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SOUTHERN COMPANY
Energy to Serve Your World℠

January 6, 2000

Docket Nos. 50-321
50-366

HL-5877

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-020-0S	2 ED 1	12/29/99	Editorial Change
73EP-EIP-021-0S	1 ED 1	12/29/99	Editorial Change
73EP-EIP-022-0S	2 ED 1	12/29/99	Editorial Change
73EP-EIP-023-0S	0 ED 1	12/29/99	Editorial Change
73EP-EIP-054-0S	4 ED 1	12/29/99	Editorial Change
73EP-EIP-062-0S	5 ED 1	12/29/99	Editorial Change
73EP-EIP-063-0S	6 ED 1	12/29/99	Editorial Change
73EP-EIP-064-0S	3 ED 1	12/29/99	Editorial Change
73EP-EIP-073-0S	12 ED 1	12/29/99	Editorial Change
73EP-RAD-001-0S	1 ED 1	12/29/99	Editorial Change
73EP-RAD-006-0S	1 ED 1	12/29/99	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

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Enclosures:	73EP-EIP-020-0S,	Offsite Environmental Monitoring During Emergencies
	73EP-EIP-021-0S,	Alternate Operations Support Center (OSC)
	73EP-EIP-022-0S,	Alternate Emergency Operations Facility (EOF)
	73EP-EIP-023-0S,	Core Damage Assessment
	73EP-EIP-054-0S,	Protective Action Recommendations to State and Local Authorities
	73EP-EIP-062-0S,	Operations Support Center Activation
	73EP-EIP-063-0S,	Technical Support Center Activation
	73EP-EIP-064-0S,	Emergency Operations Facility Activation
	73EP-EIP-073-0S,	Offsite Emergency Notifications
	73EP-RAD-001-0S,	Radiological Event
	73EP-RAD-006-0S,	Repair and Corrective Action During a Radiological Emergency

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)

SOUTHERN NUCLEAR PLANT E.I. HATCH	DOCUMENT TYPE: EMERGENCY PREPAREDNESS PROCEDURE		PAGE 1 OF 15
DOCUMENT TITLE: OFFSITE ENVIRONMENTAL MONITORING DURING EMERGENCIES		DOCUMENT NUMBER: 73EP-EIP-020-0S	REVISION NO: 2 ED 1
EXPIRATION DATE: N/A	APPROVALS: DEPARTMENT MANAGER JCL DATE 5-2-97 NPGM/POAGM/PSAGM PHW DATE 5-2-97		EFFECTIVE DATE: 12/29/99

1.0 OBJECTIVE

This procedure provides guidelines for determination of radiological conditions in the plant environs, due to a radiological release from the plant, under accident conditions.

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2.0 APPLICABILITY

This procedure applies to the persons serving on External Radiological Emergency Teams (RET) and applicable Dose Assessment management personnel.

2.1 This procedure may be used for any declared radiological emergency, at the discretion of the Dose Assessment Manager or designee.

2.2 This procedure must be used for any declared ALERT, SITE-AREA EMERGENCY OR GENERAL EMERGENCY classification associated with a release of radioactive material onsite or offsite.

3.0 REFERENCES

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

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

3.3 60AC-HPX-001-0S, Radiation Exposure Limits

3.4 62HI-OCB-012-0S, Pocket Dosimeter Use and Performance Test

3.5 62HI-OCB-019-0S, Geiger Counter Model E-120 Operation & Calibration

3.6 62HI-OCB-060-0S, Operation of the Battery Powered LV Air Sampler

3.7 62RP-RAD-001-0S, Dosimetry Issuance & Tracking

3.8 62RP-RAD-008-0S, Radiation & Contamination Surveys

3.9 62RP-RAD-034-0S, Emergency Air Sampling Program

3.10 73EP-EIP-017-0S, Emergency Exposure Control

3.11 62HI-OCB-086-0S, R020 Ion Chamber Operation and Calibration

4.0 REQUIREMENTS

4.1 PERSONNEL REQUIREMENTS

External RETs will normally be comprised of Nuclear Chemistry AND/OR Health Physics personnel; however, other qualified RET members may be assigned to a team, as necessary.

4.2 MATERIAL AND EQUIPMENT

4.2.1 External RET survey kit containing equipment and material necessary to perform radiation, contamination and airborne radioactivity surveys, as specified in appropriate plant procedures.

4.2.2 Dosimetry deemed appropriate by Health Physics.

4.2.3 Protective clothing (i.e., coveralls, shoe covers, gloves) deemed appropriate, based on radiological conditions of sample location AND/OR tasks being performed.

4.3 SPECIAL REQUIREMENTS

N/A - Not applicable to this procedure

5.0 PRECAUTIONS/LIMITATIONS

5.1 PRECAUTIONS

5.1.1 External RET members must minimize traversing the plume area as much as practical to maintain exposure as low as reasonably achievable (ALARA).

5.1.2 External RET members must follow established exposure limits as outlined in 73EP-EIP-017-0S.

5.1.3 Significant changes in radiological conditions must be reported to the EOF as soon as practical.

5.1.4 Extreme care must be taken to ensure air sampler power leads are properly connected to the vehicle battery.

5.1.5 Precautions applicable to the handling of radioactive materials involving the potential hazards from direct radiation exposure and loose contamination apply to all samples obtained. All samples must be properly bagged prior to transporting for later analysis, as determined by the Dose Assessment Manager or designee.

5.1.6 All samples must be stored in rear of the survey vehicle to reduce radiation exposure and possible contamination of the External RET members.

5.1.7 IF approached by members of the public AND/OR press, the External RET must contact the EOF for appropriate instructions/directions to give those persons.

5.1.8 The External RET team captain must use discretion in determining the need for and type of protective clothing for his team, based on radiological conditions of the sample location AND/OR tasks being performed.

5.2 LIMITATIONS

N/A - Not applicable to this procedure

6.0 PREREQUISITES

A plant emergency, drill, OR exercise must have been declared.

REFERENCE

7.0 PROCEDURE

7.1 INITIAL ACTIONS

7.1.1 Unless otherwise assigned or directed, all Radiological Emergency Team (RET) members will report to the Operations Support Center (OSC) upon the declaration of an ALERT OR higher emergency classification. Upon arrival at the OSC, a senior HP/Chem department representative will assign RET members to the External RET. The External RET must be dispatched from the OSC to the EOF as soon as practical.

NOTE

The most senior HP/Chem department representative will assume responsibility of supervising the External RETs until the Dose Assessment Manager OR designee arrives.

7.1.2 The Dose Assessment Manager or designee will assign a minimum of (2) persons per team, one of which will be designated as the team's captain. The team captain will assign each member of his team to perform certain tasks:

°Vehicle Driver
°Navigator/Communicator
°In-transit Instrument Reader/Data Recorder
°Field Sampler

7.1.3 The team captain will ensure the following are completed prior to the team's deployment:

7.1.3.1 Obtain an External RET survey kit from the EOF Storage Room. Check the status of the kit's seal.

7.1.3.1.1 IF the External RET survey kit's seal is intact, inventory of the kit is NOT required. Obtain a copy of the External RET Checklist, similar to Attachment 1 of this procedure and complete section 1.1. Proceed to step 7.1.3.2.

7.1.3.1.2 IF the External RET survey kit's seal is NOT intact, the kit must be inventoried prior to departing the plant site. Obtain a copy of the External RET Checklist, similar to Attachment 1 of this procedure and complete section 1.2. IF necessary, replenish the kit with supplies in the EOF Storage Room. Proceed to step 7.1.3.2.

7.1.3.2 Obtain a survey vehicle for use. The Dose Assessment Manager OR designee will ensure appropriate vehicles are available for External RET use.

> NOTE
>
> Channel number for External RET communications with the EOF is labeled on designated vehicle radios AND hand-held radios.

7.1.3.2.1 Company vehicles, equipped with two-way communications devices, are preferable for use by the External RET; however, are NOT required.

7.1.3.2.2 Portable hand-held radios are available for use as a primary means of communications IF vehicles, NOT equipped with two-way communications devices, are used. Commercial telephone systems will be the alternate means of communicating with the EOF, as necessary.

7.1.3.3 Perform a communications check on the survey vehicle's radio (IF available) AND a hand-held radio on the appropriate frequency indicated on the radio's label. Document successful completion of the communications check in section 2.0 of the External RET Checklist, similar to that shown in Attachment 1 of the procedure. IF the communications check is NOT successfully completed, report the problem to the Dose Assessment Manager or designee for resolution.

> NOTE
>
> Instruments and check sources are located in the EOF Storage Room.

7.1.3.4 Perform a pre-operational check of each survey instrument AND the portable air sampler, using the applicable operation and calibration procedure for that instrument.

7.1.3.4.1 Ensure proper instrument response by performing a battery check AND source response check. IF the instrument is operating properly, turn off the instrument and place in the cab of the survey vehicle until ready for use.

CAUTION

EXERCISE CAUTION WHEN CONNECTING/DISCONNECTING AIR SAMPLER TO VEHICLE'S BATTERY TO AVOID IGNITING EXPLOSIVE GASES.

7.1.3.4.2 With the survey vehicle's engine running, connect the air sampler's positive cable to the vehicle's positive battery terminal AND THEN the negative cable to the vehicle frame (ground). Turn on the air sampler to confirm proper operation. IF the air sampler is operating properly, turn off the instrument AND disconnect it from the vehicle (in the reverse order stated above) AND place in the survey vehicle until ready for use.

7.1.3.4.3 Document successful completion of each instrument operability check in section 3.0 of the External RET Checklist, similar to that shown in Attachment 1 of this procedure. IF any instrument is NOT operating properly, report the problem to the Dose Assessment Manager OR designee for resolution.

7.1.3.5 Ensure the survey kit is placed in the survey vehicle AND the following items are placed in the cab area of the survey vehicle for easy access by the team members:

- °E-120 OR equivalent count rate instrument
- °RO-20 OR equivalent dose rate instrument
- °Log Book
- °Field monitoring data sheets and survey forms
- °10 mile EPZ map
- °Flashlight

7.1.3.6 Ensure each team member has appropriate dosimetry, as determined by the Dose Assessment Manager OR designee, to measure his/her anticipated exposure.

7.1.4 Each team will be briefed by the Dose Assessment Manager or designee prior to leaving the plant site. A logbook is available in each survey kit to log briefing information. Items discussed in the briefing must include, but are NOT limited to the following topics:

- °Emergency Classification declared
- °Plant Status
- °Meteorological conditions
- °Probable survey locations
- °Expected dose rates/locations
- °Protective Actions Recommendations (PARs) and affected sectors

7.1.5 The team captain will ensure the External RET Checklist is turned in to the Dose Assessment Manager OR designee before leaving the EOF. When dispatched, the team will proceed to the area specified by the Dose Assessment Manager OR designee.

7.2 MONITORING AND SURVEY ACTIONS

7.2.1 Dose Rate/Count Rate Surveys

> CAUTION
>
> CHOICE OF SURVEY INSTRUMENTS IS CRITICAL FOR EARLY DETECTION OF THE PLUME. USE OF COUNT RATE OR LOW RANGE DOSE INSTRUMENTATION IS RECOMMENDED FOR EARLY PLUME DETECTION.

7.2.1.1 Turn on appropriate survey instrument(s) (E-120 OR equivalent AND/OR, RO20 OR equivalent). Make frequent observations of meter readings while in transit to sample location OR while traversing the plume. Position instruments for continuous viewing AND ready access for recording readings.

> CAUTION
>
> MINIMIZE TRAVERSING THE PLUME AS MUCH AS POSSIBLE TO MAINTAIN THE TEAM'S DOSE ALARA.

7.2.1.2 Record observed readings in the team's log book AND, IF possible, on the 10 mile EPZ map. IF any indication of the plume is detected, record the time entering and exiting the plume, as indicated by survey instrument readings in the log book. Report the appropriate information, including each time the plume is traversed, to the EOF.

CAUTION

REPORT SIGNIFICANT CHANGES IN RADIOLOGICAL CONDITIONS TO THE EOF AS SOON AS POSSIBLE.

7.2.1.3 Upon arrival at a sample location, perform a dose rate AND count rate survey as follows:

7.2.1.3.1 Determine open (beta + gamma radiation) AND closed (gamma radiation) window readings using an RO20 or equivalent dose rate instrument AND the appropriate operation and calibration procedure for the instrument used. Hold the instrument horizontally at waist level to obtain waist level readings AND horizontally approximately 2 inches above ground to obtain 2 inch readings. Record results on applicable data forms, similar to that shown in Attachment 2 of the procedure.

7.2.1.3.2 Determine the net counts per minute (cpm) using an E-120 or equivalent count rate instrument AND the appropriate operation and calibration procedure for the instrument used. Hold the instrument horizontally at waist level to obtain waist level readings AND horizontally approximately 2 inches above ground to obtain 2 inch readings. Record the results on applicable data forms, similar to that shown in Attachment 2 of this procedure.

7.2.1.3.3 Upon completion of survey, report all survey results to the EOF.

7.2.2 Air Sampling

When directed by Dose Assessment Manager or designee, take an air sample at designated location as follows:

NOTE

Silver Zeolite (AgZ) cartridges are provided for use in actual emergency air sampling. Charcoal cartridges are provided for use in drills/ exercises.

7.2.2.1 Load an air sampler head with both a particulate filter AND appropriate sample cartridge. Install the loaded air sampler head in the air sampler.

CAUTION

EXERCISE CAUTION WHEN CONNECTING/DISCONNECTING AIR SAMPLER TO VEHICLE'S BATTERY TO AVOID IGNITING EXPLOSIVE GAGES.

7.2.2.2 Connect the air sampler positive cable to the vehicle's positive battery terminal, THEN, connect the air sampler's negative cable to the vehicle's frame (ground).

NOTE

Run the survey vehicle's engine for the duration of air sampling to avoid depleting the vehicle's power supply.

7.2.2.3 IF possible, point the air sampler into the direction of the wind. Do NOT place the air sampler on the ground. IF possible, place the air sampler on the vehicles bumper or edge of grill. With the vehicle's engine running, turn on the air sampler. Record the "START" time AND instrument flow rate on applicable data forms, similar to that shown in Attachment 3.

7.2.2.4 Allow the air sampler to run for 10 minutes, or as directed by the Dose Assessment Manager or designee.

7.2.2.5 When sampling is complete, turn off the air sampler AND record the air sampler "STOP" time on applicable data forms, similar to that shown in Attachment 3.

7.2.2.6 Disconnect the air sampler, reverse of the order stated in step 7.2.2.2.

NOTE

Notify the EOF IF conditions warrant moving to a low background area (<200 cpm) to count air sample.

7.2.2.7 IF NOT in a low background area, proceed to a low background area prior to counting the air sample filter and cartridge.

7.2.2.8 Determine the results of the air sample as follows:

7.2.2.8.1 Connect the E-120 or equivalent count rate instrument to the HP-210 probe provided in the survey kit. Insert the HP-210 probe into the sample holder (SH-4A or equivalent sample holder) AND determine the background cpm.

7.2.2.8.2 Don protective gloves AND THEN remove the sample cartridge AND particulate filter from the sampler head.

7.2.2.8.3 Place the particulate filter in the sample holder AND obtain the gross cpm. Upon completion, place the particulate filter in an air sample envelope.

7.2.2.8.4 Place the sample cartridge in a plastic bag. Place the detector probe against the sample cartridge AND obtain the gross cpm.

7.2.2.8.5 Determine the airborne AND iodine concentrations of the samples using the gross airborne AND iodine concentration equations on Attachment 3. Record results on applicable data forms, similar to that shown in Attachment 3.

7.2.2.8.6 Determine the thyroid dose rate using the thyroid dose rate equation on forms, similar to that shown in Attachment 3. Record results on applicable data forms, similar to that shown in Attachment 3.

7.2.2.8.7 Label the air sample envelope AND the sample cartridge plastic bag with the following information:

°Date
°Sample location
°Sample start/stop times
°Dose rate/count rate of the sample
°Sample flow rate (LPM)

7.2.2.8.8 Store the sample cartridge and particulate filter for return to the EOF.

7.2.3 Soil, Vegetation and Water Sampling

When directed by the Dose Assessment Manager or designee, obtain soil, vegetation AND/OR water samples in designated areas as follows:

7.2.3.1 Locate an area of bare soil. Using a small scoop, collect a representative sample of surface soil from an area approximately 1 meter by 1 meter, to a depth of approximately 1/2 to 1/4 inches. Place the sample in a plastic bag. Close the bag AND label with the sample location and the date/time of sampling.

7.2.3.2 Locate vegetation which may be ingested by grazing animals, IF possible. Using scissors, cut vegetation approximately 2 inches above ground AND fill a plastic bag with the vegetation. Close the bag AND label with the sample location and the date/time of sampling.

7.2.3.3 Locate surface water which may be ingested by grazing animals, IF possible. Fill a poly bottle with surface water. Close the bottle and place in a plastic bag. Close the bag AND label with the sample location and the date/time of sampling.

7.2.3.4 Record the type of sample obtained, sample location, date and time of sampling on applicable data forms, similar to that shown in Attachment 2.

7.3 TERMINATION OF FIELD TEAM ACTIVITIES

7.3.1 When directed, return to the EOF. Upon arrival at the EOF, the vehicle AND each team member must be surveyed. Notify the EOF via radio communications IF any detectable contamination (> 1000 dpm/probe area) is found AND proceed as directed.

7.3.2 All samples will be submitted to the Dose Assessment Manager or designee for handling AND/OR possible further analysis. Any radwaste generated must be properly disposed.

7.3.3 Each team will debrief with the Dose Assessment Manager or designee. The debriefing will include, but is NOT limited to the following topics:

- Team member's exposure
- Unusual circumstances or routes encountered
- Subsequent duty schedule (IF return to duty is anticipated, phone number where team members may be reached)

7.3.4 Submit all completed data sheets AND the team's 10 mile EPZ survey map to the Dose Assessment Manager or designee for review and approval.

7.4 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
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PAGE 1 OF 2

FORM TITLE:
EXTERNAL RET CHECKLIST

Team Name _____ Date _____

NOTE

Report all problems to Dose Assessment Manager or Designee for resolution prior to leaving the EOF.

1.0 Survey Kit Check (complete 1.1 or 1.2 only)

1.1 Survey kit's seal found intact; proceed to section 3.0, Instrument Operability Check.

_____ / _____
sign date

1.2 Survey kit found unsealed. Inventory kit and ensure, at a minimum, the following items are contained within the kit. Replenish with supplies from the storage room as necessary; proceed to section 3.0, Instrument Operability Check.

GM probe and sample holder	_____
Silver Zeolite cartridges and particulate filters	_____
TLDs and Pocket Dosimeters	_____
Labeling and writing materials	_____
10 mile EPZ Survey Map	_____
Potassium Iodide Tablets	_____
Miscellaneous Items (smears, spare batteries, spade, plastic bags, sample bottles, flashlight, first aid kit, gloves)	_____

_____ / _____
sign date

2.0 Communications Check

Communications check successfully completed (check appropriate space):

Yes/No

___/___ Vehicle radio

___/___ Hand-held radio

_____ / _____
sign date

(TYPICAL-USE LATEST REVISION)

SOUTHERN NUCLEAR PLANT E.I. HATCH	PAGE 2 OF 2
FORM TITLE: EXTERNAL RET CHECKLIST	

3.0 Instrument Operability Check

> NOTE
>
> Survey instruments, Air Samplers and check sources are located in the EOF Storage Room.

Instrument operability check successfully completed (check appropriate space):

Instrument	Yes	No
RO-20 or equivalent Portable air sampler E-120 or equivalent	SAMPLE	

_____ / _____
sign date

ENSURE THE FOLLOWING ARE COMPLETED PRIOR TO LEAVING THE E.O.F.:

Survey kit is in survey vehicle. _____
Following items are in cab of vehicle:
- °Survey instruments _____
- °Log book _____
- °Applicable data sheets/survey forms _____
- °10 mile EPZ survey map _____

Team members are equipped with appropriate dosimetry. _____
Adequate amount of fuel in survey vehicle. _____
Team briefing completed prior to dispatch _____
Record briefing information in team log book. _____

> NOTE
>
> Turn in checklist to Dose Assessment Manager or designee prior to leaving the EOF.

_____ / _____
sign date

(TYPICAL-USE LATEST REVISION)

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PAGE 1 OF 1

FORM TITLE:
OFFSITE ENVIRONMENTAL SURVEYS/SAMPLES

Team Name _____

Date _____

NOTE

All (*) items must be reported to the EOF.

SAMPLE LOCATION (S-M-P)*	SAMPLE TIME (eastern)	DOSE RATE READINGS (mR or R/hr)* waist level closed	waist level open	2" above ground closed	2" above ground open	COUNT RATE READINGS (CPM)* waist level	2" above ground	OTHER SAMPLES OBTAINED AT THIS LOCATION Vegetation	Soil	Water	Other

SAMPLE

Dose Rate Instrument(s) serial no. _____ / _____ / _____

Count Rate Instrument serial no. _____ / _____

TRN-0126 Rev. 2 G16.70 73EP-EIP-020-0S

(TYPICAL-USE LATEST REVISION)

SOUTHERN NUCLEAR PLANT E.I. HATCH	PAGE 1 OF 1
FORM TITLE: ENVIRONMENTAL AIR SAMPLING CALCULATION SHEET	

Date _____

Team Name _____

Sample Location S-M-P	Flow Rate (LPM)	Sample Time		Total Sample Time
		ON	OFF	

Gross Airborne Determination

Gross Airborne Concentration (uCi/cc):

$$\frac{\text{(net cpm) (4.5E-9)}}{\text{(flow rate) (sample time)}}$$

Gross CPM	BKG CPM	Net CPM	Results uCi/cc

Gross Iodine Determination

Gross Iodine Concentration (uCi/cc):

$$\frac{\text{(net cpm) (4.5E-8)}}{\text{(flow rate) (sample time)}}$$

Gross CPM	BKG CPM	Net CPM	Results uCi/cc

Thyroid Dose rate determination

Thyroid Dose Rate (mR/hr):

[Gross Iodine Concentration (uCi/cc)] [corrective factor (mR/uCi/cc/hr)]

Gross iodine concentration (uCi/cc)	Correction Factor (mr/uCi/cc/hr) (multiply)	Results (mr/hr)
	1.3E9	

GEORGIA POWER COMPANY PLANT E.I. HATCH	DOCUMENT TYPE: EMERGENCY PREPAREDNESS PROCEDURE		PAGE 1 OF 4
DOCUMENT TITLE: ALTERNATE OPERATIONS SUPPORT CENTER (OSC) ACTIVATION		DOCUMENT NUMBER: 73EP-EIP-021-0S	REVISION NO: 1 ED 1
EXPIRATION DATE: N/A	APPROVALS: DEPARTMENT MANAGER CLC DATE 10-23-91 NPGM/POAGM/PSAGM HLS DATE 10-23-91		EFFECTIVE DATE: 12/29/99

1.0 OBJECTIVE

This procedure will instruct personnel on the activation of the Alternate Operations Support Center (OSC) in the event the Primary OSC becomes uninhabitable. The Alternate OSC is located in the northeast section of the Simulator Bldg., across the hall from the primary Emergency Operations Facility. This area will be utilized by OSC management while OSC line support personnel will assemble in the Simulator Bldg. cafeteria.

