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SOUTHERN COMPANY
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U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555

Edwin I. Hatch Nuclear Plant
Emergency Implementing Procedure Revisions

Ladies and Gentlemen:

In accordance with 10 CFR 50, Appendix E, Section V, Southern Nuclear Operating Company hereby submits the following revisions to the Plant Hatch Emergency Implementing Procedures (EIPs):

EIP No.	Revision	Effective Date	Comments
73EP-EIP-001-0S	14 ED 1	12/21/99	Editorial Change
73EP-EIP-005-0S	5 ED 1	12/21/99	Editorial Change
73EP-EIP-009-0S	5 ED 1	12/21/99	Editorial Change
73EP-EIP-011-0S	2 ED 1	12/21/99	Editorial Change
73EP-EIP-012-0S	1 ED 1	12/21/99	Editorial Change
73EP-EIP-013-0S	2 ED 1	12/21/99	Editorial Change
73EP-EIP-014-0S	1 ED 1	12/21/99	Editorial Change
73EP-EIP-015-0S	4 ED 1	12/21/99	Editorial Change
73EP-EIP-016-0S	1 ED 2	12/21/99	Editorial Change
73EP-EIP-017-0S	2 ED 1	12/21/99	Editorial Change
73EP-EIP-018-0S	5 ED 1	12/21/99	Editorial Change
73EP-EIP-019-0S	0 ED 3	12/21/99	Editorial Change

By copy of this letter, Mr. L. A. Reyes, NRC Region II Administrator, will receive two copies of the revised procedures.

Should you have any questions in this regard, please contact this office.

Respectfully submitted,

Lewis Sumner

H. L. Sumner, Jr.

CRC/eb

A045

PDR ADOCK 05000321

Enclosures:

73EP-EIP-001-0S,	Emergency Classification & Initial Actions
73EP-EIP-005-0S,	On-Shift Operations Personnel Emergency Duties
73EP-EIP-009-0S,	Nuclear Security Duties
73EP-EIP-011-0S,	Assembly Accountability & Evacuation
73EP-EIP-012-0S,	Search & Rescue Team Duties
73EP-EIP-013-0S,	Contaminated Injury & First Aid
73EP-EIP-014-0S,	Internal Survey Team Duties
73EP-EIP-015-0S,	Offsite Dose Assessment
73EP-EIP-016-0S,	TSC HVAC Operation
73EP-EIP-017-0S,	Emergency Exposure Control
73EP-EIP-018-0S,	Prompt Offsite Dose Assessment
73EP-EIP-019-0S,	Rally Point Team Duties

cc: Southern Nuclear Operating Company (w/o)
Mr. P. H. Wells, Nuclear Plant General Manager
SNC Document Management (R-Type A02.001)

U.S. Nuclear Regulatory Commission, Washington, D.C. (w/o)
Mr. L. N. Olshan, Project Manager - Hatch

U.S. Nuclear Regulatory Commission, Region II
Mr. L. A. Reyes, Regional Administrator (with 2 copies)
Mr. J. T. Munday, Senior Resident Inspector – Hatch (w/o)

1.0 OBJECTIVE

This procedure establishes the methodology for emergency classification. Specific Emergency Action Levels (EALs) and minimum initial actions to respond to a given emergency are established in this procedure.

2.0 APPLICABILITY

This procedure applies to emergency classification determinations and associated initial responses. This procedure is performed as required.

3.0 REFERENCES

3.1 10AC-MGR-006-0S, Hatch Emergency Plan

3.2 73EP-EIP-004-0S, Duties of Emergency Director

3.3 73EP-EIP-005-0S, On-Shift Operations Personnel Emergency Duties

3.4 73EP-EIP-015-0S, Offsite Dose Assessment

3.5 73EP-EIP-018-0S, Prompt Dose Assessment

3.6 73EP-EIP-073-0S, Offsite Emergency Notifications

3.7 Hatch Unit 1 Technical Specifications (TS), Sections 2.0, 3.2 through 3.9, 3.11

3.8 Hatch Unit 2 Technical Specifications (TS), Sections 2.0, 3.2 through 3.9, 3.11

3.9 Edwin I. Hatch Nuclear Plant Unit 1 and Unit 2 System Evaluation Document

4.0 REQUIREMENTS

4.1 PERSONNEL REQUIREMENTS

4.1.1 Any personnel trained and qualified as an Emergency Director (ED) may use this procedure.

4.1.2 Operations personnel who have received instruction in applicable emergency procedures are required to perform this procedure.

4.1.3 The Superintendent Of Shift (SOS) shall assume the position of Emergency Director in the Control Room UNTIL the Nuclear Plant General Manager, the Plant Operations Assistant General Manager, the Plant Support Assistant General Manager or the Vice President - Hatch Project can arrive on site and receive an adequate turnover.

4.1.4 IF the SOS is unavailable OR incapacitated, the affected Unit Shift Supervisor shall assume the position of Emergency Director. IF the event involves both Units, the Unit 1 Shift Supervisor shall assume the position of Emergency Director.

4.2 MATERIAL AND EQUIPMENT

N/A - Not applicable to this procedure

4.3 SPECIAL REQUIREMENTS

4.3.1 Portions of this Emergency Classification Procedure require the results from calculations of projected doses at or beyond the site boundary. Refer to procedures 73EP-EIP-015-0S and 73EP-EIP-018-0S.

4.3.2 Portions of this Emergency Classification Procedure will require actual dose measurements (onsite OR off-site) to classify the emergency. Refer to procedures 73EP-EIP-015-0S and 73EP-EIP-018-0S.

5.0 PRECAUTIONS/LIMITATIONS

5.1 PRECAUTIONS

Upon the declaration of a Site Area Emergency, judge the value of mandatory non-essential personnel evacuation against the danger to personnel safety.

5.2 LIMITATIONS

5.2.1 The Operating Facility is defined to be areas within the Protected Area and the 230 Kv and 500 Kv switchyards.

5.2.2 Onsite is defined to be anywhere within the Owner Controlled Area.

6.0 PREREQUISITES

This procedure will be utilized for drills, exercises and actual emergencies.

REFERENCE

7.0 PROCEDURE

7.1 EMERGENCY CLASSIFICATION AND INITIAL ACTIONS

7.1.1 Upon notification of an abnormal condition OR observation of abnormal instrument readings, notify the Unit Shift Supervisor immediately.

7.1.2 Confirm abnormal conditions by comparing redundant instrument channels OR other related parameters, observation AND field reports, as applicable.

7.1.3 Assess the abnormal condition and classify the emergency by referring to subsection 7.2, Emergency Classification Chart.

CAUTION

THE REVIEW OF ALL EMERGENCY CLASSES ASSOCIATED WITH A GIVEN CONDITION IS ESSENTIAL. FAILURE TO DO SO COULD RESULT IN A LOWER CLASSIFICATION THAN WARRANTED.

7.1.3.1 The Emergency Classification Chart details abnormal plant conditions that meet specific emergency class entrance requirements. These emergency classes are defined, in theory, in steps 7.1.3.1.1 through 7.1.3.1.4.

CAUTION

IN THE UNLIKELY EVENT AN ABNORMAL CONDITION MEETS THE DEFINITIONS STATED IN 7.1.3.1.1 THROUGH 7.1.3.1.4 BUT ARE NOT COVERED IN THE EMERGENCY CLASSIFICATION CHART, OR THE INITIATING CONDITION IS MET BUT EQUIPMENT STATUS PARAMETERS VALUES ARE NOT, THE SOS/ED WILL USE HIS JUDGMENT, BASED ON THE AVAILABLE INFORMATION, TO DECLARE THE APPROPRIATE LEVEL OF EMERGENCY.

7.1.3.1.1 NOTIFICATION OF UNUSUAL EVENT (NUE)

Unusual events are in progress OR have occurred which indicate a potential degradation of the level of safety of the plant. No releases of radioactive material requiring offsite response OR monitoring are expected UNLESS further degradation of safety systems occurs.

7.1.3.1.2 ALERT EMERGENCY

Events are in progress OR have occurred which involve an actual OR potential substantial degradation of the level of safety of the plant. Any releases are expected to be limited to small fractions of the Environmental Protection Agency (EPA) Protective Action Guideline (PAG) exposure levels.

7.1.3.1.3 SITE AREA EMERGENCY

Events are in progress OR have occurred which involve actual OR likely major failures of plant functions needed for protection of the public. Any releases are NOT expected to exceed PAG exposure levels, except near the site boundary.

7.1.3.1.4 GENERAL EMERGENCY

Events are in progress OR have occurred which involve actual OR imminent substantial core degradation OR melting with potential for loss of containment integrity. Releases can be reasonably expected to exceed PAG exposure levels offsite for more than the immediate site area.

7.1.4 IF a potentially declarable emergency exists, inform the SOS immediately. The SOS will evaluate the abnormal condition and operator actions.

7.1.5 IF a declarable emergency exists, the SOS shall:

7.1.5.1 Assume the duties of Emergency Director in accordance with 73EP-EIP-004-0S, Duties of Emergency Director.

7.1.5.2 Declare the appropriate emergency class.

7.1.5.3 Authorize notification of off-site emergency response agencies and local authorities in accordance with 73EP-EIP-073-0S, Offsite Emergency Notifications. State and local authorities must be notified WITHIN 15 minutes and the Nuclear Regulatory Commission Operations Center (NRCOC) as soon as possible but no later than 1 hour after the event is declared.

7.1.5.4 Authorize initiation of the applicable Emergency Call List.

7.1.5.5 Initiate applicable Emergency Implementing Procedures.

7.2 EMERGENCY CLASSIFICATION CHART

Refer to the applicable section of the emergency classification chart to assess an abnormal condition and classify the emergency. An index of each emergency action level in the chart is listed on the next page for reference. The key words of an initiating condition are indicated in **BOLD** print. The supporting data / parameters are listed below each emergency action level. The logical connectors (**AND** and **OR**) used in the supporting data / parameters are to be used as described in Technical Specification section 1.0 "Use and Application," part 1.2 "Logical Connectors."

Index of Emergency Action Levels

1.0 - AUTOMATIC INITIATION OF ECCS

Emergency conditions exist WHEN: **AUTOMATIC INITIATION, OR DEMAND FOR ECCS, TO RECOVER WATER LEVEL** as indicated by:	NUE	ALERT	SAE	GEN
HPCI, Core Spray, or LPCI Automatic Initiation has occurred. **AND** HPCI, Core Spray, or LPCI is discharging to the vessel. **AND** Reactor Water Level < - 113 inches **OR** Drywell Pressure > 1.92 PSIG (TS)	■			
See Section 20.0, Loss of Coolant, for determination of Site Area Emergency Classification.			■	
See Section 22.0, Multiple Symptoms and Other Conditions, for determination of the General Emergency Classification.				■

END
AUTOMATIC INITIATION OF ECCS

2.0 - RADIOLOGICAL EFFLUENTS

Emergency conditions exist WHEN:	NUE	ALERT	SAE	GEN
LIMITS FOR GASEOUS EFFLUENT RELEASES BEYOND THE SITE BOUNDARY HAVE EXCEEDED TS as indicated by either actual field measurements OR effluent monitor readings corresponding to: ≥ 0.057 mR (TEDE) in an hour* (*TS yearly limit divided by the number of hours in a year) **OR** ≥ 500 mR (TEDE) in a year (TS)	■			
LIMITS FOR LIQUID EFFLUENTS HAVE BEEN EXCEEDED [as given in the Offsite Dose Calculation Manual (ODCM)] as indicated by Chemistry analysis as follows: ≥ 1.5 mR to the total body in a quarter **OR** ≥ 3.0 mR to the total body in a year	■			
A GASEOUS EFFLUENT RELEASE IS UNDERWAY WITH OFFSITE DOSE RATES BEYOND THE SITE BOUNDARY, as indicated by either field measurements OR effluent monitor readings corresponding to: ≥ 0.57 mR (TEDE) in an hour** (** 10 times the TS yearly limit divided by the number of hours in a year.) **OR** ≥ 5000 mR (TEDE) in a year (10 X T.S.)		■		

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2.0 - RADIOLOGICAL EFFLUENTS (continued)

Emergency conditions exist WHEN:	NUE	ALERT	SAE	GEN
NOTE Adverse meteorological conditions is defined as Stability Class F AND 1m/sec (≈ 2 mph) wind speed, OR inclement weather. **A GASEOUS EFFLUENT RELEASE IS UNDERWAY WITH OFFSITE DOSE AT THE SITE BOUNDARY,** as indicated by either field measurements OR effluent monitor readings (using adverse meteorological conditions) corresponding to: ≥ 50 mR (TEDE)in an hour for > 1/2 hr but< 1000 mR (TEDE) in an hour **OR** ≥ 500 mR (TEDE)in an hour for 2 min. but < 1000 mR (TEDE) in an hour **OR** ≥ 250 mR (CDE thyroid) in an hour for 1/2 hr but < 5 REM (CDE thyroid) in an hour **OR** ≥ 2500 mR (CDE thyroid) in an hour for 2 min. but < 5 REM (CDE thyroid) in an hour			■	
DOSE BEYOND THE SITE BOUNDARY IS PROJECTED TO BE > EPA PAGs based on dose projections from plant parameters as follows: ≥ 1 REM (TEDE) **OR** ≥ 5 REM (CDE thyroid)			■	

→ → [CONTINUE TO THE NEXT PAGE] → →

2.0 - RADIOLOGICAL EFFLUENTS (continued)

Emergency conditions exist WHEN:	NUE	ALERT	SAE	GEN
A GASEOUS EFFLUENT RELEASE IS UNDERWAY WITH OFFSITE DOSE BEYOND THE SITE BOUNDARY, as indicated by either field measurements OR effluent monitor readings (using actual meteorological conditions) corresponding to: ≥ 1 REM (TEDE) in an hour **OR** ≥ 5 REM(CDE thyroid) in an hour				
DOSE BEYOND THE SITE BOUNDARY IS PROJECTED TO BE > EPA PAGS based on dose projections from plant parameters as follows: A gaseous release is ongoing or imminent **AND** ≥ 1 REM (TEDE) **OR** ≥ 5 REM (CDE thyroid)				

END
RADIOLOGICAL EFFLUENTS

3.0 - CORE DAMAGE

Emergency conditions exist WHEN:	NUE	ALERT	SAE	GEN
CORE DAMAGE IS INDICATED BY HIGH OFF-GAS ACTIVITY WITH PRETREAT MONITOR (D11-K601) AT HI ALARM PLUS Pretreat Monitor reading exceeding either of following as indicated on pretreat graph located in Unit 1 OR Unit 2 OFF-GAS Release Curve book. ≥ 500,000 µCi/sec **OR** ≥ 100,000 µCi/sec increase WITHIN a 30 minute period	■			
CORE DAMAGE IS INDICATED BY HIGH OFF-GAS ACTIVITY WITH PRETREAT MONITOR (D11-K601) AT HI-HI ALARM PLUS > 5 CI/SEC as indicated on pretreat graph located in Unit 1 OR Unit 2 Off-Gas Release Curve book		■		
CORE DAMAGE IS INDICATED BY HIGH COOLANT ACTIVITY LAB SAMPLE WITH I-131 DOSE EQUIVALENT COOLANT ACTIVITY > 100 µCi/gm	■			
CORE DAMAGE IS INDICATED BY HIGH COOLANT ACTIVITY LAB SAMPLE WITH I-131 DOSE EQUIVALENT COOLANT ACTIVITY > 300 µCi/gm		■		
CORE DAMAGE IS INDICATED BY DEGRADED CORE WITH POSSIBLE LOSS OF CORE GEOMETRY as indicated by the following: Containment Post LOCA Hi Rad Alarm > 138 REM/hr (TS) **AND** Reactor Low, Low, Low, Level Alarm < -113 inches **OR** Noble Gas Fission Product Monitor (D11-K630) upscale (7.0 x 10^5cpm) **OR** Noble Gas Fission Product Monitor (D11-K630) (variable setpoint) Hi-Hi Radiation Alarm			■	
See Section 22.0, Multiple Symptoms and Other Conditions for determination of General Emergency Classification.				■

END
CORE DAMAGE

4.0 - STEAM LINE BREAK OR SAFETY RELIEF VALVE (SRV) FAILURE

Emergency conditions exist WHEN:	NUE	ALERT	SAE	GEN
A MAIN STEAM LINE RELIEF VALVE FAILED TO CLOSE WHEN system pressure is reduced below setpoint of safety relief valve (S/RV) and fuses pulled as indicated by: S/RV tailpipe temperature remaining > 230° F **AND** S/RV tailpipe pressure switch remaining > 80 psig **AND** Temperature continuing to increase on any suppression pool local water temperature indicator	■			
A PRIMARY SYSTEM (AS DEFINED BY EOPS) STEAM LINE BREAK OCCURS OUTSIDE CONTAINMENT WITH significant isolation valve leakage as indicated by the following: Any valid Reactor or Turbine Bldg. leak detection indication **OR** Hi MSL Tunnel Temperature ≥ 194° F (TS) **AND** Any Reactor Bldg. ARM above maximum Normal Operating Values AND increasing **OR** Any Turbine Bldg. ARM above alarm setpoint AND increasing		■		

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4.0 - STEAM LINE BREAK OR SAFETY RELIEF VALVE (SRV) FAILURE (continued)

Emergency conditions exist WHEN:	NUE	ALERT	SAE	GEN
AN UNISOLABLE PRIMARY SYSTEM (AS DEFINED BY THE EOPS) BREAK OUTSIDE CONTAINMENT as indicated by: A primary containment isolation failure (cannot be isolated automatically OR manually) has occurred on the affected primary system. **AND** Entry conditions into Secondary Containment Control Emergency Operating Procedures **OR** Any indications of significant leakage into the Turbine Bldg. from the Main Steam system WITH Turbine Bldg. ARMs above alarm setpoint AND increasing. **OR** SOS/ED judgment			■	
See Section 22.0, Multiple Symptoms and Other Conditions, for determination of General Emergency Classification.				■

END

STEAM LINE BREAK OR SAFETY RELIEF VALVE (SRV) FAILURE

5.0 - LOSS OF AC POWER

Emergency conditions exist WHEN: **A LOSS OF OFFSITE POWER OR LOSS OF ONSITE AC POWER CAPABILITY HAS OCCURRED** and is indicated as follows:	NUE	ALERT	SAE	GEN
LOSS OF OFFSITE POWER is indicated by: Zero voltage on all 500 kV incoming lines **AND** Zero voltage on all 230 kV incoming lines **OR** Loss of startup transformers (SUTs) 1C AND 1D **OR** Loss of startup transformers (SUTs) 2C AND 2D	■			
LOSS OF ONSITE AC POWER CAPABILITY is indicated by: Loss of all emergency diesel generators on Unit One **OR** Unit Two for any reason	■			
LOSS OF OFFSITE POWER WITH LOSS OF ALL ONSITE AC POWER ≤15 MINUTES (on Unit One OR Unit Two) is indicated by: All 4.16 kV buses (Unit One OR Unit Two) reading zero volts AC **AND** The inability to energize at least one Unit One **AND** one Unit Two 4.16 kV bus WITH diesel generators		■		
LOSS OF OFFSITE POWER WITH LOSS OF ALL ONSITE AC POWER >15 MINUTES (on Unit One OR Unit Two) is indicated by: All 4.16 KV buses (Unit One **OR** Unit Two) reading zero volts AC **AND** The inability to energize at least one Unit One **AND** one Unit Two 4.16 kV bus WITH diesel generators			■	
See Section 22.0, Multiple Symptoms and Other Conditions, for Determination of General Emergency Classification.				■

END
LOSS OF AC POWER

6.0 - LOSS OF ONSITE DC POWER

Emergency conditions exist WHEN: **A LOSS OF ALL VITAL ONSITE DC POWER OCCURS** and is indicated as follows:	NUE	ALERT	SAE	GEN
A LOSS OF ALL VITAL ONSITE DC POWER OCCURS FOR ≤ 15 MINUTES as indicated by: Low voltage AND/OR fuse trouble on ALL the affected unit's 125v/250v station batteries **AND** Low voltage AND/OR fuse trouble on the affected unit's 125v D/G batteries (including the swing D/G)		■		
A LOSS OF ALL VITAL ONSITE DC POWER OCCURS FOR > 15 MINUTES as indicated by: Low voltage AND/OR fuse trouble on ALL the affected unit's 125v/250v station batteries **AND** Low voltage AND/OR fuse trouble on the affected unit's 125v D/G batteries (including the swing D/G)			■	

END
LOSS OF ONSITE DC POWER

7.0 - LOSS OF CONTAINMENT

Emergency conditions exist WHEN:	NUE	ALERT	SAE	GEN
NOTE NUE is to be declared upon commencing Load Reduction. **A LOSS OF PRIMARY OR SECONDARY CONTAINMENT INTEGRITY OCCURS** as indicated by the inability to meet any one of the requirements WITHIN the time limit established by the applicable unit's TS.	■			
See Section 11.0, Hazards to Plant Operation, for determination of Alert Classification.		■		
See Section 11.0, Hazards to Plant Operation for determination of Site Area Emergency Classification.			■	
See Section 22.0, Multiple Symptoms and Other Conditions, for determination of General Emergency Classification.				■

END
LOSS OF CONTAINMENT

8.0 - FIRE IN PLANT

Emergency conditions exist WHEN:	NUE	ALERT	SAE	GEN
A FIRE CONTINUING > 10 MINUTES (AFTER DISCOVERY) EXISTS WITHIN THE PROTECTED AREA, INCLUDING 230 KV AND 500 KV SWITCHYARDS, as indicated by: Fire Alarm WITH visual confirmation **OR** SOS/ED judgment	■			
NOTE Refer to the System Evaluation Document (SED) for a listing of safety systems. **A FIRE CONTINUING > 10 MINUTES (AFTER DISCOVERY) EXISTS POTENTIALLY AFFECTING SAFETY SYSTEMS,** required for the present mode of operation, as indicated by: Fire Alarm **AND** Location, observation AND judgment of SOS/ED		■		
A FIRE CONTINUING > 10 MINUTES (AFTER DISCOVERY) COMPROMISING THE FUNCTIONS OF SAFE SHUTDOWN SYSTEMS as indicated by: Fire defeating redundant safety system trains required for the current mode of operation **OR** Loss of safety system due to fire that affects shutdown capability by the inability to perform ONE of the following functions: • Prevent excessive reactor pressurization • Provide adequate makeup inventory • Depressurize the reactor • Remove decay heat from the reactor **OR** Location, observation AND judgment of SOS/ED			■	
See Section 22.0, Multiple Symptoms and Other Conditions for determination of General Emergency Classification.				■

END
FIRE IN PLANT

9.0 - SECURITY EVENT

Emergency conditions exist WHEN:	NUE	ALERT	SAE	GEN
A SECURITY ALERT OCCURS as indicated by Nuclear Security Shift Supervisor advises SOS/ED of Security Alert condition **AND** SOS/ED judgment	■			
A SECURITY EMERGENCY OCCURS as indicated by: Nuclear Security Shift Supervisor advises the SOS/ED of a Security Emergency condition **AND** SOS/ED judgment		■		
NOTE Judge the value of mandatory non-essential personnel evacuation against the danger to personnel safety by unauthorized intruders. Make the appropriate site announcement per 73EP-EIP-005-0S. **A LOSS OF PHYSICAL CONTROL OF THE PLANT IS IMMINENT** as indicated by: Loss of physical barrier capability or control of the protected area **OR** Attempted unauthorized entry into the protected area by force or covert action **AND** SOS/ED judgment based on Nuclear Security Shift Supervisor advice			■	

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9.0 - SECURITY EVENT (continued)

Emergency conditions exist WHEN:	NUE	ALERT	SAE	GEN
NOTE Judge the value of mandatory non-essential personnel evacuation against the danger to personnel safety by unauthorized intruders. Make the appropriate site announcement per 73EP-EIP-005-0S. **A LOSS OF PHYSICAL CONTROL OF THE PLANT IS IMMINENT** as indicated by: Loss of physical barrier capabilities of any vital building **OR** Loss of control of any vital area including: • Intake Structure • Main Control Room • Diesel Generator Bldg. • CAS/SAS • Power Block **AND** SOS/ED judgment based on Nuclear Security Shift Supervisor advice				

END
SECURITY EVENT

10.0 - NATURAL PHENOMENON

Emergency conditions exist WHEN: **EARTHQUAKE DETECTED:**	NUE	ALERT	SAE	GEN
ANY EARTHQUAKE IS DETECTED WITHIN THE PLANT as indicated by: Felt by Personnel **OR** Confirmed "Seismic Instrumentation Triggered" (Unit 1) alarm indicating horizontal acceleration > 0.005 g	■			
ANY EARTHQUAKE IS DETECTED WITHIN THE PLANT as indicated by: "Seismic Instrumentation Triggered" (Unit 2) alarm indicating horizontal acceleration ≥ 0.08g Operating Basis Earthquake (OBE Level) **OR** Any horizontal (N-S, E-W) peak shock annunciator 12.7 hz **AMBER** light illuminated indicates 100% OBE actuated on Panel 1H11-P701 **AND** "Seismic Instrumentation Triggered" (Unit 1) alarm indicating horizontal acceleration > 0.005g **OR** Unit 1 AND/OR Unit 2 Seismic Peak Shock Recorder High "G" Alarm **OR** Unit 1 AND Unit 2 Time-History Recorders start		■		

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10.0 - NATURAL PHENOMENON, (continued)

Emergency conditions exist WHEN: **EARTHQUAKE DETECTED: (continued)**	NUE	ALERT	SAE	GEN
NOTE The actual maximum g acceleration may be determined by having I & C play back the Time-History Recorder's tapes per the Earthquake Response Manual, SX18271 (located in Document Control) and the applicable I & C procedure(s). **ANY EARTHQUAKE IS DETECTED WITHIN THE PLANT** as indicated by: Same parameters as in the Alert classification **AND** Any horizontal (N-S, E-W) peak shock annunciator, 12.7 hz **RED** light illuminated on Panel 1H11-P701 indicating maximum g level measured by Time-History Recorders as ¤ 0.15g Design Basis Earthquake (DBE) **AND** EITHER unit NOT in Cold Shutdown			■	
AN EARTHQUAKE THAT COULD CAUSE MASSIVE DAMAGE TO ANY PLANT SYSTEM WHICH COULD LEAD TO CORE DEGRADATION OR CORE MELT as indicated by: Loss of systems needed to maintain integrity of all three fission product barriers: • Fuel Integrity • RCS Integrity • Containment Integrity **OR** Observation and judgment of SOS/ED.				■

END - EARTHQUAKE

→ [NATURAL PHENOMENON - CONTINUED TO NEXT PAGE]→

10.0 - NATURAL PHENOMENON, (continued)

Emergency conditions exist WHEN: **HIGH WINDS EXIST:**	NUE	ALERT	SAE	GEN
HIGH WINDS are indicated by: Any tornado observed onsite **OR** Any hurricane OR other sustained high wind observed onsite with windspeed > 75 mph	■			
Any tornado observed striking the operating facility (areas within the protected area and the 230 Kv and 500 Kv switchyards) **OR** Any hurricane observed onsite with sustained windspeeds at design level (≥ 94.5 mph) **OR** SOS/ED judgment		■		
Sustained windspeeds in excess of meteorological instruments range (>100 mph) **OR** The observation of damage from an onsite tornado with windspeed in excess of meteorological instruments range (>100 mph) **AND** Either unit NOT in Cold Shutdown			■	

END - HIGH WINDS

→ [NATURAL PHENOMENON - CONTINUED TO NEXT PAGE]→

10.0 - NATURAL PHENOMENON, (continued)

