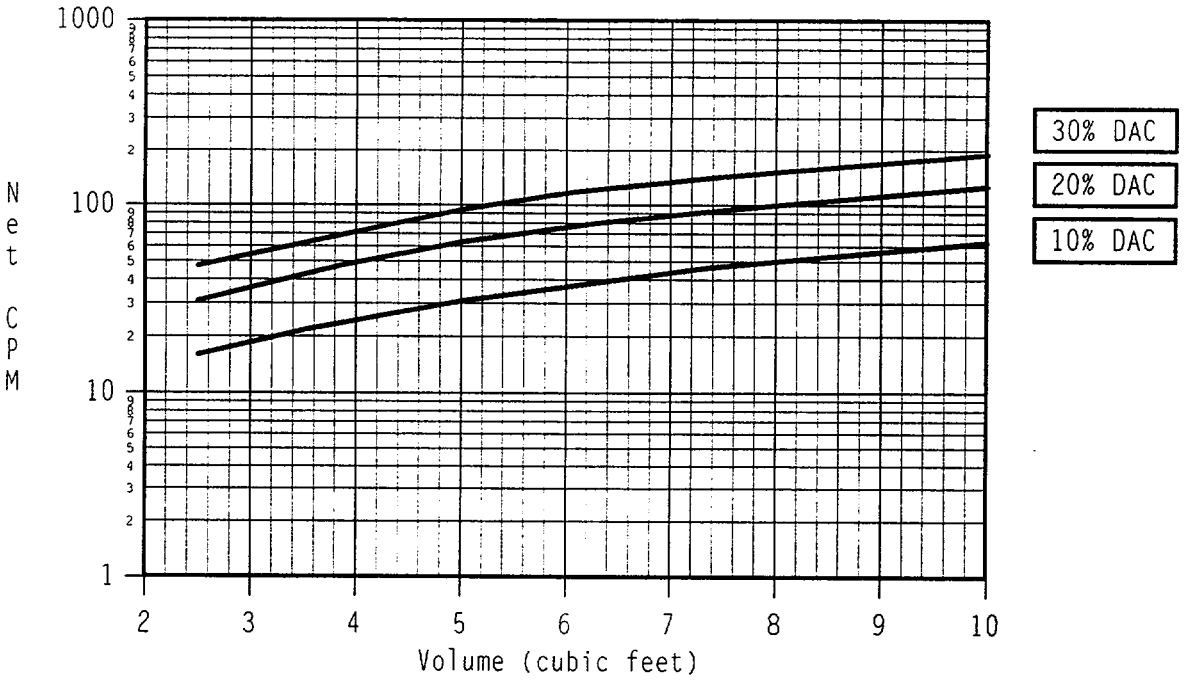
[] General Area, O Contact; Δ GA Smear; <> LA Smear; Δ* HP Smear; AS Air Sample; LCK Locked Gate; *** Rad Barrier

NUMBER	ATTACHMENT TITLE	REVISION
EPIP-4.17	% DAC DETERMINATION	10
ATTACHMENT 5		PAGE 1 of 1

DETERMINATION OF % DAC: IODINE CARTRIDGE



DETERMINATION OF % DAC: PARTICULATE FILTER



NUMBER	ATTACHMENT TITLE	REVISION
EPIP-4.17	DOSIMETRY ISSUE	10
ATTACHMENT 6		PAGE 1 of 1

Provide information to Exposure Control daily to allow for dosimetry issue record update.

NAME	TLD #	DAD or SRD #	BEGIN READING	END READING

VIRGINIA POWER
SURRY POWER STATION
EMERGENCY PLAN IMPLEMENTING PROCEDURE

NUMBER	PROCEDURE TITLE	REVISION
EPIP-4.29	TSC/LEOF RADIATION MONITORING SYSTEM (With 2 Attachments)	9 PAGE 1 of 19

PURPOSE

To activate and operate the TSC/LEOF Radiation Monitoring System.

ENTRY CONDITIONS

Any one of the following:

1. Activation by the Radiological Assessment Director.
2. Activation by the Dose Assessment Team.
3. Activation by the Radiological Assessment Coordinator.
4. Activation by the Radiation Protection Supervisor.
5. Activation by another EPIP.

Approvals on File

Effective Date 9/22/00

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED

_____ 1 INITIATE PROCEDURE:

- By: _____
  Date: _____
  Time: _____

_____ 2 GET DRAWER KEY FROM STORAGE LOCATION

* *

CAUTION: Do not bend or twist the high voltage power cables during sample change out.