2.0 APPLICABILITY

This procedure is applicable to personnel and activities regarding activation and operation of the Alternate OSC. Frequency of use will be as necessary.

3.0 REFERENCES

3.1 NUREG 0737, Requirements for Emergency Response Capability

3.2 10AC-MGR-006-0S, Emergency Plans

3.3 73EP-EIP-011-0S, Assembly, Accountability and Evaluation

3.4 Emergency Plan, Sect. H-2

4.0 REQUIREMENTS

4.1 PERSONNEL REQUIREMENTS

The OSC Manager is responsible for the completion of the following activities by delegating these tasks to OSC personnel who normally activate the Primary OSC.

4.2 MATERIAL AND EQUIPMENT

Alternate OSC Communications Checks form

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

Primary OSC shall have been determined uninhabitable.

REFERENCE

7.0 PROCEDURE

7.1 TRANSFER OF THE PRIMARY OSC

7.1.1 Announce to the OSC staff that the Primary OSC is being evacuated and transfer to the Alternate OSC will take place.

7.1.2 Contact either Security, Buildings and Grounds or Maintenance for available vehicles to transfer equipment/supplies to the Alternate OSC.

7.1.3 IF required, send a Health Physics team to the Alternate OSC to perform a habitability survey and to establish a control point at the east end of the Simulator Building. The Health Physics technicians on standby at the EOF may be utilized to perform this task. After habitability survey results are confirmed, have OSC staff collect necessary equipment and supplies needed to facilitate OSC activities.

7.1.4 Perform an accountability of OSC personnel in accordance with 73EP-EIP-011-0S, Assembly, Accountability, and Evacuation.

7.1.5 Notify OSC teams in the plant of the transfer of the OSC and have them report to the TSC for information updates.

7.1.6 Contact the TSC Manager and transfer control of inplant activities to the TSC.

7.1.7 Disconnect the OSC telephone key system (located in the supply closet behind vending machines) prior to transferring to Alternate OSC.

7.1.8 Evacuate to the Alternate OSC.

7.2 ACTIVATION OF THE ALTERNATE OSC

7.2.1 IF required due to radiological conditions, have Health Physics survey all incoming OSC personnel.

7.2.2 Establish access control over the facility. OSC Supervisory personnel and Communicator/Recorders report to Room 172 and all other personnel report to the Simulator Breakroom to await further instructions.

7.2.3 Set-up Alternate OSC per layout posted in the Alternate OSC.

7.2.4 Connect the alternate OSC telephone key system (located in the closet in the entranceway to the Alternate OSC).

7.2.5 Perform communications check per Attachment 1 and establish communications with the TSC and EOF.

7.2.6 Establish communications with the Simulator Building Breakroom by calling the breakroom phone (ext. 2846).

7.2.7 Inform the TSC, EOF and Emergency Director that the Alternate OSC is activated.

(TYPICAL - USE LATEST REVISION)

GEORGIA POWER COMPANY
PLANT E.I. HATCH — PAGE 1 OF 1
FORM TITLE:
ALTERNATE OSC COMMUNICATIONS CHECKS

NOTE

Ensure that the below listed telephone lines are functioning. These checks may be completed on a single telephone set. Functioning is defined for normal and ring down lines to be as follows:

Ring Down Lines - When the receiver is lifted a ringing of the other phone is heard and a response is received.

Normal Lines - When the receiver is lifted a dialtone is heard, call a known local number (i.e., adjacent phone number in the OSC) to verify operability.

IF phone problems are encountered check the key system in the entranceway closet to ensure that it is connected.

TELEPHONE LINE	OPERABLE LINES	COMM LOOP ESTABLISHED	INOPERABLE
C/R # 1/2 Plant Parameter/Mjr Events			
C/R # 3 Rad Status			
C/R #4 Answerer/OSC Ringdown			
C/R #5 RET/Repair Teams			
C/R #6 "IN"			
C/R #7 "OUT"			
Check operability of plant radio			
Local outside line			

_____ Signature

____/____/____ Date

1.0 OBJECTIVE

This procedure addresses AND delineates the actions required to deactivate the primary EOF AND activate the Alternate EOF to a state of readiness. It also provides guidelines for manning the facility.

2.0 APPLICABILITY

This procedure is applicable to personnel AND activities regarding activation AND operation of the Alternate EOF during an emergency condition, drill AND/OR exercise. Frequency of use will be as necessary.

3.0 REFERENCES

3.1 NUREG 0737, Supplement I, "Requirements for Emergency Response Capability"

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

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

4.0 REQUIREMENTS

4.1 PERSONNEL REQUIREMENTS

4.1.1 Qualified Emergency Response personnel who normally activate the primary EOF are required to perform this procedure.

4.1.2 The EOF Manager or designee will be responsible for ensuring completion of this procedure.

4.2 MATERIAL AND EQUIPMENT

4.2.1 Attachment 1

4.2.2 Attachment 2

4.3 SPECIAL REQUIREMENTS

The Alternate EOF is located in Vidalia, Ga. in the Emergency News Center Complex as shown in Attachment 3.

5.0 PRECAUTIONS/LIMITATIONS

5.1 PRECAUTIONS

5.1.1 This procedure is intended to be guidance for activating the Alternate EOF in an emergency situation. Deviations from the listed sequence are permitted when plant conditions warrant a more expedient order of completion.

5.1.2 A proper turnover is required prior to transferring any duty to/from any emergency response facility.

5.2 LIMITATIONS

N/A - Not applicable to this procedure

6.0 PREREQUISITES

The Emergency Director and/or EOF Manager has determined the primary EOF uninhabitable (for any reason) AND/OR facility operation from the Alternate EOF is desirable.

REFERENCE

7.0 PROCEDURE

7.1 DEACTIVATION OF THE PRIMARY EOF

7.1.1 The EOF Manager ensures the following activities are performed:

7.1.1.1 Announce to the EOF staff that the primary EOF is being deactivated (including the cause of the deactivation) AND that activation of the Alternate EOF will take place.

7.1.1.2 Notify the NRC, General Office Operations Center (GOOC), State and local authorities and the Emergency News Center of current facility status.

7.1.1.3 Notify ED and TSC Manager that the primary EOF is being deactivated AND EOF activities are being relocated to the Alternate EOF.

7.1.1.4 Dispatch a Health Physics team to determine habitability of the Alternate EOF as necessary. Refer to Attachment 3.

7.1.1.5 Transfer Emergency Director duties to the TSC in the event that the Emergency Director is located in the EOF.

7.1.1.6 Evacuate applicable emergency response personnel to the Alternate EOF to satisfy the following functions:

TASK/FUNCTION	PERSONNEL	# REQUIRED
Offsite Interface in the EOF	EOF Manager	(1)
Dose Assessment support to the Emergency Director	Dose Assessment	(2)

Additional emergency response personnel may be dispatched as directed by Facility Management to provide additional support, as needed.

7.1.2 The Dose Assessment Manager ensures the following activity is performed:

7.1.2.1 Transfer dose assessment responsibilities to the TSC. Appropriate Dose Assessment Staff members will be dispatched to assist the TSC in the tracking of field teams.

7.1.3 The Support Coordinator ensures the following activities are performed:

7.1.3.1 Obtain vehicles for transfer of equipment/personnel to the Alternate EOF.

7.1.3.2 The switchboard operator transfers incoming lines to the PESB prior to reporting to the PESB.

7.1.3.3 EOF personnel load equipment and supplies into vehicles. At a minimum, transfer those items listed in Attachment 1.

7.1.4 The Security Manager ensures the following activities are performed:

7.1.4.1 Maintain accountability of EOF personnel during the transfer by utilizing sign-in sheets. Personnel need to sign out upon exit from the EOF.

7.1.4.2 Dispatch Security Officers to establish access control for the Alternate EOF.

7.2 ACTIVATION OF THE ALTERNATE EOF

7.2.1 Ensure radiological monitoring of all incoming EOF personnel, as directed by the Dose Assessment Manager.

7.2.2 Set-up Alternate EOF using the space available (See Attachment 4 for typical layout of the Alternate EOF).

7.2.3 Perform communications check per Attachment 2.

7.2.4 Establish communications with TSC, NRC, Control Room and State and local authorities, as appropriate.

7.2.5 Ensure security access control is established for the Alternate EOF.

7.2.6 Synchronize all clocks with the Control Room.

7.2.7 Inform all parties that the Alternate EOF is activated.

7.2.8 Set-up the Dose Assessment computer in accordance with 73EP-EIP-015-0S, Dose Assessment, and establish operability. Transfer dose assessment activities to the Alternate EOF as directed by the Emergency Director.

7.2.9 IF desired, set-up the ERDS computer and modem (1X750P657, P658 and V-659) to allow direct monitoring of critical plant parameters. Refer to Attachment 5 for set-up instructions.

7.2.10 The Emergency Director may operate from the Control Room, the TSC, or the EOF at his discretion. Emergency Director duties may be transferred to the Alternate EOF as deemed appropriate by plant management.

1. Offsite Field Monitoring Kits (IF not already in use)
2. Materials deemed necessary from the EOF storage Room and supply cabinets
3. Dose assessment computer
4. Field Team Radio equipment

(TYPICAL - USE LATEST REVISION)

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FORM TITLE: ALTERNATE EOF COMMUNICATIONS CHECKS	

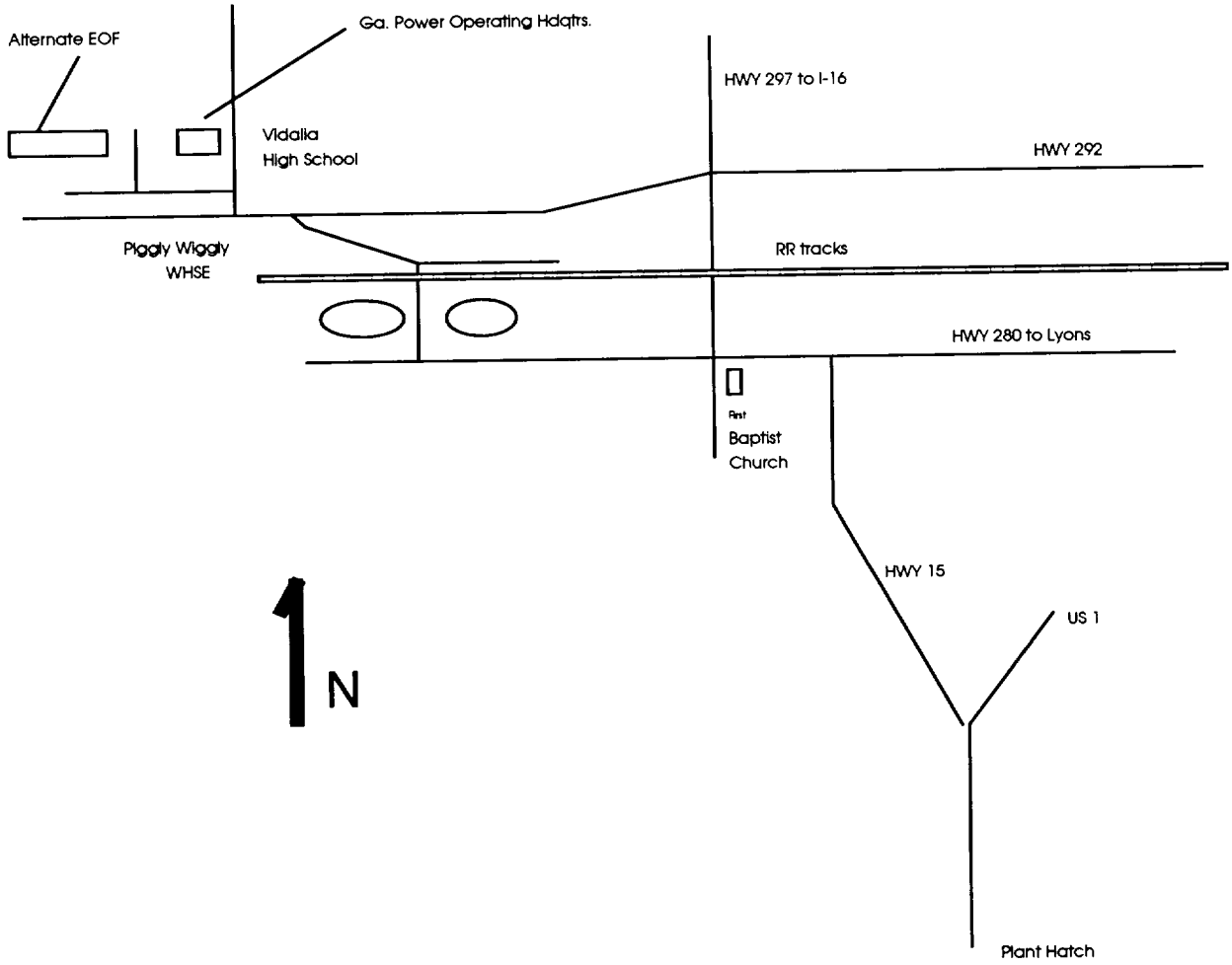
NOTE

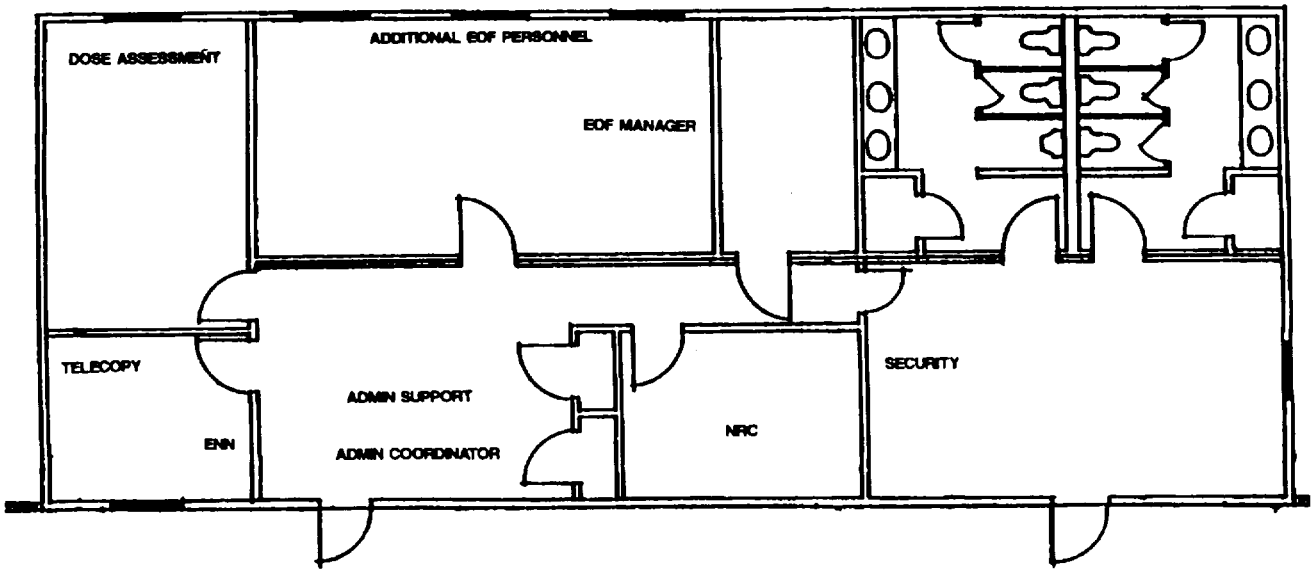
To perform operability checks for phone lines, lift handset and wait for dial tone. Dial a known number (i.e., adjacent phone set) to ensure operability. This check may be completed on a single telephone set. Phone numbers designated for use by Alternate EOF Personnel may be found in the Emergency Call List.

To perform an operability check for the ENN, perform a roll call in accordance with 73EP-EIP-C73-OS, Offsite Emergency Notifications.

To perform an operability check of the radio, establish contact with the TSC.

COMMUNICATION LINK	OPERABLE YES	OPERABLE NO	COMMENTS
C/R 1 Plant Parameters			
C/R 3 Rad/Met Data			
C/R 5 State and Locals ENN			
1 Outside Line			
Radio			


Alternate EOF
Ga. Power Operating Hdqtrs.
HWY 297 to I-16
Vidalia
High School
HWY 292
Piggly Wiggly
WHSE
RR tracks
HWY 280 to Lyons
Baptist
Church
HWY 15
US 1
N
Plant Hatch


DOSE ASSESSMENT
ADDITIONAL EOF PERSONNEL
EOF MANAGER
TELECOPY
ENN
ADMIN SUPPORT
ADMIN COORDINATOR
NRC
SECURITY

The following are basic instructions for connecting and starting the NRC-ERDS Alternate EOF terminal for Unit 1 or Unit 2 data display:

1. Connect the monitor, keyboard and modem as follows:

   a. Connect keyboard to the monitor

   b. Connect communications cable from the modem to the monitor

   c. Connect the telephone cable from the modem to the designated phone jack

   d. Plug in the terminal and turn on

   e. Plug in the modem and turn on

   f. Press the space bar on the keyboard, IF necessary, to refresh the screen.

The following are instructions to initiate data display and provide for transfer of displayed data between units:

2. Press "CONTROL" and "BREAK" keys simultaneously

3. Type (in uppercase letters) "QQQ" and press the "ENTER" key

   a. At the entry prompt, type "HNP 1A" to access the Unit 1 data display.

   b. At the entry prompt, type "HNP 2A" to access the Unit 2 data display.

Before turning the system off, hold down the "CMD" key and press "break". Press "shift" and "QQQ".

1.0 OBJECTIVE

The objective of this procedure is to provide the instruction necessary during emergency conditions to evaluate the extent of core damage.

TABLE OF CONTENTS

2.0 APPLICABILITY

This procedure is applicable to the evaluation of core damage under accident conditions for both Unit 1 and Unit 2. Procedure frequency will be as necessary. Individual subsections, or methods for determining core damage, may be performed out of sequence IF necessary to expedite the determination of core damage.

3.0 REFERENCES

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

3.2 NEDO-2215, Procedure for the Determination of the Extent of Core Damage Under Accident Conditions, by C.C. Lin

3.3 NEDE-30050A, Engineering Training, Degraded Core

4.0 REQUIREMENTS

4.1 PERSONNEL REQUIREMENTS

Personnel performing this procedure must be trained in performing the calculations required by this procedure and familiar with procedure content.

4.2 MATERIAL AND EQUIPMENT

Calculator or computer for performing calculations

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

The calculation of core damage fraction is only as accurate as the measurements used in this procedure's calculations. Accurate measurements of Cs-137 and Kr-85 activities are not very likely until the reactor has been shut down for longer than a few weeks and most of the shorter-lived isotopes have decayed.

6.0 PREREQUISITES

An abnormal plant condition, drill or exercise must exist prior to performing this procedure.

REFERENCE

7.0 PROCEDURE

7.1 CORE DAMAGE ESTIMATE BASED ON FISSION PRODUCT CONCENTRATION

7.1.1 Sampling

Request that Chemistry perform the following:

7.1.1.1 Use the Post Accident Sampling System (PASS) to obtain a Reactor Coolant and/or drywell atmosphere sample and perform a gamma isotopic analysis of the sample(s).

7.1.1.2 Report the reactor coolant I-131 and Cs-137 concentration (uCi/gm) to the Reactor Engineering group in the Technical Support Center (TSC).

7.1.1.3 Report the drywell atmosphere Xe-133 and Kr-85 concentration (uCi/cc) to the Reactor Engineering group in the TSC.

7.1.1.4 Report the drywell atmosphere sample pressure (psig) and temperature (°F) to the Reactor Engineering group in the TSC.

7.1.1.5 Provide a copy of the isotopics analysis to the Reactor Engineering group in the TSC.

7.1.2 Pressure/Temperature and Decay Correction

7.1.2.1 Record the following information on a Core Damage Assessment Log, similar to that shown on Attachment 1:

- I-131 and Cs-137 concentrations as C_w
- Xe-133 and Kr-85 concentration(s) as C_g
- Containment air pressure and temperature
- Containment air sample pressure and temperature.

7.1.2.2 Correct the measured concentration(s) of I-131 and Cs-137 for decay from the time of reactor shutdown by using the following formula:

$$C_{wo} = C_w \, e\lambda^t$$

Where: C_{wo} = activity concentration in water sample decay corrected to time of shutdown (uCi/g)

C_w = measured activity concentration in water sample (uCi/g)

λ = decay constant of isotope: I-131 = 0.086/days, Cs-137 = 6.31 E-5/days

t = decay time between reactor shutdown and analysis of activity concentration (days)

7.1.2.3 Record the decay corrected water sample concentrations (C_{wo}) of I-131 and Cs-137 on the Core Damage Assessment Log.

7.1.2.4 Correct the measured concentrations of Xe-133 and Kr-85 for decay from the time of reactor shutdown containment pressure/temperature differences by using the following formula:

$$C_{go} = C_g \, e\lambda t\left(\frac{P_2T_1}{P_1T_2}\right)$$

Where: C_{go} = activity concentration in gas sample decay and pressure/temperature corrected to time of shutdown (uCi/cc)

C_g = measured activity concentration in gas sample (uCi/cc)

λ = decay constant of isotope: Xe-133 = 0.131/days, Kr-85 = 1.77 E-4/days

t = decay time between reactor shutdown and analysis of activity concentration

P_1 = Containment air sample pressure (psig)

T_1 = Containment air sample temperature (°F)

P_2 = Containment pressure (psig)

T_2 = Containment temperature (°F)

7.1.2.5 Record the corrected gas sample concentrations (C_{go}) for Xe-133 and Kr-85 on the Core Damage Assessment Log.

7.1.3 Analysis of Fission Product Concentration

Compare the sample activities to the upper limit values on Table 1, Fission Product Concentrations In Reactor Water and Drywell Gas Space During Reactor Shutdown Under Normal Conditions.