Emergency conditions exist WHEN: **HIGH / LOW RIVER WATER LEVEL INDICATED:**	NUE	ALERT	SAE	GEN
HIGH RIVER WATER LEVEL is indicated by: Plant Service Water Intake Pump well level indication ≥ 88.6 ft Mean Sea Level (MSL)	■			
Plant Service Water Intake Pump well level indication ≥ 100 ft MSL		■		
Plant Service Water Intake Pump well level indication ≥ 120 ft MSL **OR** Actual OR projected hurricane surge OR flood levels ≥ 120 ft MSL **AND** Either unit NOT in Cold Shutdown			■	
LOW RIVER WATER LEVEL is indicated by: Plant Service Water Intake Pump well level indication < 60.7 Mean Sea Level (MSL)	■			
Plant Service Water Intake Pump well level indication < 59.9 ft MSL		■		
Plant Service Water Intake Pump well level indication < 57.2 ft MSL **AND** Either unit NOT in Cold Shutdown			■	

END - HIGH / LOW RIVER WATER LEVEL

END
NATURAL PHENOMENON

11.0 - HAZARDS TO PLANT OPERATION

Emergency conditions exist WHEN:	NUE	ALERT	SAE	GEN
AIRCRAFT ACTIVITY				
UNUSUAL AIRCRAFT ACTIVITY IS OBSERVED over the operating facility (areas within the protected area and the 230 Kv and 500 Kv switchyards) **OR** **AIRCRAFT CRASH OCCURS** within the owner controlled area **AND** SOS/ED judgment	■			
AIRCRAFT CRASH OCCURS WITHIN THE OPERATING FACILITY (areas within the protected area and the 230 Kv and 500 Kv switchyards)		■		
AIRCRAFT CRASH OCCURS AFFECTING VITAL OPERATING PLANT STRUCTURES by impact OR fire including: • Intake Structure • Main Control Room • Diesel Generator Bldg. • CAS/SAS • Power Block **AND** Either unit NOT in Cold Shutdown **OR** SOS/ED judgment			■	

END - AIRCRAFT ACTIVITY

→ [HAZARDS TO PLANT OPERATION - CONTINUED TO NEXT PAGE]→

11.0 - HAZARDS TO PLANT OPERATION, (continued)

Emergency conditions exist WHEN: **EXPLOSIONS**	NUE	ALERT	SAE	GEN
ANY EXPLOSION OBSERVED WITHIN THE OPERATING FACILITY (areas within the protected area and the 230 Kv and 500 Kv switchyards)	■			
KNOWN EXPLOSION DAMAGE TO FACILITY (ONSITE) AFFECTING PLANT OPERATION		■		
SEVERE DAMAGE TO SAFE SHUTDOWN EQUIPMENT FROM MISSILES OR EXPLOSION THAT AFFECTS SHUTDOWN CAPABILITY by the inability to perform ONE of the following functions: Prevent excessive reactor pressurization **OR** Provide adequate makeup inventory **OR** Depressurize the reactor **OR** Remove decay heat from the reactor **AND** Either unit NOT in Cold Shutdown			■	

END - EXPLOSIONS

→ [HAZARDS TO PLANT OPERATION - CONTINUED TO NEXT PAGE]→

11.0 - HAZARDS TO PLANT OPERATION, (continued)

Emergency conditions exist WHEN: **TOXIC GAS RELEASED:**	NUE	ALERT	SAE	GEN
NOTE Toxic gas releases may hamper the ability of personnel to perform activities related to plant safety. Releases within the protected area of the plant may jeoparidize the operation of equipment or safety functions necessary to establish or maintain cold shutdown. Releases which may fall into this category include, but are NOT limited to Carbon Dioxide, Nitrogen and Chlorine.				
CAUTION DO NOT LIMIT EVALUATION OF THE CONDITION BASED ON THE CHEMICAL DEFINITION OF THE MATERIAL IN QUESTION. THE WORD "TOXIC" IN THESE EALS IS A BROAD CATEGORY OF MATERIALS WHICH HAVE THE POTENTIAL FOR LIMITING THE ABILITY OF PERSONNEL TO PERFORM WORK ACTIVITES ASSOCIATED WITH PLANT SAFETY.				
OBSERVATION OF SIGNIFICANT TOXIC GAS RELEASE WITHIN the operating facility (areas within the protected area and the 230 Kv and 500 Kv switchyards) **AND** SOS/ED judgment	■			
UNCONTROLLED TOXIC GAS ENTRY INTO PROTECTED AREA FACILITY ENVIRONS		■		
UNCONTROLLED TOXIC GAS ENTRY INTO A VITAL AREA restricting access and constituting a safety problem: • Intake Structure • Main Control Room • Diesel Generator Bldg. • CAS/SAS • Power Block **AND** Either unit NOT in Cold Shutdown			■	

END - TOXIC GAS

→ [HAZARDS TO PLANT OPERATION - CONTINUED TO NEXT PAGE]→

11.0 - HAZARDS TO PLANT OPERATION, (continued)

Emergency conditions exist WHEN: **FLAMMABLE GAS RELEASED:**	NUE	ALERT	SAE	GEN
NOTE Flammable gas releases may jeopardize the operation of equipment or safety functions necessary to establish or maintain cold shutdown.				
OBSERVATION OF SIGNIFICANT FLAMMABLE GAS RELEASE WITHIN the operating facility (areas within the protected area and the 230 Kv and 500 Kv switchyards) **OR** **PIPING RUPTURE IN ANY FLAMMABLE GAS SYSTEM** (i.e., hydrogen, propane, etc.) **OR** SOS/ED judgment	■			
UNCONTROLLED FLAMMABLE GAS ENTRY into any Protected Area facility environs		■		
UNCONTROLLED FLAMMABLE GAS ENTRY INTO VITAL AREAS INCLUDING: • Intake Structure • Main Control Room • Diesel Gen. Bldg. • CAS/SAS • Power Block **AND** Either unit not in cold shutdown			■	

END - FLAMMABLE GAS

→ [HAZARDS TO PLANT OPERATION - CONTINUED TO NEXT PAGE]→

11.0 - HAZARDS TO PLANT OPERATION, (continued)

Emergency conditions exist WHEN:	NUE	ALERT	SAE	GEN
TURBINE FAILURE/MISSILE IMPACT				
A TURBINE FAILURE GENERATING PROJECTILES is indicated by: Main Turbine Trip **AND** Confirmation of rotating component failure **OR** SOS/ED judgment	■			
A TURBINE FAILURE GENERATING PROJECTILES is indicated by: Main turbine trip **AND** Turbine casing penetration by internal components **OR** Projectile from any source, affects plant operation **OR** SOS/ED judgment		■		

END - TURBINE FAILURE/MISSILE IMPACT

END
HAZARDS TO PLANT OPERATION

12.0 - CONTAMINATED INJURED VICTIM

Emergency conditions exist WHEN:	NUE	ALERT	SAE	GEN
A CONTAMINATED INJURED VICTIM is indicted by: Contamination of an injured victim (i.e., >100 cpm (>1000 dpm) per probe area, above background) **AND** Transportation of injured victim from the site to an offsite medical facility	■			

END
CONTAMINATED INJURED VICTIM

13.0 - CONTROL ROOM EVACUATION

Emergency conditions exist WHEN: **AN EVACUATION OF THE MAIN CONTROL ROOM IS IMMINENT** as indicated by:	NUE	ALERT	SAE	GEN
Entry into the Remote Shutdown procedures used to shutdown the plant from outside the Control Room.		■		
An evacuation of the Main Control Room is ordered **AND** Control of shutdown systems from local stations is NOT established within 15 minutes after Main Control Room evacuation.			■	

END
CONTROL ROOM EVACUATION

14.0 - CONTROL ROD DROP

Emergency conditions exist WHEN: **A CONTROL ROD DROP ACCIDENT OCCURS** as indicated by:	NUE	ALERT	SAE	GEN
Local power range monitors (LPRM) indicate abnormal neutron flux in the vicinity of the suspected dropped rod **AND** MSL high rad monitors > 3X normal background **OR** Average power range monitor (APRM) upscale trip of RPS channels "A" and/or "B" • Unit 1 > 120% RTP • Unit 2 > 120% RTP **OR** Intermediate range monitor (IRM) upscale trip of RPS channels "A" and/or "B" Either unit ≥ 120/125 divisions of full scale		■		

END
CONTROL ROD DROP

15.0 - FAILURE OF REACTOR PROTECTION SYSTEM

Emergency conditions exist WHEN:	NUE	ALERT	SAE	GEN
A FAILURE OF THE REACTOR PROTECTION SYSTEM (RPS) TO INITIATE A SCRAM as indicated by: Valid automatic scram signal **AND** Reactor NOT subcritical OR subcriticality cannot be maintained	■			
A FAILURE OF THE REACTOR PROTECTION SYSTEM (RPS) TO INITIATE AND COMPLETE A SCRAM which brings the reactor subcritical, is indicated by: Valid automatic AND manual scram signal **AND** Reactor NOT subcritical OR subcriticality cannot be maintained		■		
A TRANSIENT REQUIRING OPERATION OF SHUTDOWN SYSTEMS WITH FAILURE TO SCRAM (continued power generation but no core damage immediately evident) is indicated by Valid automatic AND manual scram signal **AND** < 3% power generation cannot be achieved OR maintained **AND** Standby Liquid Control initiation required			■	
See section 22.0, Multiple Systems and Other Conditions, for determination of the General Emergency Classification				■

END
FAILURE OF REACTOR PROTECTION SYSTEM

16.0 - LOSS OF CONTROL ROOM INDICATION/ALARMS/ANNUNCIATORS

Emergency conditions exist WHEN:	NUE	ALERT	SAE	GEN
ANY SIGNIFICANT LOSS OF ANY ONE OF THE FOLLOWING MAIN CONTROL ROOM INDICATION OR ALARMS, THAT REDUCE ASSESSMENT CAPABILITY TO THE EXTENT REQUIRING PLANT SHUTDOWN BY TS: • Plant Process Computer • Safety Parameter Display System • All meteorological instrumentation • Radioactive Effluent Instrumentation **AND** The plant NOT shut down WITHIN the time limit specified by TS	■			
MOST OR ALL MAIN CONTROL ROOM ALARMS (ANNUNCIATORS) LOST as indicated by: Observation OR failure in alarm check **OR** SOS/ED judgment		■		
MOST OR ALL MAIN CONTROL ROOM ALARM (ANNUNCIATORS) LOST WITH PLANT TRANSIENT INITIATED OR IN PROGRESS as indicated by: Observation of plant transient (i.e., reactor trip, turbine trip, loss of feedwater, etc.) **OR** SOS/ED judgment			■	

END

LOSS OF CONTROL ROOM INDICATION/ALARM/ANNUNCIATORS

17.0 - LOSS OF SHUTDOWN FUNCTIONS

Emergency conditions exist WHEN:	NUE	ALERT	SAE	GEN
A COMPLETE LOSS OF ANY FUNCTION NEEDED FOR PLANT COLD SHUTDOWN is indicated by: Both trains of RHR shutdown cooling mode unavailable for any reason **AND** Loss of alternate shutdown cooling modes **AND** Inability to maintain reactor coolant temperature < 212° F, WHEN required.		■		
See section 22.0, Multiple Symptoms and Other Conditions, for determination of the General Emergency Classification				■

END
LOSS OF SHUTDOWN FUNCTIONS

18.0 - FUEL DAMAGE BY FUEL HANDLING ACCIDENT

Emergency conditions exist WHEN:	NUE	ALERT	SAE	GEN
A FUEL HANDLING ACCIDENT WITH RELEASE OF RADIOACTIVITY TO REACTOR BUILDING is indicated by: Valid Refueling Floor ARM Hi Alarm > 50 mR/hr **OR** Valid "REFUELING FLOOR VENT EXHAUST RADIATION HI-HI" Alarm (601-403) **AND** Any of the following process radiation monitors indicating > 20 mR/hr • 1D11-K611A-D • 2D11-K611A-D • 2D11-K634A-D • 2D11-K635A-D **OR** Valid "REFUELING FLOOR VENT FLTR DISCH RADIATION HIGH" Alarm (601-421) **AND** Any of the following process radiation monitors indicating > 20 mR/hr • 1D11-K616A, B • 2D11-K616A, B		■		
MAJOR DAMAGE TO SPENT FUEL IN REACTOR BUILDING as indicated by: Spent Fuel Storage Pool Low Level Alarm **AND** More than one Refuel Floor ARM exceeding Max Safe Operating Value **OR** Large object damages spent fuel in pool **AND** SOS/ED judgment (based on refueling floor radiation levels)			■	

END
FUEL DAMAGE BY FUEL HANDLING ACCIDENT

19.0 - HIGH RADIATION OR AIRBORNE CONTAMINATION

Emergency conditions exist WHEN:	NUE	ALERT	SAE	GEN
HIGH RADIATION LEVELS OR HIGH AIRBORNE CONTAMINATION WHICH INDICATE A SEVERE DEGRADATION IN CONTROL OF RADIOACTIVE MATERIAL is indicated by: ARMs are offscale high (readings confirmed) **OR** An increase by factor of 1,000 in direct radiation readings		■		

END
HIGH RADIATION OR AIRBORNE CONTAMINATION

20.0 - LOSS OF COOLANT

Emergency conditions exist WHEN:	NUE	ALERT	SAE	GEN
NOTE NUE is to be declared based upon commencing Load Reduction. **ANY CONFIRMED REACTOR COOLANT SYSTEM (RCS) OPERATIONAL LEAKAGE AS DEFINED BY TS** is indicated by: Any RCS pressure boundary leakage	■			
ANY CONFIRMED REACTOR COOLANT SYSTEM (RCS) LEAK OR UNISOLABLE SYSTEM LEAK CAUSING THE DIRECT LOSS OF VESSEL INVENTORY GREATER THAN 50 GPM as indicated by: Calculation of RCS leak rate greater than 50 gpm using Drywell Equip AND/OR Floor Drain Sump level integrators on Panel H11-P613 **OR** SOS/ED judgment that an unisolable RCS leak greater than 50 GPM into the Reactor Building has occurred and may be indicated by one OR more of the following indications: • Reactor Building Equip AND/OR Floor Drain Sump level high alarms • Valid leak detection alarms • Any confirmed ARM in the Reactor Building above Max Normal Operating Values. **OR** SOS/ED judgment		■		
ANY CONFIRMED REACTOR COOLANT SYSTEM (RCS) LEAK is indicated by: RCS leak greater than all available ECCS pump capacities **AND** Reactor low, low, low level alarm < -113 inches AND level decreasing with available makeup pumps running and discharging to vessel **AND** Drywell High Temp Alarms AND Drywell temperature increasing **OR** Drywell high pressure initiation alarm > 1.92 psig AND increasing			■	
See section 22.0, Multiple Symptoms and Other Conditions for determination of the General Emergency Classification				■

END
LOSS OF COOLANT

21.0 - LOSS OF ENGINEERED SAFETY FEATURES

Emergency conditions exist WHEN:	NUE	ALERT	SAE	GEN
THE LOSS OF ENGINEERED SAFETY FEATURES (ESF) WITH CONTINUED OPERATION OF EITHER UNIT BEYOND THE TIMEFRAME SPECIFIED IN THE APPLICABLE TS REQUIRED ACTION STATEMENT (RAS): The following are engineered safety features (ESFs): • Automatic Depressurization System • Containment Heat Removal System • Containment Isolation System • Control Rod Velocity Limiters • Core Spray • CRD Housing Supports • Diesel Generators • High Pressure Coolant Injection System • Low Low Set Relief Logic System • Low Pressure Coolant Injection System • Main Control Room Environmental Control System • Main Steam Line Flow Restrictor • Main Steam Line Isolation Valves • Post LOCA Hydrogen Recombiner System (i.e., Combustible Gas Control System) • Reactor Protection System • Standby Gas Treatment System	■			

END
LOSS OF ENGINEERED SAFETY FEATURES

22.0 - MULTIPLE SYMPTOMS AND OTHER CONDITIONS

Emergency conditions exist WHEN: **TECHNICAL SPECIFICATION SAFETY LIMITS ARE EXCEEDED:**	NUE	ALERT	SAE	GEN
PLANT CONDITIONS THAT EXCEED ANY SAFETY LIMIT AS REQUIRED IN TS, WHICH WARRANT INCREASED AWARENESS OF THE PLANT OPERATING STAFF OR STATE AND/OR LOCAL AUTHORITIES are indicated by the following categories: Thermal Power **OR** Minimum Critical Power Ratio (MCPR) **OR** Low reactor water level with irradiated fuel in the reactor vessel < -139" in Unit 1 OR < -158" in Unit 2 **OR** Reactor vessel steam dome pressure > 1325 psig with irradiated fuel in the reactor vessel **OR** SOS/ED judgment	■			

END - TECHNICAL SPECIFICATION SAFETY LIMITS

→ → [MULTIPLE SYMPTOMS AND OTHER CONDITIONS -

CONTINUED TO NEXT PAGE] → →

22.0 - MULTIPLE SYMPTOMS AND OTHER CONDITIONS, (continued)

Emergency conditions exist WHEN: **PRECAUTIONARY ACTIVATION OF TSC IS WARRANTED:**	NUE	ALERT	SAE	GEN
Plant conditions exist that warrant precautionary activation of the TSC and placing the EOF AND other key emergency responders on standby, as indicated by the following: Observation **AND** SOS/ED judgment		■		

END - PRECAUTIONARY ACTIVATION OF TSC

→ → **[MULTIPLE SYMPTOMS AND OTHER CONDITIONS -**

CONTINUED TO NEXT PAGE] → →

22.0 - MULTIPLE SYMPTOMS AND OTHER CONDITIONS, (continued)

Emergency conditions exist WHEN: **PRECAUTIONARY ACTIVATION OF MONITORING TEAMS IS WARRANTED:**	NUE	ALERT	SAE	GEN
Plant conditions exist that warrant activation of emergency centers and monitoring teams, OR a precautionary notification to the public near the site, as indicated by the following: Observation **AND** SOS/ED judgment			■	

END - PRECAUTIONARY ACTIVATION OF MONITORING TEAMS

→ → [MULTIPLE SYMPTOMS AND OTHER CONDITIONS -

CONTINUED TO NEXT PAGE] → →

22.0 - MULTIPLE SYMPTOMS AND OTHER CONDITIONS (continued)

Emergency conditions exist WHEN: **POTENTIAL LARGE RELEASE OF RADIOACTIVITY EXISTS:**	NUE	ALERT	SAE	GEN
PLANT CONDITIONS EXIST WHERE THE POTENTIAL RELEASE OF LARGE AMOUNTS OF RADIOACTIVITY IN A SHORT TIME PERIOD ARE POSSIBLE (e.g., any core melt situation) is indicated by the following conditions: Transient (e.g., scram, loss of offsite power, etc.) **AND** Failure of required core shutdown system (could lead to core melt in several hours) [e.g., CRD system, SLC system, RPS, ECCS, DG'S, RHRSW] **AND** Containment failure likely **OR** Small or large LOCA **AND** Failure of ECCS to perform (leading to core degradation or melt in minutes to hours) **AND** Loss of containment imminent **OR** Small or large LOCA **AND** Containment performance is unsuccessful (affecting longer term success of ECCS. Could lead to core degradation OR melt in hours)				

→ → [CONTINUE TO THE NEXT PAGE] → →

22.0 - MULTIPLE SYMPTOMS AND OTHER CONDITIONS (continued)

Emergency conditions exist WHEN: **POTENTIAL LARGE RELEASE OF RADIOACTIVITY EXISTS: (continued)**	NUE	ALERT	SAE	GEN
OR Shutdown occurs **AND** Required decay heat removal systems (e.g., RHR) are rendered unavailable or non-safety systems heat removal capabilities are rendered unavailable **AND** Core degradation OR melt could occur in about ten hours WITH subsequent containment failure **OR** Any major internal OR external event which could cause massive damage to plant systems resulting in any of the conditions listed in multiple symptoms of potential larger releases of radioactivity **OR** SOS/ED judgment				

END - POTENTIAL LARGE RELEASE OF RADIOACTIVITY

→ → [MULTIPLE SYMPTOMS AND OTHER CONDITIONS -

CONTINUED TO NEXT PAGE] → →

22.0 - MULTIPLE SYMPTOMS AND OTHER CONDITIONS (continued)

Emergency conditions exist WHEN: **FIRE IN PLANT OCCURS:**	NUE	ALERT	SAE	GEN
A FIRE IN THE PLANT THAT COULD CAUSE MASSIVE DAMAGE TO ANY PLANT SYSTEM WHICH COULD LEAD TO CORE DEGRADATION OR CORE MELT as indicated by the following: Loss of systems due to fire, needed to maintain integrity of all three fission product barriers. • Fuel Integrity • RCS Integrity • Containment Integrity **OR** Location, observation AND judgment of SOS/ED (Based upon Fire Brigade Leader's report.)				

END - FIRE IN PLANT

→ [MULTIPLE SYMPTOMS AND OTHER CONDITIONS -

CONTINUED TO NEXT PAGE]→

22.0 - MULTIPLE SYMPTOMS AND OTHER CONDITIONS (continued)

Emergency conditions exist WHEN: **Any of the following are indicated, using the Parameter Assessment Table below:**	NUE	ALERT	SAE	GEN
A Failure of the Fuel Cladding AND Primary Containment with a potential loss of the Primary Coolant Boundary **OR** **A Failure of the Fuel Cladding AND Primary Coolant Boundary with a potential loss of Primary Containment** **OR** **A Failure of the Primary Coolant Boundary AND Primary Containment with a potential loss of the Fuel Cladding**				

A **General Emergency** should be declared when **TWO boundaries (cladding, coolant, or containment)** have an **ACTUAL failure AND** a **THIRD boundary** has an **ACTUAL** or **POTENTIAL failure**. IF a parameter is approaching emergency action level criteria and mitigation systems are unavailable, assume the barrier will be lost. **Exceeding ONE** of the parameters below is an **indication of an actual or potential loss of the associated boundary.**

PARAMETER ASSESSMENT TABLE

CLADDING		COOLANT		CONTAINMENT	
Actual		**Actual**		**Actual**	
☐	I-131 > 100µCi/cc	☐	Unisolable primary system break outside containment	☐	Integrity breached
☐	DWRRM > 500 R/hr	☐	Significant leakage in TB With TB ARMs above alarm setpoints and increasing.	☐	Drywell **OR** Torus ≥ 6% hydrogen with ≥ 5% oxygen
		☐	DW Pressure 25 psig	☐	SOS judgement that containment is lost **OR** loss is imminent
		☐	DW Temperature 300°F		
		☐	Gap activity in DW		
Potential		**Potential**		**Potential**	
☐	Failure of ECCS to maintain RWL	☐	Failure of SRVs to open with pressure high off-scale	☐	Containment pressure approaching 56 psig
☐	RWL < -158" for 3.5 min **AND** MCUTL	☐	All 4160/600 V buses deenergized	☐	Drywell **OR** Torus ≥ 6% hydrogen with ≥ 5% oxygen
☐	All 4160/600 V buses deenergized	☐	Failure of ECCS to maintain RWL	☐	SOS/ED judgement that containment loss is imminent

END
MULTIPLE SYMPTOMS AND OTHER CONDITIONS

23.0 - ISFSI OPERATIONS

Emergency conditions exist WHEN:	NUE	ALERT	SAE	GEN
A LOSS OF CASK CONFINEMENT BOUNDARY FOR ANY LOADED SPENT FUEL CASK OCCURS as indicated by: Direct Radiation levels outside the ISFSI protected area boundary exceed 2 mrem in an hour **AND** Contamination levels outside the ISFSI protected area boundary exceed the technical specification limits for spent fuel storage cask surface contamination **OR** Direct Radiation Readings for a Loaded Spent Fuel Cask exceed the technical specification limit for overpack average surface dose rates.	■			
DEGRADATION OF ANY SPENT FUEL CASK DUE TO AN OPERATIONAL EVENT as indicated by: Direct observation of a loaded spent fuel cask indicates cask confinement boundary or shielding damage due to an operational event • Cask handling • Cask drop • Cask tip-over **AND** SOS/ED judgment	■			

→ [HAZARDS TO PLANT OPERATION - CONTINUED TO NEXT PAGE]→

23.0 - ISFSI OPERATIONS (continued)

Emergency conditions exist WHEN:	NUE	ALERT	SAE	GEN
A Loss of cask confinement boundary for any loaded spent fuel cask occurs as indicated by:				
Degradation of any Spent Fuel Cask due to environmental phenomena or external events				
Direct observation of a loaded spent fuel cask indicates cask confinement boundary or shielding damage due to environmental phenomena or external events • Tornado • Explosion • Lightning • Flooding • Earthquake • Extreme environmental temperatures • Burial under debris • Fire • Explosion • Aircraft Crash • Missile or projectile impact • Security Event				
AND				
SOS/ED judgment				

END
ISFSI OPERATIONS

1.0 OBJECTIVE

This procedure provides guidance to on-shift operations personnel for response to declared emergencies.

TABLE OF CONTENTS

2.0 APPLICABILITY

This procedure applies to responses and actions taken by on-shift operations personnel. This procedure is performed as required.

3.0 REFERENCES

3.1 10AC-MGR-006-0S, Hatch Emergency Plan

3.2 Edwin I. Hatch Unit 1 and Unit 2 Emergency Plan

4.0 REQUIREMENTS

4.1 PERSONNEL REQUIREMENTS

On-shift operations personnel who have received emergency response training are required to perform this procedure.

4.2 MATERIAL AND EQUIPMENT

N/A - Not applicable to this procedure

4.3 SPECIAL REQUIREMENTS

N/A - Not applicable to this procedure

5.0 PRECAUTIONS/LIMITATIONS

5.1 PRECAUTIONS

N/A - Not applicable to this procedure

5.2 LIMITATIONS

This procedure is NOT intended for use by the Emergency Director.

6.0 PREREQUISITES

A declared emergency or an emergency drill/exercise must exist before using this procedure.