* *

_____ 3 INSTALL PARTICULATE AND IODINE SAMPLES:

a) Refer to Attachment 1 for location of sample holders

b) Remove hold down bar

c) Disconnect high voltage power cables A and B (Cable A: Front left, bottom of skid; Cable B: left side, rear of skid)

d) Use lever to remove sample plugs (unscrew cap on plug as necessary)

e) Assure particulate and iodine filters in place

f) Restore hold down bar

g) Reconnect high voltage cables A and B

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED

_____ 4 ASSURE CALIBRATE AND MAINTENANCE TOGGLE SWITCHES ON BOTTOM FRONT PANEL DOWN (OFF)

_____ 5 OPEN DRAWER:

a) Unlock drawer

b) Turn black knob on drawer assembly counterclockwise

c) Pull drawer out

_____ 6 CONNECT COMMUNICATIONS CABLE FROM LAPTOP TO PORT ON LEFT SIDE OF PING-3B (Refer to diagram at Attachment 1)

_____ 7 TURN ON LAPTOP COMPUTER (on/off push-button centered at top of keyboard)

_____ 8 PRESS ESC KEY WHEN WINDOWS PASSWORD PROMPT APPEARS ON LAPTOP SCREEN

_____ 9 OPEN (DOUBLE CLICK ON) pt4vepcoa1 ICON

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED

NOTE: The blue beacon may illuminate during system start-up (due to low flow). Disregard and continue with the instructions.

_____ 10 START SYSTEM PUMP:

a) Assure Main Screen - DISPLAYED

b) Move cursor to 'SEND COMMAND'

c) Press ENTER key

d) Toggle over to 'STANDBY' option

e) Press F1 key (selects command)

f) Move cursor to 'OFF'

g) Press ENTER key (starts pump)

h) Press F3 key (returns user to Main Screen)

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED

NOTE: During monitor start-up or filter/charcoal changeout, displayed data may be flagged "MAINT" until statistically significant counts (256 counts) or 10 to 20 minutes have elapsed. During this period, the Display III Panel may indicate the data to be "NORMAL". This condition is normal.

_____ 11 DO MONITOR STATUS CHECK:

a) Allow approximately 5 minutes for flow and pressure parameters to stabilize:

- Flow: 55 to 65 lpm
- Pressure: 9.5 to 12.8 psia

b) Clear System Alarms:

1) Assure Main Screen - DISPLAYED

2) Move cursor to 'SEND COMMAND'

3) Press ENTER key

4) Toggle over to 'CHANNEL NUMBER' option

5) Press F1 key (selects command)

6) Press 0 (zero) key

7) Press ENTER key

8) Move cursor to 'ALARM CLEAR'

9) Press F1 key

10) Press ENTER key

11) Press F3 key

(STEP 11 CONTINUED ON NEXT PAGE)

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED

11 DO MONITOR STATUS CHECK: (Continued)

c) Compare computer display with digital LED status on Display III Panel:

1) Move cursor to 'DISPLAY CURRENT READINGS' on Main Screen

2) Press ENTER key

3) Use thumbwheel on the Display III Panel to select proper channel

4) LED lights on Display III Panel indicate the following:

LED	STATUS
N	NORMAL
M	MAINTENANCE/CALIBRATE/CHECKSOURCE
F	FAIL EXTERNAL HI/LOW
T	TREND ALARM
A	ALERT ALARM
H	HI ALARM

5) Verify Display III panel status matches computer screen indications

5) IF indications differ, THEN refer to Attachment 2 to determine appropriate response.

WHEN status is normal, THEN RETURN TO Step 11.

IF difference NOT resolved, THEN consult with RAD/RAC for direction on continued use of system.

d) Press F3 key (returns user to Main Screen)

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
_____ 12	START TOTAL SAMPLE FLOW:	
	a) Verify one of the following conditions: • Initial system start-up sequence • Particulate/iodine sample to be changed	a) GO TO Step 13.
	b) Assure Main Screen - DISPLAYED	
	c) Move cursor to 'FLOW INFORMATION' on Main Screen	
	d) Press ENTER key	
	e) Press ENTER key on each entry that highlights: • Reset particulate flow • Reset invalid times • Reset time • Reset noble gas flow • Request field data	
	f) Press F2 key to exit	

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED

NOTE:
- Samples should be changed out periodically (after approximately 4 hours) or when particulate (Channel 1) or iodine (Channel 3) is in alarm.
- Standard HP practices should be used for handling potentially contaminated samples when performing Step 13.