> NOTE
>
> Measurements of Cs-137 and Kr-85 activities are not very accurate until the reactor has been shut down for longer than a few weeks and most of the shorter-lived isotopes have decayed.

7.1.3.1 IF the corrected concentration of a fission product in reactor water or drywell air is measured to be higher than the upper limit values shown in Table 1, perform subsection 7.1.4 through 7.1.6. The extent of fuel or cladding damage can then be determined directly from Attachment 2 based on isotopes I-131, Cs-137, Xe-133, and Kr-85.

7.1.3.2 IF the corrected concentrations fall into the range where release of the fission product from the fuel gap or the molten fuel cannot be definitively determined, perform subsection 7.1.4 through subsection 7.1.8. The additional data in subsections 7.1.7 and 7.1.8 may be needed to determine the source of fission product release.

TABLE 1

FISSION PRODUCT CONCENTRATIONS IN REACTOR WATER
AND DRYWELL GAS SPACE DURING REACTOR SHUTDOWN UNDER NORMAL CONDITIONS

ISOTOPE	REACTOR WATER (uCi/g)		DRYWELL GAS (uCi/cc)	
	UPPER LIMIT	NOMINAL	UPPER LIMIT	NOMINAL
I-131	29 (Note D)	0.7 (Note D)		
Cs-137 (C)	0.3 (Note A)	.03 (Note B)		
Xe-133			1 E-4 (Note A)	1 E-5 (Note B)
Kr-85			4 E-5 (Note A)	4 E-6 (Note B)

Note A: Observed experimentally, in an operating BWR/3 with Mark I containment.
Note B: Assuming 10% of the upper limit values.
Note C: Release of Cs-137 will strongly depend on core inventory which is a function of fuel burnup.
Note D: These values consider iodine spiking, i.e., they are the highest values expected in a "normal" iodine spiking transient.

7.1.4 Fission Product Inventory

Calculate and record on a Core Damage Assessment Log form, similar to that shown on Attachment 1, the inventory correction factor for each isotope by performing the following:

NOTE

Calculating reactor operation back from time of shutdown for a period equal to 6 isotope half-lives will normally be accurate enough.

7.1.4.1 Break the reactor power history prior to the event into "N" periods. In each period power variations must normally be limited to ± 20%. Record the results on the Core Damage Assessment Log form similar to that shown in Attachment 1.

7.1.4.2 Perform the following calculation for each isotope, "i" and record results on the Core Damage Assessment Log form, similar to that shown in Attachment 1.

$$F_{Ii} = \frac{3651\left[1-e^{-1095\lambda i}\right]}{\sum_j \left[Pj\left(1-e^{-\lambda_i T_j}\right)e^{-\lambda_i T^{\circ}_j}\right]}$$

Where:

F_{Ii} = inventory correction factor for isotope i

Pj = steady reactor power operated in period j (MWth)

Tj = duration of operating period j (day)

$T^{\circ}j$ = time between the end of operating period j and time of the last reactor shutdown (day)

λ = decay constant of isotope: Xe-133 = 0.132/days, Kr-85 = 1.77E-4, I-131 = .086/days, Cs-137 = 6.29E-5/days

7.1.5 Dilution Correction Factors

7.1.5.1 The dilution correction factor for either a Unit 1 or a Unit 2 water sample (F_w) is 0.68.

7.1.5.2 The dilution correction factor for either a Unit 1 or a Unit 2 gas sample (F_g) is 0.18.

7.1.6 Equivalent Activity Concentration and Fuel Damage Assessment

7.1.6.1 Calculate and record the equivalent activity concentration (C_{zw} and C_{zg}) for each isotope by performing the following formulas using the results from 7.1.2.3, 7.1.2.5, 7.1.4.2, 7.1.5.1 and 7.1.5.2 of the Core Damage Assessment Log:

$C_{zw} = C_{wo} \times F_I \times F_w$

$C_{zg} = C_{go} \times F_I \times F_g$

7.1.6.2 Compare the calculated equivalent activity concentrations with the appropriate graph in Attachment 2 to determine the amount of produced (i.e., fraction of fuel tubes with failed cladding or fraction of UO_2 melted). Record results on the Core Damage Assessment Log.

7.1.7 Isotope Ratio Comparison

Because certain isotopes will be released preferentially due to a cladding failure versus a fuel melting, the presence of higher or lower relative amounts provide an indication of which type of failure occurred.

7.1.7.1 Determine from the isotopic analysis of the containment gas sample and reactor coolant sample the concentrations of Xe-133, Kr-87, Kr-88, and Kr-85m, I-131, I-132, I-133, I-134 and I-135. Record on the Core Damage Assessment Log.

7.1.7.2 Perform the following equation to decay correct the concentrations to time of shutdown; record on the Core Damage Assessment Log:

$$A_o = A\ e^{\lambda t}$$

Where: A_o = activity concentration decay corrected to time of shutdown

A = measured activity concentration in sample

λ = decay constant of isotope: Xe-133 = 0.131/days, Kr-85m = 3.7/days, Kr-87 = 13.13/days, Kr-88 = 5.94/days, I-131 = 0.086/days, I-132 = 7.263/days, I-133 = 0.8/days, I-134 = 18.972/days and I-135 = 2.535/days

t = decay time between reactor shutdown and analysis of isotope concentration (days)

7.1.7.3 Determine the ratio of the decay corrected noble gas concentrations (Kr-87, Kr-88, and Kr-85m) to the Xe-133 concentration (decay corrected to time of shutdown). Record the resulting ratios on the Core Damage Assessment Log.

$$\text{Ratio} = \frac{\text{decay corrected noble gas isotope concentration}}{\text{Xe-133 concentration}}$$

7.1.7.4 Determine the ratio of the decay corrected iodine isotope concentrations (I-132, I-133, I-134, and I-135) to the I-131 concentration (decay corrected to time of shutdown). Record the resulting ratios on the Core Damage Assessment Log.

$$\text{Ratio} = \frac{\text{decay corrected iodine isotope concentration}}{\text{I-131 concentration}}$$

7.1.7.5 Compare the ratio(s) to the expected values given in Table 2, Ratios of Isotopes In Core Inventory and Fuel Gap. Record on the Damage Assessment Log any conclusions reached as to Cladding Failure or Fuel Melt.

TABLE 2

RATIOS OF ISOTOPES IN CORE INVENTORY AND FUEL GAP

ISOTOPE	HALF-LIFE	ACTIVITY RATIO IN CORE INVENTORY	ACTIVITY RATIO IN FUEL GAP
Kr-87	76m	0.233	0.0234
Kr-88	2.84h	0.33	0.0495
Kr-85m	4.48h	0.122	0.023
I-134	52.6m	2.3	0.155
I-132	2.28h	1.46	0.127
I-135	6.59h	1.97	0.364
I-133	20.8h	2.09	0.685

7.1.8 Low Volatility Isotopes

Another indication of a fuel melt release is the presence of low volatility isotopes. IF the less volatile fission products, [i.e., isotopes of Sr, Ba, and Ru (either soluble or insoluble)] are found to have unusually high concentrations in the water sample, a fuel meltdown to some extent may be assumed. In a mixture of fission products, 2.7h Sr-92 (1.385 MeV) and 40h La-140 (1.597 MeV) will normally be relatively easy to identify and measure through gamma isotopic analysis.

7.1.8.1 Record on the Core Damage Assessment Log the concentrations of any isotope of the following elements measured: Sr, Ba, Ru and La.

7.1.8.2 Record on the Core Damage Assessment Log the conclusions reached, if any, concerning Cladding Failed or Fuel Melt.

7.2 CORE DAMAGE ESTIMATE BASED ON DRYWELL WIDE RANGE MONITORS

7.2.1 Determine the Drywell Wide Range Monitor (DWWRM) reading, (R) in Rem/hr: (D11-K621 A&B found on panels H11-P689 and H11-P690). Record on the Core Damage Assessment Log.

7.2.2 Determine elapsed time from plant shutdown to the containment radiation monitor reading (t) in hours.

7.2.3 Use Attachment 3 to determine the reference plant fuel inventory release $(I)_{ref}$ in % and record on the Core Damage Assessment Log.

7.2.4 Determine the inventory release to the containment (I) using the following formula and record on the Core Damage Assessment Log.

$I = I_{ref}$ (.6855) x (V) x (6/D)

Where: V = normalizing of total containment free volume:
Unit 1 = 1.08, Unit 2 = 1.07

D = distance of detector from reactor biological shield wall, ft.
1D11-K621 A = 2.5 ft, 1D11-K621 B = 3.5 ft
2D11-K621 A = 2.5 ft, 2D11-K621 B = 3.5 ft

7.2.5 IF the DWWRM are inoperable, Post LOCA Monitor readings must be used to calculate an estimate of core damage. The following equation must be used to determine the equivalent DWWRM reading:

Equivalent

$$\text{DWWRM reading} = \left(\text{Post Loca Monitor reading}\right)\left(10^{X}\right)$$

Where X = the Log (Multiplier) from Attachment 4

Compare hours after shutdown (on x-axis) with the curve plotted on Attachment 4 to determine the log (multiplier) (on y-axis).

7.2.6 Once the Equivalent DWWRM reading is calculated, complete steps 7.2.3 and 7.2.4.

7.3 CORE DAMAGE ESTIMATE BASED ON CONTAINMENT HYDROGEN

A consequence of inadequate cooling (loss-of-coolant accident) can be the production of hydrogen; the primary source is from the zirconium water reaction. The extent of fuel clad damage can be estimated by determination of containment hydrogen concentration.

7.3.1 Obtain the containment hydrogen monitor reading in % hydrogen (%H) and record on the Core Damage Assessment Log.

7.3.2 Apply the containment %H to Attachment 5, Containment % Hydrogen Versus % Zr-Steam Reaction, to determine the percent Zr-Steam reaction for the reference plant (% Zr-Steam_{Ref}). Record on the Core Damage Assessment Log.

7.3.3 Determine the % Zr-Steam reaction (extent of fuel clad damage) by performing the following calculation and record the % Zr-Steam reaction on the Core Damage Assessment Log.

$$\% \text{ Fuel Clad Damage} = (\% \text{ Zr-Steam}_{Ref}) \times (.925)$$

7.4 RECORDS

Completed Core Damage Assessment Logs must be submitted to the Technical Support Center (TSC) Manager for review and evaluation. Assessment logs completed during actual emergencies or abnormal plant conditions must be transmitted to Document Control for record retention; logs from drills or exercises may be disposed of as determined appropriate by Emergency Preparedness personnel.

(TYPICAL - USE LATEST REVISION)

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CORE DAMAGE ASSESSMENT LOG

NOTE

All sections must either be completed or marked as not applicable (N/A).

I. CORE DAMAGE ESTIMATE BASED ON FISSION PRODUCT CONCENTRATION

Pressure/Temperature and Decay Correction (section 7.1.2)

I-131 and Cs-137 Activities (section 7.1.2.1)

C_w for I-131 = _____ uCi/g C_w for Cs-137 = _____ uCi/g

Xe-133 and Kr-85 Activities (section 7.1.2.1)

C_g for Xe-133 = _____ uCi/cc C_g for Kr-85 = _____ uCi/cc

Containment Air Pressure and Temperature (section 7.1.2.1)

_____°F, _____PSIG,

Containment Air Sample Pressure and Temperature (section 7.1.2.1)

_____°F, _____PSIG,

I-131 and Cs-137 Decay Corrected Activities (sections 7.1.2.2, 7.1.2.3)

$C_{wo} = C_w e^{\lambda t}$

C_{wo} for I-131 = _____uCi/g C_{wo} for Cs-137 = _____uCi/g

Xe-133 and Kr-85 Decay Corrected Activities (sections 7.1.2.4, 7.1.2.5)

$$C_{go} = C_g e^{\frac{\lambda P_2 T_1}{P_1 T_2}}$$

C_{go} for Xe-133 = _____uCi/cc C_{go} for Kr-85 = _____ uCi/cc

(TYPICAL - USE LATEST REVISION)

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CORE DAMAGE ASSESSMENT LOG

Fission Product Inventory (section 7.1.4)

REACTOR POWER HISTORY DATA (section 7.1.4.1)

OPERATION PERIOD, j *			AVERAGE	DURATION	T°j
PERIOD NUMBER	START DATE	END DATE	POWER, Pj (Mwth) **	OF PERIOD, Tj (days)	(days) ***
1					
2					
3					
4					
5					
6					
7					

NOTES: * Specify the dates (both starting and ending) of each operation period, beginning with the present and moving backwards in time.
** In each period, the variation of steady power must be limited to approximately ±20%.
*** T°j is the time between the end of operating period j and the current reactor shutdown.

FISSION PRODUCT CORRECTION FACTORS

$Pj(1-e^{-\lambda Tj})e^{-\lambda T°j}$

PERIOD NUMBER	I-131 = 0.086	Cs-137 = 6.29E-5	Xe-133 = 0.132	Kr-85 = 1.77E-4
1				
2				
3				
4				
5				
6				
7				
SUM				
K	3651	243	3651	643.27
K/SUM				

Constant $K = 3651(1-e^{-1095\,\lambda})$

Correction Factor $= \dfrac{3651\ \text{MWth}(1-e^{-1095\,\lambda})}{Pj(1-e^{-\lambda Tj})e^{-\lambda T°j}}$

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Inventory Correction Factor (section 7.1.4.2)

$$F_{Ii} = \frac{3651 \left[1 - e^{-1095 \lambda_i}\right]}{\sum_j \left[P_j (1 - e^{-\lambda_i T_j}) e^{-\lambda_i T_j}\right]}$$

F_I for I-131 = _____, F_I for Cs-137 = _____

F_I for Xe-133 = _____, F_I for Kr-85 = _____.

Dilution Correction Factor (section 7.1.5)

F_w for a Unit 1 or a Unit 2 water sample = 0.68

F_g for a Unit 1 or a Unit 2 gas sample = 0.18

Equivalent Activity Concentration and Fuel Damage Assessment (section 7.1.6)

$C_{zw} = (C_{wo}) \times (F_I) \times (F_w)$ $(C_{zg}) - (C_{go}) \times (F_I) \times (F_g)$

C_{zw} for I-131 = _____, C_{zw} for Cs-137 = _____

C_{zg} for Xe-133 = _____, C_{zg} for Kr-85 = _____

Percent Cladding Failure and/or Fuel Meltdown (section 7.1.6.2)

I-131 = _____ % Cladding Failure, _____ % Fuel Meltdown, Overlap _____ (yes/no)

Cs-137 = _____ % Cladding Failure, _____ % Fuel Meltdown, Overlap _____ (yes/no)

Xe-133 = _____ % Cladding Failure, _____ % Fuel Meltdown, Overlap _____ (yes/no)

Kr-85 = _____ % Cladding Failure, _____ % Fuel Meltdown, Overlap _____ (yes/no)

(TYPICAL - USE LATEST REVISION)

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Isotopic Ratio Comparison (section 7.1.7)

Iodine and Noble Gas Concentrations from Isotopic Analysis (section 7.1.7.1)

REACTOR WATER		CONTAINMENT AIR	
Xe-133	= _____uCi/cc	Xe-133	= _____uCi/cc
Kr-87	= _____uCi/cc	Kr-87	= _____uCi/cc
Kr-88	= _____uCi/cc	Kr-88	= _____uCi/cc
Kr-85m	= _____uCi/cc	Kr-85m	= _____uCi/cc
I-131	= _____uCi/g	I-131	= _____uCi/g
I-132	= _____uCi/g	I-132	= _____uCi/g
I-133	= _____uCi/g	I-133	= _____uCi/g
I-134	= _____uCi/g	I-134	= _____uCi/g
I-135	= _____uCi/g	I-135	= _____uCi/g

Decay Corrected Iodine and Noble Gas Concentration (section 7.1.7.2)

$A_o = A\ e^{\lambda t}$

REACTOR WATER		CONTAINMENT AIR	
Xe-133	= _____uCi/cc	Xe-133	= _____uCi/cc
Kr-87	= _____uCi/cc	Kr-87	= _____uCi/cc
Kr-88	= _____uCi/cc	Kr-88	= _____uCi/cc
Kr-85m	= _____uCi/cc	Kr-85m	= _____uCi/cc
I-131	= _____uCi/g	I-131	= _____uCi/g
I-132	= _____uCi/g	I-132	= _____uCi/g
I-133	= _____uCi/g	I-133	= _____uCi/g
I-134	= _____uCi/g	I-134	= _____uCi/g
I-135	= _____uCi/g	I-135	= _____uCi/g

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(TYPICAL - USE LATEST REVISION)

GEORGIA POWER COMPANY
PLANT E.I. HATCH
PAGE 5 OF 7
FORM TITLE:
CORE DAMAGE ASSESSMENT LOG

Decay Corrected Noble Gas to Xe-133 Ratio Comparison (section 7.1.7.3)

$$\text{Ratio} = \frac{\text{decay corrected noble gas isotope concentration}}{\text{Xe-133 concentration}}$$

REACTOR WATER	CONTAINMENT AIR
Kr-87/Xe-133 = _____	Xr-87/Xe-133 = _____
Kr-88/Xe-133 = _____	Xr-88/Xe-133 = _____
Kr-85m/Xe-133 = _____	Xr-85m/Xe-133 = _____

Decay Corrected Noble Gas to I-131 Ratio Comparison (section 7.1.7.4)

$$\text{Ratio} = \frac{\text{decay corrected noble gas isotope concentration}}{\text{Xe-131 concentration}}$$

REACTOR WATER	CONTAINMENT AIR
I-132/I-133 = _____	I-132/I-131 = _____
I-133/I-131 = _____	I-133/I-131 = _____
I-134/I-131 = _____	I-134/I-131 = _____
I-135/I-131 = _____	I-135/I-131 = _____

Conclusions Reached From Ratios of Reactor Water Isotopes (section 7.1.7.5)

_____Cladding Failed, _____Fuel Melt, _____Inconclusive

Conclusions Reached From Ratios of Containment Air Isotopes (section 7.1.7.5)

_____Cladding Failed, _____Fuel Melt, _____Inconclusive

(TYPICAL - USE LATEST REVISION)

GEORGIA POWER COMPANY
PLANT E.I. HATCH — PAGE 6 OF 7
FORM TITLE:
CORE DAMAGE ASSESSMENT LOG

Record isotopic concentrations of the following elements: Sr, Ba, Ru and La.

Low Volatility Isotopes Concentrations (section 7.1.8)

Concentrations of any isotope of the following elements measured: (section 7.1.8.1)

Sr_____

Ba_____

Ru_____

La_____

Conclusion reached from Elements (section 7.1.8.2)

_____Cladding Failed; _____Fuel Melt; _____Inconclusive

II. CORE DAMAGE ESTIMATE BASED ON DRYWELL WIDE RANGE MONITORS

Drywell Wide Range Monitor readings (section 7.2.1)

D11 K621A = _____Rem/hr D11-K621B = _____Rem/hr

Elapsed time from plant shutdown to DWWRM readings (section 7.2.2)
_____hours

Reference Plant Fuel Inventory Release (section 7.2.3)

(I) ref = _____%

Inventory Release to Containment (section 7.2.4)

$I = I_{ref}(.6855)(V)(6/D)$

"I" for D11-K621A = _____% "I" for D11-K621B = _____%

(TYPICAL - USE LATEST REVISION)

GEORGIA POWER COMPANY
PLANT E.I. HATCH — PAGE 7 OF 7
FORM TITLE:
CORE DAMAGE ASSESSMENT LOG

III. CORE DAMAGE ESTIMATE BASED ON CONTAINMENT HYDROGEN

Containment Hydrogen Monitor Reading (section 7.3.1)

Containment Hydrogen = _____%

Percent Zr-Steam reactor for reference plant (section 7.3.2)

$Zr\text{-}Steam_{ref}$ = _____%

Extent of Fuel Clad Damage (section 7.3.3)

% Fuel Clad Damage = (% $Zr\text{-}steam_{ref}$) (.925)

% Fuel Clad Damage = _____%

REMARKS AND CALCULATIONS: _____

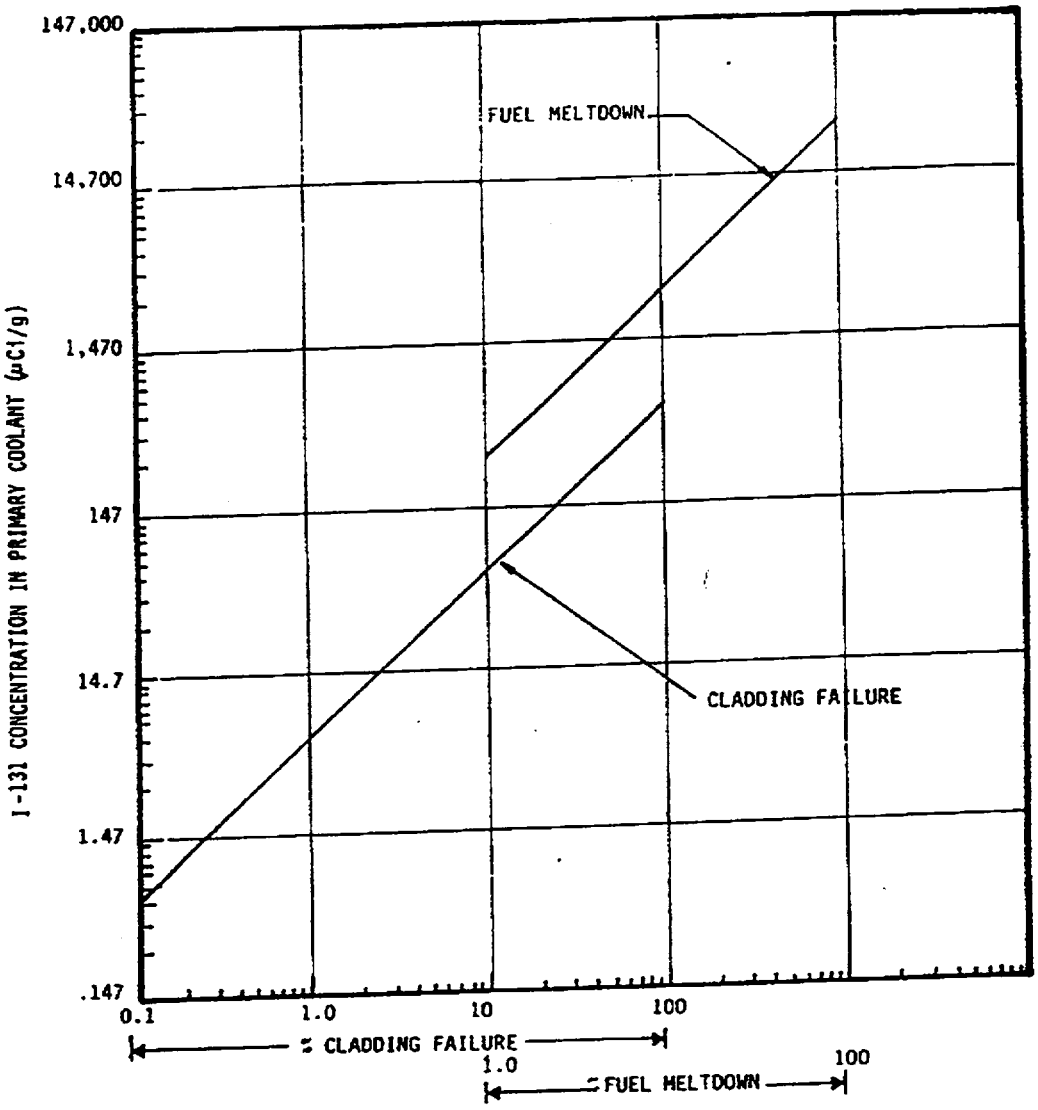
NOTE

Attach copies of all isotopic worksheets used for determining concentrations in this procedure.