REFERENCE

7.0 PROCEDURE

7.1 SUPERINTENDENT OF SHIFT (SOS)	NUE	ALERT	SITE AREA	GENERAL
7.1.1 Direct operation of the plant to mitigate consequences of the event and to restore to a safe operating condition.	X	X	X	X
7.1.2 Initiate the Emergency Call List, as necessary.	X	X	X	X
7.1.3 Augment resources, as necessary [with approval of the Emergency Director (ED)]. This may include the recall of off duty personnel.	X	X	X	X
7.1.4 Coordinate activation of the NRC-ERDS with TSC management to ensure activation within 1 hr. of declaration.		X	X	X
7.1.5 Analyze plant conditions and assist the ED and the Technical Support Center (TSC) Manager during reclassifications and protective action recommendations.	X	X	X	X
7.1.6 Advise the ED or TSC Manager on degrading plant conditions, initiation of any release or changes in the magnitude of any release as soon as practical.	X	X	X	X
7.1.7 Ensure communications with the TSC and Emergency Operations Facility (EOF) is established and maintained when activated.		X	X	X
7.1.8 Ensure site evacuation is initiated and underway.			X	X
7.1.9 Direct plant personnel away from hazardous areas during natural (Tornado) and man made (Security threat) events that could cause injuries to onsite personnel.		X	X	X

END OF 7.1, SUPERINTENDENT OF SHIFT (SOS)

7.2 SHIFT SUPERVISOR (SS)	NUE	ALERT	SITE AREA	GENERAL
7.2.1 IF the SOS is unavailable or incapacitated, assume the duties of SOS (in addition to SS duties). In accordance with 73EP-EIP-004-0S subsection 7.2	X	X	X	X
7.2.2 Direct operation of the plant to mitigate consequences of the event and to restore to a safe operating condition.	X	X	X	X
7.2.3 Analyze plant conditions and assist SOS to reclassify the event and to make protective action recommendations, IF necessary.	X	X	X	X
7.2.4 Activate emergency response teams, IF necessary, by calling the TSC (or the Health Physics office and other support departments IF the TSC is not activated) and direct to the plant locations where needed.	X	X	X	X
7.2.5 Assist in the performance of prompt offsite dose assessments, as needed.	X	X	X	X
7.2.6 Advise the SOS, ED or TSC Manager on any degradation of plant equipment, onset of a release, and changes in release magnitude as soon as possible.	X	X	X	X
7.2.7 Establish communications with the Emergency Response Facilities (ERFs), Plant Security, the ED and the NRC as requested by SOS/ED.		X	X	X
7.2.8 Direct plant equipment operators to the OSC.		X	X	X

END OF 7.2, SHIFT SUPERVISOR (SS)

7.3 CONTROL ROOM OPERATOR	NUE	ALERT	SITE AREA	GENERAL
7.3.1 Pre-Announcement Actions				
7.3.1.1 IF the Shift Supervisor or the SOS is unavailable or incapacited, assume the duties of SS until relieved.	X	X	X	X
7.3.1.2 Take actions to place the plant in a safe condition in accordance with annunciator response procedures, emergency operating procedures and Technical Specifications.	X	X	X	X
7.3.1.3 Periodically report plant status to the SS.	X	X	X	X
7.3.1.4 Ensure the START HIST light on the Safety Parameter Display System (SPDS) keyboard is lit. IF the light is off, depress the CTRL AND START HIST keys. Continue or cancel history, as directed by the SS.	X	X	X	X
7.3.1.5 Notify the SS or SOS of any degradation to plant equipment, onset of a release or any change in the magnitude of release.	X	X	X	X
7.3.1.6 Perform prompt offsite dose assessment calculations in accordance with 73EP-EIP-018-0S, Prompt Offsite Dose Assessment, as required.	X	X	X	X

7.3 CONTROL ROOM OPERATOR (CONT'D)	NUE	ALERT	SITE AREA	GENERAL
7.3.1.7 IF no release is underway go to step 7.3.1.8. IF a valid release is underway or has taken place as determined by step 7.3.1.6, perform the following:		X	X	X
7.3.1.7.1 Immediately notify the SOS or SS.		X	X	X
CAUTION CHANGES IN WIND DIRECTION MAY REQUIRE CHANGING RALLY POINTS AND EVACUATION ROUTES; THEREFORE, USE OF AVERAGE WIND DIRECTION IS ACCEPTABLE AND DESIRED. BE AWARE OF CHANGING CONDITIONS.				
7.3.1.7.2 Check the wind direction on Panel 1H11-P689 and 1H11-P690, the SPDS meteorological screen, or MIDAS screen.		X	X	X
NOTE The decision to evacuate non-essential personnel at the ALERT classification can be made only by the Emergency Director.				
7.3.1.7.3 Determine evacuation route(s) based on wind direction (from step 7.3.1.7.2) and the following table:		X	X	X
NOTE Use of Gate 17 requires contacting Security and Health Physics prior to making public address (PA) announcements.				

7.3 CONTROL ROOM OPERATOR (CONT'D)				NUE	ALERT	SITE AREA	GENERAL
WIND DIRECTION FROM:	RALLY POINT TO USE:	EVACUATION ROUTE TO USE:	REPORT TO STATE RECEPTION CENTER AT:				
340° - 90°	Gate 17	U.S. 1-North	Toombs Co. High School/ Lyons				
91° - 225°	Plant Entry Security Building (PESB)	U.S. 1-South	Appling Co. High School/ Baxley				
226° - 340°	PESB	U.S. 1- either direction	Either Toombs. Co. High School/ Lyons or Appling Co. High School/ Baxley				
7.3.1.7.4 Proceed to subsection 7.3.2 for appropriate PA announcement based on emergency classification.				X	X	X	X
7.3.1.8 IF a release is NOT underway as determined by step 7.3.1.6:				X	X	X	X
7.3.1.8.1 Site evacuation will be via the rally point at the PESB.					X	X	X
7.3.1.8.2 Evacuation routes will be in either direction on U.S. 1.					X	X	X
7.3.1.8.3 Do NOT send evacuating personnel to State Reception Centers.					X	X	X
7.3.1.8.4 Proceed to subsection 7.3.2 for appropriate PA announcement based on emergency classification.				X	X	X	X

7.3.2 Announcements

> NOTE
>
> The nature of the declared emergency must be determined PRIOR to making the PA announcements.

> NOTE
>
> Attachment 1 contains information that has been determined to be most beneficial for on-site personnel notification. Attachment 1 may be used as a guide in determining the appropriate information to be contained in the announcement.

Make the appropriate announcement and sound the applicable warning tone, repeating the announcement/tone upon initial emergency declaration, as soon as practicable, and every thirty (30) minutes for the first two (2) hours of the declared emergency. After the first two (2) hours, repeat the announcement/tone as directed by the Shift Supervisor.

Announcements normally contain accurate information with sufficient detail to elicit the anticipated response. Announcements normally are concise. The purpose of the announcement is to inform plant personnel of an event or change in conditions that warrants a response. The timeliness and accuracy of the announcement will have a direct effect on the implementation of that response.

(TYPICAL - USE LATEST REVISION)

GEORGIA POWER COMPANY
PLANT E.I. HATCH — PAGE 1 OF 2

FORM TITLE:
EMERGENCY PAGE ANNOUNCEMENT GUIDE

Data

Emergency Classification:

☐ NUE ☐ ALERT ☐ SITE AREA EMERGENCY ☐ GENERAL

Evacuation required: ☐ Yes ☐ No

Wind Direction: From Degrees

Is a release underway ☐ Yes ☐ No

Standard

THIS (IS ☐ /IS NOT ☐ A DRILL)

A(N) ( ) HAS BEEN DECLARED BASED ON:

A RELEASE (IS ☐ / IS NOT ☐) UNDERWAY

INITIATE EMERGENCY IMPLEMENTING PROCEDURES

(If Gate 17 is to be used, contact Security and HP prior to the announcement)

Evacuation

REPORT TO THE RALLY POINT AT ☐ PESB ☐ GATE 17 TO RECEIVE FURTHER INSTRUCTIONS

(If no release is underway, evacuation will be either direction)

THE EVACUATION ROUTE WILL BE ☐ EITHER DIRECTION ☐ SOUTH ☐ NORTH ON US HIGHWAY 1

REPORT TO THE STATE RECEPTION CENTER AT ☐ Toombs Co. High School/Lyons ☐ Appling Co. High School/Baxley ☐ Either Toombs Co. High School/Lyons or Appling Co. High School/Baxley

Security

ALL PERSONNEL AVOID THE FOLLOWING AREAS:

ALL PERSONNEL TAKE COVER AT YOU PRESENT LOCATION UNTIL FURTHER NOTICE

THIS (IS ☐ /IS NOT ☐ A DRILL)

TRN-0144 REV. 0 — 73EP-EIP-005-0S

(TYPICAL - USE LATEST REVISION)

GEORGIA POWER COMPANY PLANT E.I. HATCH	PAGE 2 OF 2
FORM TITLE: EMERGENCY PAGE ANNOUNCEMENT GUIDE	

General guidance:

Begin and end each announcement with **THIS (IS ☐ / IS NOT ☐ A DRILL)**

The information contained in the **"DATA"** section may be required to fill-in information in subsequent sections. It is a good idea to have this information available before attempting to make a page announcement.

The basic information to be contained in a page announcement is found in the **"STANDARD"** section. This information may be used as a guide for most page announcements.

The information listed in the **"EVACUATION"** section is essential in those cases where evacuation is required. Evacuation routes based on wind direction may be obtained from the following chart.

Wind Direction From:	**Rally Point to use:**	**Evacuation Route to use:**	**Report to state reception center at:**
340° - 90°	Gate 17	U.S. 1 - North	Toombs Co. High School/ Lyons
91° - 225°	Plant Entry and Security Building (PESB)	U.S. 1 - South	Appling Co. High School/ Baxley
226° - 340°	PESB	U.S. 1 - Either direction	Either Toombs Co. High School/Lyons or Appling Co. High School/Baxley

The information listed in the **"SECURITY"** section may be used as a guide for announcements made during security based events.

For ease of tracking the following chart may be used:

Page Announcement	TIME			
	1	2	3	4
☐ INITIAL				
☐ UPGRADE/ DOWNGRADE				

1.0 OBJECTIVE

This procedure establishes the minimum measures which are taken by the Nuclear Security Department to respond to declared emergencies.

2.0 APPLICABILITY

This procedure is applicable to responses taken by the Nuclear Security Department to declared emergencies which implement the Hatch Emergency Plan. This procedure is performed as required.

3.0 REFERENCES

3.1 10AC-MGR-006-0S, Hatch Emergency Plan

3.2 Edwin I. Hatch Unit 1 & Unit 2 Emergency Plan, Section E

3.3 Emergency Response Facility Position Matrix

4.0 REQUIREMENTS

4.1 PERSONNEL REQUIREMENTS

Security Personnel who have received instruction in applicable emergency implementing procedures are required to perform this procedure.

4.2 MATERIAL AND EQUIPMENT

N/A - Not applicable to this procedure

4.3 SPECIAL REQUIREMENTS

N/A - Not applicable to this procedure

5.0 PRECAUTIONS/LIMITATIONS

5.1 PRECAUTIONS

Uncertain or higher than normal radiological conditions may be encountered during actual emergencies. Maintain radiation exposure ALARA.

5.2 LIMITATIONS

N/A - Not applicable to this procedure

6.0 PREREQUISITES

A declared emergency OR an emergency drill/exercise must exist before using this procedure.

REFERENCE

7.0 PROCEDURE

NOTE

Refer to the Emergency Response Facility (ERF) Position Matrix to determine those individuals who may assume the following emergency response positions.

7.1 EOF SECURITY MANAGER	NUE	ALERT	SITE AREA	GENERAL
7.1.1 Report to EOF to assume the position of EOF Security Manager.		X	X	X
7.1.2 Ensure Security staff personnel for the TSC, OSC and EOF are dispatched as required. The ERF Position Matrix indicates those individuals who may assume these positions.		X	X	X
7.1.3 Coordinate security activities as requested by the Emergency Director or EOF Manager.			X	X

7.1 EOF SECURITY MANAGER (cont'd)	NUE	ALERT	SITE AREA	GENERAL
NOTE(*) The Emergency Director may order evacuation of non-essential personnel at an ALERT classification.				
7.1.4 Establish contact with local law enforcement agencies to coordinate the release of non-essential personnel from the plant site, as necessary.		*	X	X
7.1.5 Evaluate the event and make recommendations to Emergency Response Management, as required.			X	X

End of 7.1, EOF SECURITY MANAGER

7.2 TSC SECURITY SUPERVISION	NUE	ALERT	SITE AREA	GENERAL
7.2.1 Report to the TSC to assume the position of TSC Security Supervisor.		X	X	X
7.2.2 Ensure that actions taken by Supervisor Nuclear Security (Shift) are appropriate.		X	X	X
7.2.3 Report accountability status of the Protected Area to the EOF Security Manager within 30 minutes of emergency declaration. Refer to 7.12 for instructions to perform accountability.			X	X
7.2.4 Confer with TSC Health Physics Supervision concerning radiological conditions as it pertains to Security personnel assignments.		X	X	X

7.2 TSC SECURITY SUPERVISION (cont'd)	NUE	ALERT	SITE AREA	GENERAL
7.2.5 Ensure radiological condition information is relayed to applicable security posts/patrols.		X	X	X
7.2.6 Evacuate the Central Alarm Station and transfer control to the Secondary Alarm Station, IF necessary.			X	X
7.2.7 Report evacuation status to EOF Security Manager.			X	X
7.2.8 Interface with EOF Security Manager to direct emergency response activites.			X	X

End of 7.2, TSC SECURITY SUPERVISION

7.3 EOF SECURITY SUPPORT	NUE	ALERT	SITE AREA	GENERAL
7.3.1 Report to the EOF.		X	X	X
7.3.2 Assist EOF Security Manager in coordinating security emergency response activities.		X	X	X
7.3.3 Evaluate the event and make recommendations to Emergency Response Management, as required.		X	X	X

End of 7.3, EOF SECURITY SUPPORT

7.4 SUPERVISOR NUCLEAR SECURITY (SHIFT)	NUE	ALERT	SITE AREA	GENERAL
7.4.1 Ensure that the applicable sections of the Emergency Call List are initiated.	X	X	X	X
7.4.2 Ensure all Nuclear Security personnel are notified of the emergency and are accounted for.	X	X	X	X

7.4 SUPERVISOR NUCLEAR SECURITY (SHIFT) (cont'd)	NUE	ALERT	SITE AREA	GENERAL
7.4.3 Ensure that Nuclear Security Officers (NSOs) are available to escort emergency vehicles and expedite access to the plant.	X	X	X	X
7.4.4 Direct an NSO to activate the public address system in the Simulator Building unless previously activated.	X	X	X	X
7.4.5 Direct two NSOs to report to the EOF and prepare to initiate access control.		X		
7.4.6 Direct two NSOs to report to the EOF as specified in step 7.4.5 and initiate access control.			X	X
7.4.7 Direct two NSOs to the Emergency News Center at the Vidalia Operating Headquarters. Off-duty NSOs may be called out to man this post.		X	X	X
7.4.8 Direct Alarm Station Operator to activate the card readers for the TSC and OSC. Dispatch NSO to the TSC and NSO(s) to OSC for access control as necessary.		X	X	X
7.4.9 Dispatch a NSO to ensure that personnel in outlying buildings, warehouses and trailers are notified of an emergency. A vehicle loudspeaker or bullhorn may be used at the discretion of the NSO. Inform emergency responders to report to their designated facility.		X	X	X
7.4.10 Dispatch a NSO to evacuate the Boy Scout Camp, public picnic area, and GPC Recreational Area.		X	X	X

7.4 SUPERVISOR NUCLEAR SECURITY (SHIFT) (cont'd)	NUE	ALERT	SITE AREA	GENERAL
NOTE(*) The Emergency Director may order evacuation of non-essential personnel at an ALERT classification.				
7.4.11 Dispatch an NSO to Warehouse #1, all trailers, Building #10, Waste Separation and Temporary Storage Facility, M.I.S. Building, Visitors Center and environs to ensure personnel evacuation.		*	X	X
7.4.12 Ensure that traffic control, site access restrictions, and barriers are established.		*	X	X
7.4.13 Provide crowd control at rally points, IF necessary.		*	X	X
7.4.14 WHEN advised by the Emergency Director OR Control Room, dispatch roving patrol to open and man Gate 17 for protected area evacuation. Dispatch additional NSOs to assist at Gate 17, as necessary.		*	X	X
7.4.15 Ensure evacuation instructions are conveyed to evacuating personnel by NSOs at the PESB AND/OR Gate 17 rally points, as necessary.		*	X	X
7.4.16 Dispatch two NSOs to initiate river patrol.			X	X
7.4.17 Compile all accountability reports from locations within the Protected Area. Attempt to contact those that have not reported. Refer to 7.12 for instructions to perform accountability.		*	X	X
7.4.18 Report accountability results to the TSC Security Supervisor as soon as possible.		*	X	X

7.4 SUPERVISOR NUCLEAR SECURITY (SHIFT) (cont'd)	NUE	ALERT	SITE AREA	GENERAL
7.4.19 Direct Alarm Station Operator to determine the last known location of unaccounted personnel.		*	X	X
7.4.20 Direct Alarm Station Operator to relay radiological condition information to applicable security posts/patrols, as directed by TSC Security Supervisor.		X	X	X
7.4.21 Report to the TSC Security Supervisor for further instructions.		X	X	X

End of 7.4, SECURITY NUCLEAR SECURITY (SHIFT)

7.5 SECURITY POST 200 CAS AND SAS	NUE	ALERT	SITE AREA	GENERAL
7.5.1 Activate the Emergency Accountability System.		X	X	X
7.5.2 Notify all posts and patrols of emergency and account for all Nuclear Security personnel by using a radio or other means.	X	X	X	X
7.5.3 Initiate applicable sections of the Emergency Call List, as directed.	X	X	X	X
7.5.4 Direct roving patrol to open and man Gate 17 for protected area evacuation as directed by the Emergency Director OR Control Room. Dispatch additional NSOs to assist at Gate 17, as necessary.		*	X	X
7.5.5 Run an accountability report on the security computer. Forward this report to the Supervisor Nuclear Security (Shift) as soon as possible.		X	X	X
7.5.6 Relay radiological condition information to applicable security posts/patrols, as directed.		X	X	X

End of 7.5, SECURITY POST 200 CAS AND SAS

7.6 SECURITY POST 200 CHARLIE [PLANT ENTRY SECURITY BUILDING (PESB)]	NUE	ALERT	SITE AREA	GENERAL
7.6.1 Restrict access to emergency response personnel, personnel authorized by the Emergency Director, and the NRC.		X	X	X
7.6.2 Prepare for mass exiting of personnel. Standby to receive security badges and assist with Protected Area evacuation.		X	X	X
7.6.3 IF the computer accountability system is inoperable, perform accountability per subsection 7.12 of this procedure.			X	X
7.6.4 Direct evacuating personnel to the designated Rally Points.			X	X
7.6.5 Maintain continuous accountability during the emergency.			X	X

End of 7.6, SECURITY POST 200 CHARLIE (PESB)

7.7 SECURITY POST 200 BRAVO (GATE 1)	NUE	ALERT	SITE AREA	GENERAL
7.7.1 Restrict access to emergency response personnel, personnel authorized by the Emergency Director, and the NRC.		X	X	X
7.7.2 Direct members of the press and the public to the Emergency News Center.		X	X	X

End of 7.7, SECURITY POST 200 BRAVO (GATE 1)

7.8 TSC AND OSC ACCESS CONTROL	NUE	ALERT	SITE AREA	GENERAL
NOTE Required only IF card readers are inoperable.				
7.8.1 Restrict access to emergency response personnel, personnel authorized by the Facility (TSC or OSC) Manager, and the NRC.		X	X	X
7.8.2 Log personnel entering OR leaving the facility.		X	X	X
7.8.3 Report the names and security badge numbers of facility (TSC or OSC) personnel to the Supervisor Nuclear Security (Shift) as soon as possible.			X	X

End of 7.8, TSC AND OSC ACCESS CONTROL

7.9 EOF ACCESS CONTROL	NUE	ALERT	SITE AREA	GENERAL
7.9.1 Restrict access to emergency response personnel, personnel authorized by the Facility (EOF) Manager, and the NRC.		X	X	X
7.9.2 Log personnel entering OR leaving the EOF.		X	X	X

End of 7.9, EOF ACCESS CONTROL

7.10 RIVER PATROL	NUE	ALERT	SITE AREA	GENERAL
7.10.1 Attach boat to security vehicle, proceed to boat ramp and launch boat.			X	X
7.10.2 Two NSOs will man the boat and patrol the river adjacent to the plant to clear river traffic from the area.			X	X

End of 7.10, RIVER PATROL

7.11 ADDITIONAL SECURITY POSTS	NUE	ALERT	SITE AREA	GENERAL
"Hotel", "Golf", "Foxtrot", "Echo", "Sierra" and all other security posts not specifically mentioned will perform duties as normal during drills, exercises or actual emergencies unless notified otherwise by the Supervisor Nuclear Security (Shift).	X	X	X	X

End of 7.11, ADDITIONAL SECURITY POSTS

7.12 ACCOUNTABILITY

Security will ensure that accountability is acheived within 30 minutes of declaration of a Site Area Emergency, General Emergency, or Protected Area evacuation order. Accountability is acheived when all personnel within the Protected Area AND the Vital Area are identified by name or badge number as being in the Protected AND/OR Vital Area at the time of the accountability check. Normally, personnel logged into emergency accountability regions (i.e., control room, OSC, and TSC) will not appear on the emergency accountability report. However, use of card readers in these areas immediately before initiating accountability may result in selected emergency response personnel appearing on the report.

7.12.1 Accountability will be conducted in accordance with the following table:

IF Security System Computer (SSC) is:	AND Accountability Function is:	THEN:
Operational	Operational	Accountability will be acheived by using the accountability function. The completed report generated by the accountability function will constitute accountability. The Site-Specific Alarm Station Operators Manual will be followed for specific steps to access and utilize the accountability function.
Operational	NOT Operational	Secondary Alarm Station will run an ALL REGION ENROLLMENT report. This report will constitute accountability for personnel within the Protected AND Vital Areas.

IF Security System Computer (SSC) is:	AND Accountability Function is:	THEN:
NOT Operational	NOT Operational	1. Obtain Manual Accountability Kit from the Shift Supervisor. The kit will contain cards marked TSC, OSC, and CR. 2. Obtain the personnel sign-in/sign-out sheets from the Technical Support Center, Operations Support Center, and Control Room. 3. Each empty badge slot will be checked against the sign-in sheets. IF an individual is identified to be in an emergency facility, the appropriate facility card from the Manual Accountability Kit will be placed in his/her badge slot. Manual accountability will exclude badge slots that are tagged as OPEN. 4. Remaining badge slots that are not marked by a facility card or tagged OPEN will represent personnel in the Protected OR Vital Areas that are not in an emergency facility AND are not evacuated. At this point, accountability will be declared. 5. Badge Island personnel will continue to maintain accountability by updating the badge racks as necessary. 6. IF the SSC is recovered and becomes operational during the emergency, computerized accountability will normally be resumed. Previous accountability declarations will continue to stand as valid. The Supervisor Nuclear Security (Capt) will determine the operability of the SSC, AND when to resume computerized accountability.

End of 7.12, ACCOUNTABILITY

EXPIRATION DATE:	APPROVALS:	EFFECTIVE DATE:
N/A	DEPARTMENT MANAGER CLC DATE 2-21-92	
	NPGM/POAGM/PSAGM HLS DATE 2-24-92	12/21/99

1.0 OBJECTIVE

This procedure provides instructions for assembly, accountability, and evacuation of site personnel during a declared emergency.

2.0 APPLICABILITY

This procedure applies to the activities and responses of personnel that are necessary to assemble, account, and evacuate site personnel during an emergency. This procedure is performed as required.

3.0 REFERENCES

3.1 10AC-MGR-006-0S, Hatch Emergency Plan

3.2 Edwin I. Hatch, Unit 1 and Unit 2 Emergency Plan

3.3 73EP-EIP-009-0S, Nuclear Security Duties

4.0 REQUIREMENTS

4.1 PERSONNEL REQUIREMENTS

Personnel who conduct assembly, accountability, and evacuation of personnel will receive indoctrination and training in applicable emergency implementing procedures.

4.2 MATERIAL AND EQUIPMENT

N/A - Not applicable to this procedure

4.3 SPECIAL REQUIREMENTS

N/A - Not applicable to this procedure

5.0 PRECAUTIONS/LIMITATIONS

5.1 PRECAUTIONS

Uncertain or varying levels of radiation and/or contamination may be encountered.

5.2 LIMITATIONS

N/A - Not applicable to this procedure

6.0 PREREQUISITES

A declared emergency or an emergency drill/exercise must exist before using this procedure.

REFERENCE

7.0 PROCEDURE

NOTE

The below listed steps are to be performed during a Notification of Unusual Event (NUE), Alert (A), Site-Area Emergency (SAE) or General Emergency (GE).

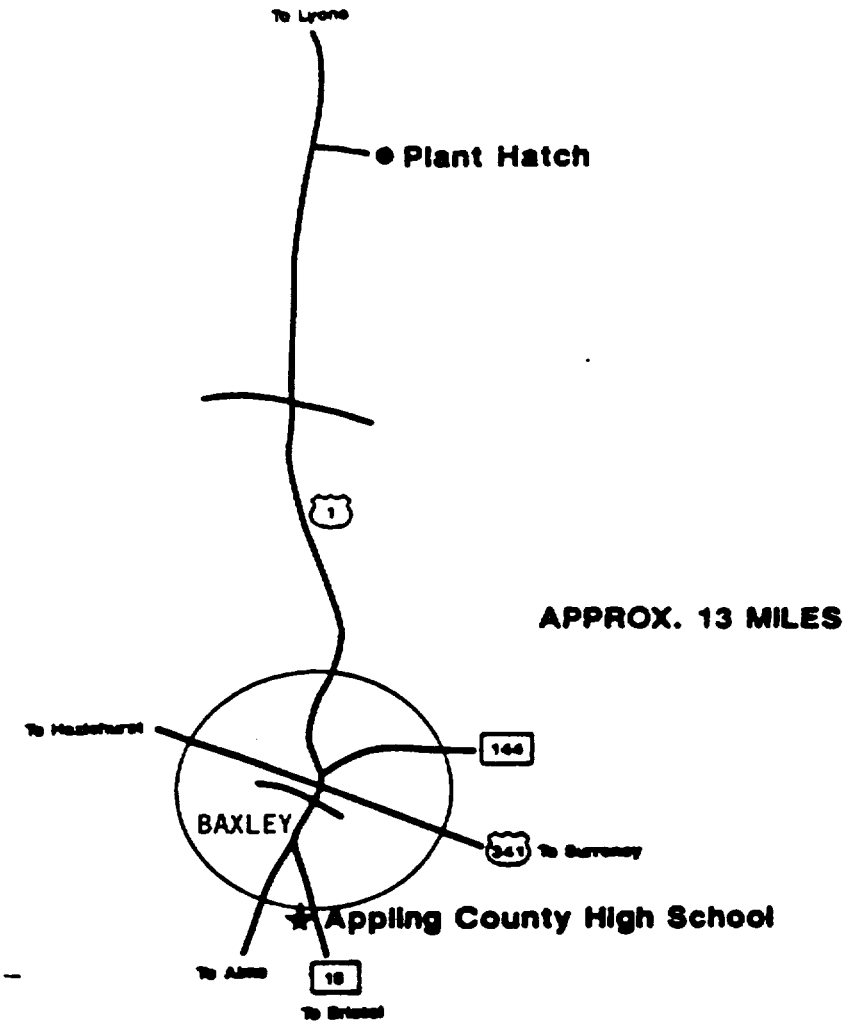
7.1 INVOLVED PERSONNEL	NUE	ALERT	SITE AREA	GENERAL
7.1.1 Report incident status to the Control Room and take actions to limit the incident, IF possible. Retreat to an unaffected area.	X	X	X	X
7.1.2 Report to the Health Physics Office for contamination surveys and decontamination, IF applicable.	X			
7.1.3 Report to Health Physics in the Operations Support Center (OSC) for contamination surveys and decontamination.		X	X	X
END OF 7.1 INVOLVED PERSONNEL				

7.2 NON-INVOLVED PERSONNEL INSIDE PROTECTED AREA	NUE	ALERT	SITE AREA	GENERAL
7.2.1 Observe the Public Address (PA) announcements and/or warning signals for emergency information (i.e., declaration, upgrades in severity and evacuation orders). Stay clear of affected areas.	X	X	X	X
7.2.2 Stand by for an escalation in emergency classification and continue normal work activities until advised otherwise.	X			
7.2.3 Emergency Response Organization members will report to assigned facility [Technical Support Center (TSC), Operations Support Center (OSC) or Emergency Operations Facility (EOF)].		X	X	X
7.2.4 Escort all escorted personnel to Plant Entry Security Building (PESB) for processing out.		X	X	X
7.2.5 Secure your work location. IF in a contaminated area, follow normal undressing and frisking procedures as time allows. THEN, go to your reporting area and await further instructions.		X		
7.2.6 Department supervisors and foremen will account for personnel under their supervision. They must immediately report unaccounted personnel to Nuclear Security.		X		
7.2.7 Secure your work location. IF in a contaminated area, follow normal undressing and frisking procedures as time allows. Turn in your security badge as you exit the Protected Area.		X	X	X

7.2 NON-INVOLVED PERSONNEL INSIDE PROTECTED AREA (CONT'D)	NUE	ALERT	SITE AREA	GENERAL
NOTE (*) The site may be evacuated at an ALERT classification if the Emergency Director feels it is prudent. A site evacuation is required for all SITE-AREA and GENERAL emergencies.				
7.2.8 Report to the Rally Point [Plant Entry Security Building (PESB) or Gate 17 (Northwest section of protected area)] as directed via Public Address (PA) announcement and/or Nuclear Security personnel. The rally point designated for use will be based on radiological conditions and wind direction.		*	X	X
7.2.9 Submit to personnel radiological monitoring as directed by the Rally Point Team.		*	X	X
NOTE IF radiological monitoring is not feasible due to radiological conditions, site evacuees will be directed to assemble at the appropriate State Reception Center for contamination monitoring.				
7.2.10 Evacuate site as directed by PA announcement and/or Nuclear Security personnel and IF DIRECTED, report to the designated State Reception Center shown on Attachment 1 & 2.		*	X	X
END OF 7.2 NON-INVOLVED PERSONNEL INSIDE PROTECTED AREA				