_____ 13 CHECK SAMPLE CHANGE OUT - REQUIRED: — GO TO Step 14.

a) Assure Main Screen - DISPLAYED

b) Move cursor to 'SEND COMMANDS' on Main Screen

c) Press ENTER key

d) Move cursor to 'STANDBY' option

e) Press F1 key

f) Move cursor to 'ON'

g) Press ENTER key

h) Refer to Attachment 1 for sample location

i) Remove sample hold down bar

j) Use lever to remove sample plugs

k) Replace particulate and iodine samples

l) Restore sample plugs and hold down bar

m) Press F3 key (returns user to Main Screen)

n) Assure Main Screen - DISPLAYED

(STEP 13 CONTINUED ON NEXT PAGE)

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED

13 CHECK SAMPLE CHANGE OUT - REQUIRED: (Continued)

o) Move cursor to 'SEND COMMANDS' on Main Screen

p) Press ENTER key

q) Move cursor to 'STANDBY' option

r) Press F1 key

s) Move cursor to 'OFF'

t) Press ENTER key

u) Press F3 key (returns to Main Screen)

v) Allow 5 minutes for flow and pressure parameters to stabilize:

- Flow: 55 to 65 lpm
- Pressure: 9.5 to 12.8 psia

(STEP 13 CONTINUED ON NEXT PAGE)

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED

13 CHECK SAMPLE CHANGE OUT - REQUIRED: (Continued)

w) Clear System Alarms:

1) Assure Main Screen - DISPLAYED

2) Move cursor to 'SEND COMMAND'

3) Press ENTER key

4) Toggle over to 'CHANNEL NUMBER' option

5) Press F1 key (selects command)

6) Press 0 (zero) key

7) Press ENTER key

8) Move cursor to 'ALARM CLEAR'

9) Press F1 key

10) Press ENTER key

11) Press F3 key (returns user to Main Screen)

x) RETURN TO Step 12 to initialize sample flow and use flow data for sample analysis

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
_____ 14	MONITOR SYSTEM OPERATION:	
	a) Check emergency - CONTINUES	a) GO TO Step 24.
	b) Monitor visual indicators (blue and red beacons) on the remote indicator and on the EC-4s	
	c) RETURN TO Note prior to Step 11 when alarm occurs or periodic status check needed	

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED

NOTE: Monitor will remain in alarm until display is less than setpoint.

_____ 15 DO CHECK OF HIGH/ALERT ALARM STATUS:

a) Look at computer screen to determine channel in alarm (review 'DISPLAY CURRENT READINGS')

b) Turn thumbwheel on Display III to channel in alarm

c) Review display data

d) Do monitoring or take grab sample to check validity of alarm

e) Acknowledge alarm:

1) Push Alarm Acknowledgement pushbutton on the PING-3B Display III panel

2) Push Alarm Acknowledge pushbutton on the Remote Indicator (RIE)

3) Check if alarm cleared

3) IF alarm NOT cleared, THEN do the following:

a) Push Alarm Acknowledge on EC-4 monitor.

b) GO TO Step 15.f.

4) Push High Alarm Reset on EC-4 monitor

f) Check Channel 1 or 3 in Alarm

f) GO TO Step 15.h.

g) RETURN TO Step 13 to change sample

h) Verify alarm clears

h) GO TO Step 23.

i) RETURN TO Note prior to Step 11

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
_____ 16	DO MAINTENANCE STATUS CHECK:	
	a) Turn all toggle switches on bottom front panel OFF (down)	
	b) Verify maintenance clear by viewing 'CURRENT READINGS' from computer screen	b) GO TO Step 16.d.
	c) RETURN TO Note prior to Step 11	
	d) Verify Display III LED light normal for channel of interest: 1) Use thumbwheel to select channel 2) Allow 20 minutes for channel to obtain significant number of counts	d) IF channel remains in "MAINT" for more than 20 minutes, THEN GO TO Step 23.
	e) RETURN TO Note prior to Step 11	
_____ 17	DO CALIBRATE STATUS CHECK:	
	a) Turn calibrate switch on bottom front panel OFF (down)	
	b) Verify computer indicates channels are out of calibrate status	b) GO TO Step 23.