Performed By: _____ Date

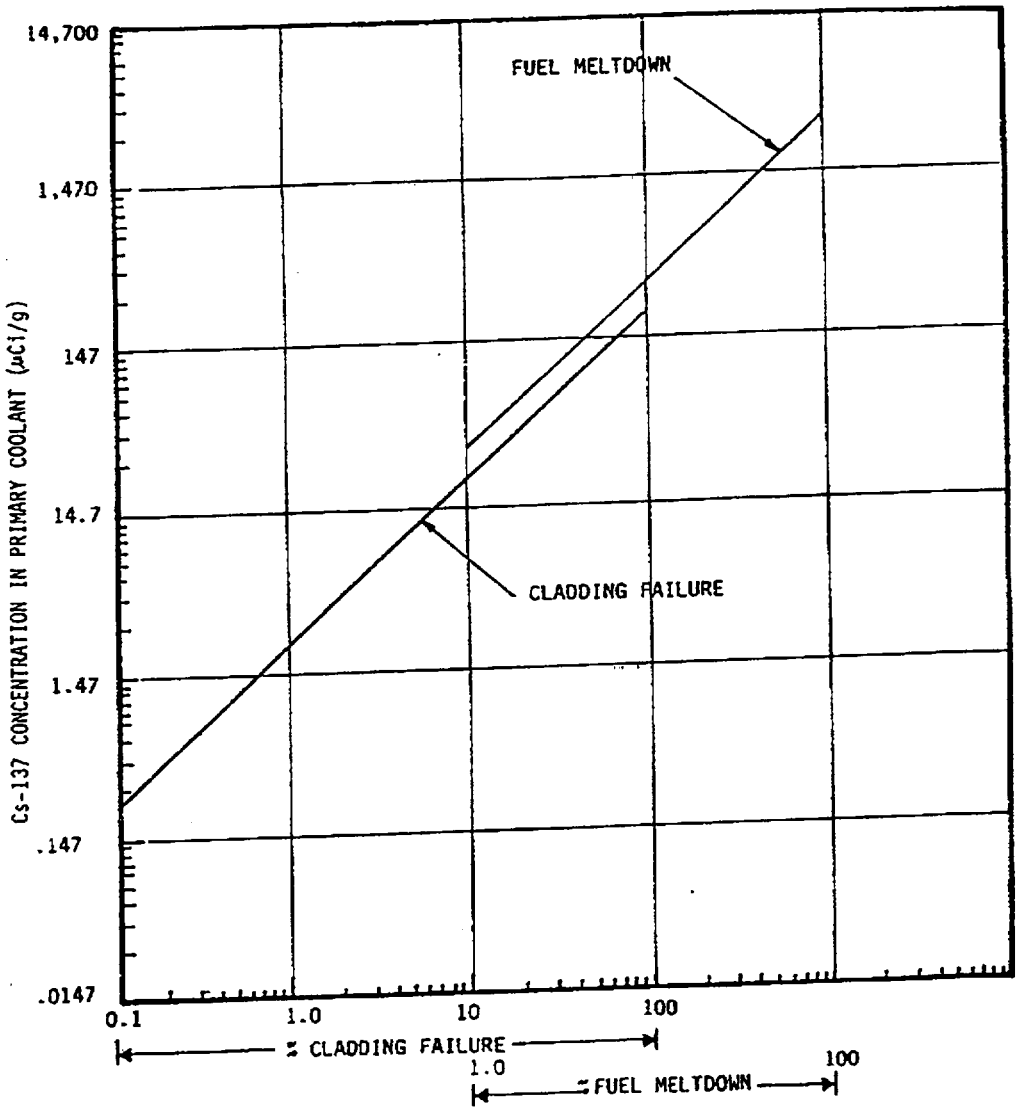
Reviewed By: _____ Date

I-131



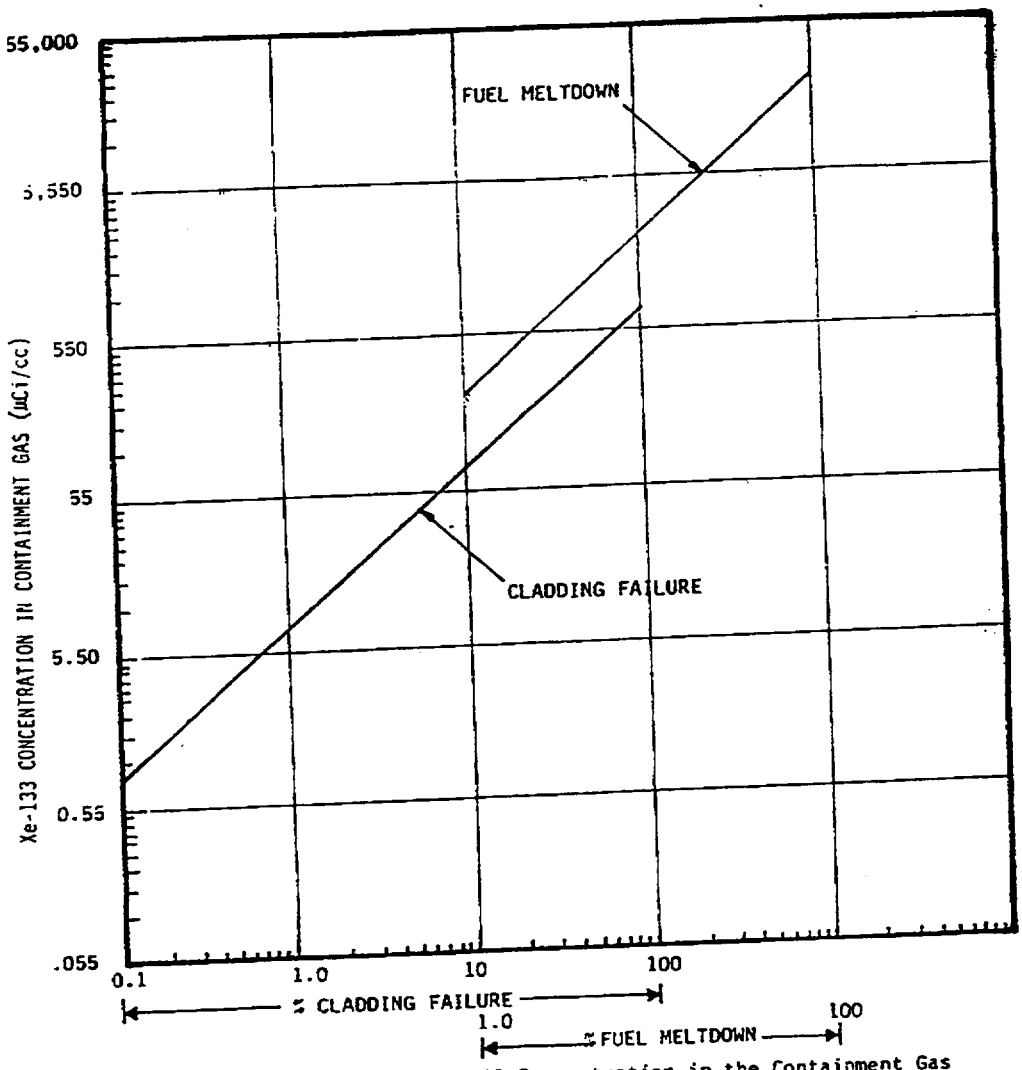
Relationship Between I-131 Concentration in the Primary Coolant (Reactor Water + Pool Water) and Extent of Core Damage.

Cs-137

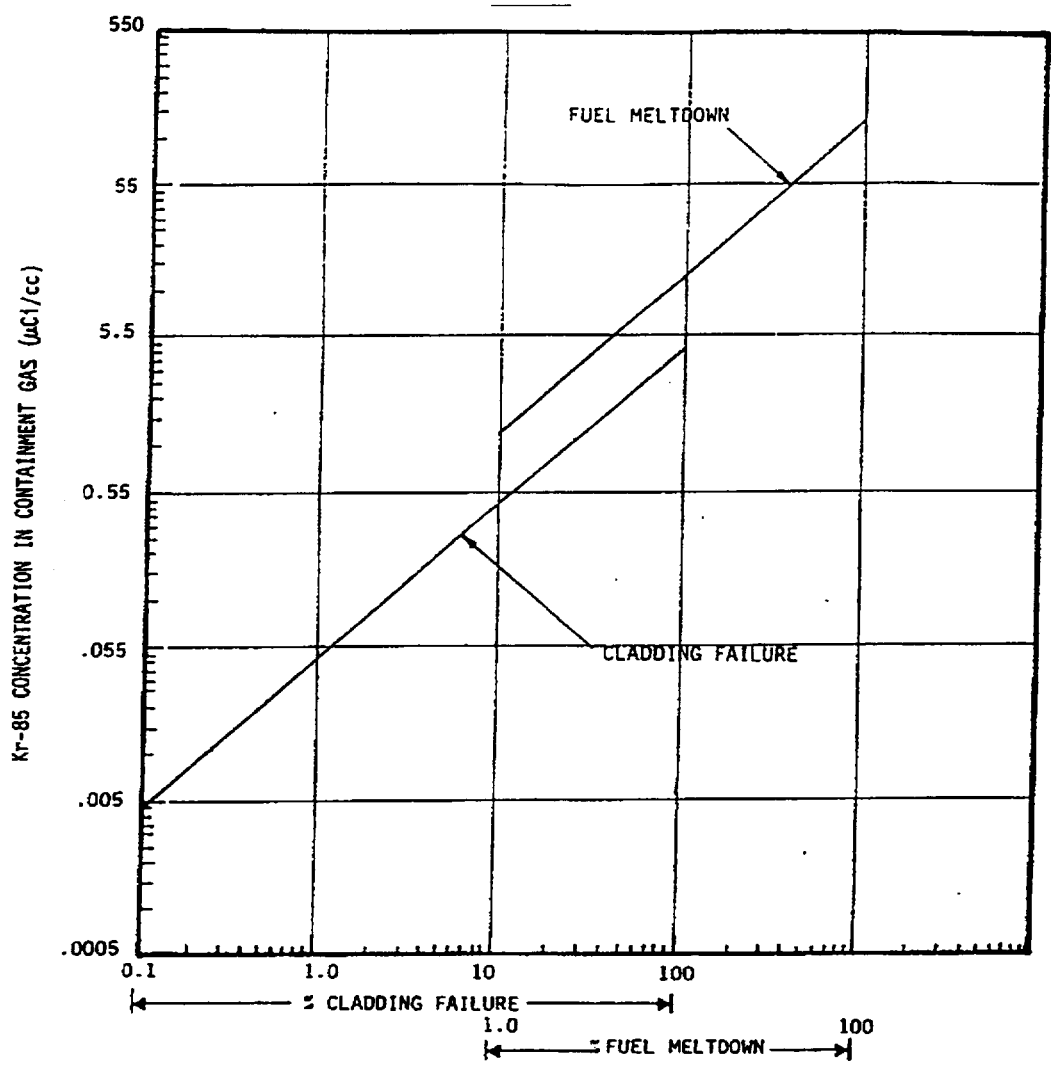


Relationship Between Cs-137 Concentration in the Primary Coolant (Reactor Water + Pool Water) and the Extent of Core Damage.

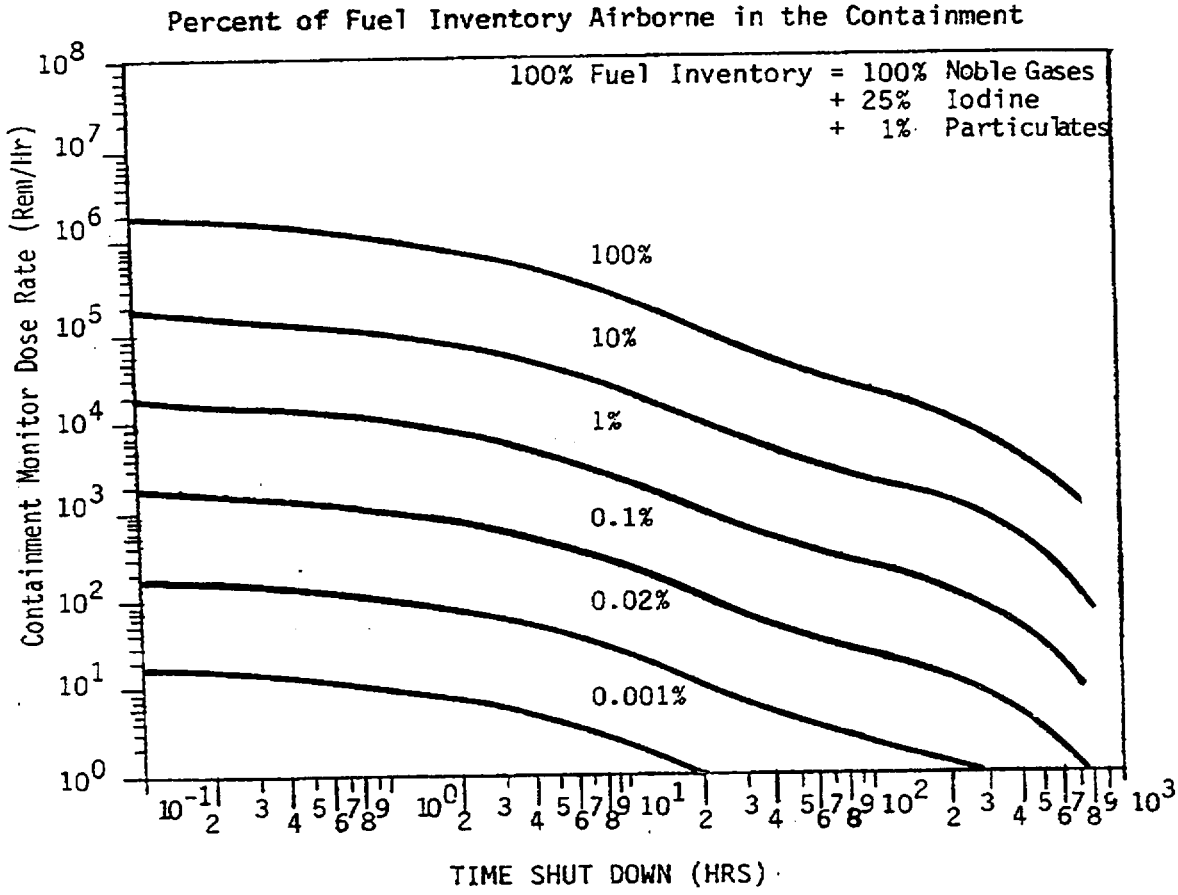
Xe-133

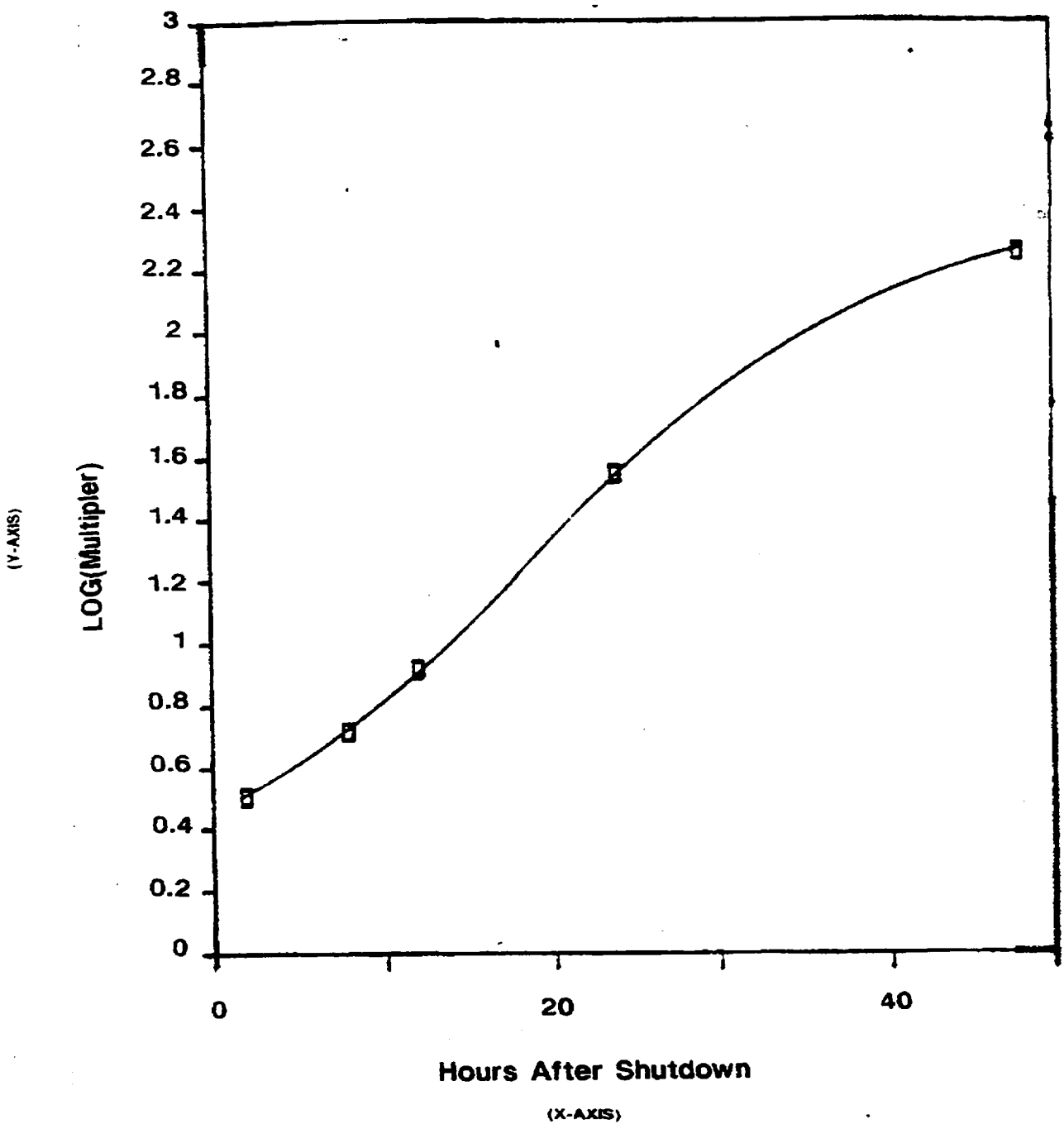


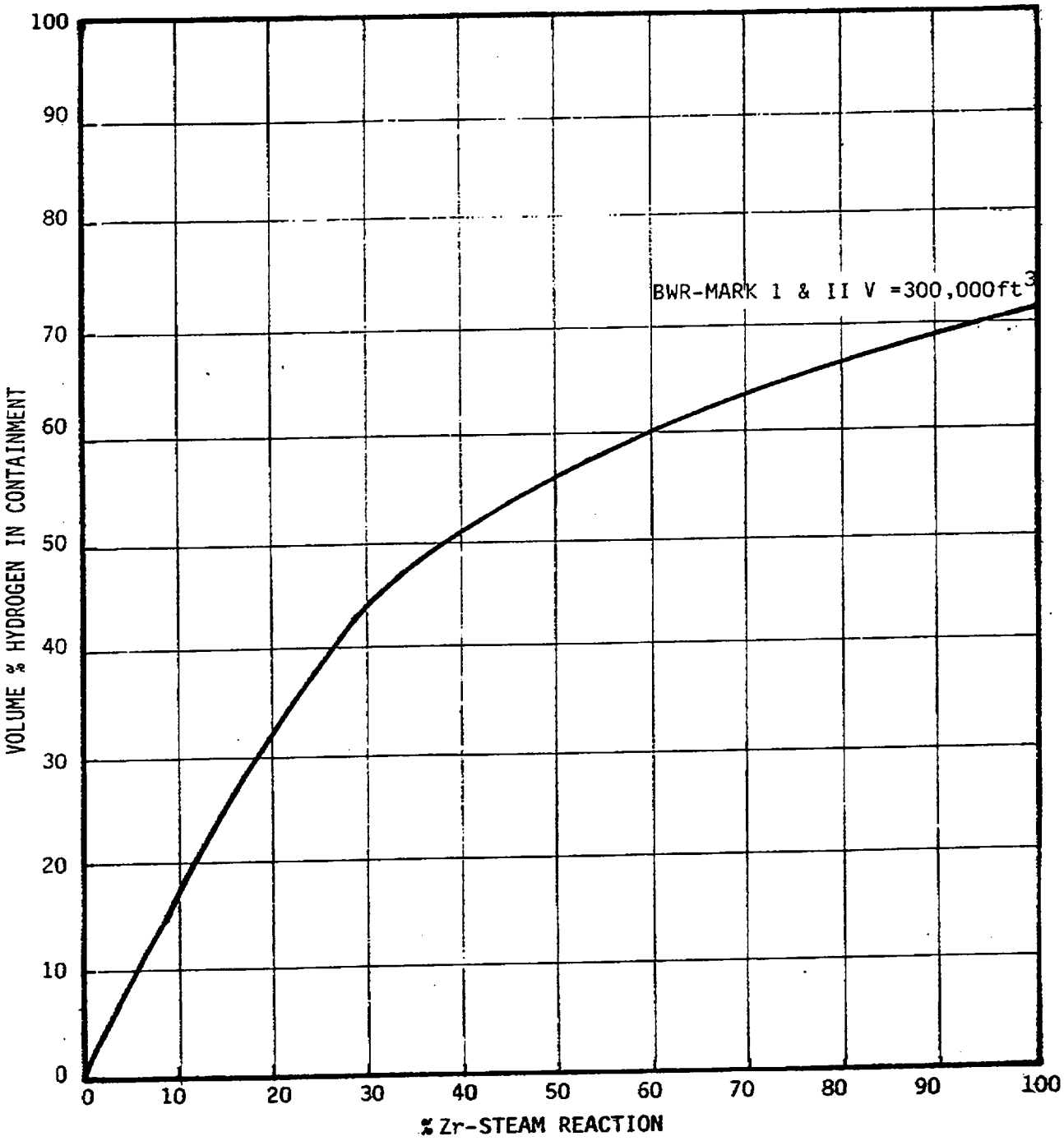
Relationship Between Xe-133 Concentration in the Containment Gas (Drywell + Tours Gas) and the Extent of Core Damage.