7.3 NON-INVOLVED PERSONNEL OUTSIDE PROTECTED AREA	NUE	ALERT	SITE AREA	GENERAL
7.3.1 Observe PA announcements and warning tones. Stay clear of affected areas.	X	X	X	X
7.3.2 Stand by for an escalation in emergency classification and continue normal work activities.	X	X		
7.3.3 Emergency Response Organization members will report to their assigned facility (TSC, OSC, or EOF).		X	X	X
NOTE (*) The site may be evacuated at an ALERT classification if the Emergency Director feels it is prudent. A site evacuation is required for all SITE-AREA and GENERAL emergencies.				
7.3.4 Secure your work location and leave area.		*	X	X
NOTE IF radiological monitoring is not feasible due to radiological conditions, site evacuees will be directed to assemble at the appropriate State Reception Center for contamination monitoring.				
7.3.5 Evacuate site as directed by PA announcement and/or Nuclear Security personnel and IF DIRECTED, report to the designated State Reception Center shown on Attachment 1 & 2.		*	X	X

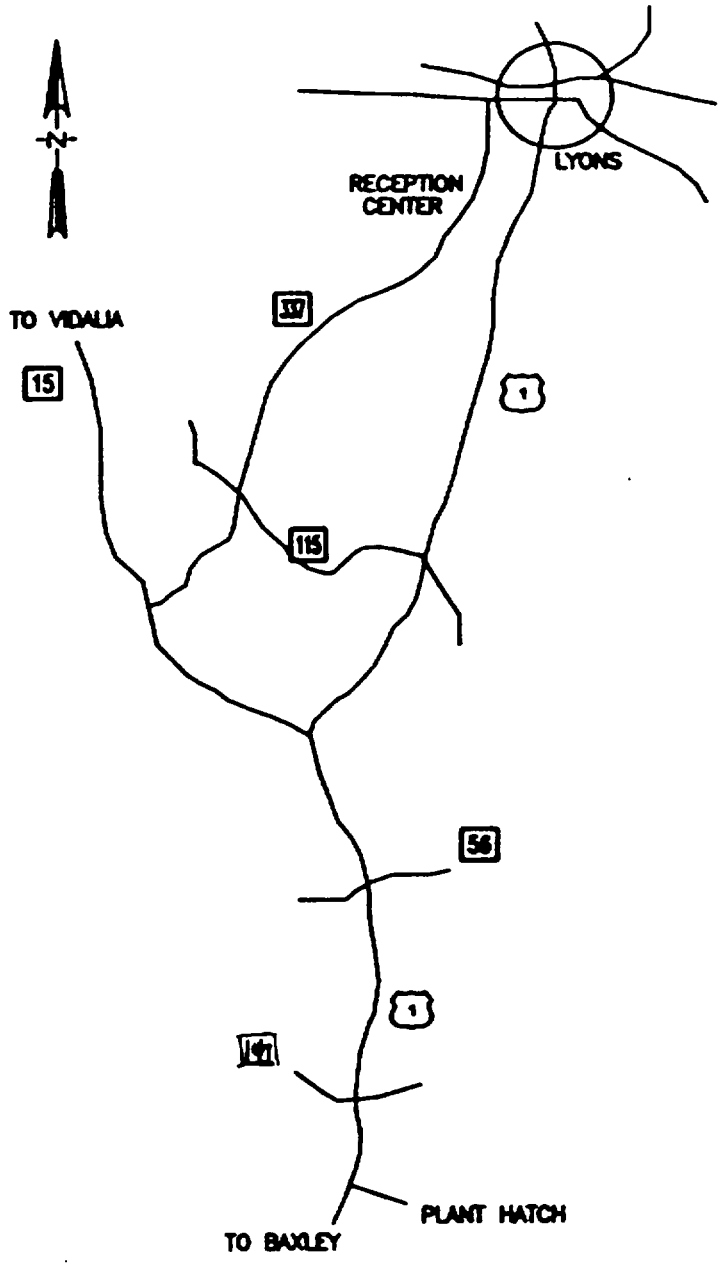
END OF 7.3 NON-INVOLVED PERSONNEL OUTSIDE PROTECTED AREA



Emergency Reception Center
Appling County

Use this state reception center if you are instructed to evacuate the plant south on U.S. Hwy 1 or in either direction.

Directions to Appling Co. High School: Travel south on U.S. Hwy 1 approximately 13 miles to Hwy 15; bear left on Hwy 15 to the school (approximately 3/4 mile on the right).



Use this state reception center if you are instructed to evacuate the plant north on U.S. Hwy 1 or in either direction.

Directions to Toombs Co. High School: Travel north on U.S. 1 to Co. Rd. 115 (Hardens Chapel Rd.) approx. 15 miles. Take Co. Rd. 337 (Lyons Ctr. Rd.) east approx. 2 miles. Reception Center is on the left.

1.0 OBJECTIVE

This procedure provides instructions for the organization of Search and Rescue Teams to be used as necessary during a declared Plant Emergency for the search and rescue of personnel.

2.0 APPLICABILITY

This procedure is applicable to the formation and actions of Search and Rescue Teams. These teams will be used to locate, and, IF necessary, rescue personnel during a declared Plant Emergency if accountability of personnel in the protected area reveals a missing person. Procedure frequency is as necessary.

3.0 REFERENCES

3.1 10AC-MGR-006-0S, Hatch Emergency Plan

3.2 60AC-HPX-001-0S, Radiation Exposure Limits

3.3 73EP-EIP-013-0S, Contaminated Injury and First Aid

3.4 73EP-EIP-017-0S, Emergency Exposure Control

4.0 REQUIREMENTS

4.1 PERSONNEL REQUIREMENTS

4.1.1 A designated Operations Support Center (OSC) Manager

4.1.2 Members of the Radiological Emergency Team (RET)

4.2 MATERIAL AND EQUIPMENT

4.2.1 First-Aid Kit

4.2.2 Stretcher

4.2.3 High Range Dose Rate Meter

4.2.4 Walkie Talkie

4.2.5 Assorted rescue devices, e.g., bolt cutters, crow-bar, rope and tackle, etc.

4.3 SPECIAL REQUIREMENTS

Applicable subsections of 73EP-EIP-013-0S, Contaminated Injury and First Aid, will be used for the treatment and transport of injured personnel.

5.0 PRECAUTIONS/LIMITATIONS

5.1 PRECAUTIONS

Care must be taken when planning the search route and rescue operations to attempt to maintain the exposure of rescue personnel ALARA (As Low As Reasonably Achievable).

5.2 LIMITATIONS

5.2.1 For the safety of personnel, all Search and Rescue Teams must consist of at least two personnel.

5.2.2 Search and Rescue Team members who may possibly exceed 10CFR20 exposure limits are subject to the limitations of 73EP-EIP-017-0S, Emergency Exposure Control.

6.0 PREREQUISITES

A Plant Emergency has been declared and accountability of personnel has revealed missing personnel. The four levels of Plant Emergencies from least to most severe are Notification of Unusual Event (NUE), Alert, Site Area and General Emergency.

REFERENCE

7.0 PROCEDURE

7.1 The OSC Manager will direct a senior HP/Chem Department representative to assemble a Search and/or Rescue Team.

7.1.1 IF a Search and Rescue Team is needed prior to the activation of the OSC, e.g., declaration of an NUE, a senior HP/Chem representative will assign the team members and appoint a team captain.

7.1.2 IF a Search Team is being assembled only to locate missing personnel, THEN the team must consist of at least the following personnel:

- Rescue Team Captain
- Survey Person

7.1.3 IF a Search and Rescue Team is being assembled because of known hazardous conditions, e.g., fire or explosion has occurred which suggest personnel in need of rescue, THEN the team must consist of at least the following members:

- Rescue Team Captain
- First Aid Leader
- Survey Person
- Rescue Team Assistant(s)

7.1.4 A description of the responsibilities and any necessary qualifications of Search and Rescue Team members are as follows:

7.1.4.1 Rescue Team Captain: Radiological Emergency Team (RET) member and team leader in rescue effort. Carries a walkie-talkie radio (or other communication device) and maintains communication with the OSC and/or the Control Room. Assists, IF necessary, in first aid as directed by the First Aid Leader.

7.1.4.2 First Aid Leader: Preferably, a medically trained person, equipped with a first aid kit who is responsible for directing the Rescue Team in first aid measures and for making recommendations to the Control Room, via the Team Captain, on the necessity for offsite Medical Support, including ambulance service.

7.1.4.3 Survey Person: RET member equipped with a high range portable dose rate instrument who is responsible for performing a continuous survey of the search route, and IF applicable, the rescue area. The survey person must continuously keep the Team Captain informed of area radiation levels.

7.1.4.4 Rescue Team Assistant(s): Carry stretcher, and any other equipment deemed necessary for rescue. They will participate in the rescue effort as directed by the Rescue Team Captain.

7.2 The Team Captain will obtain any available information on expected conditions to be encountered, e.g., Area Radiation Monitor (ARM) readings, airborne radioactivity levels, temperature readings, etc..

7.3 The Team Captain will consult with HP supervision and/or the OSC manager to determine team's objective, anticipated exposure and search route.

CAUTION

AUTHORIZATION TO EXCEED 10CFR20 EXPOSURE LIMITS MAY ONLY BE GIVEN BY THE EMERGENCY DIRECTOR; THIS RESPONSIBILITY MAY NOT BE DELEGATED.

7.3.1 IF anticipated exposures might result in team members exceeding 10CFR20 exposure limits, request authorization to exceed 10CFR20 exposure limits from the Emergency Director in accordance with 73EP-EIP-017-0S Emergency Exposure Control.

NOTE

Search Teams will normally not be allowed to exceed 10CFR20 exposure limits unless a life-saving situation is known to exist.

7.4 The Team Captain will determine the following:

7.4.1 Appropriate protective measures including the use of protective clothing and respiratory protection devices. All team members will wear dosimetry with sufficient range to be able to record authorized exposure.

7.4.2 If necessary, appropriate rescue devices, e.g., bolt cutters, crow-bar, rope and tackle, first-aid kit, stretcher, etc.

7.5 The Team Captain will ensure that all team members are aware of the search route, allowable exposure, individual responsibilities and the team's objective. Ensure that the OSC Manager is aware of the planned search route.

7.6 Commence the Search and/or Rescue Operation. Take necessary measures to limit the spread of contamination while keeping in mind that the main goal is to accomplish the objective while maintaining team member's exposure within established limits.

7.6.1 Keep the OSC and/or Control Room informed of all significant events including completion of Search and Rescue operations.

7.6.2 IF necessary, applicable sections of 73EP-EIP-013-0S, Contaminated Injury and First Aid, will be used for the treatment and transport of injured personnel.

1.0 OBJECTIVE

This procedure provides instruction for the handling of injured and/or overexposed personnel when the presence of radiation and/or contamination may complicate the situation. These instructions include:

* Assessment of situation and injury
* Immediate first aid action
* Notification of ambulance and hospital services and associated support by Plant personnel
* Notification of Plant Management and contracted medical treatment service companies

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2.0 APPLICABILITY

This procedure will be performed for any of the following situations:

2.1 Treatment of any injury reported to have occurred in a Radiation Control Area (RCA).

2.2 Any over exposure to radiation in excess of a Federal Limit, as determined by Health Physics management.

3.0 REFERENCES

3.1 Edwin I. Hatch Unit 1 and 2 Emergency Plan

3.2 10AC-MGR-006-0S, Hatch Emergency Plan

3.3 00AC-REG-001-0S, Federal and State Reporting Requirements

3.4 10CFR20

3.5 Plant Hatch Emergency Call List

3.6 60AC-HPX-003-0S, Bioassay Program

3.7 60AC-HPX-004-0S, Radiation and Contamination Control

3.8 62RP-RAD-004-0S, Personnel Decontamination

4.0 REQUIREMENTS

4.1 PERSONNEL REQUIREMENTS

In the event of an emergency, the most senior (qualified) individual must take charge AND ensure that actions are performed and decisions are made.

4.1.1 Health Physics personnel will make radiological evaluations.

4.1.2 Medical personnel (nurse, EMT or most qualified person available) will make medical evaluations. In the absence of a medically trained person, the senior HP will normally make medical evaluations.

4.1.3 Control Room Shift Supervisor will make immediate decisions concerning Emergency Call List notifications and call for off-site medical assistance when required.

4.1.4 Plant Management, in consultation with necessary experts, will make long term decisions concerning treatment of injured personnel with radiological complications and overexposed personnel.

4.2 MATERIAL AND EQUIPMENT

4.2.1 Emergency equipment maintained at Appling General Hospital

4.2.2 Emergency equipment maintained at Meadows Memorial Hospital

4.2.3 Emergency equipment maintained at the following locations:

4.2.3.1 Control Building Decontamination Room

4.2.3.2 Medical Building

4.3 SPECIAL REQUIREMENTS

4.3.1 Procedure 73EP-EIP-001-0S, Emergency Classification and Initial Actions, requires that a Notification of Unusual Event be declared IF necessary to transport a contaminated injured individual to the hospital. Refer to 73EP-EIP-001-0S for Classification Criteria.

4.3.2 WHEN notification of personnel by title, e.g., General Manager, is directed by this procedure and those personnel are NOT on-site, the Plant Hatch Emergency Call List will be used to obtain home phone numbers. IF personnel are unable to be contacted, their designated alternates will be contacted.

5.0 PRECAUTIONS/LIMITATIONS

5.1 PRECAUTIONS

5.1.1 Medical attention to serious injuries shall take priority over the removal of contamination and over routine radiation protection measures. Serious injuries must NOT be aggravated by donning respiratory devices or following normal decontamination practices.

5.1.2 Removal of a dressing or splint for purposes of decontamination will normally be directed only by a physician.

5.1.3 Decontamination of serious wounds will normally be conducted/directed by a physician.

5.1.4 Using a form similar to Attachment 1, record vital information about injured personnel which must be transmitted to hospital staff.

5.2 LIMITATIONS

N/A - NOT applicable to this procedure

6.0 PREREQUISITES

6.1 An individual has been injured.

6.2 The potential exists that an individual may have exceeded the exposure limits of 10CRF20.

6.3 Authorization must be given by the Emergency Director in accordance with Emergency Exposure Control procedure prior to allowing rescue workers to exceed 10CFR20 limits, as necessary.

REFERENCE

7.0 PROCEDURE

7.1 ACTIONS TO TAKE IN RESPONSE TO PERSONNEL INJURY

7.1.1 Any person who discovers an injured individual must inform the Control Room of his/her name, name of the injured individual (if available), the location of the injured individual and the nature of the injury.

7.1.2 Immediately render life saving first aid, IF necessary, taking the appropriate actions based on your knowledge of first aid.

> CAUTION
>
> WHEN IT IS KNOWN OR SUSPECTED THAT AN INDIVIDUAL HAS RECEIVED A SERIOUS INJURY, AN AMBULANCE MUST BE SUMMONED WITHOUT DELAY.

7.1.3 Upon notification that an individual is injured, the affected unit's Control Room Shift Supervisor must dispatch a medically trained person [e.g., the site nurse, EMT or Senior Health Physics (HP) representative] to evaluate the severity of the injury and a HP representative to evaluate the radiological implications.

7.1.3.1 Upon arrival at the accident site, the medically trained person will take charge of rendering first aid and make recommendations to the Control Room on the necessity for off-site medical support, including ambulance service. IF the individual is severely injured, the medically trained person (in consultation with HP) will direct how, WHEN and where the injured person will be moved.

7.1.3.2 Upon arrival at the accident site, the HP representative will:

7.1.3.2.1 Authorize immediate access to the injured individual without a Radiation Work Permit (RWP), as necessary. Continuous job coverage must be provided in accordance with 60AC-HPX-004-0S, Radiation and Contamination Control.

7.1.3.2.2 Make a prompt and realistic assessment of any radiological hazard to the injured person AND to the rescuers from the environment where the injury occurred and where first aid is being rendered.

7.1.3.2.3 Evaluate the potential for and determine the radiation exposure of the injured individual.

7.1.3.2.4 Evaluate the potential for and determine if the injured individual is externally and/or internally contaminated.

7.1.3.2.5 Request additional HP support to ensure appropriate contamination control measures are taken at the scene of the injury AND the route used to transport the injured individual.

7.1.4 IF the individual is seriously injured, normal radiological practices may be bypassed, as necessary, to expedite obtaining medical treatment.

7.1.5 IF the individual is not seriously injured, normal radiological practices will be followed to prevent the spread of contamination. HP personnel will provide any necessary assistance/guidance in removing protective clothing, frisking and decontamination. Follow-up medical attention may be provided in the First Aid Room or the Health Physics Decon Room, as appropriate.

7.1.6 The medically trained person and HP representative must report the results of their response to AND treatment of the injured individual to the affected unit's Control Room Shift Supervisor as soon as possible. The Shift Supervisor will record the information provided from the medical and HP responders. The Injury Report, as shown in attachment 1, may be used to record the information, at the discretion of the affected unit's Shift Supervisor. The Shift Supervisor must then refer to subsections 7.2, 7.3 or 7.4 to determine appropriate response actions.

7.2 SERIOUS INJURY - REQUIRING OFFSITE MEDICAL SUPPORT

IF it is determined an individual is seriously injured AND the injury may be complicated by contamination and/or excessive radiation exposure, the affected unit's Control Room Shift Supervisor will request offsite medical support based on the information provided by the medically trained person and the HP representative.

NOTE

Injured individuals who are externally contaminated must be taken to the Radiation Emergency Area (REA) of either Appling General (Baxley - 14 miles) or Meadows Memorial (Vidalia - 24 miles) Hospitals. IF the individual is unable to provide preference or IF the preference expressed is considered detrimental to the injured individual's health, the choice of hospital will be based on distance or needed services.

7.2.1 IF offsite medical support is determined necessary, the affected unit's Control Room Shift Supervisor will:

7.2.1.1 Determine the appropriate telephone numbers for ambulance, hospital and local physician chosen from the Plant Hatch Emergency Call List.

7.2.1.1.1 The plant nurse may perform the subsections 7.2.1.2, 3, & 4 IF medical circumstances warrant. The Shift Supervisor will be advised that these calls have been made.

NOTE

Appling Ambulance Service or Meadows Memorial Ambulance Service may be used to transport injured individuals to another hospital other than their normal location, as medically necessary.

7.2.1.2 Call an ambulance service and request assistance.

7.2.1.3 Call the hospital and notify the Nurse Shift Supervisor that an injured individual will be sent to the hospital for treatment. Provide a detailed description of the injury and any radiological complications.

7.2.1.4 Call the local physician from the same town as the selected hospital and request assistance.

7.2.1.5 Notify the Security Shift Supervisor that an ambulance will be coming on site and request their access be expedited.

7.2.1.6 Notify appropriate plant management personnel as denoted in the Emergency Call List as soon as time permits.

NOTE

A Notification of Unusual Event must be declared if transporting a contaminated injured individual offsite for medical support. Refer to 73EP-EIP-001-0S, Emergency Classification and Initial Actions, for classification criteria.

7.2.1.7 Determine the necessity for declaring a Notification of Unusual Event using 73EP-EIP-001-0S, Emergency Classification and Initial Actions.

7.2.2 HP supervision will ensure:

7.2.2.1 HP personnel are available and prepared to carry out the actions specified in subsection 7.5, HP Duties For Ambulance and Hospital.

7.2.2.2 As soon as the immediacy of the medical emergency has been eliminated and radiological conditions allow, write a full report surrounding the incident and an evaluation of all radiological implications. The report may include but is not limited to the following: dose received (internal and external), dose rates, contamination levels and isotopic identification will be documented by HP and retained for future reference, as necessary.

7.3 INJURY - NOT REQUIRING OFFSITE MEDICAL SUPPORT

7.3.1 IF offsite medical support is not necessary, the affected unit's Control Room Shift Supervisor will:

7.3.1.1 Make notifications to appropriate plant management personnel using the Emergency Call List.

7.3.1.2 Ensure information surrounding the incident is logged for future reference, if necessary.

7.3.1.3 Determine any necessary reporting requirements in accordance with 00AC-REG-001-0S, Federal and State Reporting Requirements.

7.3.2 HP supervision will ensure that normal radiological precautions are followed including personnel decontamination and dose evaluation.

7.4 EXCESSIVE RADIATION EXPOSURE - NO INJURY

7.4.1 Upon determination that an individual may have received an overexposure to radiation as determined by HP management (specified in section 2.0), HP will perform the following:

7.4.1.1 Evaluate the extent and nature of the overexposure.

7.4.1.2 Provide a complete report to the affected unit's Control Room Shift Supervisor on the overexposed individual's internal and external exposure. Advise the Shift Supervisor of the urgency for offsite medical support, as necessary.

7.4.1.3 Initiate actions as outlined in 62RP-RAD-004-0S, Personnel Decontamination and 60AC-HPX-003-0S, Bioassay Program, as necessary.

7.4.1.4 A full report surrounding the incident is logged for future reference by completing a Reportable Occurance Report in accordance with 10AC-MGR-004-0S, Deficiency Control System.

7.4.1.5 The individual is observed for signs of overexposure (e.g., nausea, vomiting, fatigue, diarrhea, reddening of the skin), while awaiting results of consultation with medical and radiological consultants.

7.4.2 WHEN notified that an individual may have received an overexposure, the affected unit's Control Room Shift Supervisor will:

7.4.2.1 Make notifications to appropriate plant management personnel using the Emergency Call List.

7.4.2.2 Ensure that information surrounding the incident is logged for future reference, as necessary.

7.4.2.3 Determine any necessary reporting requirements in accordance with 00AC-REG-001-0S, Federal and State Reporting Requirements.

7.4.2.4 Assist Health Physics in implementing plan for mitigating results of overexposure.

7.4.4 Overexposed individuals will normally NOT require either first aid or urgent transfer to an offsite medical facility. IF offsite medical support is determined necessary, refer to subsection 7.2. IF offsite medical support is determined not necessary, refer to subsection 7.3

7.5 HP DUTIES FOR AMBULANCE AND HOSPITAL

HP personnel will be assigned to perform the following functions WHEN notified by the Control Room that an ambulance is in route and will be coming on site:

7.5.1 Meet the ambulance at the Plant Entry Security Building (PESB) AND brief the Emergency Medical Technicians (EMTs) on radiation protection procedures appropriate for the situation.

7.5.2 Provide each EMT with a TLD and Pocket Dosimeter.

7.5.3 Provide continuous HP coverage from the time EMT's come on-site through the treatment/decontamination of the injured person at the hospital. HP will be responsible for ensuring that the EMT's exposure is minimized to As Low As Reasonably Achievable, ALARA (e.g., IF radiation levels from the injured person are high, use the stretcher-shield during transport to the hospital).

7.5.4 Ensure that measures are taken to minimize the spread of contamination resulting from treatment/transport of the injured person prior to decontamination (e.g., wrapping person and stretcher in plastic, blanket or sheet).

7.5.5 Ride with the injured person and assist in their care and decontamination. The HP representative that accompanies the injured person to the hospital will be responsible for performing the following:

7.5.5.1 Advise hospital personnel concerning the injured person's radiation exposure and/or contamination status.

7.5.5.2 Provide HP support, as necessary, to ensure that exposure to hospital personnel is maintained at the lowest practicable level.

7.5.5.3 Advise and assist in the decontamination of the Radiation Emergency Area and its equipment at the completion of use in the area.

7.5.5.4 Ensure that all contaminated items are safely packaged and taken to the plant for decontamination or disposal.

7.5.5.5 Monitor and supervise the decontamination of the EMTs and ambulance. IF the apparel of the EMTs is contaminated, an HP representative will collect the apparel and issue scrub clothes from the hospital.

7.5.5.6 Request the delivery of the ambulance to the Plant for additional decontamination, IF necessary.

(TYPICAL - USE LATEST REVISION)

GEORGIA POWER COMPANY
PLANT E.I. HATCH | PAGE 1 OF 1
FORM TITLE:
INJURY REPORT

INJURY REPORT

1. NAME OF CALLER/EXT. _____/_____
2. NAME(S) OF INJURED _____
3. LOCATION OF INJURED _____
4. DATE AND TIME OF REPORT _____/_____
5. TYPE OF INJURY _____
6. VICTIM CONSCIOUS? YES NO BACK/NECK INJURY? YES NO
7. VICTIM BREATHING? YES NO CPR REQUIRED? YES NO
8. HAZARDS IN THE AREA _____
9. CONTAMINATED? YES NO LEVELS? _____
10. CALL LIST IMPLEMENTED? YES NO TIME _____
Use the applicable section of the Emergency Call List (I, II, or III) to make the required Notifications
CONTACTS: (Record Time)
NURSE/EMT (ext 2128) HEALTH PHYSICS (ext 2183, 2238)_____
AMBULANCE: *APPLING (367-2[illegible]/MEADOWS (537-2900)_____
SECURITY (ext 2153, 2[illegible] 2438)_____
HOSPITAL: APPLING (367-[illegible]41 ext 218)/MEADOWS (537-8921 ext 217, 145)_____
LOCAL PHYSICIAN: [illegible]. Poblete - 367-4688, 4713 or 6191)_____
[illegible] (Dr. DeJarnette - 537-8838 or 3675)_____

NOTES: _____

*Determine the appropriate telephone numbers for Ambulance, Hospital, and local Physician Notification from the Plant Hatch Emergency Call List. Choice of Ambulance and Hospital will be based on distance or needed services. Expedite the transfer of the individual by requesting the nearest Ambulance service no matter which Hospital is chosen.

1.0 OBJECTIVE

This procedure provides instructions and responsibilities for the assembly and use of Internal Survey Teams during declared Plant Emergencies.

2.0 APPLICABILITY

This procedure is applicable to the staffing and use of Internal Survey Teams during Plant Emergencies. Procedure frequency is as required.

3.0 REFERENCES

3.1 10AC-MGR-006-0S, Hatch Emergency Plan

3.2 62RP-RAD-008-0S, Radiation and Contamination Surveys

3.3 62RP-RAD-034-0S, Emergency Air Sampling Program

3.4 62RP-RAD-003-0S, Use and Care of Respirators

3.5 73EP-EIP-017-0S, Emergency Exposure Control

4.0 REQUIREMENTS

4.1 PERSONNEL REQUIREMENTS

Internal Survey Teams will normally be comprised of Health Physics personnel; however, other qualified Radiological Emergency Team (RET) members may be assigned to a team, as necessary.

4.2 MATERIAL AND EQUIPMENT

4.2.1 Equipment, as specified in appropriate plant procedures, necessary to perform radiation, contamination and airborne radioactivity surveys

4.2.2 Additional dosimetry (other than normal plant dosimetry) as deemed appropriate by Health Physics, e.g., dosimeters with a range greater than 500 millirem

4.2.3 Respiratory protection appropriate for isotopes and levels of radioactivity present

4.2.4 Protective clothing as deemed appropriate by HP.

4.3 SPECIAL REQUIREMENTS

ONLY an HP & CHEM Department representative or a Shift Supervisor may authorize entry without an RWP into an area which would normally require an RWP for entry; and ONLY when critical immediate action is required.

5.0 PRECAUTIONS/LIMITATIONS

5.1 PRECAUTIONS

5.1.1 Operating systems, e.g., RHR, Core Spray, etc., may yield extremely high radiation levels in the event of a reactor accident.

5.1.2 ARMs will only reveal the dose rate at the detector; the dose rate of the area or room will probably be considerably higher. Do not overexpose personnel entering an area by underestimating the dose rate.