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
_____ 18	DO EXTERNAL FAIL STATUS CHECK:	
	a) Verify pump operational	a) IF pump does NOT start, THEN push Display III pushbutton to turn pump ON. IF pump does NOT start, THEN GO TO Step 23.
	b) Clear System Alarms: 1) Assure Main Screen - DISPLAYED 2) Move cursor to 'SEND COMMAND' 3) Press ENTER key 4) Toggle over to 'CHANNEL NUMBER' option 5) Press F1 key (selects command) 6) Press 0 (zero) key 7) Press ENTER key 8) Move cursor to 'ALARM CLEAR' 9) Press F1 key 10) Press ENTER key 11) Press F3 key (returns user to Main Screen)	
	c) Verify computer indicates Channels 1, 2, 3, 5, 7, and 15 are normal status	c) GO TO Step 23.

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
_____ 19	DO LOW FAIL STATUS CHECK:	
	a) Check Channels 2 or 8 fail low:	a) GO TO Step 19.b.
	1) Assure Main Screen - DISPLAYED	
	2) Move cursor to 'RETRIEVE HISTORY DATA' option	
	3) Press ENTER key	
	4) Enter channel # (2 or 8)	
	5) Press ENTER key	
	6) Move cursor to '10 MINUTE' option	
	7) Press ENTER key	
	8) Verify that the 24 10-minute averages are less than or equal to 0.1 cpm	8) IF data indicates GREATER THAN 0.1 cpm, THEN consult with RAD/RAC to determine if use of system is to be continued. IF data indicates 0.1 cpm, THEN check nominal response due to low background.
	9) Press F3 key (returns user to Main Screen)	
	10) RETURN TO Note prior to Step 11	
	b) Check Channels 1, 3, 4, 5, 6, 7, or 9 fail low:	b) GO TO Step 19.c.
	1) Refer to Step 22 to conduct a checksource test	
	2) Verify that computer indicates a checksource value and channel returns to normal status	2) GO TO Step 23.
	3) RETURN TO Note prior to Step 11	
	c) Check Channels 14 or 15 fail low	c) RETURN TO Note prior to Step 11.
	d) GO TO Step 23	

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
_____ 20	VERIFY HI FAIL STATUS OCCURRED	GO TO Step 22.
_____ 21	GO TO STEP 23	
	NOTE: • Only Channels 1, 3, 5, 6, and 9 have a checksource. The midrange gas Channel 7 has no checksource. • Should Channel 7 fail low, an Instrument Technician should be asked to assess the problem.	
_____ 22	DO CHANNEL CHECKSOURCE:	
	a) Set thumbwheel switch on the Display III panel to the proper channel (1, 3, 5, 6, or 9)	
	b) Push checksource button on Display III panel to activate source	
	c) Verify the following:	c) GO TO Step 23.
	1) Computer indicates unit is in checksource mode	
	2) The "M" LED turns ON for the desired channel	
	3) Computer indicates response (768 counts must elapse)	
	4) Unit exits out of checksource mode and clears alarms	

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
_____ 23	DETERMINE IF OPERATION OF PING-3B IS TO BE CONTINUED: a) Consult with RAD/RAC b) Evaluate parameter failure/alarm c) Ask for Instrument Technician from OSC to assess condition d) Check system operation to be continued e) Do the following: 1) RETURN TO step in effect 2) Continue in accordance with RAD/RAC instructions	d) GO TO Step 24.
_____ 24	SECURE SYSTEM: a) Assure Main Screen - DISPLAYED b) Move cursor to 'SEND COMMANDS' on Main Screen c) Press ENTER key d) Move cursor to 'STANDBY' option e) Press F1 key f) Move cursor to 'ON' g) Press ENTER key (stops pump) h) Assure Main Screen - DISPLAYED i) Press F3 key j) Enter Y (for YES) when 'DO YOU WANT TO QUIT' prompt appears (STEP 24 CONTINUED ON NEXT PAGE)	

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED

24 SECURE SYSTEM: (Continued)

k) Shut down laptop computer (follow normal Windows shutdown process: Start, Shutdown, OK)

l) Remove communications cable from port on left side of PING-3B unit

m) Store communications cable in drawer with computer

n) Lock drawer

o) Place key in normal storage location

p) Restore charcoal and particulate filter:

1) Refer to Attachment 1 for sample location

2) Remove sample hold down bar

3) Use lever to remove sample plugs

4) Replace particulate and iodine samples

5) Restore sample plugs and hold down bar

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED

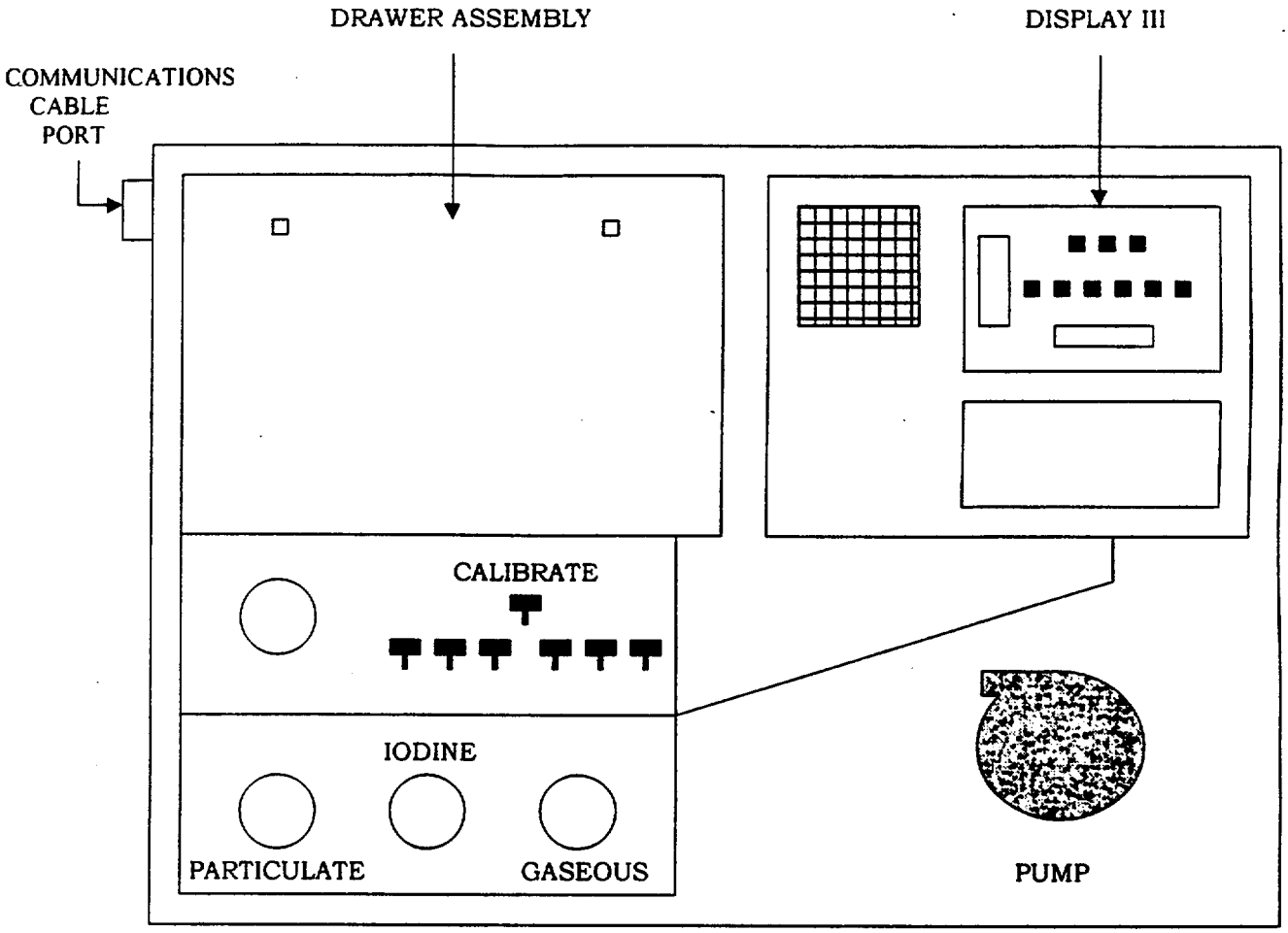
_____ 25 TERMINATE EPIP-4.29:

- Give completed EPIP-4.29, forms and other applicable records to the Radiological Assessment Director or Radiological Assessment Coordinator