Relationship Between Kr-85 Concentration in the Containment Gas (Drywell + Torus Gas) and the Extent of Core Damage.


Percent of Fuel Inventory Airborne in the Containment
100% Fuel Inventory = 100% Noble Gases
+ 25% Iodine
+ 1% Particulates
100%
10%
1%
0.1%
0.02%
0.001%
Containment Monitor Dose Rate (Rem/Hr)
TIME SHUT DOWN (HRS)


3
2.8
2.6
2.4
2.2
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
(Y-AXIS)
LOG(Multipler)
0
20
40
Hours After Shutdown
(X-AXIS)


100
90
80
70
60
50
40
30
20
10
0
VOLUME % HYDROGEN IN CONTAINMENT
BWR-MARK 1 & II V =300,000ft3
0
10
20
30
40
50
60
70
80
90
100
% Zr-STEAM REACTION

1.0 OBJECTIVE

This procedure provides guidelines for the development of Protective Action Recommendations (PARs) to appropriate state and local authorities for the protection of the public. PARs are provided to avoid or reduce the sum of the Effective Dose Equivalent (EDE) resulting from exposure to external sources and the Committed Effective Dose Equivalent (CEDE) incurred from all significant inhalation pathways during an accident condition that has resulted in a radiological effluent release or has the potential for a release based on degraded plant conditions. State and local authorities include the Department of Natural Resources (DNR), Environmental Protection Division (EPD) via Georgia Emergency Management Agency (GEMA), Jeff Davis, Tattnall, Toombs and Appling Counties.

2.0 APPLICABILITY

This procedure applies to the Emergency Director (ED) or any qualified individual who may perform this procedure at the direction of the Emergency Director. This procedure is performed, as required, during drills, exercises and/or declared emergencies.

2.1 This procedure has a mandatory PAR for a declared General Emergency (See Attachment 1).

2.2 This procedure will be performed under the authority and cognizance of the Emergency Director.

3.0 REFERENCES

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

3.2 E.I. Hatch Nuclear Plant, Unit 1 & 2 Emergency Plan

3.3 NRC IEN83-28, Protective Actions based on Plant Conditions

3.4 73EP-EIP-015-OS, Offsite Dose Assessment

3.5 73EP-EIP-073-OS, Offsite Emergency Notifications

3.6 EPA-400-R-92-001, Manual of Protective Action Guides and Protective Actions for Nuclear Incidents, October, 1991

4.0 REQUIREMENTS

4.1 PERSONNEL REQUIREMENTS

This procedure is performed by the Emergency Director or his designee. Typical designees include the Superintendent of Shift ,the Shift Supervisor or the Dose Assessment Manager or Staff. The Emergency Director must concur with protective action recommendations and authorize the issuance of the PARs to state and local authorities.

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

5.1.1 Dose projections for PARs will be obtained through the use of the Meteorological Information and Dispersion Assessment System (MIDAS) as outlined in procedure 73EP-EIP-015-0S, Offsite Dose Assessment.

5.1.2 Attachment 4, EPZ Map, provides a pictorial representation of the 10 mile Emergency Planning Zone and indicates both Zones and Sectors.

5.1.2.1 Zones are geographical boundaries as identified in the State of Georgia Radiological Emergency Plan. The zones are identified by an alpha numeric designator.

5.1.2.2 Sectors are 22 1/2 degree pie shaped areas identified by a single letter, "A" through "R", with the letters "I" and "O" omitted to alleviate confusion. Sectors are used by the Field Monitoring teams to locate, track, and report the location of offsite releases.

5.2 LIMITATIONS

5.2.1 The Emergency Director is responsible for the decision to recommend protective actions to state and local authorities.

5.2.2 IF an emergency has been declared and offsite dose information is available from any credible source (i.e., dose projection, plant conditions or actual field monitoring results), THEN the most conservative recommendations are to be used.

6.0 PREREQUISITES

With the exception of drills and/or exercises, a Site-Area Emergency or General Emergency has been declared.

REFERENCE

7.0 PROCEDURE

7.1 Obtain a 15 minute average wind direction ("wind from X degrees") from the Safety Parameter Display System (SPDS) OR meteorological station to determine which zones are to be recommended for protective actions.

7.1.1 Record "wind direction from" on a form similar to that shown in Attachment 3.

7.1.2 Using "wind direction from", determine the affected zones by locating the specific zone(s) using a form similar to that shown in Attachment 3.

7.1.3 Record the affected zone(s) on the PAR Worksheet/Approval form similar to that shown in Attachment 3.

7.2 Determine the appropriate PAR to reduce whole body and thyroid exposure to the general public from plant conditions, gaseous plume or direct radiation as follows:

7.2.1 Compare plant conditions with Attachment 1 to determine PARs based on plant conditions. Record plant condition PARs on the PAR Worksheet/Approval form.

7.2.2 Compare the results of most recent dose projections with Attachment 2 to determine PARs based on dose projections. Record dose projection PARs, as available, on the PAR Worksheet/Approval form.

CAUTION

ACTUAL FIELD MEASUREMENTS ARE OBTAINED IN DOSE RATE (MR/HR OR R/HR). PROTECTIVE ACTIONS ARE BASED ON THE SUM OF THE EFFECTIVE DOSE EQUIVALENT RESULTING FROM EXPOSURE TO EXTERNAL SOURCES AND THE COMMITTED EFFECTIVE DOSE EQUIVALENT INCURRED FROM ALL SIGNIFICANT INHALATION PATHWAYS. FIELD READINGS MUST BE CORRECTED TO TEDE AND CDE VALUES IN ACCORDANCE WITH 73EP-EIP-015-0S, OFFSITE DOSE ASSESSMENT, PRIOR TO PERFORMING AN EVALUATION FOR PAR.

CAUTION

DO NOT CHANGE PARS BASED UPON A SINGLE FIELD MEASUREMENT. VERIFY OFFSITE FIELD DOSE FIELD MEASUREMENTS PRIOR TO INCREASING OR DECREASING PAR. EVALUATE THE MOST RELIABLE DATA TO CHOOSE THE MOST CONSERVATIVE PAR.

7.2.3 Compare results of actual field measurements with Attachment 2 to determine protective action recommendations based on actual field measurements, IF available. Record field measurement PARs, as available, on the PAR Worksheet/Approval form.

7.3 Determine which protective action recommendations are most conservative from the PAR Worksheet/Approval form.

7.3.1 Check the block for the most conservative PARs.

7.3.2 Record the zones from the most conservative PARs on the Protective Action Recommendation Approval Section of the PAR Worksheet/Approval form.

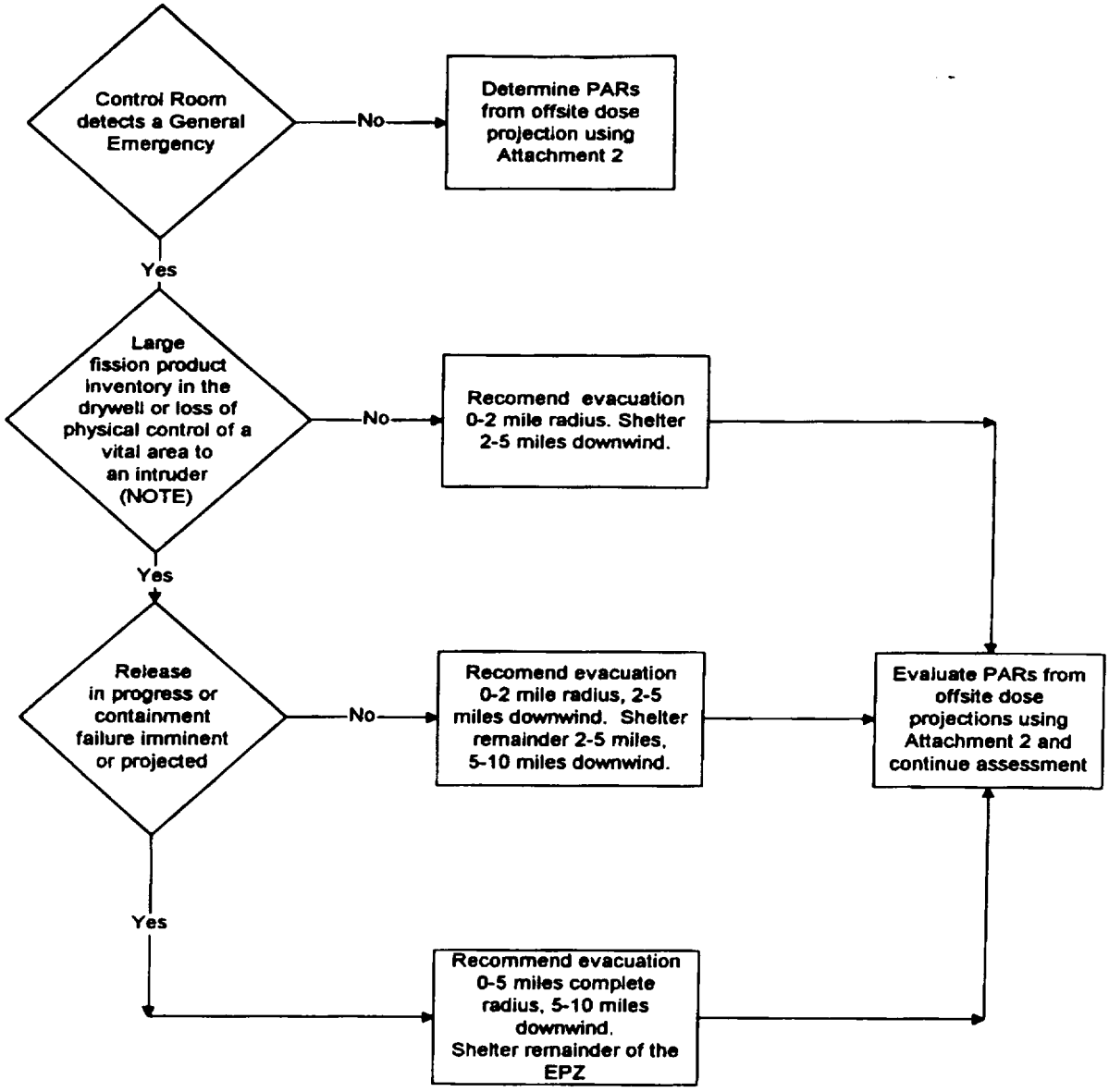
7.4 Obtain the Emergency Director's concurrence of PARs as soon as possible.

7.4.1 IF the Emergency Director concurs, have him sign the Protective Action Recommendation Approval Section of the PAR Worksheet/Approval form.

> NOTE
>
> The Emergency Director must authorize issuance of PARs to state and local authorities.

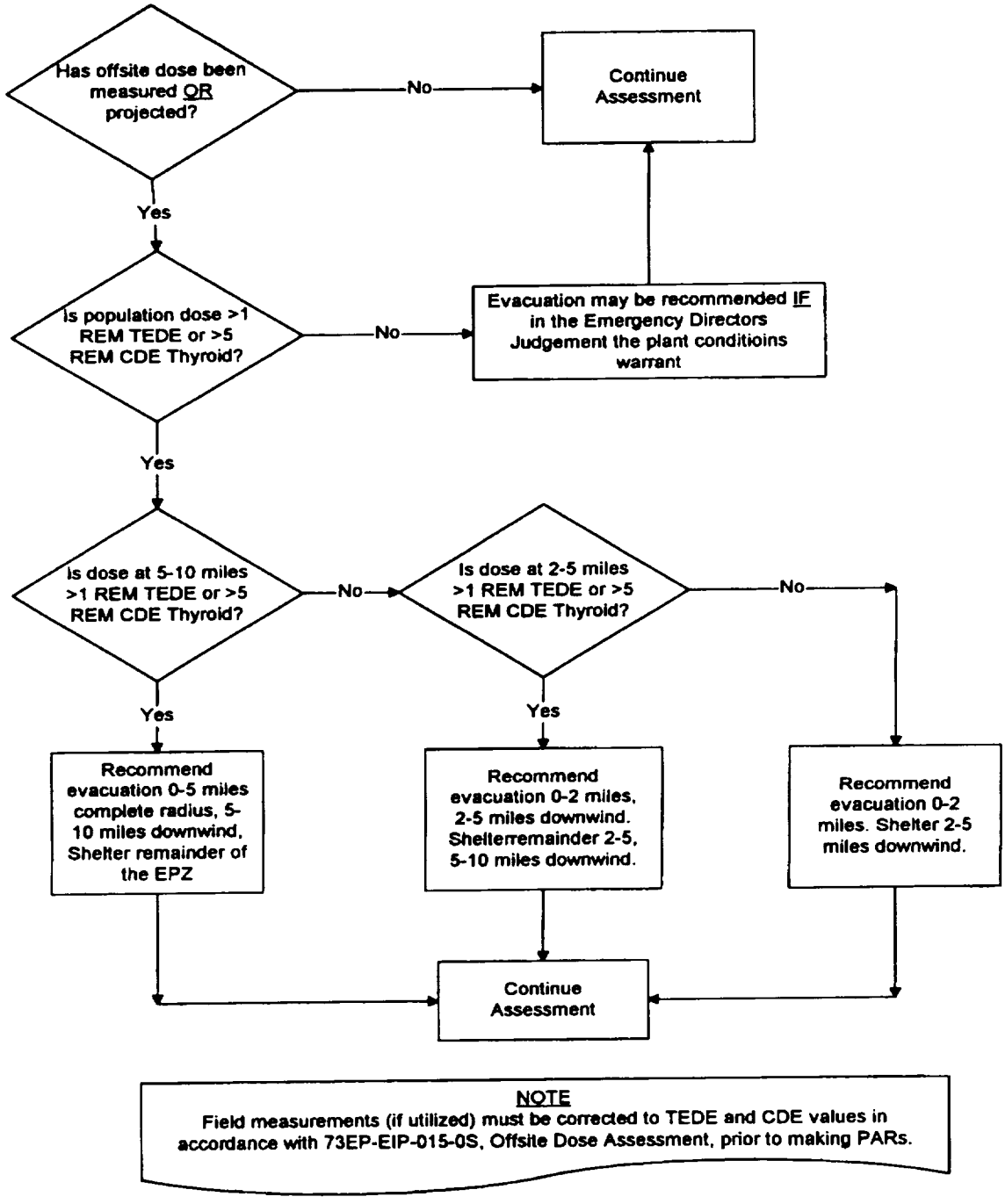
7.5 Notify state and local authorities by performing 73EP-EIP-073-0S, Offsite Emergency Notifications.

7.6 Return to subsection 7.1 of this procedure AND continue assessment as required by emergency conditions.



NOTE

Large fission product inventories may be indicated by DWWRM readings >4.8E5 R/hour. IF DWWRM readings are unavailable additional indications may be obtained by performing 73EP-EIP-023-0S, Core Damage Assessment to determine equivalent DWWRM Readings from Post Loca monitors.


Has offsite dose been measured OR projected?
No
Continue Assessment
Yes
Is population dose >1 REM TEDE or >5 REM CDE Thyroid?
No
Evacuation may be recommended IF in the Emergency Directors Judgement the plant conditioins warrant
Yes
Is dose at 5-10 miles >1 REM TEDE or >5 REM CDE Thyroid?
No
Is dose at 2-5 miles >1 REM TEDE or >5 REM CDE Thyroid?
No
Yes
Yes
Recommend evacuation 0-5 miles complete radius, 5-10 miles downwind, Shelter remainder of the EPZ
Recommend evacuation 0-2 miles, 2-5 miles downwind. Shelterremainder 2-5, 5-10 miles downwind.
Recommend evacuation 0-2 miles. Shelter 2-5 miles downwind.
Continue Assessment
NOTE
Field measurements (if utilized) must be corrected to TEDE and CDE values in accordance with 73EP-EIP-015-0S, Offsite Dose Assessment, prior to making PARs.

(TYPICAL - USE LATEST REVISION)

GEORGIA POWER COMPANY PLANT E.I. HATCH	PAGE 1 OF 2
FORM TITLE: PAR WORKSHEET/APPROVAL	

1. Enter the 15 minute average wind direction from SPDS or the Meteorological tower.

   Wind from ____ degrees. (For readings > 360° subtract 360 to determine true wind direction.)

2. Determine the affected zone from the chart on page two of this form.

   0-2 miles _____

   2-5 miles _____

   5-10 miles _____

3. Compare plant conditions PARs, dose projection PARs and field measurements PARs. Check the most conservative PAR, complete the approval section and forward to the Emergency Director for approval.

		0-2 miles	2-5 miles	5-10 miles
☐Plant Conditions	Evacuate			
	Shelter			
☐Dose Projections	Evacuate			
	Shelter			
☐Field Measurements (if available)	Evacuate			
	Shelter			

SAMPLE

PROTECTIVE ACTION RECOMMENDATION APPROVAL

The protective action recommendations are:

☐ NO Recommended Protective Actions

Evacuate: _____

Shelter: _____

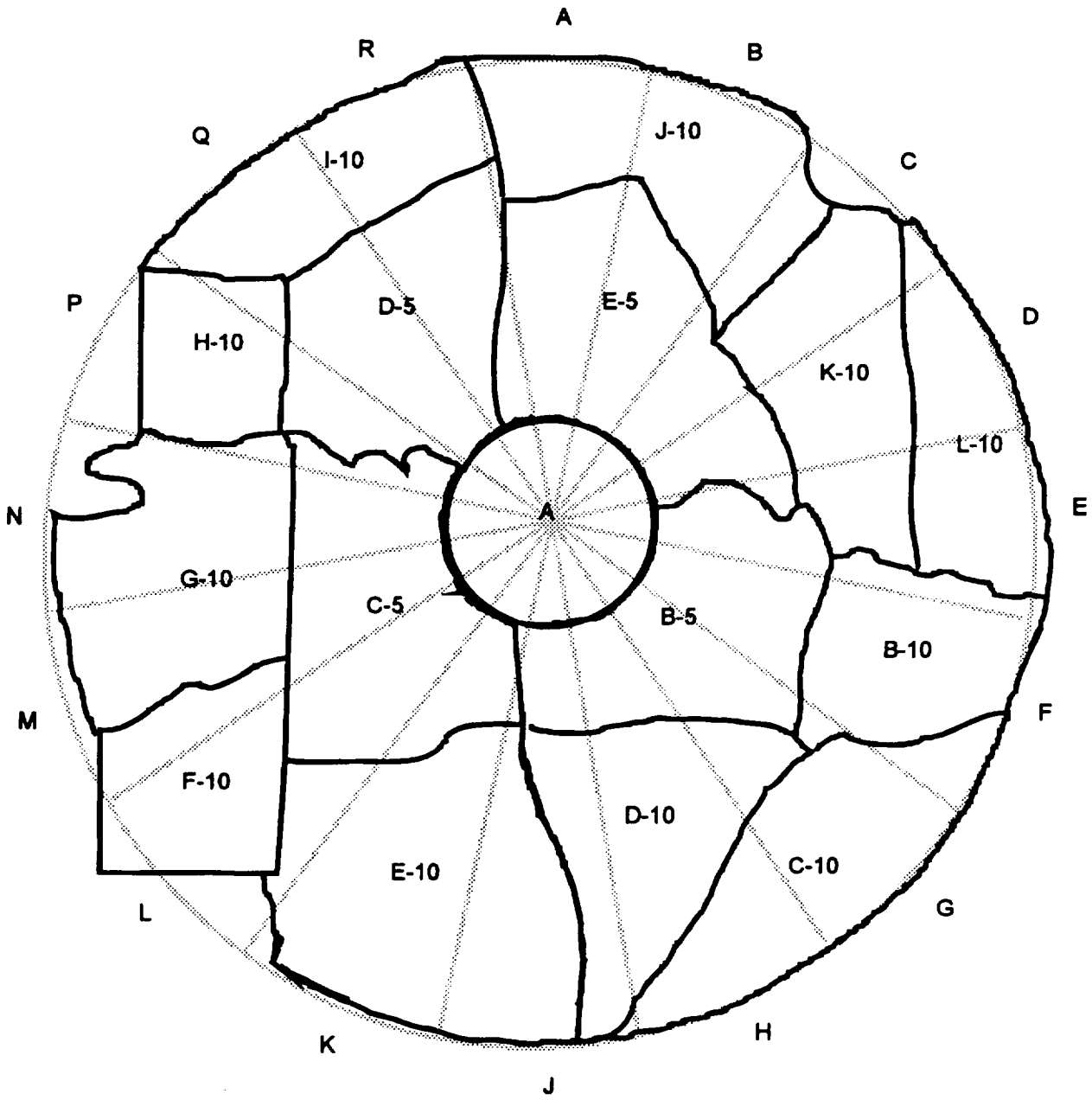
Other: _____

Approval: _____
Emergency Director

(TYPICAL - USE LATEST REVISION)

GEORGIA POWER COMPANY PLANT E.I. HATCH	PAGE 2 OF 2
FORM TITLE: PAR WORKSHEET/APPROVAL	

WIND FROM (degrees)	WIND DIRECTION FROM	WIND DIRECTION TO	AFFECTED ZONE(S)		
			0-2 MILES	2-5 MILES	5-10 MILES
340-12	N	S	A	B-5, C-5	C-10, D-10, E-10
13-40	NNE	SSW	A	B-5, C-5	D-10, E-10, F-10
41-52	NE	SW	A	C-5	E-10, F-10
53-64	ENE	WSW	A	C-5	E-10, F-10, G-10
65-85	ENE	WSW	A	C-5	F-10, G-10
86-95	E	W	A	C-5, D-5	F-10, G-10, H-10
96-110	ESE	WNW	A	C-5, D-5	G-10, H-10, I-10
111-130	ESE	WNW	A	C-5, D-5	H-10, I-10
131-145	SE	NW	A	C-5	H-10,I-10
146-158	SSE	NW	A	C-5, E-5	H-10,I-10
159-205	S	N	A	D-5, E-5	I-10, J-10
206-215	SSW	NNE	A	E-5	J-10, K-10
216-250	SW	NE	A	E-5	J-10, K-10, L-10
251-261	WSW	ENE	A	B-5, E-5	K-10,L-10
262-284	W	E	A	B-5, E-5	B-10, K-10, L-10
285-295	WNW	ESE	A	B-5, E-5	B-10, C-10, K-10, L-10
296-339	NW	SE	A	B-5	B-10,C-10,D-10


A
R
B
Q
J-10
I-10
C
P
D-5
E-5
D
H-10
K-10
L-10
N
A
E
G-10
C-5
B-5
B-10
M
F
F-10
D-10
E-10
C-10
L
G
K
H
J

1.0 OBJECTIVE

The Operations Support Center (OSC) is an onsite assembly area separate from the control room and the Technical Support Center (TSC), where various support personnel report during an emergency. The OSC provides a location where plant logistic support can be coordinated during an emergency, and functions to regulate control room access. The OSC also provides a location for dispatching maintenance, operations, health physics, and other support personnel needed to respond to an emergency. This procedure addresses and delineates the actions required to bring the OSC to a state of functional readiness and provides guidelines for staffing the facility.