5.1.3 Every reasonable effort must be made to maintain personnel exposures, As Low As Reasonably Achievable (ALARA).

5.2 LIMITATIONS

5.2.1 For the safety of personnel, all Internal Survey Teams must consist of at least two personnel.

5.2.2 Internal Survey Team members who may possibly exceed 10CFR20 exposure limits are subject to the limitations of 73EP-EIP-017-0S, Emergency Exposure Control.

6.0 PREREQUISITES

A declared plant emergency, drill or exercise must exist prior to performing this procedure.

REFERENCE

7.0 PROCEDURE

Upon the activation of the Operational Support Center (OSC), Internal Radiological Emergency Team (RET) members assigned to the OSC will promptly obtain readily available portable survey meters AND report to the OSC.

The OSC Manager, or his designee, will assign RET members on an as needed basis to various task including the formation of Internal Survey Teams.

7.1 The OSC Manager will direct a senior HP/Chem Department representative to assemble Internal Survey Team. Internal Survey Teams will consist of at least the following two personnel:

7.1.1 Internal Survey Team Captain

- Carries a walkie-talkie radio (or other communication device) and maintains communication with the OSC and/or the Control Room.
- Assists in carrying survey equipment and recording survey results.

7.1.2 Survey Team Assistant

- Responsible for performing a continuous survey of the traveled route and performing necessary surveys, e.g., contamination and airborne.
- The survey person must continuously keep the Team Captain informed of area radiation levels.

7.2 The Team Captain will obtain any available information on expected conditions to be encountered, e.g., ARM readings, temperature readings, suspected core damage, airborne radioactivity levels, operating systems, etc.

7.3 The Team Captain will consult with HP supervision and/or the OSC manager to determine Team's objective, anticipated exposure and survey route.

NOTE

Unless instructed otherwise, primary objectives will include establishing the habitability of the HP Lab and determining major radiological problems to recovery operations.

CAUTION

AUTHORIZATION TO EXCEED 10CFR20 EXPOSURE LIMITS MAY ONLY BE GIVEN BY THE EMERGENCY DIRECTOR; THIS RESPONSIBILITY MAY NOT BE DELEGATED.

7.3.1 IF anticipated exposures might result in Team members exceeding 10CFR20 exposure limits, request authorization to exceed 10CFR20 exposure limits from the Emergency Director in accordance with 73EP-EIP-017-0S, Emergency Exposure Control.

7.4 The Team Captain will perform the following preparatory actions:

CAUTION

THE ONLY RESPIRATORY DEVICE APPROVED FOR USE IN AREAS OF UNKNOWN CONDITIONS IS THE SCBA.

7.4.1 Ensure that a Radiation Work Permit (RWP) has been completed AND determine appropriate protective measures including the use of protective clothing AND respiratory protection devices.

7.4.2 Ensure that all Team members wear dosimetry with sufficient range to be able to record authorized exposure.

7.4.3 Ensure that all Team members are aware of the survey route, allowable exposure, individual responsibilities and the Team's objective.

7.4.4 Ensure that the OSC Manager and/or HP supervision are aware of the planned survey route and intended actions.

7.4.5 Ensure that pre-use inspections are performed on all appropriate instruments including a test operation of air sampler and radio.

7.4.6 Ensure that air samplers are loaded with both a particulate filter and gas cartridge; a silver zeolite cartridge will normally be used for collection of iodine.

7.5 As directed by the OSC, proceed toward the area to be surveyed; a continuous survey of radiation levels will be performed while in route. Take necessary measures to limit the spread of contamination while keeping in mind that the main goal is to accomplish the survey while maintaining Team members' exposure within established limits.

7.5.1 Notify the Control Room and/or OSC of any unusual conditions such as high dose rates, damaged equipment, etc. Retreat if dose rates are significantly higher than expected.

7.5.2 Document surveys on appropriate HP survey forms.

7.5.3 Rope off and post any high radiation areas as conditions permit.

7.6 Upon completion of the survey/task, return to the OSC AND submit survey results for HP supervision AND OSC Manager review. Surveys obtained during actual emergencies must be retained as permanent plant records..

1.0 OBJECTIVE

To provide dose assessments during abnormal (emergency) conditions.

2.0 APPLICABILITY

This procedure applies to the onsite dose assessment activities for assessing offsite radiological releases during emergency conditions. It may not be used for assessing normal or routine operating releases. This procedure will be performed as neccessary.

3.0 REFERENCES

3.1 10AC-MGR-006-0S, Hatch Emergency Plan

3.2 EPA-400-92-001, Manual of Protective Action Guides and Protective Actions for Nuclear Incidents

3.3 73EP-EIP-018-0S, Prompt Offsite Dose Assessment

3.4 73EP-EIP-001-0S, Emergency Classification and Initial Actions

3.5 73EP-EIP-054-0S, Protective Action Reccomendations to state and local authorities

4.0 REQUIREMENTS

4.1 PERSONNEL REQUIREMENTS

Personnel who perform dose assessment activities will receive training in accordance with plant training procedures and be instructed in the use of the dose assessment computer model and this procedure.

4.2 MATERIAL AND EQUIPMENT

Meteorological Information and Dispersion Assessment System (MIDAS)

The system requirements for the MIDAS dose assessment program are:

Component	Minimum system	Recommended system
CPU	486 DX with math coprocessor	586 DX (Pentium)
Speed	50 MHz	133 MHz (or higher)
RAM	16 MB (greater speed is achieved through use of a RAM disk (8 MB))	32 MB
Hard Disk	240 MB	480 MB
Floppy drive	1.44 MB	1.44 MB
Interface	Mouse	Mouse
Monitor	VGA	VGA
Ports	1 parallel, 2 serial	1 parallel, 2 serial
Keyboard	101	101
Operating system	DOS 5.0 or higher	DOS 6.0 or higher
Printer	HP deskjet 550 C	HP deskjet 550 C

4.3 SPECIAL REQUIREMENTS

N/A - not applicable to this procedure

5.0 PRECAUTIONS/LIMITATIONS

5.1 PRECAUTIONS

N/A - not applicable to this procedure

5.2 LIMITATIONS

5.2.1 This procedure must not be used to calculate dose projections for normal releases. The MIDAS code has accident isotopic mixes built in to the support files which will yield a false high value for daily operating releases.

5.2.2 This procedure can NOT be used to downgrade the severity of an emergency classification.

5.2.3 This procedure is based upon using the Meteorological Information and Dispersion Assessment System (MIDAS) for calculating indications of offsite dose and dose rates. MIDAS utilizes data from both radiological and meteorological plant instrumentation. Readings may be obtained from SPDS, contol room monitors, and/or locally at the instruments.

> NOTE
>
> Values obtained from MIDAS for the purpose of Protective Action Recommendations are based on the avoided dose concept.

5.2.4 For the purpose of Protective Action Recommendations (PARs), the TEDE and Thyroid CDE values for 1 mile, 2 miles, and 5 miles from the printed ENN Worksheet provided by MIDAS may be utilized.

6.0 PREREQUISITES

An off-normal plant condition, emergency exercise/drill or declared emergency must exist before using this procedure.

REFERENCE

7.0 PROCEDURE

7.1 SYSTEM START-UP

NOTE

General instructions for the use of the MIDAS code are found in Attachment 2, Generic MIDAS Screen Guidelines.

7.1.1 Turn on the computer containing the MIDAS system files.

7.1.2 The computer will automatically "boot" into the MIDAS subdirectory and start the program.

7.1.3 When prompted by the computer, enter the current date and time. IF the current date and time are correct, press "ENTER".

7.2 DATA ACQUISITION

7.2.1 The midas code requires the input of meteorological and radiological data. The data required is listed in Attachment 1, MIDAS Data Input Acquisition. Attachment 1 may be used to gather data for input. Data is to be gathered in accordance with the following steps.

7.2.2 Record readings from the appropriate monitors. Appropriate monitors are listed in Attachment 1, MIDAS Data Input Aquisition. Record only valid readings.

7.2.3 In the event that control room flow instruments are inoperable or unreliable, the default flow values listed on Attachment 1 may be utilized for input.

7.2.4 IF it is determined that the normal range effluent monitor is offscale high AND the accident range instrumentation (KAMAN) does not function properly for the MAIN STACK, Unit 1 RX BLDG. Vent, or Unit 2 RX. BLDG. Vent monitors, go to attachment 5 of this procedure to calculate the release rate and dose projection(s) based on other plant instrumentation.

7.2.5 IF there is a difference between the A and B channel readings for the Unit 1 Rx Bldg Stack Vent monitor (1D11-R619 A/B), Unit 2 Rx Bldg Stack Vent Monitors (2D11-R619 A/B) OR Main Stack monitor readings (1D11-R600 A/B), use the most conservative (higher) reading for input into MIDAS.

7.2.6 Obtaining release information from a recorder increases the opportunity for error. The release trend and the timeframe required to obtain a more accurate number will be considered when determining release rates. Use of a visual estimation to perform a release rate determination is acceptable when the release trend is factored into the estimation.

7.2.7 15 Minute Average Meteorological Parameters

7.2.7.1 The primary and backup meteorological tower(s) can be read from the Main control room meteorological station, the EOF meteorologocal instrumentation, and on the "MISCELLANEOUS" screen on SPDS under "MET DATA".

7.2.7.2 The main control room and the EOF readings are on strip chart recorders and require visual averaging (the last 15 minute period). SPDS provides a calculated 15 minute average in addition to instantaneous readings.

7.2.7.3 Input values must be provided in the units specified in Attachment 1.

7.2.8 Release Parameters

7.2.8.1 Release monitoring (source term information) for the Unit 1 reactor building Vent Stack ,Unit 2 Reactor Building Vent Stack and Main Stack is accomplished through a normal and accident range (KAMAN) monitor. On a high-high signal of the normal range monitor, the KAMAN auto starts and the normal range sample flow is diverted to the kaman. The value indicated on the SPDS "PRIMARY" screen is the corrected source term based on normal range activity multiplied by the calibration factor.

7.2.8.2 Input values must be provided in the units specified in Attachment 1.

7.3 METHOD FOR THE DETERMINATION OF OFFSITE DOSE RATES AND DOSE PROJECTIONS

> NOTE
>
> There are (2) options available for the performance of dose assessment from the site selection menu, the PLANT HATCH option and the PLANT HATCH GROSS ACTIVITY RELEASE RATE option. The PLANT HATCH GROSS ACTIVITY RELEASE RATE option is utilized to perform comparison calculations with the State of Ga and projections based on in-plant instrumentation. This option is further described in Section 7.5. The normal dose assessment routine will be to select the PLANT HATCH option.

7.3.1 From the site selection menu , select "Plant Hatch". The selection will illuminate.

7.3.1.1 Select confirm.

> NOTE
>
> The function selection menu contains two options. The "RECAP DOSE CALCULATIONS" option allows the user to recap a dose projection following an inadvertent error. The normal choice from the function selection menu will be the "ACCIDENT DOSE CALCULATIONS" option.

7.3.1.2 From the function selection screen, select Accident Dose Calculations. The selection will illuminate.

7.3.1.3 Select Confirm.

> NOTE
>
> The ACCIDENT DOSE CALCULATIONS menu contains several options. Normal dose assessment routines will be run utilizing ENHANCED DOSE PROJECTION MENU B. The remaining options will be reserved for special circumstances as outlined in subsection 7.5, OTHER OPTIONS.

7.3.1.4 From the accident Dose Calculations Menu screen select enhanced Dose Projection menu b. The selection will illuminate. In the event that circumtances require the use of a selection other than MENU B, refer to subsection 7.5.

7.3.1.5 Select confirm.

7.3.1.6 The miscellaneous parameter menu will appear. Release points may be selected as appropriate.

7.3.1.7 Select CONFIRM.

7.3.1.8 The scenario data table control screen will appear. You may perform an initial projection or an update projection.

7.3.1.8.1 To perform an initial projection, select START NEW SCENARIO to initialize the dose projection spreadsheets. A warning will appear to verify that you wish to initialize. Select CONFIRM to continue.

7.3.1.8.2 To perform an update projection, select CURRENT SCENARIO EDIT to perform an update calculation.

7.3.2 The meteorological spreadsheet screen will appear. Enter meteorological data from Attachment 1 as required by the spreadsheet at the current time. The current time frame will be illuminated. If performing an update, data previously entered will be displayed.

7.3.3 Depress the "X" key to save the data on the spreadsheet and exit to the remainder of the program.

CAUTION

RELEASE POINT MONITORS MAY BE DISPLAYED ON SPDS IN UNITS OTHER THAN THOSE REQUIRED BY MIDAS. IF USING SPDS FOR DATA AQUISITION, CHECK ALL UNITS TO ENSURE THAT THE UNITS MATCH THOSE REQUIRED BY MIDAS. SPDS MAY DISPLAY THE SAME MONITOR ON DIFFERENT SCREENS IN THE APPROPRIATE UNIT.

7.3.4 The release point monitor data spreadsheet will appear. Enter the data from Attachment 1 as required by the spreadsheet at the current time. The current time frame will be illuminated. If performing an update, data previously entered will be displayed.

> CAUTION
>
> THE RELEASE POINT MONITOR DATA SPREADSHEET CONTAINS (12) DATA COLUMNS, OF WHICH (8)DATA COLUMNS ARE DISPLAYED. THE ADDITIONAL (4) DATA COLUMNS CAN BE DISPLAYED BY USING THE "RIGHT" ARROW KEY ONCE DATA HAS BEEN ENTERED IN DATA COLUMN # 8 SHOWN ON THE SCREEN. FAILURE TO ENTER DATA FOR EACH RELEASE POINT WILL RESULT IN AN ERROR CONDITION.

7.3.5 Depress the "X" key to save the data on the spreadsheet and exit to the remainder of the program.

7.3.6 The DBA Accident TYPE SELECTION menu will appear. Select the appropriate accident type and CONFIRM. Guidance for selecting the appropriate accident type may be found in Attachment 3.

> CAUTION
>
> IF THE REMAINING DURATION OF THE RELEASE IS UNKNOWN, A DEFAULT REMAINING DURATION OF 240 MINUTES (4 HOURS) MAY BE UTILIZED.

7.3.7 The RELEASE TIMING SELECTION will appear.The DURATION field will display the total number of minutes from the onset to the end of the estimated remaining duration of the release. The REMAINING DURATION field will dispalay a default rleease duration of 240 minutes

7.3.7.1 IF the REMAINING DURATION is acceptabel select CONFIRM and continue.

7.3.7.2 IF the REMAINING DURATION is determined to be some time period othre than 240 minutes, enter the remaining duration in minutes and select CONFIRM to continue.

7.3.8 MIDAS will print a working copy of the ENN Form. The values listed on line 13 of the working copy of the ENN Form may be utilized for the purpose of making protective action recommendations to state and local authorities. IF required, Protective Action recommendations will be made in accordance with 73EP-EIP-054-0S, Protective Action Recommendations.

7.3.9 IF the printout of the working copy of the Emergency Notification Form does not print properly. Attempt to correct the problem with the printer.

7.3.9.1 Select CONTINUE from the TEDE Rate Plot Screen, then select NEXT REPORT, then MORE REPORTS which will display the availible report selections. Select the option send state report tO PRINTER, then select CONFIRM. This will send the working copy of the ENN Form to the printer,

7.3.10 Upon completion of printing the working copy of the ENN form, MIDAS will display a plot of the Total Effective Dose Equivalent (TEDE) rate based on a .25 hour (15 minute) projection. The display gives a peak TEDE Dose Rate value at or beyond the site boundary. The display also includes direction and distance.

7.3.10.1 IF the Offsite dose rate (mR/hr) reading is an order of magnitude (10 times) higher than the daily average site dose rate (~E-03 mR/hr) AND an emergency has been declared by the Emergency Director THEN notify the Emergency Director that a radioactive release is in progress.

7.3.10.2 If the peak TEDE Dose Rate value exceeds .057 mR/hr. (5.7 E-2 mR/hr) notify the Emergency Director for emergency classification purposes and notify the affected Unit Shift Supervisor for possible EOP Actions.

NOTE

You may elect to continue your evaluation of this projection or exit to perform an update projection.

7.3.10.2.1 To Exit , select CONTINUE, then NEXT REPORT, then EXIT TO MORE REPORTS and then select EXIT. This will return you to the FUNCTION SELECTION screen.

7.3.10.2.2 To view additional reports select CONTINUE, then NEXT REPORT, then EXIT TO MORE REPORTS and then select the report of interest and CONFIRM.

7.3.11 Report the TEDE and Thyroid CDE values from line 13 of the working copy of the ENN Form to the Emergency Director. IF this report is not available, the information may be obtained from the TEDE 4-day report and Thyroid CDE options under more reports. Values will be based on the appropriate projection period.

7.4 IF not already at the function selection menu, return to the function selection menu. perform additional dose projections in accordance with subsections 7.2, Data acquisition and 7.3, Method for the Determination of Offsite Dose Rates and Dose Projections,as required. Dose projections will be performed until the event is terminated or until such time that the Emergency Director, in consultation with State and Local authorities, determines that dose projections are no longer required.

7.5 OTHER OPTIONS

7.5.1 Plant Hatch Gross Activity Release Rate Option

The Plant Hatch Gross Activity Release Rate option is utilized to perform comparison calculations with the State of Georgia and projections based on in-plant instrumentation. It accepts input for either a Main Stack (elevated) or Reactor Building (ground) release rate for noble gases, iodines, and particulates. Projections are performed using the standard Class B model and allow the user to select the Isotopic Mix to apply to the calculations.

From the SITE SELECTION MENU , select "PLANT HATCH GROSS ACTIVITY RELEASE RATE". The selection will illuminate.

Select CONFIRM.

From the function selection screen, select ACCIDENT DOSE CALCULATIONS. The selection will illuminate.

Select CONFIRM.

The SCENARIO DATA TABLE CONTROL screen will appear. You may perform an initial projection or an update projection.

To perform an initial projection, select START NEW SCENARIO to initialize the dose projection spreadsheets. A warning will appear to verify that you wish to initialize. Select CONFIRM to continue.

To perform an update projection, select CURRENT SCENARIO EDIT to perform an update calculation.

The METEOROLOGICAL SPREADSHEET screen will appear. Enter meteorological data from Attachment 1 as required by the spreadsheet at the current time. The current time frame will be illuminated. If performing an update, data previously entered will be displayed.

Depress the "X" key to save the data on the spreadsheet and exit to the remainder of the program.

The RELEASE POINT MONITOR DATA spreadsheet will appear. Enter the data as required by the spreadsheet at the current time. The current time frame will be illuminated. IF performing an update, data previously entered will be displayed.

> NOTE
>
> The release point monitor data spreadsheet contains 6 data columns. The first three labeled STK-NG release, STK-I release, and STK-P release are for inputing gross activity in release rate Ci/sec from an elevated release. The second three labeled GND-NG release, GND-I release, and GND-P release are for inputing gross activity in release rate Ci/sec from a ground release

Depress the "X" key to save the data on the spreadsheet and exit to the remainder of the program.

The DBA Accident TYPE SELECTION menu will appear. Select the appropriate accident type and CONFIRM. Guidance for selecting the appropriate accident type may be found in Attachment 3.

The release timing screen will appear. The DURATION and REMAINING DURATION fields will displayed the default release duration of 240 minutes displayed. IF performing an update the DURATION field will display a value equal to 240 minutes plus the previous release times.

Enter the REMAINING DURATION if different from the default time and select comfirm with the mouse.

The Radiological Data Summary and Meteorological Data Summary will appear, select continue after reviewing the data.

The output options for the projection are similar to those found in the Enhanced Dose Projection Menu B found in Section 7.3.

7.5.2 Prompt Offsite Dose

This model is utilized in the Control Room. Instructions for running the Control Room version of MIDAS is be found in 73EP-EIP-018-0S, Prompt Offsite Dose Assessment.

7.5.3 Event Tree Nureg 1228 (Menu C)

This menu option will step the user through the event tree outlined in NUREG 1228. This option is utilized when source terms are not readily available. The functions and assumptions are taken from NUREG 1228 and RTM-92. Options are selected from the screen following "top down" logic. The user will select the release type from the currently displated row, then the next row will be displayed. Release fractions are read from a data file after all release conditions are selected. This model makes the assumption that all releases are ground level.

7.5.4 Class 9 Accidents (Menu D)

This menu option lists the BWR types default assumptions for a severe degraded core. containment failure accidents based on the WASH-1400 study are available in this option. This option is utilized when source terms are not readily available. Assumptions for the default class 9 accidents are listed in Attachment 4.

7.5.5 Back Calculation (Menu E)

This calculation uses a centerline field monitor Effective Dose Equivalent (EDE) (closed window gamma) reading to linearly adjust doses at all plume locations and requires an accident type to be identified for determining isotopic mix. This option then uses a straight line projection model to make a back calculation to estimate the release rate for the specified Isotopic mix. The release rate is applied to the standard Class B puff model to perform projections. The output is the same as the standard projection model (Enhanced Dose Projection Menu B). This option may be utilized when dose projections differ significantly with field measurements.

7.5.5.1 From the function selection screen, select Accident Dose Calculations. The selection will illuminate Select Confirm to continue.

From the ACCIDENT DOSE CALCULATIONS menu screen select BACK CALCULATION MENU E-W. The selection will illuminate.

Select CONFIRM to continue.

The SCENARIO DATA TABLE CONTROL screen will appear. You may perform an initial projection or an update projection.

To perform an initial projection, select START NEW SCENARIO to initialize the dose projection spreadsheets. A warning will appear to verify that you wish to initialize. Select CONFIRM to continue.

To perform an update projection, select CURRENT SCENARIO EDIT to perform an update calculation. Select CONFIRM to continue.

The meteorological spreadsheet screen will appear. Enter meteorological data from Attachment 1 as required by the spreadsheet at the current time. The current time frame will be illuminated. If performing an update, data previously entered will be displayed.

Depress the "X" key to save the data on the spreadsheet and exit to the remainder of the program.

The DBA Accident TYPE SELECTION menu will appear. Select the appropriate accident type and CONFIRM. Guidance for selecting the appropriate accident type may be found in Attachment 3.

The Field Monitor Parameter Selection Screen will appear. Select the release point, either STACK or GROUND. Enter the FIELD MONITOR READING (Centerline closed window reading form the External RETs)in mR/Hr and the DISTANCE FROM PLANT of the reading in miles. Enter the time from the start of the release to the time of the reading and the direction of the sample point. Select CONFIRM to continue.

> NOTE
>
> This is a reference data point only and not used for performing dose projections. If condition warrent changing the wind direction from that shown on the meteorological data it must be done on the meteorological speadsheet.

The release timing screen will appear. The DURATION field will display the total number of minutes from onset to the end of the estimated duration of the release. The REMAINING DURATION field will display a default release duration of 240 minutes.

IF the default REMAINING DURATION of 240 minutes is acceptable select CONFIRM to continue.

IF the REMAINING DURATION is determined to be some time period other than 240 minutes, enter the remaining duration time in minutes and selct confirm to continue.

The Radiological Data Summary and Meteorological Data Summaries will appear, select continue after reviewing the data.

The output options for the projection are similar to those found in the Enhanced Dose Projection Menu B found in Section 7.3.

7.5.6 Total Dose (Menu F)

This menu option calculates the total committed integrated dose for the accident. Calculations are made by combining doses from the three basic pathways (plume shine, ground shine, and plume inhalation). The plume dose is normally computed by a finite plumeshine dose model. Calculations of TEDE, thyroid CDE and 1 year skin dose equivalents are made utilizing the dose factors provided in EPA-400. The finite plume model is utilized for off centerline "sideshine" calculations and for elevated releases. It is important to note that the system accounts for plume depletion.

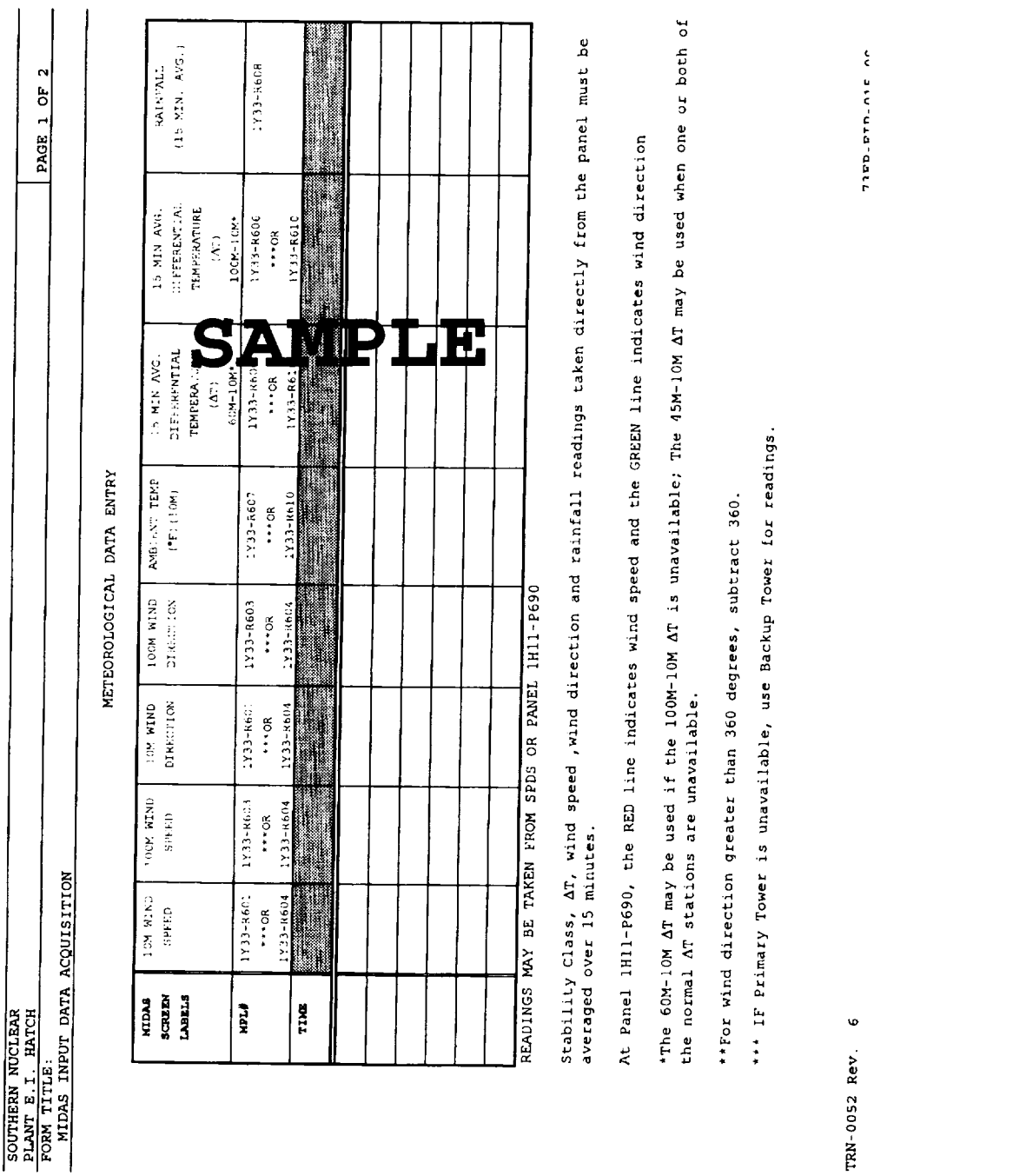
7.5.7 Advanced Calculations (Menu X)

This option allows the user to enter isotopes from actual grab samples. This menu option contains all options from other menu choices.

7.6 DOCUMENTATION AND RECORDS

Records generated during actual emergencies will be maintained in accordance with 20AC-ADM-002-0S, Plant Records Management.