- Completed by: _____
  Date: _____
  Time: _____

-END-

NUMBER	ATTACHMENT TITLE	REVISION
EPIP-4.29	PING-3B RADIATION MONITORING SYSTEM	9
ATTACHMENT 1		PAGE 1 of 1



GAMMA (EC-4)			AIRBORNE (PING - 3B)			DISPLAY	RESPONSE
PILOT LIGHTS			PING	EC-4	RIE	STATUS	GO TO STEP
GREEN	AMBER	RED	BEACON	BEACON	BEACON		
ON	OFF	OFF	OFF	OFF	OFF	NORMAL	13
ON	ON	ON	RED ON	RED ON	RED ON	HI ALARM	16
ON	ON	ON	RED ON	RED ON	RED ON	ALERT ALARM	16
ON	OFF	OFF	OFF	OFF	OFF	MAINT	17
ON	OFF	OFF	OFF	OFF	OFF	CALIB	18
ON	OFF	OFF	BLUE ON	OFF	BLUE ON	FAIL EX	19
OFF	OFF	OFF	BLUE ON	OFF	BLUE ON	FAIL LO	20
ON	OFF	OFF	BLUE ON	OFF	BLUE ON	FAIL HI	21
ON	OFF	OFF	OFF	OFF	OFF	CHECKSOURCE	23

VIRGINIA POWER
SURRY POWER STATION
EMERGENCY PLAN IMPLEMENTING PROCEDURE

NUMBER	PROCEDURE TITLE	REVISION
EPIP-5.07	ADMINISTRATION OF RADIOPROTECTIVE DRUGS (With 2 Attachments)	10 **PAGE** 1 of 5

PURPOSE

To obtain authorization and medical advice concerning administration of radioprotective drugs, and to provide information regarding dose and side effects to individuals who may be asked to take KI.

ENTRY CONDITIONS

Any one of the following:

1. Activation by another EPIP.
2. Activation by CPIP-6.2, RADIOLOGICAL ASSESSMENT COORDINATOR.
3. Survey results indicate inhalation dose may have exceeded 25 Rem.
4. Entry into high airborne activity area where inhalation dose may exceed 25 Rem.

Approvals on File

Effective Date 9/28/00

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED

_____ 1 INITIATE PROCEDURE:

- Initiated By: _____

Date: _____

Time: _____

NOTE: The Recovery Manager (RM) may authorize administration of KI for Offsite Monitoring Teams and LEOF personnel.

_____ 2 OBTAIN AUTHORIZATION FROM SEM/RM:

IF authorization NOT granted, THEN GO TO Step 11.

a) Review criteria for administering radioprotective drugs from controlling procedure with SEM/RM:

- EPIP-4.01, RADIOLOGICAL ASSESSMENT DIRECTOR CONTROLLING PROCEDURE
- CPIP-6.2, RADIOLOGICAL ASSESSMENT COORDINATOR

b) Record name and identification number of personnel selected to receive KI on Attachment 2

c) Record SEM/RM approval on Attachment 2

NOTE: Offsite Monitoring Team members complete Attachment 1 prior to dispatch in accordance with EPIP-4.02, RADIATION PROTECTION SUPERVISOR CONTROLLING PROCEDURE.

_____ 3 CHECK RADIOPROTECTIVE DRUG DOSAGE, SIDE EFFECTS AND MEDICAL STATEMENT - PREVIOUSLY COMPLETED

IF Radioprotective Drug Dosage, Side Effects and Medical Statement NOT completed, THEN GO TO Step 5.

_____ 4 GO TO STEP 6

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
_____ 5	HAVE INDIVIDUAL(s) RECEIVING KI READ AND COMPLETE ATTACHMENT 1, RADIOPROTECTIVE DRUG DOSAGE, SIDE EFFECTS AND MEDICAL STATEMENT	IF individual does NOT sign Attachment 1, THEN do the following: a) Do NOT issue KI to individual b) IF other individual(s) selected, THEN continue procedure for processing other individuals. IF NO other individual requires KI, THEN GO TO Step 11.

NOTE: Copies of the Emergency Personnel Notification List (EPNL) are maintained by Security, in the TSC, and in the LEOF/CEOF.