2.0 APPLICABILITY

This procedure is applicable to all personnel who would respond to OSC during an emergency condition, drills, AND/OR exercises.

3.0 REFERENCES

3.1 NUREG 0654

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

3.3 Edwin I. Hatch Units 1 and 2 Emergency Plan

3.4 34SO-Z41-006-0S, Health Physics HVAC System Operation

3.5 60AC-HPX-001-0S, Radiation Exposure Limits

3.6 62RP-RAD-003-0S, Use & Care of Respirators

3.7 73EP-EIP-021-0S, Alternate OSC Activation

4.0 REQUIREMENTS

The first person responding to the OSC will be responsible for initiating this procedure. The OSC Manager OR his designee upon arrival will be responsible for ensuring completion of this procedure.

5.0 PRECAUTIONS/LIMITATIONS

N/A - Not applicable to this procedure

6.0 PREREQUISITES

6.1 The OSC shall be activated at an Alert, Site Area Emergency, General Emergency, OR when deemed necessary. All OR portions of this procedure will be implemented as appropriate based upon the desired function of the OSC.

6.2 Adequate resources shall be in place for the OSC to perform its intended function prior to activation. Adequate resources are defined as minimum staffing per Table B-1 of the Emergency Plan and described in step 7.13 of this procedure.

REFERENCE

7.0 PROCEDURE

NOTE

This procedure is intended to be used as guidance for activating the OSC in emergency situations. Deviations from the listed sequence is permitted WHEN plant conditions warrant a more expedient order of completion.

7.1 Obtain the necessary keys for OSC equipment lockers, supply cabinets, and access doors. Break the OSC keybox window to obtain the keys if the keys are NOT readily available from Security or the Health Physics/Chemistry office in the Service Building.

7.2 Establish personnel sign-in to provide accountability of OSC Emergency Responders. All incoming personnel will use the OSC card reader for logging in and out of the OSC. In the event that the card reader is NOT on-line or is NOT functional, personnel will sign in/out on the OSC sign in sheet similar to Attachment 1. Place sign-in sheets near the primary access door. The appropriate badges will be provided to the OSC emergency responders and may be obtained from the OSC supply cabinet.

7.2.1 Access to the OSC is primarily through the double doors on the northwest end of the lunch room.

7.2.2 All Radiological Emergency Team (RET) members will report to the OSC where they will be assigned the duties of External, Internal or P.A.S.S. RET. The External RET will be dispatched to the EOF as soon as practical. There, they will be briefed prior to assignment to teams and deployment to perform field monitoring.

7.3 Ensure Operations activates the Health Physics office area HVAC System using 34SO-Z41-006-0S section 7.0, Health Physics office area HVAC System Operation.

7.4 Ensure Health Physics sets up and checks operability of HP instruments and equipment.

7.5 Ensure radiological monitoring is established in the Service Building, Health Physics Offices, Chemistry Labs, Counting Room areas and other areas, as necessary.

7.6 Radiological precautions for the OSC will be consistent with normal plant procedures.

Habitability of the facility will be based on the ability to maintain exposures of individuals within the Federal limits for Total Effective Dose Equivalent (TEDE) and Total Organ Dose Equivalent (TODE) as described in 60AC-HPX-007-0S, Radiation Exposure Limits.

7.7 The decision to evacuate the OSC will be based on the following factors:

7.7.1 Facility dose rates versus available dose margins (TEDE and TODE) of OSC emergency responders.

7.7.2 Concentration of airborne activity versus type of radiological protection taken (i.e., respirators, tracking of DAC-hrs, etc.)

7.7.3 Duration of the event.

7.7.4 Length of time needed to re-establish activities at the alternate OSC versus the importance of OSC activities currently in progress or those projected to control and/or effect corrective action.

7.8 IF the decision is made to evacuate the OSC, the OSC Manager will instruct OSC personnel to relocate to the alternate OSC as outlined in 73EP-EIP-021-0S section 7.0, Alternate OSC Activation.

7.9 Restrictions on eating, drinking and smoking will be implemented whenever radiological conditions warrant (e.g., airborne radioactivity, surface contamination, abnormal radiation levels OR significant potential for such conditions exists).

7.10 Ensure OSC emergency responders are radiologically monitored, as necessary.

7.11 Ensure rally point habitability is maintained. As conditions change, the OSC Manager will ensure the Control Room is notified so that appropriate information concerning rally point location(s) is announced over the site public address system.

CAUTION

OFF-NORMAL HOURS ACTIVATION WILL RESULT IN LESS THAN OPTIMUM OSC RESOURCES. THE OSC MANAGER WILL EVALUATE THE RESOURCES AND INFORMATION AVAILABLE AND ACTIVATE THE OSC WHEN THE FACILITY CAN FUNCTION AT THE MINIMUM ACCEPTABLE LEVEL. SEE STEP 7.13 FOR MINIMUM STAFFING AND FUNCTIONS/TASKS.

7.12 For optimum OSC performance, ensure qualified staffing of the following positions as indicated on the OSC Emergency Position Matrix, located in the OSC bulletin board. This matrix contains qualified emergency responders.

OSC Manager
Maintenance (Mechanical) Supervision
Maintenance (Electrical) Supervision
Maintenance (I&C) Supervision
Health Physics Supervision
Administration Supervision
Internal and PASS RET members
Maintenance Support
General Support
Ops Support
Administrative Support
Security Support
Communicator/Recorders
Plant Parameters/Major Events/Inop Equipment
- Radiological Data
- OSC ringdown
- Survey/Repair/Rescue Teams
- Team Tracking
Chemistry Supervision
Dosimetry Supervision
General Support Supervision
Communications Support

7.13 For activation of the OSC during off-hours or periods where staff augmentation (call out of responders from home) is required, the OSC Manager may activate the OSC WHEN the following functions and personnel are available (minimum staffing as defined in Table B-1 of the Hatch Emergency Plan):

TASK/FUNCTION	PERSONNEL	# REQ'D.
Inplant survey and job coverage	Health Physics Technicians *	(3)
Onsite/out of plant survey and job coverage	Health Physics Technicians *	(2)
Access control, dosimetry, job coverage	Health Physics Technicians *	(6)
PASS/radiological sampling	Chemistry Technicians	(2)
Offsite monitoring (dispatched to the EOF)	Health Physics or Chemistry Technicians	(4)
Repair and corrective action	Mechanics	(2)
Repair and corrective action	Electricians	(3)
Repair and corrective action	I and C Technicians	(2)
Emergency processing of radioactive waste	Radwaste Operator **	(1)

* - These positions may be filled by a working supervisor OR support.

** - May take credit for Radwaste staff in Radwaste Control Room OR Shift Support Supervisor.

7.14 OSC Supervisors must inform the OSC Manager WHEN his/her support staff positions are adequately filled.

7.15 Ensure sign-in sheets are reviewed for facility accountability checks. Ensure access control is established.

7.16 Ensure that OSC Manager starts a log.

7.17 Synchronize clocks with Control Room operating time.

7.18 Ensure the physical arrangement of the facility is correct per typical layout posted in the OSC.

7.19 Check the status boards for similarity to Attachments 2 through 5. Paper copies of the status boards are available in the OSC supply cabinets.

7.20 Adequacy of supplies and equipment will be accessed during facility activation. IF additional supplies/equipment are needed, obtain from available resources, as appropriate (e.g. near-by offices, warehouse, etc.)

> NOTE
>
> Establishment of communication loops is NOT essential for facility activation.

7.21 Ensure communications checks are performed per Attachment 6. Submit completed form to OSC Manager.

7.22 Ensure P.A. System is on and audible in the OSC.

7.23 Inform the TSC Manager when the OSC is activated. Note any exceptions in staffing and resources, as appropriate.

(TYPICAL - USE LATEST REVISION)

GEORGIA POWER COMPANY **PAGE 1 OF 1**
PLANT E.I. HATCH
FORM TITLE:
OSC SIGN IN SHEETS

DATE: ____/____/____

Name	Badge No.	Emergency Response Position	Time In	Time Out	Time In	Time Out	Time In	Time Out

(TYPICAL - USE LATEST REVISION)

HATCH PLANT PARAMETERS

Mode Switch SD___RF___SU___RUN___Scram Time____ % Rods Full In____

	Time (Central)					
Reactor	Power (%)					
	Water Level (in) Instrument					
	Rx. Press. (PSIG)					
	Rx. Temp (°F)					
Drywell	Pressure (psig)					
	Temperature (°F)					
Torus	Pressure (psig)					
	Temperature (°F)					
	Level (in)					
DW/Torus O_2 Conc. %						
Dw/Torus H_2 Conc. %						

4160 VAC Busses Energized		Diesel Generator	Condenser available
A___	E___	A OP___ INOP___ Status____	[ ] Yes
B___	F___	B OP___ INOP___ Status____	[ ] No
C___	G___	C OP___ INOP___ Status____	
D___			

ISOLATION	SRV/LLS/ADS	SBGT	SBLC
GRP 1___Full___Partial___	___SRVs Closed	1A___OP___INOP___ Status/Flow___	Pump A Injecting___ Standby ___
GRP 2___Full___Partial___	___SRVs Open	1B___OP___INOP___ Status/Flow___	Pump B Injecting___ Standby ___
GRP 3___Full___Partial___	___LLS Armed/Init.	2A___OP___INOP___ Status/Flow___	Tank Level ____%
GRP 4___Full___Partial___	___ADS Manual Init.	2B___OP___INOP___ Status/Flow___	Time Injected:
GRP 5___Full___Partial___	___ADS Auto Init.		

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(TYPICAL - USE LATEST REVISION)

PLANT HATCH

MAJOR EVENTS			INOP EQUIP
DATE / TIME	**EMERGENCY CLASSIFICATION**	**EVENTS**	**EQUIPMENT / COMPONENTS**

(TYPICAL - USE LATEST REVISION)

AREA RADIATION MONITORS

UNIT 1

Date ___/___/___

	ARM DESCRIPTION/LOCATION	INSTR NO. 1 D31	INSTR RANGE mRem/hr	TIME	TIME	TIME	TIME
1	REACTOR HEAD LAYDOWN AREA	K601A	$1\text{-}10^4$				
2	REFUELING FLOOR STAIRWAY	K601B	$1\text{-}10^4$				
3	SPENT FUEL POOL DEMIN EQUIP	K601C	$1\text{-}10^4$				
4	REFUELING FLOOR	K601D	$1\text{-}10^4$				
5	DRYWELL SHIELD PLUG	K601E	$1\text{-}10^4$				
6	TIP AREA	K601F	$1\text{-}10^4$				
7	130' NE WORKING AREA	K601G	$1\text{-}10^4$				
8	130' SW WORKING AREA	K601H	$1\text{-}10^4$				
9	158' WORK AREA	K601K	$1\text{-}10^4$				
10	158' RX WATER SAMPLE HOOD AREA	K601L	$1\text{-}10^4$				
11	SPENT FUEL POOL & NEW SUEL STOR	K601M	$1\text{-}10^4$				
12	SOUTH CRD HYDRAULIC UNITS	K601N	$1\text{-}10^4$				
13	NORTH CRD HYDRAULIC UNITS	K601P	$1\text{-}10^4$				
14	SOUTH CORE SPRAY & RHR UNITS	K601R	$1\text{-}10^4$				
15	EQUIPMENT ACCESS AIRLOCK	K	$1\text{-}10^4$				
16	HPCI TURBINE AREA	K	$1\text{-}10^4$				
17	TIP (CORE) PROBE DRIVES AR	K	$1\text{-}10^4$				
18	RCIC EQUIPMENT AREA SW	K601V	$1\text{-}10^4$				
19	CRD PUMP ROOM NW	K601W	$1\text{-}10^4$				
20	203' WORKING FLOOR	K601X	$1\text{-}10^4$				
21	NORTH CORE SPRAY & RHR AREA	K601Y	$1\text{-}10^4$				
22	TURBINE STANDARD	K608A	0.01-100				
23	CONTROL ROOM	K608B	0.01-100				
24	CONTROL ROOM	K608C	0.01-100				
25	OPERATING FLOOR NORTH END	K608D	0.01-100				
26	FEEDWATER AREA	K608E	0.01-100				
27	CONDENSATE DEMIN AREA	K601Z	$1\text{-}10^4$				
28	RADWASTE OPERATING FLOOR	K608P	$1\text{-}10^4$				
29	RADWASTE CONVEYOR OPER AISLE	K608Q	$1\text{-}10^4$				
30	RADWASTE BASEMENT PUMP ROOM	K608R	$1\text{-}10^4$				
31	FUEL POOL DEMIN PANEL AREA	K617	0.01-100				
32	RECOMBINER BLDG OPER AREA	K615	0.01-100				
33	RECOMBINER DDW HEAT EXCH AREA	K616	0.01-100				
34	WASTE GAS TREAT BLDG (GLYCOL)	K613	0.01-100				
35	WASTE GAS TREAT BLDG OPER AREA	K614	0.01-100				
36	RADWASTE ADD CHEM WASTE TANK AREA	K610	0.01-100				
37	RADWASTE ADD STEAM BOBOILER	K611	0.01-100				
38	RADWASTE ADD HVAC FILTER	K612	0.01-100				

Page 1 of 3

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(TYPICAL - USE LATEST REVISION)

AREA RADIATION MONITORS

UNIT 2

Date ___/___/___

CHAN NO.	ARM DESCRIPTION/LOCATION	INSTR NO. 1 D 21	INSTR RANGE mRem/hr	TIME	TIME	TIME	TIME
1	REACTOR HEAD LAYDOWN AREA	K601A	$1\text{-}10^4$				
2	158' LEVEL - SE	K601B	$1\text{-}10^4$				
3	158' LEVEL - NE	K601C	$1\text{-}10^4$				
4	158' LEVEL - NW	K601D	$1\text{-}10^4$				
5	DRYER/SEPARATOR POOL	K601E	$1\text{-}10^4$				
6	TIP AREA	K601F	$1\text{-}10^4$				
7	130' NE WORKING AREA	K601G	$1\text{-}10^4$				
8	130' SW WORKING AREA	K601H	$1\text{-}10^4$				
9	DECANT PUMP/EQUIPMENT ROOM	K601L	$1\text{-}10^4$				
10	SPENT FUEL POOL ARREA	K601M	$1\text{-}10^4$				
11	SOUTH CRD HYDRAULIC UNITS	K601N	$1\text{-}10^4$				
12	SPENT FUEL PASSAGEWAY	K601P	$1\text{-}10^4$				
13	185' LEVEL OPERATING FLOOR	K601R	$1\text{-}10^4$				
14	185' LEVEL SAMPLE PANEL AREA	K60[illegible]	[illegible]				
15	CRD REPAIR AREA	K60[illegible]	[illegible]				
16	185' LEVEL RWCU CON[illegible]L PANEL	[illegible]	[illegible]				
17	RCIC EQUIPMENT AREA	[illegible]	$1\text{-}10^4$				
18	CRD PUMP ROOM SW	[illegible]	[illegible]				
19	RHR & CORE SPRAY ROOM NE	K601X	$1\text{-}10^4$				
20	RHR & CORE SPRAY SE	K601Y	$1\text{-}10^4$				
21	REACTOR VESSEL REFUEL EL 220'	K611K	$1\text{-}10^4$				
22	REACTOR VESSEL REFUEL EL 220'	K611L	$1\text{-}10^4$				
23	FUEL POOL DEMIN PANEL	K600D	0.01-100				
24	WASTE GAS TREAT GLYCOL EL 186'	K600E	0.01-100				
25	164' UNCONTROLLED ACCESS AREA	K600A	0.01-100				
26	164' UNCONTROLLED ACCESS AREA	K600B	0.01-100				
27	RECOMB ACCESS PASSAGE EL 112'	K600C	0.01-100				
28	CONDENSATE BOOSTER PUMP EL 112'	K600F	0.01-100				
29	NORTH TURBINE ROOM WORKING FLOOR EL 164'	K600G	0.01-100				
30	STATOR COOLING UNIT EL 130'	K600H	0.01-100				
31	LOW PRESSURE HEATER AREA	K600K	0.01-100				
32	COND DEMIN STAIRWELL AREA SE EL 112'	K601Z	0.01-100				
33	RADWASTE OPERATING FLOOR	K611A	$1\text{-}10^4$				
34	RADWASTE CONVEYOR OPER AISLE	K611B	$1\text{-}10^4$				
35	RADWASTE BASEMENT PUMP ROOM	K611C	$1\text{-}10^4$				
36	4" LEVEL MONORAIL AREA EL 132'	K611D	1-104				
37	148' LEVEL HOPPER AREA	K611E	1-104				
38	148' LEVEL STAIRWAY AREA	K611F	1-104				
39	164' LEVEL CENTRIFUGE AREA	K611G	1-104				
40	164' LEVEL WORKING AREA	K611M	1-104				

(TYPICAL - USE LATEST REVISION)

RADIATION MONITORS

Date: ___/___/___ Affected Unit _____

PROCESS MONITORS	INSTR NO.	INSTR RANGE	TIME	TIME	TIME	TIME
DRYWELL/TORUS		R/HR				
WIDE RANGE DRYWELL	(K621A)	$1\text{-}10^7$				
	(K621B)	$1\text{-}10^7$				
DRYWELL POST-LOCA	(K622A)	$1\text{-}10^6$				
	(K622B)	$1\text{-}10^6$				
TORUS POST-LOCA	(K622C)	$1\text{-}10^6$				
	(K622D)	$1\text{-}10^6$				
FISSION PRODUCT		(cpm)				
PARTICULATE	(K630A)	$1\text{-}10^6$				
IODINE	(K630B)	$1\text{-}10^6$				
GAS	(K633C)	$1\text{-}10^6$				
MAIN STEAM LINE		mR/hr				
A	(K603A)	$1\text{-}10^6$				
B	(K603B)	$1\text{-}10^6$				
C	(K603C)	$1\text{-}10^6$				
D	(K603D)	$1\text{-}10^6$				
MAIN STACK						
NORMAL RANGE	K600A/B	$10^{-1}\text{-}10^6$ cps				
FLOW		cfm				
KAMAN	P007	$5E^{-2}\text{-}10^5 \mu Ci/cc$				
UNIT 1 REACTOR BLDG						
NORMAL RANGE	K619A/B	$10^{-1}\text{-}10^6$ cpm				
FLOW		cfm				
KAMAN	P601	$5E^{-2}\text{-}10^5 \mu Ci/cc$				
UNIT 2 REACTOR BLDG						
NORMAL RANGE	K636A/B	$10^{-1}\text{-}10^6$ cpm				
FLOW		cfm				
KAMAN	P601	$5E^{-2}\text{-}10^5 \mu Ci/cc$				

(TYPICAL - USE LATEST REVISION)

SURVEY TEAMS

Dispatched		Returned		Location	Highest Dose Rate	Airborne Contamination	Comments
Time	Number of people	Time	Number of people				

REPAIR TEAMS

Dispatched		Returned		Location	System	Comments
Time	Number of people	Time	Number of people			

SAMPLE

SEARCH / RESCUE TEAMS

Dispatched		Returned		Victims' Location	Victims' Status
Time	Number of people	Time	Number of people		

(TYPICAL - USE LATEST REVISION)

GEORGIA POWER COMPANY PLANT E.I. HATCH	PAGE 1 OF 1
FORM TITLE: OSC COMMUNICATIONS CHECKS	

Ensure that the below listed telephone lines are functioning. These checks may be completed on a single telephone set. Functioning is defined for normal and ring down lines to be as follows:

Ring Down Lines - When the receiver is lifted a ringing of the other phone is heard and a response is received.

Normal Lines - When the receiver is lifted a dialtone is heard, call a known local number (i.e., adjacent phone number in the OSC) to verify operability.

TELEPHONE LINE	OPERABLE LINES	COMM LOOP ESTABLISHED	INOPERABLE
Plant Parameters/Mjr Events/ Inop Equipment			
Radiological Data			
OSC Ringdown/phone answerer			
Survey/Repair/Rescue Teams			
Team Tracking			
Check operability of radio			
Local outside line			

_____ ____/____/____

Signature Date

1.0 OBJECTIVE

The Technical Support Center (TSC) is an onsite facility that will provide plant management and technical support to the reactor operating personnel (located in the control room) during emergency conditions. The TSC provides relief to the reactor operators of peripheral duties AND communications NOT directly related to reactor system manipulations; engineering assistance, prevents congestion of the control room AND in general, performs Emergency Operations Facility (EOF) functions, with the exception of Dose Assessment, UNTIL the EOF is operational. This procedure addresses AND delineates the actions required to bring the TSC to a state of readiness AND provides guidelines for manning the facility.