(TYPICAL - USE LATEST REVISION)



SOUTHERN NUCLEAR
PLANT E.I. HATCH

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FORM TITLE:
MIDAS INPUT DATA ACQUISITION

METEOROLOGICAL DATA ENTRY

MIDAS SCREEN LABELS	10M WIND SPEED	100M WIND SPEED	10M WIND DIRECTION	100M WIND DIRECTION	AMBIENT TEMP (°F, 10M)	15 MIN AVG. DIFFERENTIAL TEMPERATURE (ΔT) 60M-10M*	15 MIN AVG. DIFFERENTIAL TEMPERATURE (ΔT) 100M-10M*	RAINFALL (15 MIN. AVG.)
MPL#	1Y33-R607 ***OR 1Y33-R604	1Y33-R607 ***OR 1Y33-R604	1Y33-R603 ***OR 1Y33-R604	1Y33-R603 ***OR 1Y33-R604	1Y33-R607 ***OR 1Y33-R610	1Y33-R60 ***OR 1Y33-R61	1Y33-R606 ***OR 1Y33-R61C	1Y33-R60A
TIME								

SAMPLE

READINGS MAY BE TAKEN FROM SPDS OR PANEL 1H11-P690

Stability Class, ΔT, wind speed ,wind direction and rainfall readings taken directly from the panel must be averaged over 15 minutes.

At Panel 1H11-P690, the RED line indicates wind speed and the GREEN line indicates wind direction

*The 60M-10M ΔT may be used if the 100M-10M ΔT is unavailable; The 45M-10M ΔT may be used when one or both of the normal ΔT stations are unavailable.

**For wind direction greater than 360 degrees, subtract 360.

*** IF Primary Tower is unavailable, use Backup Tower for readings.

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FORM TITLE:
MIDAS INPUT DATA ACQUISITION

RADIOLOGICAL DATA ENTRY

NOTE

Record only normal range data for associated release path IF KAMAN is NOT running. IF KAMAN is running, record only KAMAN data for associated release path.

Entering data for the KAMAN monitors when the KAMAN system is NOT operating will result in inaccurate offsite dose estimates.

Refer to 73EP-EIP-018-0S section 7.3.7 for action to take IF the normal range instrumentation for any release path is offscale high and KAMAN is NOT operating properly.

RELEASE PATH	MAIN STACK				U1 RX BLDG.				U2 RX BLDG			
MIDAS SCREEN LABELS	MNSTKNR RELEASE (D11-K60A/B (CPS)	MNSTKNR FLOW (D11-R621 (CFM)	MNSTKAM RELEASE (D11-R621 (uCi/cc)	MNSTKAM FLOW (D11-R621 (CFM)	U1RXBGNR RELEASE (D11-K619 A/B (CPS)	U1RXBGNR FLOW (1T41-R621 (CFM)	U1RXKAM RELEASE (D11-R621 (uCi/cc)	U1RXKAM FLOW (1T41-R621 (CFM)	U2RXBGNR RELEASE (2D11-R619 A/B (CPS)	U2RXBGNR FLOW (2T41-R621 (CFM)	U2RXKAM RELEASE (2D11-R621 (uCi/cc)	U2RXKAM FLOW (2T41-R621 (CFM)
PANEL MPL#	1H11-P664	1H11-P645	1H11-P689	1H11-P645	1H11-P634	1H11-P645	1H11-P689	1H11-P645	2H11-P634	2H11-P645	2H11-P689	2H11-P645
TIME												

SAMPLE

CHECK UNITS FOR RADIOLOGICAL DATA ENTRIES TO ENSURE THAT VALUES ARE THE SAME AS THOSE REQUIRED BY MIDAS.

Default flow values are as follows:	UNISOLATED	ISOLATED
Unit 1 Rx Bldg. Vent	288,905 CFM	193,870 CFM
Unit 2 Reactor Building Vent	198,840 CFM	162,340 CFM
Main Stack	20,000 CFM	20,000 CFM

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GENERIC SCREEN GUIDELINES

This set of general instructions applies to all methods of dose projection utilizing MIDAS.

- MIDAS utilizes a "point and click" feature for all menu applications.
- Menu choices will illuminate when selected with the mouse. Invalid choices will not illuminate.
- Menu choices backlit in red indicate important selectors
- All menu selections must be "confirmed". This is accomplished by selecting the CONFIRM option on the screen with the mouse.
- The NUMPAD is used to enter data which may be required as a result of selecting a box on the screen
- EXIT is used to stop processing and return to the function menu. A double click is required.
- CONFIRM is used to save selections and display the next screen
- RESET will clear box selections IF "clicked" once and will reset the user to the previous screen(s) IF "clicked" twice. On the first screen (Accident Run Menu) reset has no effect.
- Selecting CONFIRM before selecting the required boxes will result in a beep and no changes will be made.

NUMPAD DATA ENTRY

- IF the NUMPAD was selected by mistake, select EN to return to the main screen
- IF the entry is not complete or not valid, selecting EN will not be accepted
- To correct an erroneous entry into the NUMPAD, select EN with the display box empty.
- IF reset is selected after a NUMPAD entry has been completed (EN is selected), then all of the DATA for every screen box will be cleared.
- To clear data for any one screen box, select the box and redefine the data value (do not use reset since all boxes will be cleared).
- Plus signs are not necessary but minus signs are required for negative numbers including exponential notation (e.g., 1E-6).
- On the meteorological screen, stability class may be entered as a letter between A and G. In this case the NUMPAD will contain each letter
- Red warning message will appear when there is a problem with data that makes it impossible to continue the calculations. Selecting continue will allow you to correct the erroneous data. Selecting EXIT will return you to the menu selection screen

DEFAULT ISOTOPIC MIX 00 BASED ON ANSI 18.1

REACTOR COOLANT UNFILTERED NO DECAY

ISOTOPE	Main Stack Release Fraction (20 min. holdup applied)	Reactor Building Vent Release Fraction (no holdup)
Kr-83m	2.49 E-2	7.25 E-3
Kr-85m	4.51 E-2	1.23 E-2
Kr-87	1.30 E-1	4.05 E-2
Kr-88	1.49 E-1	4.05 E-2
Kr-89	1.27 E-2	2.58 E-1
Xe-133	6.63 E-2	1.72 E-2
Xe-133m	2.31 E-3	6.02 E-4
Xe-135	1.76 E-1	4.67 E-2
Xe-135m	8.58 E-2	5.40 E-2
Xe-137	3.27 E-2	3.19 E-1
Xe-138	2.68 E-1	1.84 E-1
I-131	1.56 E-3	4.05 E-3
I-133	1.08 E-2	2.83 E-3

ISOTOPIC MIX 01 BASED ON ANSI 18.1

REACTOR COOLANT FILTERED

ISOTOPE	Main Stack Release Fraction (20 min. holdup applied)	Reactor Building Vent Release Fraction (no holdup)
Kr-83m	2.51 E-2	7.39 E-3
Kr-85m	4.56 E-2	1.25 E-2
Kr-87	1.31 E-1	4.13 E-2
Kr-88	1.45 E-1	4.13 E-2
Kr-89	1.29 E-2	2.63 E-1
Xe-133	6.71 E-2	1.75 E-2
Xe-133m	2.35 E-2	6.14 E-4
Xe-135	1.78 E-1	4.76 E-2
Xe-135m	8.70 E-2	5.51 E-2
Xe-137	3.33 E-2	3.26 E-1
Xe-138	2.72 E-1	1.88 E-1
I-131	7.94 E-6	2.07 E-6
I-133	5.36 E-5	1.41 E-5

ISOTOPIC MIX 02 BASED ON ANSI 18.1

REACTOR COOLANT UNFILTERED

ISOTOPE	Main Stack Release Fraction (20 min. holdup applied)	Reactor Building Vent Release Fraction (no holdup)
Kr-83m	2.49 E-2	7.25 E-3
Kr-85m	4.51 E-2	1.23 E-2
Kr-87	1.30 E1	4.05 E-2
Kr-88	1.44 E-1	4.05 E-2
Kr-89	1.27 E-2	2.58 E-1
Xe-133	6.63 E-2	1.72 E-2
Xe-133m	2.31 E-2	6.02 E-4
Xe-135	1.76 E-1	4.67 E-2
Xe-135m	8.58 E-2	5.40 E-2
Xe-137	3.27 E-2	3.19 E-1
Xe-138	2.68 E-1	1.84 E-1
I-131	1.56 E-3	4.05 E-4
1-133	1.08 E-2	2.83 E-3

ISOTOPIC MIX 03 BASED ON WASH 1400 ACCIDENT MIX AND NUREG-1228 RELEASE FRACTIONS

GAP RELEASE FILTEREDD

Kr-85	1.0706 E-3
Kr-85m	4.5882 E-2
Kr-87	8.9584 E-2
Kr-88	1.0333 E-1
I-131	5.4167 E-4
1-133	1.0833 E-3
Xe-131m	1.9118 E-3
Xe-133	3.2500 E-1
Xe-133m	1.1470 E-2
Xe-135	6.5000 E-2
Xe-138	3.2500 E-1
Cs-134	1.1949 E-4
Cs-136	4.7794 E-5
Cs-137	7.4878 E-5

ISOTOPIC MIX 04 BASED ON WASH 1400 ACCIDENT MIX AND NUREG-1228 RELEASE FRACTIONS

GAP RELEASE UNFILTERED

Kr-85	5.4733 E-4
Kr-85m	2.3457 E-2
Kr-87	4.5937 E-2
Kr-88	6.6461 E-2
I-131	5.5384 E-2
1-133	1.1077 E-1
Xe-131m	9.7737 E-4
Xe-133	1.6615 E-1
Xe-133m	5.8642 E-3
Xe-135	3.3231 E-2
Xe-138	1.6615 E-1
Cs-134	1.2217 E-2
Cs-136	4.8869 E-3
Cs-137	7.6561 E-3

IISOTOPIC MIX 05 BASED ON WASH 1400 ACCIDENT MIX AND NUREG-1228 RELEASE FRACTIONS

FUEL MELT FILTERED

Kr-85	1.0671 E-3
Kr-85m	4.5732 E-2
Kr-87	8.9558 E-2
Kr-88	1.2957 E-1
Sr-89	6.269 E-5
Sr-90	2.468 E-6
I-131	8.0983 E-4
1-133	1.6196 E-3
Xe-131m	1.9055 E-3
Xe-133	3.2393 E-1
Xe-133m	1.1433 E-2
Xe-135	6.4786 E-2
Xe-138	3.2393 E-1
Cs-134	7.1456 E-5
Cs-136	2.8582 E-5
Cs-137	4.4779 E-5
Ba-140	3.0488 E-4
Ce-144	8.1 E-8

ISOTOPIC MIX 06 BASED ON WASH 1400 ACCIDENT MIX AND NUREG-1228 RELEASE FRACTIONS

FUEL MELT UNFILTERED

Kr-85	4.1276 E-4
Kr-85m	1.7690 E-2
Kr-87	3.4625 E-2
Kr-88	5.0121 E-2
Sr-89	4.8499 E-3
Sr-90	1.9090 E-4
I-131	6.2651 E-2
1-133	1.2530 E-1
Xe-131m	7.3707 E-4
Xe-133	1.2350 E-1
Xe-133m	4.4224 E-3
Xe-135	2.5061 E-2
Xe-138	1.2530 E-1
Cs-134	5.5231 E-3
Cs-136	2.2112 E-3
Cs-137	3.4642 E-3
Ba-140	2.3586 E-2
Ce-144	6.2650 E-6
Np-239	1.2088 E-4

TITLE: CLASS 9 ASSUMPTIONS

Category	time since shutdown (hr)	duration of release (hr)	elevation of release (meters)	energy of release (10-5 Btu/hR)	Fraction of core inventory released							
					Xe-Kr	Organic I	I	Cs/Rb	Te-Sb	Ba-Sr	Ru	La
BWR-1	2.0	0.5	25	130	1.0E-1	7.0E-3	40E-2	40.0E-2	70E-2	5.0E-2	5.0E-1	5.0E-3
BWR-2	30.0	3.0	0	30	1.0E-1	7.0 E-3	90E-2	50.0E-2	30.0E-2	10.0E-2	3.0E-2	4..0E-3
BWR-3	30.0	3.0	25	20	1.0E-1	7.0E-3	10E-2	10.0E-2	30.0E-2	1.0E-2	2.0E-2	4.0E-3
BWR-4	5.0	2.0	25	N/A	6.0E-1	7.0E-4	8.0E-4	5.0E-3	4.0E-3	6.0E-10	6.0E-4	1.0E-4
BWR-5	3.5	5.0	150	N/A	5.0E-4	2.0E-9	6.0E-11	4.0E-9	8.0E-12	8.0E-14	0	0

(TYPICAL - USE LATEST REVISION)

SOUTHERN NUCLEAR PLANT E.I. HATCH	PAGE 1 OF 4
FORM TITLE: RELEASE RATE ESTIMATES & DOSE PROJECTIONS (BASED ON OTHER PLANT INSTRUMENTATION)	

Release Rate Estimates & Dose Projections
(Based on other Plant Instrumentation)

NOTE

IF the DWRRM is unavailable, use the Post LOCA monitor reading * 10 E .55.

1. Record the DWRRM reading _____ (Rem/Hour)
2. Record the time since reactor trip _____ (Hours)
3. Determine the Core Release Factor and the Total Curie (NG) Available for Release based on the time since reactor trip (Item #2). (Reference table below for Core Release Factor and Total Curie (NG) Available for Release).

Core Release Factor _____

Total Curie (NG) Available for Release _____

Time Since Reactor Trip	Core Release Factor	Total Curie (NG) Available for Release	Time Since Reactor Trip	Core Release Factor	Total Curie (NG) Available for Release
0 Hours	5.424 E 6	5.59 E 6	4.25 Hours	1.356 E 6	1.016 E 6
.25 Hours	3.292 E 6	2.718 E 6	4.5 Hours	1.297 E 6	9.640 E 5
.5 Hours	2.800 E 6	2.311 E 6	3.75 Hours	1.243 E 6	9.170 E 5
.75 Hours	2.505 E 6	1.943 E 6	4.0 Hours	1.194 E 6	8.720 E 5
1.0 Hours	2.290 E 6	1.762 E 6	4.25 Hours	1.148 E 6	8.300 E 5
1.25 Hours	2.120 E 6	1.626 E 6	4.5 Hours	1.106 E 6	7.910 E 5
1.5 Hours	1.978 E 6	1.516 E 6	4.75 Hours	1.066 E 6	7.550 E 5
1.75 Hours	1.856 E 6	1.422 E 6	5.0 Hours	1.030 E 6	7.210 E 5
2.0 Hours	1.749 E 6	1.339 E 6	5.25 Hours	9.950 E 5	6.890 E 5
2.25 Hours	1.654 E 6	1.263 E 6	5.5 Hours	9.630 E 5	6.580 E 5
2.5 Hours	1.567 E 6	1.193 E 6	5.75 Hours	9.330 E 5	6.300 E 5
2.75 Hours	1.490 E 6	1.129 E 6	6.0 Hours	9.050 E 5	6.030 E 5
3.0 Hours	1.420 E 6	1.070 E 6			

(TYPICAL - USE LATEST REVISION)

4. Determine the Percent of Core Released using the values from Items 1, 2 and 3:

   Percent of Core Released ≅ (((DWRRM +Core Release Factor) * 10000) + .5) ÷ 100

   Percent of Core Release ≅ _____ **(%)**

5. Determine the Noble Gas (Curies in the Drywell) available for release using values from Items 2 and 3:

   NG (Curies in the Drywell) Available for Release ≅
   (Percent of Core Release +100) * Total Curie (NG) Available for Release

   NG (Curies in the Drywell) Available for Release ≅ _____ (Ci)

> NOTE
>
> The Design Leakage does not take into account any dilution from release into the Reactor Bldg. or from normal flow at the release point.

6. Determine the Drywell Purge Rate. Use the maximum flow rate the Design Leakage plus any venting of the drywell that is taking place. (Reference table below for possible default flow rates based on containment conditions).

   Drywell Purge Rate ≅ (DW Flow Rate (CFM) + 5.5 E 5 (CF)) ÷ 60 sec/min.

   Drywell Purge Rate ≅ _____ **(/Sec)**

POSSIBLE DEFAULT FLOWS BASED ON CONTAINMENT CONDITION

Type	Description	Flow Rate
Design leakage	1.2 % per day	11.42 CFM
Large Breach	100 % per day	381.9 CFM
Catastrophic Failure	100 % per 4 hours	2291.7 CFM

(TYPICAL - USE LATEST REVISION)

SOUTHERN NUCLEAR PLANT E.I. HATCH	PAGE 3 OF 4

FORM TITLE:
RELEASE RATE ESTIMATES & DOSE PROJECTIONS (BASED ON OTHER PLANT INSTRUMENTATION)

7. Determine the estimated Noble Gas release rate (Ci/Sec) by multiplying the Noble Gas (Curies in Drywell) (Item 5) by the Drywell Purge Rate (Item 6):

   Estimated NG release rate ≅
   NG Curies in the Drywell (Ci) * Drywell purge Rate (/sec)

   Estimated NG release rate ≅ _____ **(Ci/Sec)**

8. Determine the estimated Iodine and Particulate release rate. Select the appropriate Isotopic Mix for the current plant conditions (based on Attachment 3), then reference the table below to determine the cooresponding Iodine conversion ratio and Particulate Conversion Ratio. These values are to be multiplied by the estimated NG Release Rate to determine the estimated Iodine and Particulate release rates.

   Estimated Iodine Release Rate ≅ NG Release Rate * Iodine Conversion Ratio

   Estimated Iodine Release Rate ≅ _____ **(Ci/Sec)**

   Estimated Particulate Release Rate ≅
   NG Release Rate * Particulate Conversion Ratio

   Estimated Particulate Release Rate ≅ _____ **(Ci/Sec)**

ISOTOPIC CONVERSION RATIOS

Isotope Mix	Description	Iodine	Particulate
00	Default - Normal Reactor Coolant with SBGT Removal	1.6157 E -5	0
01	Normal Reactor Coolant with SBGT Removal	1.6157 E -5	0
02	Normal Reactor Coolant without SBGT Removal	3.2941 E -3	0
03	Gap Release (NUREG-1228) with SBGT Removal	1.6783 E -3	2.5010 E -4
04	Gap Release (NUREG-1228) without SBGT Removal	3.2658 E -1	2.5010 E -2
05	In-Vessel Melt (NUREG-1228) with SBGT Removal	2.4492 E -3	5.1914 E -4
06	In-Vessel Melt (NUREG-1228) without SBGT Removal	4.9219 E -1	1.0465 E -1

(TYPICAL - USE LATEST REVISION)

SOUTHERN NUCLEAR PLANT E.I. HATCH	PAGE 4 OF 4
FORM TITLE: RELEASE RATE ESTIMATES & DOSE PROJECTIONS (BASED ON OTHER PLANT INSTRUMENTATION)	

NOTE

The Isotopic Mix which was used in the release rate conversion calcuations must be used when performing dose projections.

9. Use the estimated NG Release Rate (Item 7) , the estimated Iodine Release Rate & the estimated Particulate Release Rate (Item 8) as input values in the "Plant Hatch Gross Activity Release Rate" model of MIDAS to obtain dose projections. Input the calculated estimated release rates in the appropriate release point area (Elevated or Ground Level Release) of the "Release Point Monitor Data" spreadsheet.

10. Use the meteorological data from Attachment 1 as required by section 7.3.2 as input vaules in the "Plant Hatch Gross Activity Release Rate" model of MIDAS to obtain dose projections.

1.0 OBJECTIVE

This procedure provides guidance for operation of the TSC Heating, Ventilation and Air Conditioning (HVAC) system AND Filter Train AND response to annunciator alarms during abnormal conditions.

2.0 APPLICABILITY

This procedure is applicable to the HVAC Annunciator Panel (1X75-P102) of the TSC.

3.0 REFERENCES

3.1 H-26002, TSC HVAC P&ID and Process Flow Diagram

3.2 H-27059, TSC HVAC Elementary Diagram (Sheets 1 through 3)
thru
H-27061

4.0 REQUIREMENTS

4.1 PERSONNEL REQUIREMENTS

4.1.1 Emergency response personnel who are to perform activation of the TSC HVAC system will normally perform this procedure, as applicable.

4.1.2 The TSC Manager or his designee will ensure completion of the applicable sections of this procedure, as necessary.

4.2 MATERIALS AND EQUIPMENT

Container to carry water to the TSC Mechanical Room to pour water in the filter train drain to prevent air from leaking out of the trap. This is necessary to keep the differential pressure above the setpoint indicated in the instrument setpoint index.

4.3 SPECIAL REQUIREMENTS

N/A - not applicable to this procedure

5.0 PRECAUTIONS/LIMITATIONS

5.1 PRECAUTIONS

5.1.1 Observe safety rules outlined in the Plant Hatch Safety Standards.

5.1.2 Evaluate the necessity of continuing operation of the system while the TSC is activated. In the event annunciator alarm(s) occur which may require shutdown of the system, it may be considered acceptable to allow continued operation of the system to minimize hazardous conditions to TSC occupants during radiological release.

5.1.3 Minimize opening and closing of the TSC access doors during a radiological emergency. Differential pressure in the facility will decrease IF the outside doors are opened.

5.2 LIMITATIONS

N/A - not applicable to this procedure

6.0 PREREQUISITES

The TSC HVAC system must be activated during a drill, exercise and/or declared emergency classification in order to use this procedure.

REFERENCE

7.0 PROCEDURE

7.1 ACTIVATION OF THE TSC HVAC SYSTEM

7.1.1 At the TSC Annunciator Panel (1X75-P102), place the filter train fan unit control switch (1X75-C001) in the RUN position.

7.1.2 Ensure the following valves on the Annunciator Panel change to the following positions:

Filter Train Supply Isolation Accident Mode A.O. Damper (1X75-AOV-F001)	OPEN (red light)
Filter Train Outlet Isolation A.O. Damper (1X75-AOV-F002)	OPEN (red light)
Fan X75-C001 Outlet Accident Mode A.O. Damper (1X75-AOV-F003)	OPEN (red light)
Return Air to Filter Train Isolation A.O. Damper (1X75-AOV-F004)	OPEN (red light)
Outside Air Inlet Isolation for AHU X75-B001 (1X75-AOV-F005)	CLOSE (green light)

7.1.3 Turn off the TSC toilet room exhaust dampers (1X75-AOV-F007) AND ensure the green light is lit on the TSC HVAC Annunciator Panel.

> NOTE
>
> The filter train charcoal absorbers must be changed and tested IF they have been operated greater than 720 hours

7.1.4 Check the filter train operating time on the TSC HVAC Annunciator Panel AND record the filter train startup time on the TSC Filter Train 1X75-D001 Operation form, in Attachment 1 of this procedure. Evaluate the necessity of continuing operation of the system while the TSC is activated, IF the operating time of the filter train charcoal absorbers is > 720 hours.

7.2 SHUTDOWN OF THE TSC HVAC SYSTEM

7.2.1 At the TSC Annunciator Panel (1X75-P102), place the fan for the filter train fan unit control switch (1X75-C001) to the STOP position, then the AUTO Position and ensure the green light is lit on the TSC HVAC Annunciator Panel.

7.2.2 Record the filter train shutdown time on the TSC Filter Train 1X75-D001 Operation form, in Attachment 1 of this procedure.

> NOTE
>
> The filter train charcoal absorbers must be changed AND tested IF they have been operated greater than 720 hours.

7.2.3 IF the operating time of the filter train is greater than 720 hours, contact the Maintenance Department to replace AND test the carbon absorbers.

7.2.4 Ensure the following valves on the Annunciator Panel change to the following positions:

Filter Train Supply Isolation Accident Mode A.O. Damper (1X75-AOV-F001)	CLOSE (green light)
Filter Train Outlet Isolation A.O. Damper (1X75-AOV-F002)	CLOSE (green light)
Fan X75-C001 Outlet Accident Mode A.O. Damper (1X75-AOV-F003)	CLOSE (green light)
Return Air to Filter Train Isolation A.O. Damper (1X75-AOV-F004)	CLOSE (green light)
Outside Air Inlet Isolation for AHU X75-B0001 (1X75-AOV-F005)	OPEN (red light)

7.3 ANNUNCIATOR RESPONSE

Take the appropriate actions, as outlined in steps 7.3.1 through 7.3.7, IF one or more of the following alarms is recieved on the TSC HVAC Annunciator Panel (1X75-P102).

7.3.1 TSC VENT (AHU) B001 PRE-FILTER HIGH DIFF PRESSURE [indicates high differential pressure across the air handling unit (AHU) roll media filter].

7.3.1.1 Check the roll media filter light at the AHU indicating box TB2 (1X75-B001) in the TSC HVAC Mechanical Room.

7.3.1.2 IF the above light is lit, contact the Maintenance Department to replace the roll media filter.

7.3.2 TSC VENT FILT TRN D001 HIGH DIFF PRESSURE (indicates high differential pressure across the filter train).

> CAUTION
>
> MINIMIZE OPENING AND CLOSING THE TSC ACCESS DOORS DURING A RADIOLOGICAL EMERGENCY WITHOUT OPERATION OF THE FILTER DRAIN.

7.3.2.1 Check the differential pressure on 1X75-DPIS-R005 at the TSC filter train in the TSC HVAC Mechanical Room (1X75-D001). Determine IF it is ≥ the setpoint indicated in the Instrument Setpoint Index.

7.3.2.2 IF the differential pressure is ≥ the setpoint indicated in the Instrument Setpoint Index, check the differential pressure of the following:

Pre-Filter Differential Pressure (DP)	1X75-DPI-R001
Upstream HEPA Filter DP	1X75-DPI-R002
Carbon Adsorber DP	1X75-DPI-R003 A & B
Downstream HEPA Filter DP	1X75-DPI-R004

> NOTE
>
> The TSC Manager needs to decide the necessity for continued operation or for shutdown of the filter train system for replacement of filters/carbon adsorbers during a radiological release.

7.3.2.3 IF any of the above differential pressures are ≥ their respective setpoint, as indicated in the Instrument Setpoint Index, turn the Outside Air Inlet Isolation for AHU 1X75-B001 control switch (1X75-AOV-F005) on the TSC HVAC Annunciator Panel to the CLOSE position (green light).

7.3.2.4 Turn the toilet room dampers switches [(1X75-C002) located in the TSC restrooms] to the OFF position AND ensure the Toilet Exhaust A. O. Damper (1X75-F007) is in the CLOSE position (green light) on the TSC HVAC Annunciator Panel.

7.3.2.5 Place the filter train fan unit control switch (1X75-C001) to the CLOSE position (green light) on the TSC HVAC Annunciator Panel.

7.3.2.6 Ensure the following valves on the Annunciator Panel change to the following positions:

Filter Train Supply Isolation Accident Mode A.O. Damper (1X75-AOV-F001)	CLOSE (green light)
Filter Train Outlet Isolation A.O. Damper (1X75-AOV-F002)	CLOSE (green light)
Fan X75-C001 Outlet Accident Mode A.O. Damper (1X75-AOV-F003)	CLOSE (green light)
Return Air to Filter Train Isolation A.O. Damper (1X75-AOV-F004)	CLOSE (green light)

Outside Air Inlet Isolation for AHU 1X75-B001 A.O. Damper (1X75-F005) will remain CLOSED (green light).

7.3.2.7 Contact the Maintenance Department to replace the appropriate HEPA filter, pre-filter OR carbon absorber IF the differential pressure is as stated in subsection 7.3.2.2.

7.3.2.8 After replacement of the appropriate filter OR carbon absorber, perform the following actions:

7.3.2.8.1 Restart the filter train fan unit (1X75-C001) at the TSC HVAC Annunciator Panel as outlined in subsection 7.1.

7.3.2.8.2 Place the Outside Air Inlet Isolation for AHU 1X75-B001 A.O. Damper control switch (1X75-F005) to the AUTO position on the TSC HVAC Annunciator Panel, ensuring it auto OPENS (red ight) AND the filter train differential pressure alarm clears.

7.3.2.8.3 When the alarm clears, return the Outside Air Inlet Isolation for AHU 1X75-B001 (1X75-F005) to the CLOSE position (green light).

7.3.3 TSC VENT AHU B001/FAN UNIT COOL DISCHARGE LOW FLOW (indicates low flow is being generated by air handling unit or filter train).