_____ 6	NOTIFY MEDICAL STAFF: a) Use EPNL (Position 291) to get telephone number for medical staff (Use Post-CERC Activation number after emergency response facilities activated) b) Notify medical staff of decision to issue KI and to whom it will be issued c) Ask if KI should be issued to individual(s) who checked box 2, 3 or 4 of Attachment 1, Section III	IF medical staff can NOT be notified immediately, THEN do the following: 1) Continue this procedure. 2) Repeat attempts to contact medical staff.

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
_____ 7	CHECK EITHER OF THE FOLLOWING CONDITIONS EXISTS: • Individual(s) checked Box 1 • Medical consent given for individual(s) who checked Box 2, 3 or 4	IF Box 5 checked, THEN do the following: a) Do NOT consider individual for emergency work. b) Do NOT issue KI. c) GO TO Step 11. IF medical consent NOT given, THEN GO TO Step 11.

* *

CAUTION: Potassium iodide should not be used by people allergic to iodine without prior medical consent.

* *

NOTE:
- Potassium Iodine tablets are maintained in the TSC Supply Cabinet and in each offsite monitoring Emergency Kit. Alternate supplies are available from North Anna Power Station.
- Administration of radioprotective drugs is preferably done prior to exposure, although administration within 2 hours after exposure is considered acceptable.

_____ 8 GIVE RADIOPROTECTIVE DRUGS TO DESIGNATED INDIVIDUAL(s)

_____ 9 COMPLETE ATTACHMENT 2, POTASSIUM IODINE ISSUE LOG

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED

_____ 10 DO FOLLOW-UP ASSESSMENT IAW NORMAL STATION PROCEDURES:

a) Wait at least 24 hours after exposure was received

b) Do follow-up assessment

_____ 11 TERMINATE EPIP-5.07:

- Give EPIP-5.07, forms, and other applicable records to the Radiological Assessment Director/Radiological Assessment Coordinator

- Completed by: _____
  Date: _____
  Time: _____

-END-

NUMBER	ATTACHMENT TITLE	REVISION
EPIP-5.07	RADIOPROTECTIVE DRUG DOSAGE,	10
ATTACHMENT 1	SIDE EFFECTS AND MEDICAL STATEMENT	PAGE 1 of 1

SECTION I: DOSAGE AND SIDE EFFECTS

****

CAUTION

Potassium Iodide should not be used by people allergic to Iodine. Keep out of reach of children. In case of overdose or allergic reaction, contact a physician or public health authority.

****

DIRECTIONS FOR USE: ADULTS: One (1) tablet once a day. DO NOT take tablet for more than 10 days.

SIDE EFFECTS:

Usually, side effects occur when people take higher doses for longer periods of time. Do not take more than the recommended dose and do not take dose for longer than the time that is recommended to you. Side effects are unlikely due to low doses over short periods of time.

Possible side effects are skin rashes, swelling of salivary glands, and "iodism" (metallic taste, burning of mouth and throat, sore teeth and gums, symptoms of head cold, and sometimes stomach upset and diarrhea).

A few people have an allergic reaction with more serious symptoms. These could be fever and joint pains, swelling of parts of the face and body, and severe shortness of breath, requiring immediate medical attention.

Taking iodide may rarely cause overactivity of the thyroid gland, underactivity of the thyroid gland, or enlargement of the thyroid gland (goiter).

WHAT TO DO IF SIDE EFFECTS OCCUR:

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

SECTION II:

1. [ ] I have read Section I, "DOSAGE AND SIDE EFFECTS".

SECTION III:

Note: Items 1 through 4 below should be answered to the best of your knowledge.

1. [ ] I have no known sensitivity to Iodine, nor do I have a medical condition that would make me reluctant to take Iodine tablets.

2. [ ] I have a known sensitivity to Iodine.

3. [ ] I have a medical condition that may negate my being able to take KI tablets, e.g., hyperthyroidism, hypothyroidism, etc.

4. [ ] I am currently taking thyroid hormone tablets.

5. [ ] I am a Declared Pregnant Worker under provisions of, or hereby state my intent to declare pregnancy in accordance with, VPAP-2101, Radiation Protection Program.

NAME: _____ : _____ : DATE: _____

(print) (signature)

NUMBER	ATTACHMENT TITLE	REVISION
EPIP-5.07	POTASSIUM IODINE ISSUE LOG	10
ATTACHMENT 2		PAGE 1 of 1

NAME	ID NUMBER	APPROVED (SEM/RM)	TIME OF EXPOSURE	TIME OF INITIAL KI DOSE	ISSUED BY