2.0 APPLICABILITY

This procedure is applicable to all personnel who would respond to the TSC during an emergency condition, drills AND/OR exercises.

3.0 REFERENCES

3.1 Edwin I. Hatch Units 1 AND 2 Emergency Plan

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

3.3 60AC-HPX-001-0S, Radiation Exposure Limits

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

3.5 62RP-RAD-008-0S, Radiation & Contamination Surveys

3.6 62RP-RAD-009-0S, Air Sampling & Concentration Determination

3.7 62RP-RAD-034-0S, Emergency Air Sampling Program

3.8 73EP-EIP-016-0S, TSC HVAC Operation

3.9 NUREG 0654, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants"

3.10 Emergency Response Position Matrix

3.11 H-27055, TSC and EOF

4.0 REQUIREMENTS

4.1 PERSONNEL REQUIREMENTS

The first person(s) responding to the TSC will be responsible for initiating this procedure. The TSC Manager upon arrival, will be responsible for ensuring completion of this procedure.

4.2 MATERIAL AND EQUIPMENT

N/A - Not applicable to this procedure

4.3 SPECIAL REQUIREMENTS

Upon the declaration of an Alert Emergency, Site-Area Emergency, General Emergency OR WHEN deemed necessary, the TSC will be activated AND fully operational as soon as possible BUT no later than approximately one hour following the initial notification. All OR portions of this procedure will be implemented, as appropriate, based on the desired function of the TSC. Activation is achieved WHEN, in the judgment of the TSC Manager, staffing AND equipment are sufficient to carry out the purpose of the TSC.

5.0 PRECAUTIONS/LIMITATIONS

5.1 PRECAUTIONS

5.1.1 Consider exterior radiological conditions PRIOR to exiting the TSC during any declared emergency condition.

5.1.2 Minimize opening AND closing of the TSC access doors during declared emergency conditions without operation of the TSC filter train.

5.2 LIMITATIONS

N/A - Not applicable to this procedure

6.0 PREREQUISITES

Adequate resources shall be in place for the TSC to perform its intended function PRIOR to activation. Adequate resources are defined as minimum staffing per Table B-1 of the Emergency Plan AND described in step 7.13 of this procedure.

REFERENCE

7.0 PROCEDURE

NOTE

This procedure is intended to be used as guidance for activating the TSC in emergency situations. Deviation from the listed sequence is permitted WHEN plant conditions warrant a more expedient order of completion.

7.1 Obtain the necessary keys for the TSC. Break the TSC key box window to obtain the keys IF the keys are NOT readily available from Security OR Health Physics/Chemistry office in the Service Building.

7.2 Establish personnel accountability of TSC emergency responders. All incoming personnel will use the TSC card readers to log in AND out of the TSC AND wear the appropriate TSC emergency response position badge. The badges may be obtained from the TSC badge cabinet. In the event the card readers are NOT on line OR are NOT functional, personnel will sign in/out on the TSC sign in sheets similar to that shown in Attachment 1.

7.3 All TSC Supervision will ensure their names are placed on the TSC staffing board. In addition, all Communicator/Recorders will ensure their names are placed on the TSC staffing board.

7.4 SET-UP OF TSC HEATING, VENTILATION, AND AIR CONDITIONING (HVAC) SYSTEM

7.4.1 Ensure that the system switch on thermostat X75-TIS-N011 (northeast corner of the TSC) is in the AUTOMATIC position AND the fan switch is in the ON position.

7.4.2 Adjust the system thermostat (X75-TIS-N011), heating thermostat (X75-TC-R009), AND humidity control (X75-MC-N022) as necessary. A minimum differential setting of 3°F between heating AND cooling must be maintained.

Recommended settings are as follows:

System thermostat (X75-TIS-N011)	75°F	
Heating thermostat (X75-TC-R009)	70°F	(Preset: To adjust remove cover w/ 1/16" Allen wrench)
Humidity Controller (X75-MC-N022)	45% RH	

7.5 Activate the TSC Heating, Ventilation and Air Conditioning (HVAC) system as outlined in steps 7.5.1 through 7.5.4. Refer to 73EP-EIP-016-0S Section 7.0, TSC HVAC Operation, for shutdown of the system AND response to annunciator alarms.

7.5.1 At the TSC Annunciator Panel (1X75-P102), PLACE the filter train fan unit control switch (1X75-C001) to the RUN position.

7.5.2 Ensure the following valves on the annunciator panel change to the following positions:

1X75-A0V-F001- OPEN (red light)
1X75-A0V-F002- OPEN (red light)
1X75-A0V-F003- OPEN (red light)
1X75-A0V-F004- OPEN (red light)
1X75-A0V-F005- CLOSE (green light)

7.5.3 Ensure the TSC toilet rooms exhaust dampers (1X75-C002) are turned off in the TSC restrooms. Ensure the green light for the toilet room exhaust dampers (1X75-A0V-F007) ILLUMINATES on the annunciator Panel 1X75-P102.

7.5.4 Check the filter train operating time on the annunciator Panel 1X75-P102. IF the operating time is greater than 720 hours, contact the Maintenance Department to replace AND test the carbon absorbers.

7.6 Clear any HVAC annunciators by depressing the Acknowledge AND Reset buttons on the TSC HVAC annunciator Panel. Confirm the validity of any existing Unit 1 OR Unit 2 alarms by using SPDS OR contacting the appropriate Control Room. All inoperative annunciators will be logged AND announced to facility personnel.

7.7 Ensure Health Physics (HP) personnel conduct habitability surveys initially upon facility setup AND as conditions warrant OR as necessary to ensure TSC responders do NOT exceed exposure limits as specified in 60AC-HPX-001-0S Section 7.0, Radiation Exposure Limits.

7.7.1 Radiation AND contamination surveys will be conducted in accordance with 62RP-RAD-008-0S, Radiation & Contamination Surveys, AND results documented on the appropriate HP survey form.

7.7.2 Air sampling will be conducted in accordance with 62RP-RAD-034-0S Section 7.0, Emergency Air Sampling Program, AND results documented on the appropriate air sample calculation sheet.

7.7.3 Submit all completed survey forms AND air sampling calculation sheets to TSC HP/Chemistry Supervision for review.

7.8 Radiological precautions for the TSC will be consistent with normal plant procedures. Habitability of the facility will be based on the following:

7.8.1 Airborne: Habitability of the facility will be based on the ability to maintain exposures of individuals within the Federal limits for Total Effective Dose Equivalent (TEDE) and Total Organ Dose Equivalent (TODE) as described in 60AC-HPX-007-0S, Radiation Exposure Limits.

7.9 The decision to evacuate the TSC will be based on the following factors:

7.9.1 Facility dose rates versus available dose margins of TSC emergency responders.

7.9.2 Concentration of airborne activity versus type of radiological protection taken (i.e., respirators, tracking of MPC-hrs, etc).

7.9.3 Duration of the event.

7.9.4 Length of time needed to re-establish TSC activities in the Control Room versus the importance of TSC activities currently in progress OR those projected to control AND/OR effect corrective action.

7.10 IF the decision is made to evacuate the TSC, the TSC Manager will determine those TSC personnel needed to continue the performance of TSC activities AND relocate to the Control Room. Other TSC personnel may be directed to another facility, rescheduled to return at a later time AND/OR evacuated from plant site.

7.11 Restrictions on eating, drinking AND smoking will be implemented whenever radiological conditions warrant (e.g., airborne radioactivity, surface contamination, abnormal radiation levels OR significant potential for such conditions exists).

CAUTION

OFF-NORMAL HOURS ACTIVATION WILL RESULT IN LESS THAN OPTIMUM TSC RESOURCES. THE TSC MANAGER WILL EVALUATE THE RESOURCES AND INFORMATION AVAILABLE AND ACTIVATE THE TSC WHEN THE FACILITY CAN FUNCTION AT THE MINIMUM ACCEPTABLE LEVEL. SEE STEP 7.13 FOR MINIMUM STAFFING AND FUNCTIONS/TASKS.

7.12 For optimum TSC performance, ensure qualified staffing of the following positions as indicated on the Emergency Response Position Matrix for the TSC. The matrix contains a listing of qualified emergency responders AND is located in the enclosed TSC bulletin board.

°TSC Manager
°Operations Supervision
°Engineering Supervision
°Maintenance Supervision
°Health Physics/Chemistry Supervision
°Administration Supervision
°Security Supervision
°Reactor Engineering
°License Support/Communications
°Operations Support
°Engineering Support
°Maintenance Support
°Health Physics/Chemistry Support
°Administration Support
°Security Support
°General Support
°Communication/Recorder #1/2 - Plant Parameter/Equipment Status/Major Events/ INOP Equipment
°Communication/Recorder #3 - Radiation Monitors
°Communication/Recorder #4 - TSC ringdown
°Communication/Recorder #5 - State/Local Notifications (ENN)
°Communication/Recorder #6 - Team Tracking
°Communication/Recorder #8 - Plant Parameter/Equipment Status/Major Events to the Operations Support Center (OSC) and General Office Operations Center (GOOC)
°Communicator/Recorder #9 - NRC Notifications (ENS)

7.13 For activation of the TSC during off-hours OR periods where staff augmentation (call out of responders from home) is required, the TSC Manager may activate the TSC WHEN the following functions AND personnel are available (minimum staffing as defined in Table B-1 of the Hatch Emergency Plan):

TASK/FUNCTION	PERSONNEL	# REQ'D.
Overall management of the facility	TSC Manager	(1)
Technical support to the Control Room	Operations Supervisor OR Support	(1)
Technical support to the Control Room	Engineering Supervisor OR Support	(1)
Technical support to the Control Room	Maintenance Supervisor OR Support	(2)
Core/thermal Hydraulics	Reactor Engineer	(1)
State/Local Notification	ENN Communicator ENS Communication	(1) (1)

> NOTE
>
> Establishment of communication loops is NOT essential for facility activation.

7.14 Ensure communications checks are performed per Attachment 7. Submit completed form to the TSC Manager.

> NOTE
>
> Establishment of data transfer on NRC-ERDS is NOT essential for facility activation.

7.15 Activate NRC-ERDS per Attachment 8.

7.16 Ensure access control AND contamination monitoring is established.

7.17 Ensure supervisory emergency response personnel start a log.

7.18 Synchronize all clocks with the Control Room operating time, with the exception of the clock near the Communicator/Recorder table, which must be set on eastern time.

7.19 Ensure the physical arrangement of the facility is similar to the typical TSC layout posted in the TSC.

7.20 Check the status boards for similarity to Attachments 2 through 6. Paper copies of the status boards are typically available below each status board.

7.21 Adequacy of supplies, equipment AND documents will be assessed during facility activation. IF additional supplies/equipment/document are needed, notify the TSC Administration Supervisor for assistance.

7.22 Inform the Control Room, Emergency Director, OSC Manager, EOF Manager (WHEN the EOF is activated) AND GOOC, WHEN the TSC is activated.

(TYPICAL - USE LATEST REVISION)

GEORGIA POWER COMPANY **PAGE 1 OF 1**
PLANT E.I. HATCH
FORM TITLE:
TSC SIGN-IN SHEET

DATE: _____/_____/_____

NAME	Badge No.	Emergency Response Position	Time In	Time Out	Time In	Time Out	Time In	Time Out

(TYPICAL - USE LATEST REVISION)

HATCH PLANT PARAMETERS

Mode Switch SD___RF___SU___RUN___Scram Time_____ % Rods Full In_____

	Time (Central)					
Reactor	Power (%)					
	Water Level (in) Instrument					
	Rx. Press. (PSIG)					
	Rx. Temp (°F)					
Drywell	Pressure (psig)					
	Temperature (°F)					
Torus	Pressure (psig)					
	Temperature (°F)					
	Level (in)					
DW/Torus O_2 Conc. %						
Dw/Torus H_2 Conc. %						

4160 VAC Busses Energized	Diesel Generator	Condenser available
A___ E___	A OP___ INOP___ Status_____	[ ] Yes
B___ F___	B OP___ INOP___ Status_____	[ ] No
C___ G___	C OP___ INOP___ Status_____	
D___		

ISOLATION	SRV/LLS/ADS	SBGT	SBLC
ORP 1___Full___Partial___	___SRVs Closed	1A___OP___INOP___ Status/Flow___	Pump A Injecting___ Standby ___
ORP 2___Full___Partial___	___SRVs Open	1B___OP___INOP___ Status/Flow___	Pump B Injecting___ Standby ___
ORP 3___Full___Partial___	___LLS Armed/Inst.	2A___OP___INOP___ Status/Flow___	
ORP 4___Full___Partial___	___ADS Manual Init.	2B___OP___INOP___ Status/Flow___	Tank Level _____%
ORP 5___Full___Partial___	___ADS Auto Init.		Time Injected:

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(TYPICAL - USE LATEST REVISION)

PLANT HATCH

MAJOR EVENTS			INOP EQUIP
DATE / TIME	EMERGENCY CLASSIFICATION	EVENTS	EQUIPMENT / COMPONENTS

(TYPICAL - USE LATEST REVISION)

INTERNAL RET DATA

Dispatched		Returned		Location	Highest Dose Rate	Airborne Contamination	Comments
Time	Number of people	Time	Number of people				

(TYPICAL - USE LATEST REVISION)

AREA RADIATION MONITORS

UNIT 1

Date: ___/___/___

	ARM DESCRIPTION/LOCATION	INSTR NO. 1 D21	INSTR RANGE mRem/hr	TIME	TIME	TIME	TIME
1	REACTOR HEAD LAYDOWN AREA	D601A	1-10⁴				
2	REFUELING FLOOR STAIRWAY	D601B	1-10⁴				
3	SPENT FUEL POOL DEMIN EQUIP	D601C	1-10⁴				
4	REFUELING FLOOR	D601D	1-10⁴				
5	DRYWELL SHIELD PLUG	D601E	1-10⁴				
6	TIP AREA	D601F	1-10⁴				
7	130' NE WORKING AREA	D601G	1-10⁴				
8	130' SW WORKING AREA	D601H	1-10⁴				
9	158' WORK AREA	D601K	1-10⁴				
10	158' RX WATER SAMPLE HOOD AREA	D601L	1-10⁴				
11	SPENT FUEL POOL & NEW FUEL STO	D601M	1-10⁴				
12	SOUTH CRD HYDRAULIC UNITS	D601N	1-10⁴				
13	NORTH CRD HYDRAULIC UNITS	D601P	1-10⁴				
14	SOUTH CORE SPRAY & RHR UNITS	D601R	1-10⁴				
15	EQUIPMENT ACCESS AIRLOCK	D601S	1-10⁴				
16	HPCI TURBINE AREA	D601T	1-10⁴				
17	TIP (CORE) PROBE DRIVES AREA	D601U	1-10⁴				
18	RCIC EQUIPMENT AREA SW	D601V	1-10⁴				
19	CRD PUMP ROOM NW	D601W	1-10⁴				
20	203' WORKING FLOOR	D601X	1-10⁴				
21	NORTH CORE SPRAY & RHR AREA	D601Y	1-10⁴				
22	TURBINE STANDARD	D600A	0.01-100				
23	CONTROL ROOM	D600B	0.01-100				
24	CONTROL ROOM	D600C	0.01-100				
25	OPERATING FLOOR NORTH END	D600D	0.01-100				
26	FEEDWATER AREA	D600E	0.01-100				
27	CONDENSATE DEMIN AREA	D601Z	1-10⁴				
28	RADWASTE OPERATING FLOOR	D602P	1-10⁴				
29	RADWASTE CONVEYOR OPER AISLE	D602Q	1-10⁴				
30	RADWASTE BASEMENT PUMP ROOM	D602R	1-10⁴				
31	FUEL POOL DEMIN PANEL AREA	D617	0.01-100				
32	RECOMBINER BLDG OPER AREA	D633	0.01-100				
33	RECOMBINER DRW HEAT EXCH AREA	D634	0.01-100				
34	WASTE GAS TREAT BLDG (GLYCOL)	D633	0.01-100				
35	WASTE GAS TREAT BLDG OPER AREA	D634	0.01-100				
36	RADWASTE ADD CHEM WASTE TANK AREA	D638	0.01-100				
37	RADWASTE ADD STEAM BOILER	D641	0.01-100				
38	RADWASTE ADD HVAC FILTER	D642	0.01-100				

(TYPICAL - USE LATEST REVISION)

AREA RADIATION MONITORS

UNIT 2

Date: ___/___/___

CHAN NO.	ARM DESCRIPTION/LOCATION	INSTR NO. 1 D 21	INSTR RANGE mRem/hr	TIME	TIME	TIME	TIME
1	REACTOR HEAD LAYDOWN AREA	K601A	1-10⁴				
2	158' LEVEL - SE	K601B	1-10⁴				
3	158' LEVEL - NE	K601C	1-10⁴				
4	158' LEVEL - NW	K601D	1-10⁴				
5	DRYER/SEPARATOR POOL	K601E	1-10⁴				
6	TIP AREA	K601F	1-10⁴				
7	130' NE WORKING AREA	K601G	1-10⁴				
8	130' SW WORKING AREA	K601H	1-10⁴				
9	DECANT PUMP/EQUIPMENT ROOM	K601L	1-10⁴				
10	SPENT FUEL POOL AREA	K601M	1-10⁴				
11	SOUTH CRD HYDRAULIC UNITS	K601N	1-10⁴				
12	SPENT FUEL PASSAGEWAY	K601P	1-10⁴				
13	185' LEVEL OPERATING FLOOR	K601R	1-10⁴				
14	185' LEVEL SAMPLE PANEL AREA	K601S	1-10⁴				
15	CRD REPAIR AREA	K601T	1-10⁴				
16	185' LEVEL RWCU CONTROL PANEL	K601U	1-10⁴				
17	RCIC EQUIPMENT AREA	K601V	1-10⁴				
18	CRD PUMP ROOM SW	K601W	1-10⁴				
19	RHR & CORE SPRAY ROOM NE	K601X	1-10⁴				
20	RHR & CORE SPRAY SE	K601Y	1-10⁴				
21	REACTOR VESSEL REFUEL EL 228'	K611K	1-10⁴				
22	REACTOR VESSEL REFUEL EL 228'	K611L	1-10⁴				
23	FUEL POOL DEMIN PANEL	K606D	0.01-100				
24	WASTE GAS TREAT GLYCOL EL 166'	K606E	0.01-100				
25	164' UNCONTROLLED ACCESS AREA	K606A	0.01-100				
26	164' UNCONTROLLED ACCESS AREA	K606B	0.01-100				
27	RECOMB ACCESS PASSAGE EL 112'	K606C	0.01-100				
28	CONDENSATE BOOSTER PUMP EL 112'	K606P	0.01-100				
29	NORTH TURBINE ROOM WORKING FLOOR EL 164'	K606D	0.01-100				
30	STATOR COOLING UNIT EL 130'	K606R	0.01-100				
31	LOW PRESSURE HEATER AREA	K606K	0.01-100				
32	COND DEMIN STAIRWELL AREA SE EL 112'	K606Z	0.01-100				
33	RADWASTE OPERATING FLOOR	K611A	1-10⁴				
34	RADWASTE CONVEYOR OPER AISLE	K611B	1-10⁴				
35	RADWASTE BASEMENT PUMP ROOM	K611C	1-10⁴				
36	4" LEVEL MONORAIL AREA EL 132'	K611D	1-10⁴				
37	148' LEVEL HOPPER AREA	K611E	1-10⁴				
38	148' LEVEL STAIRWAY AREA	K611F	1-10⁴				
39	164' LEVEL CENTRIFUGE AREA	K611G	1-10⁴				
40	164' LEVEL WORKING AREA	K611M	1-10⁴				

(TYPICAL - USE LATEST REVISION)

RADIATION MONITORS

Date: ___/___/___ Affected Unit _____

PROCESS MONITORS	INSTR NO.	INSTR RANGE	TIME	TIME	TIME	TIME
DRYWELL/TORUS		R/Hr				
WIDE RANGE DRYWELL	(K621A)	$1\text{-}10^7$				
	(K621B)	$1\text{-}10^7$				
DRYWELL POST-LOCA	(K622A)	$1\text{-}10^6$				
	(K622B)	$1\text{-}10^6$				
TORUS POST-LOCA	(K622C)	$1\text{-}10^6$				
	(K622D)	$1\text{-}10^6$				
FISSION PRODUCT		(cpm)				
PARTICULATE	(K630A)	$1\text{-}10^6$				
IODINE	(K630B)	$1\text{-}10^6$				
GAS	(K633C)	$1\text{-}10^6$				
MAIN STEAM LINE		mR/Hr				
A	(K603A)	$1\text{-}10^6$				
B	(K603B)	$1\text{-}10^6$				
C	(K603C)	$1\text{-}10^6$				
D	(K603D)	$1\text{-}10^6$				
MAIN STACK						
NORMAL RANGE	K600A/B	$10^{-1}\text{-}10^6$ cps				
FLOW		cfm				
KAMAN	P007	$5E^{-3}\text{-}10^5$ µCi/cc				
UNIT 1 REACTOR BLDG						
NORMAL RANGE	K619A/B	$10^{-1}\text{-}10^6$ cpm				
FLOW		cfm				
KAMAN	P601	$5E^{-3}\text{-}10^5$ µCi/cc				
UNIT 2 REACTOR BLDG						
NORMAL RANGE	K636A/B	$10^{-1}\text{-}10^6$ cpm				
FLOW		cfm				
KAMAN	P601	$5E^{-3}\text{-}10^5$ µCi/cc				

(TYPICAL - USE LATEST REVISION)

		OP	IN OP														
RCIC				GPM													
HPCI				GPM													
CORE SPRAY	A			GPM													
	B			GPM													
RHR "A" LOOP	A			GPM													
	C																
MODE																	
RHR "B" LOOP	B			GPM													
	D																
MODE																	
RHR SERVICE WATER	A			GPM													
	C																
	B			GPM													
	D																
CRD PUMPS	A			GPM													
	B																
FEEDWATER PUMPS	A			MLbs/hr													
	B			MLbs/hr													

COND PUMPS	RUN	INOP	STBY	DISCHARGE PRESSURE (PSIG)
A				
B				
C				

COND. BOOSTERS	RUN	INOP	STBY	DISCHARGE PRESSURE (PSIG)
A				
B				
C				

(TYPICAL - USE LATEST REVISION)

NOTE

Ensure that the below listed telephone lines are functioning. These checks may be performed on single telephone set. Functioning is defined for normal ring down lines to be as follows:

Ring Down Lines - WHEN the receiver is lifted, a ringing of the other phone is heard and a response is received.