7.3.3.1 Check the TSC Vent AHU 1X75-B001 discharge flow (1X75-FIS-R006) on the TSC HVAC Annunciator Panel to determine IF the discharge flow is $\leq$ 2500 SCFM.

7.3.3.2 IF the flowrate is ≤ 2500 SCFM, ensure the TSC VENT AHU B001 PRE-FILTER HIGH DIFFERENTIAL PRESSURE and FILTER TRN D001 HIGH DIFFERENTIAL PRESSURE alarms are clear.

7.3.3.3 Perform steps outlined in subsection 7.3.1 or 7.3.2, as necessary, to clear the low flow condition.

7.3.4 TSC VENT FILTER TRAIN D001 AFTER CARBON ADS HIGH TEMP (indicates high temperature across the filter train carbon absorbers).

7.3.4.1 Check the Primary Carbon Absorber Temperature Filter Train and the Secondary Carbon Absorber Temperature (1X75-TIS-R008 A and B, respectively) on the TSC Annunciator Panel to determine IF the temperatures are ≥ 200° F.

7.3.4.2 IF the temperatures are ≥ 200° F, look and smell for signs of smoke discharging from air vents indicating a possible fire.

> CAUTION
>
> OPERATION OF THE DELUGE VALVE WILL FLOOD THE FILTER TRAIN AND DESTROY THE FILTER TRAIN CARBON ABSORBERS, REQUIRING THE FILTERS TO BE REPLACED.

7.3.4.3 IF a fire is evident, notify the Control Room to dispatch the fire bridage to the TSC

7.3.5 TSC VENT FILTER TRAIN D001 DELUGE VALVE F070 OPEN

7.3.5.1 IF the filter train deluge valve (1X75-D001) from the 1X75-F070 is opened, the Fire Brigade will close the valve after extinguishing the fire and the temperature on the Primary Carbon Absorber Temperature Filter Train and the Secondary Carbon Absorber Temperature (1X75-TIS-R008 A and B, respectively) are ≤ 85° F.

7.3.5.2 OPEN the filter train drain valves (1X75-F071 through 1X75-F076). CLOSE the filter train fan unit (1X75-C001) drain valve (1X75-F080).

7.3.5.3 Contact the Maintenance Department to replace both carbon absorbers.

7.3.5.4 Upon completion of carbon absorber replacement and testing, CLOSE the filter train drain valves (1X75-F071 thru 1X75-F076) and OPEN the filter train fan unit's drain valve (1X75-F080) in the TSC Mechanical Room.

7.3.5.5 Restart the filter train fan unit (1X75-C001) from the TSC HVAC Annunciator Panel by placing the control switch to the RUN position. Record the filter train start time on the TSC Filter Train 1X75-D001 Operation form, in Attachment 1 of this procedure.

7.3.5.6 Place the Outside Air Inlet Isolation for AHU 1X75-B001 A.O. Damper (1X75-F005) to the AUTO position. Ensure the Outside Air Inlet Isolation for AHU 1X75-B001 (1X75-F005) auto OPENS (red light) and the high temperature alarm clears on the Annunciator Panel.

7.3.5.7 When the alarm clears, return the Outside Air Inlet Isolation for AHU 1X75-B001 (1X75-F005) to the CLOSE position (green light).

7.3.6 TSC VENT AHU B001/FILTER TRAIN D001 DISCHARGE HIGH RADIATION (indicates high radiation emitted from the air handling unit or the filter train).

7.3.6.1 Check the AHU 1X75-B001 Inlet Radiation Monitor (1X75-RIS-K002) on the TSC HVAC Annunciator Panel to determine IF the dose rate is $\geq$ 10 mr/hr.

7.3.6.2 Ensure the following valves on the Annunciator Panel are in the following positions:

Filter Train Supply Isolation Accident Mode A.O. Damper (1X75-AOV-F001)	OPEN (red light)
Filter Train Outlet Isolation A.O. Damper (1X75-AOV-F002)	OPEN (red light)
Fan X75-C001 Outlet Accident Mode A.O. Damper (1X75-AOV-F003)	OPEN (red light)
Return Air to Filter Train Isolation A.O. Damper (1X75-AOV-F004)	OPEN (red light)
Outside Air Inlet Isolation for AHU X75-B001 (1X75-AOV-F005)	CLOSE (green light)

7.3.6.3 IF the above valves are in the required position AND the alarm is still present, anticipate a TSC HIGH RADIATION alarm will soon exist. Go to subsection 7.3.7 for response to a TSC HIGH RADIATION alarm.

7.3.7 TSC HIGH RADIATION (indicates high radiation exists in the TSC caucus area).

7.3.7.1 Check the TSC Caucus Area Radiation Monitor (1X75-RIS-K001) to determine IF the dose rate is $\geq$ 20 mr/hr.

7.3.7.2 IF a high radiation condition exists, follow the instructions of HP Supervision regarding possible evacuation of the TSC Staff to the Controll Room, Emergency Operations Facility (EOF) or Operations Support Center (OSC).

TSC FILTER TRAIN 1X75-D001 OPERATION

NOTE

Notify the Maintenance Department to replace the carbon adsorbers when operating time ≥ 720 hours.

DATE	TIME ON	TIME OFF	TOTAL TIME (HOURS)	ACCUMULATIVE TIME	SIGNATURE

1.0 OBJECTIVE

1.1 This procedure provides instructions for determining acceptable exposure to emergency response personnel during a declared emergency.

1.2 This procedure also outlines the method to be used for control and distribution of Potassium Iodide (KI) tablets to individuals on-site during an emergency.

2.0 APPLICABILITY

This procedure is applicable to the decision making process necessary for determining radiation exposure limits for emergency response personnel as well as to determine whether or not to administer KI tablets. This procedure is NOT applicable to the general public; however, the licensee is responsible for recommending protective measures to offsite authorities. Procedure frequency is as required.

3.0 REFERENCES

10AC-MGR-006-0S, Hatch Emergency Plan

EPA-400-92-001, Manual for Protective Action Recommendations

4.0 REQUIREMENTS

4.1 PERSONNEL REQUIREMENTS

4.1.1 A qualified individual acting in the capacity of Emergency Director.

4.1.2 Health Physics supervision and staff.

4.2 MATERIAL AND EQUIPMENT

Potassium Iodide (KI) tablets

4.3 SPECIAL REQUIREMENTS

4.3.1 The Company Medical Consultant must be notified immediately for all suspected exposures described in this procedure.

4.3.2 Individuals undertaking emergency actions in which the anticipated exposure will exceed 25 REM TEDE must be volunteers with full awareness of the risks involved.

5.0 PRECAUTIONS/LIMITATIONS

5.1 PRECAUTIONS

5.1.1 The risks of actual or potential radiation induced damage must carefully be weighed against the benefits to be gained when authorizing exposures in excess of 10CFR20 limits.

5.1.2 Every reasonable effort must be made to maintain personnel exposures, As Low As Reasonably Achievable (ALARA).

5.1.3 Personnel known to be allergic to KI must not be given KI tablets.

5.1.4 Personnel who experience potential allergic reactions after having taken KI must not be administered any additional KI AND must be given immediate medical attention. Possible reactions to KI include skin rashes, swelling of salivary glands, and "iodism" (metallic taste, burning mouth and throat, sore teeth and gums, symptoms of a head cold, and sometimes stomach upset and diarrhea).

5.1.5 After consultation with HP supervision, the Emergency Director may determine that emergency response personnel who have to enter any area of airborne radioactivity prior to air sample analysis may be administered KI as a precautionary measure.

5.2 LIMITATIONS

5.2.1 Doses to workers performing emergency services will be treated as a once-in-a-lifetime exposure.

5.2.2 Radiation doses to all workers during emergencies will, to the extent practicable, be limited to 5 REM. Justification of exposures above 5 REM must include the presence of conditions that prevent the rotation of workers or other commonly used dose reduction methods.

5.2.3 To assure adequate protection of minors and the unborn during emergencies, declared pregnant individuals exposures will be controlled in accordance with normal operating procedures.

5.2.4 The effectiveness of Potassium Iodide (KI) as a blocking agent drops quickly as a function of time AND therefore must be taken as soon as possible after authorization by the Emergency Director. The following guide provides an approximation of the effectiveness:

5.2.4.1 KI tablet taken before or concurrently with exposure is 90% effective.

5.2.4.2 KI tablet taken 3 to 4 hours after exposure is 50% effective.

5.2.4.3 KI tablet taken 12 hours after exposure has only limited effect.

5.2.5 KI has a shelf life specified by the distributing pharmaceutical company AND must be replaced prior to expiration.

5.2.6 Any rescue action that may involve substantial personnel risk must be performed by volunteers. Each of the emergency workers must be advised of the known estimated extent of such risk prior to participation. Healthy volunteers above the age 45 will receive first consideration.

6.0 PREREQUISITES

6.1 A declared emergency exists AND the position of Emergency Director must have been activated prior to performing this procedure.

REFERENCE

7.0 PROCEDURE

Emergency response personnel may receive exposure under a variety of circumstances in order to assure protection of others and of valuable property. These exposures will be justified if the risks permitted to the workers are acceptably low, AND the costs to others that are avoided by their actions outweigh the risks to which workers are subjected.

7.1 SAVING OF HUMAN LIFE

Where the potential risk of radiation hazard following the nuclear incident is such that life would be in jeopardy, or that there would be severe effects on the public health or loss of property detrimental to the public safety, the following criteria for saving of human life shall apply:

7.1.1 In consultation with HP supervision, the Emergency Director will evaluate the risks involved versus the benefits to be gained by considering the following:

7.1.1.1 The reliability of the prediction of radiation injury. Consideration must be given to limits of error associated with specific instruments AND techniques used to estimate the dose rate. This is especially crucial when the estimated dose approximates 100 REM or more.

7.1.1.2 Assessment of the capability of reducing inherent risks from the hazard through the use of appropriate mechanisms such as protective equipment, remote manipulation equipment or similar means.

7.1.1.3 The probable effects of acute exposure that may be incurred AND numerical estimates of the delayed effects. These effects are listed in Attachment 3, Emergency Worker Risks and Delayed Health Effects Associated With Large Doses of Radiation.

7.1.1.4 The probability of success of the emergency action.

7.1.2 Make exposure authorizations in accordance with subsection 7.4 Emergency Exposure Guidelines.

7.2 PROTECTION OF HEALTH AND PROPERTY

7.2.1 When the Emergency Director in consultation with HP supervision, deems it necessary to reduce a hazard OR potential hazard to acceptable levels to prevent a substantial loss of property, an exposure of up to, but not to exceed, 10 REM may be received by individuals participating in the operation.

7.2.2 The person in charge of emergency action at the incident scene may elect, under special circumstances (e.g., first aid, removal of injured personnel, etc.), to waive these limits AND permit volunteers to receive an exposure up to, but not to exceed, 25 REM.

7.2.3 Where the potential risk of radiation hazard following the nuclear incident is such that life would be in jeopardy, that there would be severe effects on the public health OR loss of property detrimental to the public safety, the criteria for saving of human life (subsection 7.1) shall apply.

7.2.4 Make exposure authorizations in accordance with subsection 7.4 Emergency Exposure Guidelines.

7.3 RECOVERY OF DECEASED VICTIMS

7.3.1 Since the element of time is not a critical factor, the recovery of deceased victims must be well planned. The amount of radiation exposure received by persons in recovery operations shall be controlled within existing occupational exposure guides.

7.3.2 In situations where bodies are located in areas which are inaccessible because of high radiation fields, where the recovery mission would result in exposure in excess of occupational exposure limits, the use of special remote recovery devices will be considered to retrieve the bodies.

7.3.3 In special circumstances where it is impossible to recover bodies without the entry of emergency response personnel into the area, the Emergency Director may determine it necessary to exceed the occupational exposure limits.

7.3.4 Exposures received under these circumstances will be controlled in accordance with subsection 7.4, Emergency Exposure Guidelines.

7.4 EMERGENCY EXPOSURE GUIDELINES

7.4.1 The Emergency Director will establish the exposure limits for the emergency response personnel based on the following Emergency Response Personnel Exposure Guides:

NOTE

These guidelines do not establish a rigid upper limit of exposure. The Emergency Director may use his/her judgment in establishing the appropriate limit.

NOTE

No thyroid limit is specified for lifesaving action since the complete loss of the thyroid may be considered an acceptable risk for saving a life; however, thyroid exposure must be minimized through the use of respiratory protection and/or KI tablets.

EMERGENCY RESPONSE PERSONNEL EXPOSURE GUIDES

Dose Limit* (REM)	*Activity*	*Condition*
5	all	n/a
10	protecting valuable property	lower dose not practicable
25	life saving or protection of large populations	lower dose not practicable
>25	life saving or protection of large populations	only on a voluntary basis to persons fully aware of the risks involved

* This limit is expressed as the sum of the effective dose equivalent (EDE) and the committed effective dose equivalent (CEDE)

The lens of the eye will normally be limited to three (3) times the values AND doses to other organs (including skin and extremities) will normally be limited to ten (10) times the listed value.

7.4.2 Review the qualifications of the volunteer emergency response personnel to ascertain which volunteers would have the highest probability of completing the rescue while accumulating the least exposure.

7.4.3 Review the exposure history of the emergency response personnel for current accumulated exposure levels.

> NOTE
>
> Authorizing signatures of emergency volunteers and the Emergency Director will normally be obtained prior to receiving emergency exposure; however, to expedite Search and Rescue operations, verbal authorization by all parties is sufficient until signatures can be obtained.

7.4.4 Complete an Authorizing To Exceed 10CFR20 Exposure Limits, similar to that shown on Attachment 1, with the following information:

7.4.5 Emergency response personnel's name, TLD number and security badge number.

7.4.6 Emergency response personnel's yearly accumulated exposure (PIC and TLD).

7.4.7 Authorized exposure limit, and if applicable, thyroid emergency exposure limit.

7.4.8 Date and time limitations associated with authorized emergency limits.

7.4.9 Signature of volunteer emergency response personnel indicating awareness of exposure limit extension AND risks associated with the exposure. A summary of risks associated with large doses of radiation may be found in Attachment 3.

7.4.10 Authorization of the Emergency Director.

7.5 EXPOSURE TO AIRBORNE IODINE

NOTE

The Food and Drug Administration (FDA) has concluded that risks from the short-term use of relatively low doses of potassium iodide (KI) in a radiation emergency are outweighed by the potential risks of radioiodine-induced thyroid nodules or cancer if a dose of 25 REM is projected to the thyroid.

NOTE

An exposure duration of one hour to the following concentrations of any single radioiodine isotope will result in a projected dose to the thyroid of 25 REM.

Te/I-132*	8.62E-05	µCi/cc
I-125	2.60E-05	µCi/cc
I-129	3.62E-06	µCi/cc
I-131	1.92E-05	µCi/cc
I-132	3.25E-03	µCi/cc
I-133	1.14E-04	µCi/cc
I-134	1.92E-02	µCi/cc
I-135	6.58E-04	µCi/cc

7.5.1 Determine IF the potential exist for personnel to receive a projected dose approximating 25 REM to the thyroid by performing the following:

7.5.1.1 Have an air sample collected AND iostopically analyzed to determine the concentrations of radioiodine isotopes. Isotopes of interest are Te/I-132, I-125, I-129, I-131, I-132, I-133, I-134 and I-135.

7.5.1.2 Estimate the expected duration of exposure in hours.

7.5.1.3 Perform the following calculation:

$$\mathbf{CDEthyroid} = \sum_{1}^{n} (Ai)(T)(DCFi)$$

where:

CDEthyroid = the committed dose equivalent to the thyroid in REM

Ai = the average concentration of radionuclide (I) in air in µCi/cc over duration of time (T)

T = the duration of the exposure in hours

DCFi = the dose conversion factor of inhaled isotope (I) in µCi/cc per hour

n = the number of radionuclides present

The following DCF_I values may be utilized:

Radionuclide	DCF in REM per µCi/cc/hr
Te/I-132*	2.90E+05
I-125	9.60E+05
I-129	6.90E+06
I-131	1.30E+06
I-132	7.70E+03
I-133	2.20E+05
I-134	1.30E+03
I-135	3.80E+04

* The contribution from the short lived daughter is included in the factors for the parent radionuclide.

7.5.1.4 Total the committed dose equivalent from each of the iodine isotopes. Projected CDEthyroid in excess of 25 REM will justify administration of KI.

7.5.1.5 For personnel that are to be issued KI tablets, administer as follows:

> NOTE
>
> The effectiveness of Potassium Iodide (KI) as a blocking agent drops quickly as a function of time and therefore must be taken as soon as possible after authorization by the Emergency Director. The following guide provides an approximation of the effectiveness:
>
> - KI tablet taken before or concurrently with exposure is 90% effective.
> - KI tablet taken 3 to 4 hours after exposure is 50% effective.
> - KI tablet taken 12 hours after exposure has only limited effect.

7.5.1.5.1 Administer one KI tablet (130 mg) prior to radioiodine exposure OR as soon as possible after radioiodine exposure. Record the issuance on a Potassium Iodide Distribution Record, similar to that shown on Attachment 2.

7.5.1.5.2 For continuing exposure conditions, administer a KI tablet each day.

7.5.1.5.3 Do not administer KI to an individual for more than 10 days unless authorized by the Emergency Director after he has consulted with the Company Medical Consultant.

7.6 EMERGENCY EXPOSURE TRACKING

All exposure received under emergency conditions will be considered occupational exposure. Doses received in excess of the annual limits specified in 10CFR20.1201(a) will be subtracted from the limits for planned special exposures that the individual may receive during the current year AND during the individuals lifetime.

(TYPICAL - USE LATEST REVISION)

GEORGIA POWER COMPANY PLANT E.I. HATCH	PAGE 1 OF 1
FORM TITLE: AUTHORIZATION TO EXCEED 10CFR20 LIMITS	

(FIRST) (M.I.) (LAST) TLD NUMBER SECURITY BADGE NO

is authorized to receive an exposure of

_____ REM and a thyroid exposure of _____ REM

for the period of_____ to _____.

Reason for requesting exposure in excess of 10CFR20 limits:

_____

_____

_____

_____

Current year exposure:

Exposure determined by:

_____

Dosimetry Representative Date

EXPOSURE IN EXCESS OF 10CRF20 LIMITS	EXPOSURE ABOVE 25 REM
I have been made of the extension of my exposure limits.	I have been made aware of the risks involved with the exposures listed above and I accept that risk.
_____ Employee's Signature / Date	_____ Employee's Signature / Date

APPROVAL

_____ / / _____

Emergency Director Date

(TYPICAL - USE LATEST REVISION)

GEORGIA POWER COMPANY PLANT E.I. HATCH	PAGE 1 OF 1
FORM TITLE: POTASSIUM IODIDE DISTRIBUTION RECORD	

POTASSIUM IODIDE DISTRIBUTION RECORD

Date:
Distribution Location:

Name	TLD Number	Number of consecutive days individual has taken KI including today	Authorized by

Health Effects Associated with Whole Body Absorbed Doses Received Within a Few Hours[a]

Whole Body Absorbed Dose (RAD)	Early Fatalities[b] (percent)	Whole Body Absorbed Dose (rad)	Prodromal Effects[c] (percent effected)
140	5	50	2
200	15	100	15
300	50	150	50
400	85	200	85
460	95	250	98

a Risks will be lower for protracted exposure periods.
b Supportive medical treatment may increase the dose at which these frequencies occur by approximately 50 percent.
c Forewarning symptoms of more serious health effects associated with large dose of radiation.

Approximate Cancer Risk to Average Individuals From 25 REM Effective Dose Equivalent Delivered Promptly

Age at Exposure (year)	Appropriate risk of premature death (deaths per 1000 persons exposed)	Average years of life lost if premature death occurs (years)
20 to 30	9.1	24
30 to 40	7.2	19
40 to 50	5.3	15
50 to 60	3.5	11

EXPIRATION DATE:	APPROVALS:			EFFECTIVE DATE:
N/A	DEPARTMENT MANAGER	JCL	DATE 12-11-97	
	NPGM/POAGM/PSAGM	CTM	DATE 12-11-97	12/21/99

1.0 OBJECTIVE

This procedure provides the initial method used to determine the dose rate at the site boundary to assist in Emergency Classifications based on gaseous effluent. This procedure also provides the projection of offsite TEDE and CDE doses to assist in the initial protective action recommendations (PARs).

2.0 APPLICABILITY

This procedure is applicable to initial determinations of offsite dose based upon estimated noble gas release from the Main Stack and Unit 1 and Unit 2 Reactor Building Vents. This procedure is performed as required.

3.0 REFERENCES

3.1 10AC-MGR-006-0S, Hatch Emergency Plan

3.2 73EP-EIP-001-0S, Emergency Classification and Initial Actions

3.3 73EP-EIP-005-0S, On-Shift Operations Personnel Emergency Duties

3.4 73EP-EIP-054-0S, Protective Action Recommendations to State and Local Authorities

3.5 62CI-OPS-005-0S, Accident Sampling of the Main Stack and Reactor Building Effluents using the KAMAN System

3.6 31EO-EOP-013-1/2S, Primary Containment Control

3.7 73EP-EIP-015-0S, Offsite Dose Assessment

4.0 REQUIREMENTS

4.1 PERSONNEL REQUIREMENTS

4.1.1 Emergency response personnel who have been trained in and are responsible for Emergency Classification and offsite dose assessment are required to perform this procedure.

4.1.2 The number and qualifications of personnel performing this procedure during an emergency will be determined by the SOS/ED.

4.2 MATERIAL AND EQUIPMENT

4.2.1 Dose Rate Instrument

4.2.2 Key for Main Stack Door MS-2

4.2.3 Meteorological Information and Dispersion Assessment System (MIDAS)

The system requirements for the MIDAS dose assessment program are:

Component	**Minimum system**	**Recommended system**
CPU	486 DX	586 DX (Pentium)
Speed	50 MHZ	133MHZ (or higher)
RAM	16 MB (greater speed is achieved through use of a RAM disk (8 MB)	32 MB
Hard Disk	240 MB	480 MB
Floppy drive	1.44 MB	1.44 MB
Interface	Mouse	Mouse
Monitor	VGA	VGA
Ports	1 parallel, 2 Serial	1 parallel, 2 serial
Keyboard	101	101
Operating system	DOS 5.0	DOS 6.0 or higher
Printer	HP deskjet 550 C	HP deskjet 550 C

4.3 SPECIAL REQUIREMENTS

Obtain a Radiation Work Permit (RWP) or a Health Physics escort when entering the Main Stack Operating Deck.

5.0 PRECAUTIONS / LIMITATIONS

5.1 PRECAUTIONS

5.1.1 Significant radiation hazards may be encountered during entries to obtain local instrument readings. Maintain occupational exposure As Low As Reasonably Achievable (ALARA) in the performance of assigned duties.

5.1.2 IF any of the following Annunciators are indicated on annunciator panels, inform the Chemistry department PRIOR to requesting the Chemistry Department to obtain a grab sample if a grab sample is required;

1H11-P650-2

MAIN STACK EFFLUENT ANY COLLECTOR RADN LEVEL MAXIMUM

MAIN STACK EFFLUENT ALL COLLECTORS RADN LEVEL MAXIMUM

RB VENT EFFL ANY COLLECTOR RADN LEVEL MAX

RB VENT EFFL ALL COLLECTORS RADN LEVEL MAX

2H11-P650-2

RB VENT EFFL ANY COLLECTOR RADN LEVEL MAX

RB VENT EFFL ALL COLLECTORS RADN LEVEL MAX

5.2 LIMITATIONS

5.2.1 This procedure can NOT be used to downgrade the severity of an emergency classification.

5.2.2 This procedure is based upon using the Meteorological Information and Dispersion Assessment System (MIDAS) for calculating indications of offsite dose and dose rates. MIDAS utilizes data from both radiological and meteorological plant instrumentation. Readings may be obtained from SPDS, control room monitors, and/or locally at the instruments. Information is required for all three releases paths (Main Stack, U1 Rx Bldg Vent, U2 Rx Bldg Vent).

NOTE

Values obtained from MIDAS for the purpose of Protective Action Recommendations are based on the avoided dose concept.

5.2.3 For the purpose of Protective Action Recommendations (PARs), the TEDE and CDE values for 1 mile, 2 miles, and 5 miles from the printed ENN Worksheet provided by MIDAS may be utilized.

6.0 PREREQUISITES

6.1 Contact Health Physics prior to making entries to obtain local radiation readings, OR entry into the main stack for grab samples.

6.2 The annunciators outlined in white in the Main Control Room are indications of a potential release condition, the following annunciators may indicate a radioactive release.

6.2.1 Main Stack Annunciators

Annunciator	Panel Number
OFF GAS VENT RADIATION HIGH-HIGH	1H11-P601-4
OFF GAS VENT RADIATION HIGH	1H11-P601-4
OFF GAS VENT RADIATION DNSC/INOP	1H11-P601-4
OFF GAS VENT SAMPLE FLOW HIGH/LOW	1H11-P601-4

6.2.2 Unit 1 Reactor Building Vent Stack annunciators

Annunciator	Panel Number
RX BLDG VENT SAMPLE FLOW HIGH/LOW	1H11-P601-4
REFUELING FLOOR VENT EXHAUST RADIATION HI-HI	1H11-P601-4
RX BLDG STACK RADN MON HIGH-HIGH	1H11-P603-2
RX BLDG STACK RADN MON HI	1H11-P603-2

6.2.3 Unit 2 Reactor Building Vent Stack Annunciators

Annunciator	Panel Number
RX BLDG VENT EXHAUST RADIATION HI-HI	2H11-P601-2
RX BLDG VENT EXHAUST RADIATION HIGH	2H11-P601-2
RX BLDG VT MON HIGH/LOW FLOW DOWNSCALE/INOP	2H11-P601-4
REFUELING FLOOR VENT EXHAUST RADIATION HI-HI	2H11-P601-4

REFERENCE

7.0 PROCEDURE

7.1 Upon indication of a potential release condition as indicated by step 6.2, and activation of this procedure, perform the following steps.

7.2 SYSTEM START-UP

NOTE

General instructions for the use of the MIDAS Code are found in Attachment 2, Generic Screen Guidelines for MIDAS.

NOTE

The MIDAS Program files are loaded on the harddrive of the computer located at the STA's desk.

7.2.1 With the computer off, obtain the MIDAS startup disk from the Emergency Director notebook and insert the MIDAS startup disk in the "A" drive of the computer containing the MIDAS program files.

7.2.2 Turn the computer on.

7.2.3 The computer will normally automatically "boot" into the MIDAS subdirectory and start the program.

7.2.4 WHEN prompted by the computer, enter the current date and time. IF the current date and time are correct, press enter.

7.3 DATA ACQUISITION

7.3.1 The MIDAS code requires the input of meteorological and radiological data. The data required is listed in Attachment 1, MIDAS Data Input Acquisition. Attachment 1 may be used to gather data for input. Data is to be gathered in accordance with the following steps.

7.3.2 Record readings from the appropriate monitors. Appropriate monitors are listed in Attachment 1, MIDAS Data Input Acquisition. Record only valid readings.

7.3.2.1 A Hi-Hi Alarm contact from 1D11-RIS-K600 A/B (34AR-601-412-1S) will trip the normal range effluent monitor 1D11-P001 and start both the Accident Range Effluent Monitor 1D11-P007 (KAMAN) and the Wide Range Recorder 1D11-R631 (BLUE Pen). Normal Kaman Operation is indicated on SPDS primary screen by vent stack window changing red with a value showing.

7.3.2.2 A Hi- Hi Alarm contact from 1D11-RIS-K619 A/B (34AR-603-216-1S) will trip the normal range effluent monitor 1D11-P002 and start both the Accident range effluent monitor 1D11-P601 (KAMAN) and the Wide range Recorder 1D11-R631 (RED Pen). Normal Kaman Operation is indicated on SPDS primary screen by vent stack window changing red with a value showing.

7.3.2.3 A Hi- Hi Alarm contact from 2D11-RIS-K636 A/B (34AR-601-229-2S) will trip the normal range effluent monitor 2D11-P002 and start both the Accident range effluent monitor 2D11-P601 (KAMAN) and the Wide range Recorder 2D11-R631 (RED Pen). Normal Kaman Operation is indicated on SPDS primary screen by vent stack window changing red with a value showing.

7.3.3 Instruments in alarm will be handled in accordance with the applicable annunciator response procedures.

7.3.4 In the event that control room flow instruments are inoperable or unreliable, the default flow values listed on Attachment 1 may be utilized for input.

7.3.5 IF any annunciator or indication is determined to "inoperable" or unavailable, increased operator awareness will be required to determine if an effluent release is ongoing.

7.3.6 IF there is a difference between the A and B channel readings for the Unit 1 Rx Bldg Stack Vent monitor (1D11-R619 A/B), Unit 2 Rx Bldg Stack Vent Monitors (2D11-R619 A/B) OR Main Stack monitor readings (1D11-R600 A/B), use the most conservative (higher) reading for input into MIDAS.

7.3.7 IF it is determined that the normal range effluent monitor is offscale high AND the accident range instrumentation (KAMAN) does not function properly for the Main Stack, Unit 1 Rx Bldg or Unit 2 Rx Bldg vent monitors, turn over dose assessment responsibilities to the TSC.

7.3.7.1 IF the TSC is not activated, contact the on-shift HP/Chemistry foreman and instruct him to initiate dose assessment activities on the dose assessment computer in the TSC.

7.4 DETERMINATION OF OFFSITE DOSE RATES AND DOSE PROJECTIONS

7.4.1 From the "Site Selection" menu screen, select "PLANT HATCH". The selection will illuminate.

7.4.2 Select "CONFIRM" to continue.

7.4.3 From the "Function Selection" menu screen, select "ACCIDENT DOSE CALCULATIONS". The selection will illuminate.

7.4.4 Select "CONFIRM" to continue.

7.4.5 The "Scenario Data Table Control" menu screen will appear. You may perform an initial projection or an update projection.

7.4.5.1 To perform an initial projection, select "START NEW SCENARIO" to initialize the dose projection spreadsheets. A warning will appear to confirm that you wish to initialize. Select "CONFIRM" to continue.

7.4.5.2 To perform an update projection, select "CURRENT SCENARIO EDIT" to perform an update calculation.

7.4.6 The meteorological spreadsheet will appear. Enter meteorological data from Attachment 1 as required by the spreadsheet at the current time. The current time frame will be illuminated. IF performing an update, data previously entered will be displayed.

7.4.7 Depress the "X" key to save the data on the spreadsheet and exit to the remainder of the program.

CAUTION

RELEASE POINT MONITORS MAY BE DISPLAYED ON SPDS IN UNITS OTHER THAN THOSE REQUIRED BY MIDAS. IF USING SPDS FOR DATA ACQUISITION, CHECK ALL UNITS TO ENSURE THAT THE UNITS MATCH THOSE REQUIRED BY MIDAS. SPDS MAY DISPLAY THE SAME MONITOR ON DIFFERENT SCREENS IN THE APPROPRIATE UNIT.

7.4.8 The release point monitor data spreadsheet will appear. Enter the data from Attachment 1 as required by the spreadsheet at the current time. The current time frame will be illuminated. IF performing an update, data previously entered will be displayed.

CAUTION

THE RELEASE POINT MONITOR DATA SPREADSHEET CONTAINS (12) DATA COLUMNS, OF WHICH (8) DATA COLUMNS IS DISPLAYED. THE ADDITIONAL (4) DATA COLUMNS CAN BE DISPLAYED BY USING THE "RIGHT" ARROW KEY ONCE DATA HAS BEEN ENTERED IN DATA COLUMN #8 SHOWN ON THE SCREEN. FAILURE TO ENTER DATA FOR EACH RELEASE POINT WILL RESULT IN AN ERROR CONDITION.

7.4.9 Depress the "X" key to save the data on the spreadsheet and exit to the remainder of the program.

> CAUTION
>
> IF THE REMAINING DURATION OF THE RELEASE IS UNKNOWN, A DEFAULT REMAINING DURATION OF 240 MINUTES (4 HOURS) MAY BE UTILIZED.

7.4.10 The "Release Timing" menu screen will appear. The "DURATION" field will display the total number of minutes from the onset of the release to the current time plus the time period specified in "REMAINING DURATION". The "REMAINING DURATION" field will display a default release duration of 240 minutes. Changes made to the "REMAINING DURATION" field will be automatically reflected in the "DURATION" field.

7.4.10.1 IF the default REMAINING DURATION of 240 minutes is acceptable, select CONFIRM to continue.

7.4.10.2 IF the REMAINING DURATION is determined to be some time period other than 240 minutes, enter the release duration time in minutes and select CONFIRM to continue.

> NOTE
>
> MIDAS will perform the required calculations. A working copy of the Emergency Notification Form will be delivered to the attached printer. Line 13 of the working copy of the ENN form contains TEDE and Thyroid CDE values for the site boundary, 2, 5, and 10 mile distances.

7.4.11 The values listed on line 13 of the working copy of the ENN Form may be utilized for the purpose of making protective action recommendations to state and local authorities. IF required, Protective Action Recommendations will be made in accordance with 73EP-EIP-054-0S, Protective Action Recommendations. IF the printout of the working copy of the Emergency Notification Form does not print properly, attempt to correct the problem with the printer by performing the following:

7.4.11.1 Select CONTINUE from the TEDE Rate Plot Screen, then select NEXT REPORT, then MORE REPORTS which will display the available report selections. Select the option SEND STATE REPORT TO PRINTER, and then select CONFIRM. This will send the working copy of the ENN form to the printer.

7.4.12 Upon completion of printing the working copy of the ENN form, MIDAS will display a plot of the Total Effective Dose Equivalent Rate (TEDE rate) based on a .25 hour (15 minute) projection. The display gives a peak TEDE Dose Rate value, direction and distance.

7.4.12.1 IF the Offsite dose rate (mR/hr) reading (from the monitor screen) is an order of magnitude (10 times) higher than the daily average site dose rate (~E-3 mR/hr) AND an emergency has been declared by the Emergency Director THEN notify the Emergency Director that a radioactive release is in progress.

7.4.12.2 IF the peak TEDE Dose Rate value exceeds .057 mR/hr, notify the SOS/ED for emergency classification purposes and notify the affected unit Shift Supervisor for possible EOP actions.

NOTE

You may elect to continue your evaluation of this projection or exit to perform an update projection.

CAUTION

CHOICES AVAILABLE UNDER THE "MORE REPORTS" MENU WITH THE EXCEPTION OF EXIT ARE BEYOND THE SCOPE OF THIS PROCEDURE. USE OF THESE OPTIONS FOR THE PERFORMANCE OF PROMPT OFFSITE DOSE ASSESSMENT IS NOT REQUIRED.

7.4.13 To obtain additional copies of the ENN form, select CONTINUE from the TEDE Rate Plot Screen, then select NEXT REPORT, then MORE REPORTS which will display the available report selections. Select the option SEND STATE REPORT TO PRINTER, and then select CONFIRM. This will send the working copy of the ENN form to the printer.

7.4.14 To exit, select EXIT. This will return you to the "Function Selection"menu screen.

7.4.15 Report the TEDE and CDE values from line 13 of the working copy of the ENN Form to the SOS/ED.

7.5 IF the dose assessment capabilities are functional from the TSC or EOF, THEN turnover Offsite Dose Assessment to either facility and proceed to subsection 7.7. TSC or EOF activation is NOT required prior to turnover of dose assessment activities.

7.6 IF the dose assessment capabilities are NOT functional from the TSC or EOF, continue to monitor the gaseous effluent release parameters. IF any of these parameters begin to increase, perform additional prompt offsite dose assessment calculation(s) as follows:

7.6.1 IF not already at the "Function Selection" menu screen, return to the "Function Selection" menu screen.

7.6.2 Perform additional dose projections in accordance with subsection 7.3, Data Acquisition and 7.4, Determination of Offsite Dose Rates and Dose Projections.

7.7 REVIEWS AND RECORDS

Forward data on Attachment 1 to the Emergency Director for review. Records generated during actual emergencies will be maintained in accordance with 20AC-ADM-002-0S, Plant Records Management.

(TYPICAL - USE LATEST REVISION)

SOUTHERN NUCLEAR
PLANT E.I. HATCH

PAGE 1 OF 2

FORM TITLE:
MIDAS INPUT DATA ACQUISITION

METEOROLOGICAL DATA ENTRY

MIDAS SCREEN LABELS	100M WIND SPEED	100M WIND SPEED	10M WIND DIRECTION	100M WIND DIRECTION	AMBIENT TEMP (**) (10M)	15 MIN AVG. DIFFERENTIAL TEMPERATURE (ΔT) 60M-10M*	15 MIN AVG. DIFFERENTIAL TEMPERATURE (ΔT) 100M-10M*	RAINFALL (15 MIN. AVG.)
MPL#	1Y33-R621 ***OR 1Y33-R624	1Y33-R623 ***OR 1Y33-R624	1Y33-R601 ***OR 1Y33-R604	1Y33-R603 ***OR 1Y33-R604	1Y33-R607 ***OR 1Y33-R610	1Y33-R606 ***OR 1Y33-R610	1Y33-R636 ***OR 1Y33-R610	1Y33-R608
TIME								

SAMPLE DATA

READINGS MAY BE TAKEN FROM SPDS OR PANEL 1H11-P690

Stability Class, ΔT, wind speed ,wind direction and rainfall readings taken directly from the panel must be averaged over 15 minutes.

At Panel 1H11-P690, the RED line indicates wind speed and the GREEN line indicates wind direction

*The 60M-10M ΔT may be used if the 100M-10M ΔT is unavailable; The 45M-10M ΔT may be used when one or both of the normal ΔT stations are unavailable.

**For wind direction greater than 360 degrees, subtract 360.

*** IF Primary Tower is unavailable, use Backup Tower for readings.

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RADIOLOGICAL DATA ENTRY

NOTE

Record only normal range data for associated release path IF KAMAN is NOT running. IF KAMAN is running, record only KAMAN data for associated release path.

Entering data for the KAMAN monitors when the KAMAN system is NOT operating will result in inaccurate offsite dose estimates.

Refer to 73EP-EIP-018-0S, section 7.3.7 for action to take IF the normal range instrumentation for any release path is offscale high and KAMAN is NOT operating properly.

RELEASE PATH	MAIN STACK				U1 RX BLDG.				U2 RX BLDG			
MIDAS SCREEN LABELS	MNSTK**NR** RELEASE 1D11-K600A/B (CPS)	MNSTK**NR** FLOW 1D11-R625 (CFM)	MNSTK**KAM** RELEASE 1D11-R631 (uCi\cc)	MNSTK**KAM** FLOW 1D11-R625 (CFM)	U1RXBG**NR** RELEASE 1D11-K619 A/B (CPM)	U1RXBG**NR** FLOW 1T41-R621 (CFM)	U1RX**KAM** RELEASE 1D11-R631 (uCi\cc)	U1RX**KAM** FLOW 1T41-R621 (CFM)	U2RXBG**NR** RELEASE 2D11-R619 A/B (CPM)	U2RXBG**NR** FLOW 2T41-R621 (CFM)	U2RX**KAM** RELEASE 2D11-R631 (uCi\cc)	U2RX**KAM** FLOW 2T41-R621 (CFM)
PANEL MPL#	1H11-P604	1H11-P645	1H11-P689	1H11-P645	1H11-P604	1H11-P645	1H11-P689	1H11-P645	2H11-P645	2H11-P645	2H11-P689	2H11-P645
TIME												

CHECK UNITS FOR RADIOLOGICAL DATA ENTRIES TO ENSURE THAT VALUES ARE THE SAME AS THOSE REQUIRED BY MIDAS.

Default flow values are as follows:	UNISOLATED	ISOLATED
Unit 1 Rx Bldg. Vent	288,905 CFM	193,870 CFM
Unit 2 Reactor Building Vent	198,840 CFM	162,340 CFM
Main Stack	20,000 CFM	20,000 CFM

(TYPICAL - USE LATEST REVISION)

This set of general instructions applies to all methods of dose projection utilizing MIDAS

GENERIC SCREEN GUIDELINES

- MIDAS utilizes a "point and click" feature for all menu applications.
- Menu choices will illuminate when selected with the mouse. Invalid choices will not illuminate.
- Menu choices backlit in red indicate important selectors.
- All menu selections must be "confirmed". This is accomplished by selecting the CONFIRM option on the screen with the mouse.
- The NUMPAD is used to enter data which may be required as a result of selecting a box on the screen.
- EXIT is used to stop processing and return to the function menu. A double click is required.
- CONFIRM is used to save selections and display the next screen.
- RESET will clear box selections IF "clicked" once and will reset the user to the previous screen(s) IF "clicked" twice. On the first screen (Accident Run Menu) reset has no effect.
- Selecting CONFIRM before selecting the required boxes will result in a beep and no changes will be made.

NUMPAD DATA ENTRY

- IF the NUMPAD was selected by mistake, select EN to return to the main screen.
- IF the entry is not complete or not valid, selecting EN will not be accepted.
- To correct an erroneous entry into the NUMPAD, select EN with the display box empty.
- IF reset is selected after a NUMPAD entry has been completed (EN is selected), then all of the DATA for every screen box will be cleared.
- To clear data for any one screen box, select the box and redefine the data value (do not use reset since all boxes will be cleared).
- Plus signs are not necessary but minus signs are required for negative numbers including exponential notation (e.g., 1E-6).
- On the meteorological screen, stability class may be entered as a letter between A and G. In this case the NUMPAD will contain each letter.
- Red warning message will appear when there is a problem with data that makes it impossible to continue the calculations. Selecting continue will allow you to correct the erroneous data. Selecting EXIT will return you to the menu selection screen.

1.0 OBJECTIVE

The objective of this procedure is to provide instructions for establishing and operating rally points where personnel contamination monitoring may be performed in the event of a plant emergency and site evacuation.

TABLE OF CONTENTS

2.0 APPLICABILITY

This procedure is applicable to establishing and operating Rally Points where radiological controls would be established for personnel evacuating plant site during a plant emergency. Procedure frequency is as necessary.

3.0 REFERENCES

3.1 10AC-MGR-006-0S, Hatch Emergency Plan

3.2 62RP-RAD-008-0S, Radiation and Contamination Surveys

3.3 62RP-RAD-004-0S, Personnel Decontamination

4.0 REQUIREMENTS

4.1 PERSONNEL REQUIREMENTS

Rally Point Team members will normally be HP Technicians and/or other members of the Radiological Emergency Team (RET).

4.2 MATERIAL AND EQUIPMENT

4.2.1 Portable Count Rate Meters

4.2.2 Portable Dose Rate Meters

4.2.3 Decontamination material, e.g., cloths, soaps, water, yellow poly bags, etc.

4.3 SPECIAL REQUIREMENTS

N/A - not applicable to this procedure

5.0 PRECAUTIONS/LIMITATIONS

5.1 PRECAUTIONS

N/A - not applicable to this procedure

5.2 LIMITATIONS

N/A - not applicable to this procedure

6.0 PREREQUISITES

A declared emergency or an emergency drill/exercise must exist before using this procedure.

REFERENCE

7.0 PROCEDURE

7.1 RALLY POINTS

7.1.1 The primary rally point for personnel inside the protected area is the Plant Entry Security Building (PESB). Gate 17 (North-West section of the protected area) may be used instead of the PESB if unforseen radiological/weather conditions preclude evacuation through the PESB. In such a situation, the Emergency Director (ED) will announce or have announced, an alternate evacuation route and rally point over the Site Public Announcing (PA) System.

7.1.2 Rally Point Habitability Criteria

The habitability criteria for the rally points are as follows:

7.1.2.1 Loose surface contamination levels < 1,000 dpm/100cm^2.

7.1.2.2 The ability to detect and measure personnel contamination.

7.1.2.2.1 Friskers must not be used for measurement of contamination in areas where the background count rate is > 200 cpm.

7.1.2.2.2 Portal monitors located at plant entrances, i.e., PM-6, may not be used if a high background count rate results in an instrument TROUBLE LIGHT or if HP technicians determine that use of the instrument would provide inaccurate results.

7.2 RALLY POINT ASSEMBLY

7.2.1 Upon direction of the OSC Manager (or Emergency Director if the OSC is not activated), a senior HP/Chem Department representative will appoint a Rally Point Team and Team Leader.

7.2.2 The Rally Point Team Leader will assign Rally Point Team members to perform radiological surveys of the rally point to determine if it is habitable using the criteria in subsection 7.1.2, Rally Point Habitability Criteria.

7.2.3 The Rally Point Team Leader will notify the OSC Manager (or Emergency Director if the OSC is not activated) of habitability survey results. The OSC Manager (or Emergency Director, if the OSC is not activated) will ensure the Control Room is aware of changing radiological conditions so that the appropriate instructions are given over the Site PA System when evacuation is deemed necessary.

7.2.3.1 IF the primary rally point is habitable, perform contamination monitoring in accordance with subsection 7.3, Contamination Monitoring.

7.2.3.2 IF the Primary Rally Point is not habitable, notify the OSC Manager (or Emergency Director if the OSC is not activated) so that an appropriate alternate location may be determined (e.g., Gate 17 or other suitable gate).

7.2.3.3 Upon receiving directions from the OSC Manager (or Emergency Director if the OSC is not activated), proceed to the area designated as the alternate rally point. Determine if the area is habitable using the criteria in subsection 7.1.2, Rally Point Habitability Criteria, and repeat subsections 7.2.3 through 7.2.3.2, as necessary.

7.2.4 Rally Point Teams will prepare for evacuation/surveying of plant personnel.

7.2.5 Rally Point Teams must periodically confirm that habitability conditions at the rally point are still acceptable. If conditions are such that habitability is no longer acceptable, immediately notify the OSC Manager (or the Emergency Director if the OSC is not activated) so that an appropriate alternate location may be determined. Perform steps as outlined in subsection 7.2.3.3.

7.3 CONTAMINATION MONITORING

7.3.1 Upon the declaration of an Alert with no site evacuation anticipated, personnel leaving the protected area will normally be monitored by portal monitors in the PESB.

7.3.2 Upon the declaration of a Site Area or General Emergency, only personnel evacuating the Protected Area will be monitored for contamination. Monitoring may be performed by either portal monitors or, if necessary to expedite the evacuation of large numbers of personnel, by both portal monitors and portable frisking equipment. IF necessary to evacuate personnel by performing personnel frisking at a rally point, perform the following:

7.3.2.1 Attempt to separate from other personnel, those individuals who are potentially contaminated, e.g., they were involved in the incident or were working in contaminated areas at the time of evacuation.

> NOTE
>
> During a plant evacuation, TLDs are to be left attached to access badges and collected by Security Department personnel.

7.3.2.2 Collect all dosimetry, other than TLDs, from personnel at the rally point. Attempt to maintain segregated the dosimetry of personnel who report that they were involved in the accident and the dosimetry of any personnel who report that their dosimeter is off scale. This will expedite dose evaluation.

7.3.2.3 Assign priority to the survey of individuals with emergency response assignments.

7.3.2.4 Perform personnel monitoring in accordance with approved HP/Chem Department procedures.

7.3.2.4.1 Personnel who are potentially contaminated per step 7.3.2.1 will receive a whole body frisk.

7.3.2.4.2 Personnel who are not potentially contaminated will receive a frisk of their hands and feet.

7.3.2.5 Notify the OSC Manager of personnel found to be contaminated with levels >1000 dpm/probe area.

7.3.2.6 Decontaminate personnel found to be contaminated in accordance with subsection 7.4, Decontamination.

7.3.2.7 Maintain records of personnel contamination in accordance with approved HP/Chem Department procedures.

7.3.2.8 Instruct individuals who received a potentially high exposure, e.g., those involved in the incident and/or those with off scale pocket dosimeters, to remain at the rally point until further instructions from the OSC are received on conducting exposure evaluation(s).

7.3.3 In the event of a plant evacuation during an ongoing radiological release, all personnel released from inside the protected area and those evacuated from outside the protected area will be directed to report to the state reception area for contamination monitoring. In addition, the Emergency Director may direct a part or all of the Rally Point Team members to proceed to the state reception area to perform personnel contamination monitoring of Plant Hatch employees. The Emergency Director will determine the most appropriate reception area based on wind direction and have it announced over the Site PA System.

7.3.3.1 Appling County High School in Baxley is the location of the state reception center to be used when evacuating to the south. See Attachment 1 for directions to the reception center.

7.3.3.2 Toombs County High School in Lyons is the location of the state reception center to be used when evacuating to the north. See Attachment 2 for directions to the reception center.

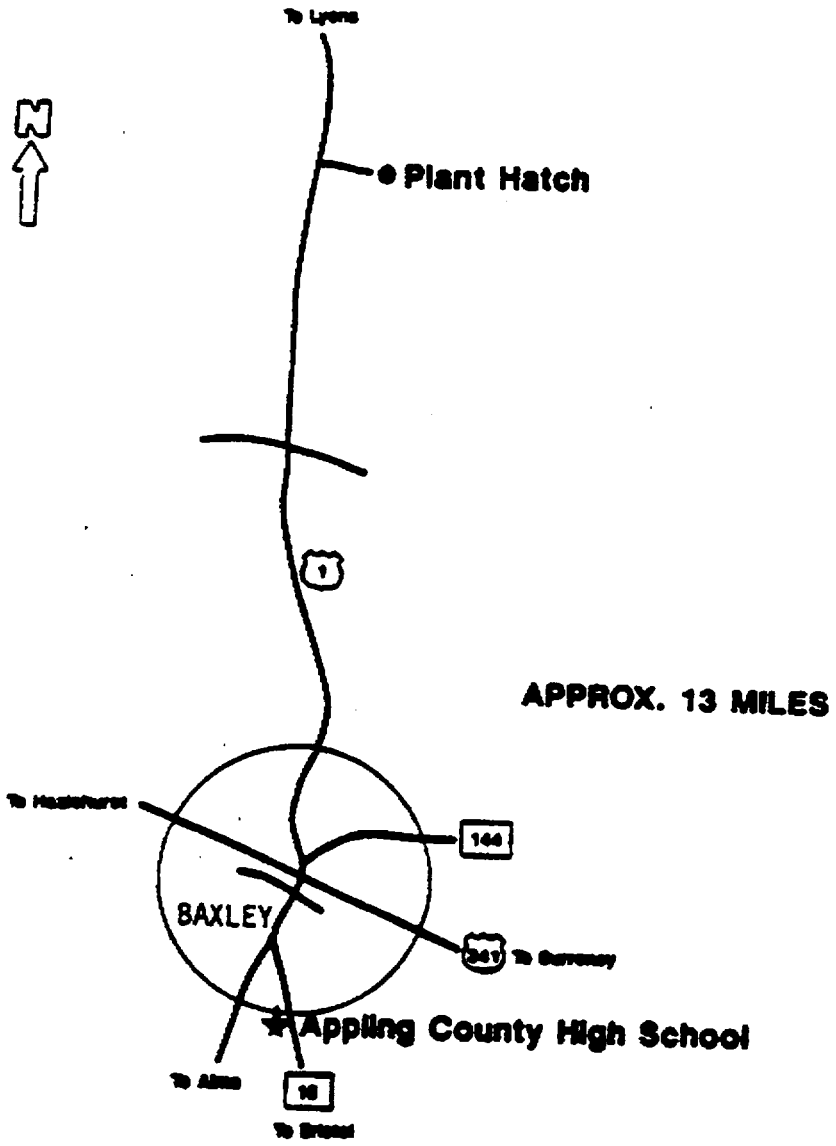
7.4 DECONTAMINATION

7.4.1 Personnel decontamination will be performed preferably on plant site. Decontamination showers and decontamination kits are located in Building 10 and in the PACE Building (Environmental Building). Keys for these areas are located in the EOF key box.

7.4.2 If necessary, temporary decontamination facilities will be established at the state reception area by Rally Point Team members using decontamination kits.

7.4.3 Decontamination will be performed in accordance with approved HP/Chem Department procedures.

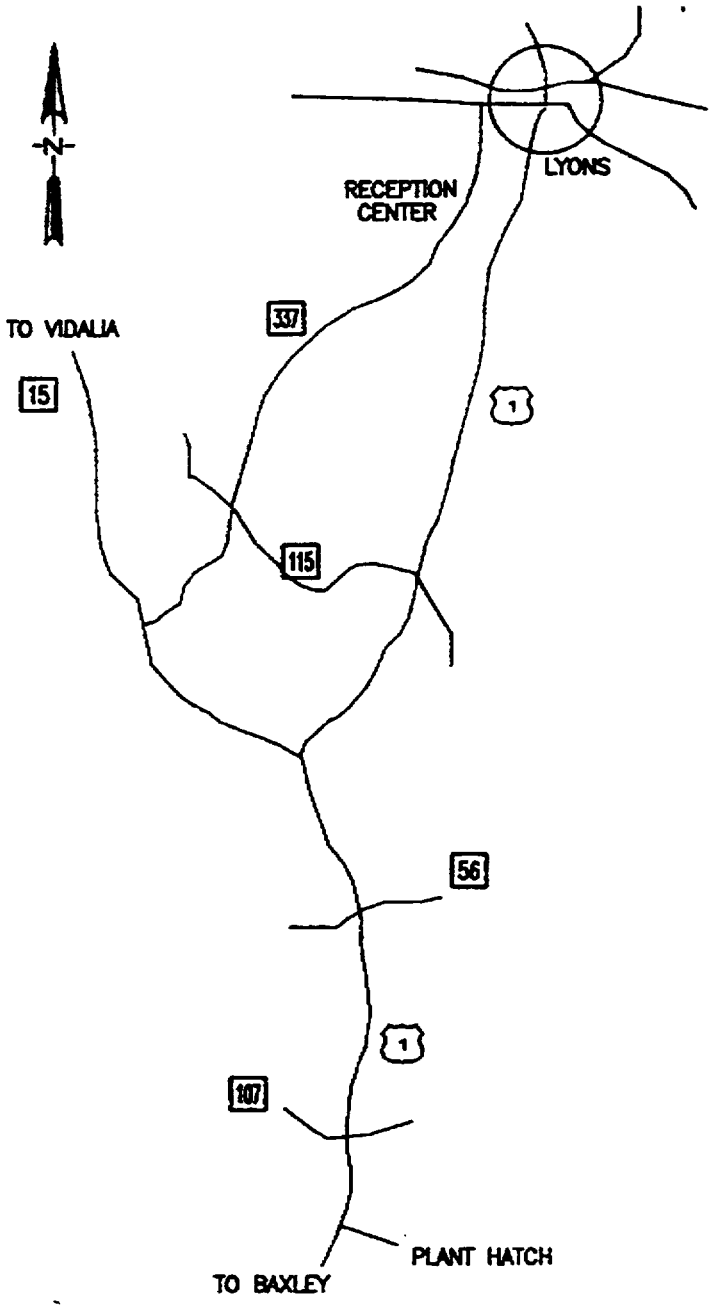
7.4.4 Potentially contaminated liquids and solid waste from decontamination efforts must be disposed of as radioactive material.



Emergency Reception Center
Appling County

Use this state reception center if you are instructed to evacuate the plant south on U.S. Hwy 1 or in either direction.

Directions to Appling Co. High School: Travel south on U.S. Hwy 1 approximately 13 miles to Hwy 15; bear left on Hwy 15 to the school (approximately 3/4 mile on the right).



Use this state reception center if you are instructed to evacuate the plant north on U.S. Hwy 1 or in either direction.

Directions to Toombs Co. High School: Travel north on U.S. 1 to Co. Rd. 115 (Hardens Chapel Rd.) approx. 15 miles. Take Co. Rd. 337 (Lyons Ctr. Rd.) west approx. 2 miles. Reception Center is on the left.