Normal Lines - WHEN the receiver is lifted AND and a dialtone is heard, call a known local number (i.e., adjacent phone number in the TSC) to confirm operability.

TELEPHONE LINE	OPERABLE LINES	COMM. LOOP EST.	INOPERABLE
Plant Parameters/Equip Status/ Major Events/Inop Equip.			
Rad Data			
Ring Down to: (CR) (EOF) (OSC) (SIM) (GOOC)			
State/Local Notifications (ENN)			
Team Tracking			
Plant Parameters/Major Events to OSC and GOOC			
NRC Notifications (ENS)			
1 of 2 Local Outside Lines			
Any 2 Plant Extensions			

Signature: _____ Date: ____/____/____/____

Instructions for activation/deactivation of the NRC Emergency Response Data System (ERDS)

> NOTE
>
> The NRC-ERDS must be activated WITHIN 1 hour of emergency declaration.

ACTIVATION

The NRC-ERDS control console is located near the SPDS terminal in the Technical Support Center. To activate the system perform the following:

1. Select the appropriate unit on the Unit Transfer Switch 1X75-P661
2. Adjust the screen brightness as required
3. Press the "B" key to begin data transfer
4. Monitor the bottom line of the display to ensure that data transfer has begun

> NOTE
>
> The system requires approximately two minutes to begin data transfer. Data transfer may be considered successful WHEN the messages "DATA SENDING" AND "DATA SENT" appear alternately on the bottom line of the display.

IF data transfer cannot be established, go to the main control room ERDS maintenance console (Main control room east side near the ATTS panels). On the maintenance console keyboard for the appropriate unit, type Ctrl C THEN Ctrl B. This will reset the system. THEN type STARTUP and press Enter. Press B to begin data transfer. IF data transfer cannot be established after completion of this step, contact the NRC. IF it is determined that the transfer problem exists with site equipment, contact Engineering AND Instruments and Controls to resolve the problem.

DEACTIVATION

To deactivate data transmission, perform the following:

1. Contact the NRC to ensure that data is no longer required
2. Select the appropriate Unit on the Unit Transfer Switch
3. Press the "E" key to end data transfer

1.0 OBJECTIVE

The Emergency Operations Facility (EOF) is an onsite facility for the management of overall licensee emergency response (including coordination with federal, state, and local officials, coordination of radiological and environmental assessments, and determination of recommended public protective actions). This procedure addresses and delineates the actions required to bring the EOF to a state of readiness and provides guidelines for manning the facility.

> NOTE
>
> This procedure is intended to be guidance for activating the EOF in emergency situations. Deviations from the listed sequence are permitted WHEN plant conditions warrant a more expedient order of completion.

2.0 APPLICABILITY

This procedure is applicable to all personnel who would respond to the EOF during an emergency condition, drill, AND/OR exercises.

3.0 REFERENCES

3.1 NUREG 0654

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

3.3 Edwin I. Hatch Nuclear Plant, Unit 1 and 2 Emergency Plan

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

3.5 62RP-RAD-008-0S, Radiation & Contamination Surveys

3.6 62RP-RAD-034-0S, Emergency Air Sampling Program

4.0 REQUIREMENTS

The first person responding to the EOF will be responsible for initiating this procedure. The EOF Manager OR his/her designee, upon arrival, will be responsible for ensuring completion of this procedure.

5.0 PRECAUTIONS/LIMITATIONS

N/A - Not applicable to this procedure

6.0 PREREQUISITES

6.1 The EOF shall be activated at a Site Area Emergency, General Emergency, OR when deemed necessary. The EOF will be placed in standby for an Alert emergency. Standby denotes the EOF is ready to be activated and all personnel and equipment are ready to function. All or portions of this procedure will be implemented as appropriate based on the desired function of the EOF. Activation is achieved WHEN, in the judgement of the EOF Manager and/or Emergency Director, staffing and equipment are sufficient to carry out the purpose of the EOF and the EOF is functioning as designed.

6.2 Adequate resources shall be in place for the EOF to perform its intended function PRIOR to activation. Adequate resources are defined as minimum staffing per Table B-1 of the Emergency Plan and as described in step 7.14 of this procedure.

REFERENCE

7.0 PROCEDURE

7.1 Obtain keys to simulator building from glass key box or from Security and, IF necessary, have Security unlock appropriate doors to all entry points. Ensure that classrooms 162 and 179 on north side are locked.

7.2 Establish personnel sign-in to provide accountability to EOF. Place a table, sign-in sheets, and badges next to double doors at the west end of the hallway between entry and first classrooms. Have incoming personnel sign in on the sign-in sheets and wear the appropriate badge (see Attachment 1 for sign-in sheets). The badges will be located in the cabinet located at the west entrance to the EOF.

7.3 Ensure arrangements of the physical facility per layouts posted on the walls in the EOF.

7.4 Ensure arrangement of the communications equipment per layouts posted on the walls in the EOF. Telephones are stored in cabinets on north wall of classrooms. Mats are available to cover telephone cords to prevent tripping.

7.5 Remove the portable status boards from behind the false wall in classroom 182 and place per typical arrangement posted on the walls in the EOF.

7.6 Check status boards for similarity to Attachments 2 through 6. Paper copies of the status boards are typically stored on the back of the status boards.

7.7 Make HVAC filter system operational by pushing red button located in the Simulator Building (2nd floor) HVAC room. This action will put the system in the abnormal condition.

7.8 Ensure the switchboard(s), telecopiers, public address system, and copy machines are operational. Ensure procedure manual sets are available from the Training/EP library located on the first floor of the Simulator Building.

7.9 Set up Dose Assessment computer in accordance with 73EP-EIP-015-0S.

7.10 Perform communications checks per Attachment 7. Submit completed form to the EOF Manager.

NOTE

Establishment of communication loops is NOT essential for facility activation.

7.11 Ensure that Health Physics (HP) personnel conduct habitability surveys initially upon facility setup and as conditions warrant or as necessary to ensure that EOF responders do NOT exceed exposure limits as specified in 60AC-HPX-001-0S, Radiation Exposure Limits.

7.11.1 Radiation and contamination surveys will be conducted in accordance with 62RP-RAD-008-0S, Radiation & Contamination Surveys, and results documented on the appropriate Health Physics survey form.

7.11.2 Air sampling will be conducted in accordance with 62RP-RAD-034-0S, Emergency Air Sampling Program and results documented on the appropriate air sample calculation sheet.

7.11.3 Submit all completed survey forms and air sampling calculation sheets to the Dose Assessment Manager for review.

7.11.4 Radiological precautions for the EOF will be consistent with normal Plant procedures.

7.12 Habitability of the facility will be based on the ability to maintain exposures of individuals within the Federal limits for Total Effective Dose Equivalent (TEDE) and Total Organ Dose Equivalent (TODE) as described in 60AC-HPX-007-0S, Radiation Exposure Limits.

7.12.1 The decision to evacuate the EOF will be based on the following factors:

7.12.1.1 Facility dose rates versus available dose margins (TEDE and TODE) of EOF emergency responders.

7.12.1.2 Concentration of airborne activity versus type of radiological protection taken (i.e., respirators, tracking of DAC - hours, etc).

7.12.1.3 Duration of the event.

7.12.1.4 Length of time needed to re-establish activities at the alternate EOF versus the importance of EOF activities currently in progress.

7.13 For optimum EOF performance, ensure qualified staffing of the following positions as per the EOF Emergency Position Matrix found in the enclosed EOF Bulletin board. This matrix contains a list of qualified emergency responders.

Emergency Director
EOF Manager
Operations Advisor
Support Coordinator
Security Manager
Dose Assessment Manager
Dose Assessment Staff
Field Team Coordinator
Field Team Radio Operator
Offsite RET members
Administrative Support
General Support
License Support
Communicator/Recorders
- Plant Parameters and Major Events/INOP Equipment
- Radiological Data
- EOF Ringdown
- State/Local Notifications (ENN)

7.14 For activation of the EOF during off-hours or periods where staff augmentation (call out or responders from home) is required, the EOF Manager may activate the EOF WHEN the following functions and personnel are available (minimum staffing as defined in Table B-1 of the Hatch Emergency Plan):

TASK/FUNCTION	PERSONNEL	# REQ'D
Offsite interface in the EOF	EOF Manager	(1)
Dose Assessment support to Emergency Director	Dose Assessment	(2)
Offsite monitoring	Health Physics or Chemistry Technicians (sent from OSC)	(4)

7.15 Review sign-in sheets for accountability check. Ensure access control has been established.

7.16 Ensure that key emergency response personnel are starting a log.

7.17 Synchronize all clocks with Control Room time.

7.18 EOF Supervisors will inform the EOF Manager WHEN his/her support staff positions are adequately filled.

7.19 Inform Emergency Director and, as appropriate, TSC and the General Office Operations Center, WHEN the EOF is activated.

(TYPICAL - USE LATEST REVISION)

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

FORM TITLE:
EOF SIGN-IN SHEET

DATE: ____/____/____

NAME	Badge No.	Emergency Response Position	Time In	Time Out	Time In	Time Out	Time In	Time Out

(TYPICAL - USE LATEST REVISION)

HATCH PLANT PARAMETERS

Mode Switch SD___RF___SU___RUN___Scram Time_____ % Rods Full In_____

	Time (Central)					
Reactor	Power (%)					
	Water Level (in) Instrument					
	Rx. Press. (PSIG)					
	Rx. Temp (°F)					
Drywell	Pressure (psig)					
	Temperature (°F)					
Torus	Pressure (psig)					
	Temperature (°F)					
	Level (in)					
DW/Torus O_2 Conc. %						
Dw/Torus H_2 Conc. %						

4160 VAC Busses Energized	Diesel Generator	Condenser available
A___ E___ B___ F___ C___ G___ D___	A OP___ INOP___ Status_____ B OP___ INOP___ Status_____ C OP___ INOP___ Status_____	[ ] Yes [ ] No

ISOLATION	SRV/LLS/ADS	SBGT	SBLC
GRP 1___Full___Partial___ GRP 2___Full___Partial___ GRP 3___Full___Partial___ GRP 4___Full___Partial___ GRP 5___Full___Partial___	___SRVs Closed ___SRVs Open ___LLS Armed/Init. ___ADS Manual Init. ___ADS Auto Init.	1A___OP___INOP___ Status/Flow___ 1B___OP___INOP___ Status/Flow___ 2A___OP___INOP___ Status/Flow___ 2B___OP___INOP___ Status/Flow___	Pump A Injecting___ Standby ___ Pump B Injecting___ Standby ___ Tank Level _____% Time Injected:

(TYPICAL - USE LATEST REVISION)

PLANT HATCH DOSE PROJECTIONS

Date/ Time	Sector	Current Dose Rate						2 Hour Projected Dose					
		Whole Body mrem/hr			Thyroid mrem/hr			Whole Body mrem			Thyroid mrem		
		Mile			Mile			Mile			Mile		
		0 - 2	2 - 5	5 - 10	0 - 2	2 - 5	5 - 10	0 - 2	2 - 5	5 - 10	0 - 2	2 - 5	5 - 10

SAMPLE

(TYPICAL - USE LATEST REVISION)

FIELD TEAM DATA

DATE: _____

_____ **TEAM**

TIME DISPATCHED (EASTERN)	SAMPLE LOCATION	SAMPLE TIME (EASTERN)	DOSE RATE (MR/HR)				COUNT RATE (CPM)		AIR SAMPLE RESULTS			COMMENTS
			2" ABOVE GROUND		WAIST LEVEL		2" ABOVE GROUND	WAIST LEVEL	GROSS AIRBORNE (uCi/cc)	IODINE (uCi/cc)	THYROID DOSE RATE (MR/HR)	
			OPEN	CLOSED	OPEN	CLOSED						

_____ **TEAM**

TIME DISPATCHED (EASTERN)	SAMPLE LOCATION	SAMPLE TIME (EASTERN)	DOSE RATE (MR/HR)				COUNT RATE (CPM)		AIR SAMPLE RESULTS			COMMENTS
			2" ABOVE GROUND		WAIST LEVEL		2" ABOVE GROUND	WAIST LEVEL	GROSS AIRBORNE (uCi/cc)	IODINE (uCi/cc)	THYROID DOSE RATE (MR/HR)	
			OPEN	CLOSED	OPEN	CLOSED						

_____ **TEAM**

TIME DISPATCHED (EASTERN)	SAMPLE LOCATION	SAMPLE TIME (EASTERN)	DOSE RATE (MR/HR)				COUNT RATE (CPM)		AIR SAMPLE RESULTS			COMMENTS
			2" ABOVE GROUND		WAIST LEVEL		2" ABOVE GROUND	WAIST LEVEL	GROSS AIRBORNE (uCi/cc)	IODINE (uCi/cc)	THYROID DOSE RATE (MR/HR)	
			OPEN	CLOSED	OPEN	CLOSED						

(TYPICAL - USE LATEST REVISION)

METEOROLOGICAL/RADIOLOGICAL INFORMATION

PLANT HATCH Unit: _____ Date _____ 19___

Time (Central)											
Delta T (°F)	100 - 10m										
	60 - 10m										
	45 - 10m										
	Sigma Θ										
Wind Speed (mph) (15 min. avg.)	ULWS (Pri/Bkup)*										
	LLWS (Pri/Bkup)*										
Wind Direction From: (degrees) (15 min. avg.)											
D.W.W.R. Rad. Mon. (R/Hr)(max of A or B)											
SBGT	1A/1B (CFM)										
	2A/2B (CFM)										
MNSTK	Normal Rng. (CPS)										
	Kaman (uCi/cc)										
	Flow (CFM)										
U1RB	Normal Rng. (CPM)										
	Kaman (uCi/cc)										
	Flow (CFM)										
U2RB	Normal Rng. (CPM)										
	Kaman (uCi/cc)										
	Flow (CFM)										
Stability Class											
Iodine/N.G. Ratio											
Fumigation Yes/No											
Noble Gas	Ele. Level (Ci/sec)										
	Gnd. Level (Ci/sec)										
Iodine Rel.	Gnd. Level (Ci/sec)										
	Ele. Level (Ci/sec)										
S/D Time:	Time since Rx S/D (Hrs.)										

80675A4F

* Pri - 100M ULWS / 10M LLWS on primary tower.
45M ULWS / 23M LLWS on backup tower.

(TYPICAL - USE LATEST REVISION)

PLANT HATCH

MAJOR EVENTS			INOP EQUIP
DATE / TIME	**EMERGENCY CLASSIFICATION**	**EVENTS**	**EQUIPMENT / COMPONENTS**

(TYPICAL - USE LATEST REVISION)

NOTE

Check radio operability. Ensure that telephone lines are functioning. These checks may be completed on a single telephone set. Functioning is defined for normal and ring down lines to be as follows

Ring Down Lines - When the receiver is lifted a ringing of the other phone is heard and a response is received.

Normal Lines - When the receiver is lifted a dialtone is heard, call a known local number (i.e., adjacent phone number in the EOF) to verify operability.

TELEPHONE LINE	OPER. LINES	COMM. LOOP EST.	INOPERABLE
Plant Parameters/Mjr Events			
Rad/Met Data & Red Data to G00C			
Ring Down to (Control Room) (TSC) (OSC) (SIM) (G00C			
State/Local Notification (ENN)			
Any 1 Local Outside Lines			
Any 2 Plant Extensions			

SAMPLE

_____/_____/_____/_____
Signature Date

1.0 OBJECTIVE

This procedure provides instructions for initial and follow-up notifications to State and Local authorities by emergency communication networks and systems. This procedure further provides initial notification time requirements and systems to be used for communicating with the Nuclear Regulatory Commission (NRC) in the event of a declared emergency. Included in the time requirements are instructions for utilizing the appropriate emergency communication links.

2.0 APPLICABILITY

This procedure is applicable to the use of emergency communications networks and systems to notify federal (NRC), State and Local authorities during an emergency. This procedure is performed as required.

3.0 REFERENCES

3.1 Edwin I. Hatch Nuclear Plant, Unit 1 and Unit 2 Emergency Plan

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

3.3 30AC-OPS-003-0S, Plant Operations

3.4 31GO-OPS-013-0S, Notifications and Reports

4.0 REQUIREMENTS

4.1 PERSONNEL REQUIREMENTS

4.1.1 The Emergency Director authorizes offsite notifications of emergency conditions to State and Local authorities.

4.1.2 The Emergency Director may delegate, to other specifically trained emergency response personnel, actual performance of notifications.

4.2 MATERIAL AND EQUIPMENT

Emergency communication systems

4.3 SPECIAL REQUIREMENTS

The Emergency Director shall authorize notification to offsite authorities. Initial notification to State and Local authorities must be made within approximately fifteen minutes of declaring or changing emergency classifications.

5.0 PRECAUTIONS/LIMITATIONS

5.1 PRECAUTIONS

N/A - Not applicable to this procedure

5.2 LIMITATIONS

5.2.1 Initial notifications to State and Local authorities must be made within approximately (15) minutes of declaring or changing emergency classifications. Information which may not be available at the time of initial notification will be included on the subsequent message as soon as it becomes available.

5.2.2 Follow-up notifications to State and Local authorities will be made periodically during an Alert or higher emergency classification. Significant events which occur which potentially impact offsite emergency actions must be reported as soon as practicable. Significant events to be reported as soon as practicable include, but are not limited to the following situations:

- Any event of itself which indicates degradation of plant conditions
- Any event which indicates a threat to core or containment integrity
- An actual radiological release
- Any event which will impact offsite resources (for example: evacuation of plant personnel, transportation offsite of contaminated injured personnel, requests for offsite support, etc.)

5.2.3 Emergency communication systems will be used to transfer emergency information during a declared emergency OR an emergency drill/exercise.

6.0 PREREQUISITES

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

REFERENCE

7.0 PROCEDURE

7.1 NOTIFICATION TO STATE AND LOCAL AUTHORITIES

CAUTION

SPECIAL CARE MUST BE TAKEN IN TRANSFERRING RESPONSIBILITY FOR PERFORMING OFFSITE NOTIFICATIONS TO ANOTHER FACILITY. A PROPER TURNOVER IS IMPERATIVE. NOTIFICATION OF STATE AND LOCAL AUTHORITIES WILL BE MADE WITHIN APPROXIMATELY FIFTEEN MINUTES OF DECLARING OR CHANGING ANY EMERGENCY CLASSIFICATION. THE EMERGENCY DIRECTOR'S AUTHORIZATION MUST BE OBTAINED PRIOR TO TRANSMITTING THE NOTIFICATION MESSAGE.

7.1.1 The Emergency Director will designate the Emergency Response Facility which has priority over emergency notifications and communications (i.e., Control Room, TSC, or EOF).

7.1.2 Information contained on the Emergency Notification Form (similar to that shown in Attachment 1) will be transferred to State and Local authorities via the Emergency Notification Network (ENN). Subsections 7.2 and 7.3 outline information requirements for initial and follow-up notifications.

7.2 INITIAL NOTIFICATIONS

7.2.1 For all initial notifications, obtain information to complete all line items on the Emergency Notification Form, similar to that shown in Attachment 1. Line items 11, 12, & 13 may be omitted from the initial notification IF it is NOT available within the 15 minute initial notification timeframe. It must, however, be transmitted as soon as it becomes available.

7.2.2 Obtain the Emergency Director's approval of all information on the Emergency Notification Form. The Emergency Director's approval will be entered on line item 16.

NOTE

Acknowledgment may be received from either the 24 hour point of contact OR the alternate point of contact for the State/Locals.

7.2.3 Prior to transmitting any information, alert the offsite authorities. A message similar to the following message may be used:

"This is (Give Name and Title) at Plant Hatch. Stand by to receive emergency notification information using the Emergency Notification Form."

Please acknowledge Georgia Emergency Management Agency (GEMA).

Please acknowledge Appling County.

Please acknowledge Jeff Davis County.

Please acknowledge Tattnall County.

Please acknowledge Toombs County."

Acknowledgment must be received from GEMA and each Local [either the 24 hour point of contact OR the State/Local Emergency Operations Center (EOC)]. IF the State OR Local authorities fail to acknowledge using the ENN, the message transfer and acknowledgment must be obtained by alternate means. Alternate means of verbal contact include commercial telephone (first alternate means) or the civil defense (CD) radio(second alternate means). A facsimile of the notification form is acceptable as another means of communicating emergency information to offsite authorities.

The commercial telephone numbers for the State/Local offsite authorities are located in the Emergency Call List. The CD radio, located in the Control Room, TSC, and EOF, will allow contact only with the four Counties. Contact can not be made with GEMA directly using the CD radio.

IF the Emergency Notification Network (ENN) is inoperable, complete notifications using alternate means to contact the offsite authorities. Notify the Emergency Director of the inoperable ENN equipment and request personnel be dispatched to the Communications Room to switch the ENN to the alternate path. Instructions to switch the ENN to the alternate path are listed in Attachment 2.

> NOTE
>
> Faxxing of the Emergency Notification Form is to assist offsite authorities in clarifying emergency information reported to them.

7.2.4 Fax the emergency notification form to the offsite agencies and proceed with verbally transmitting the form's information. IF verbal transmission cannot be established, ensure a facsimile of the notification form is provided to the offsite authorities.

> NOTE
>
> Acknowledgment may be received from either the 24 hour point of contact OR the alternate point of contact for the State/Locals.

7.2.5 Complete the verbal notification with a Statement similar to the following:

"Please acknowledge GEMA.

Please acknowledge Appling County.

Please acknowledge Jeff Davis County.

Please acknowledge Tattnall County.

Please acknowledge Toombs County."

7.2.6 Acknowledgment of receipt of the notification must be received from the State/Local authorities. IF the State OR Local authorities fail to acknowledge using the ENN, acknowledgment must be obtained by alternate means as outlined in step 7.2.3.

7.2.7 IF it is determined that any information, which has been provided to State and Local authorities, is in error, the information must be corrected. The Emergency Director's authorization must be obtained prior to transmitting the corrected information. It is acceptable to provide only the corrected information on the notification form.

7.3 FOLLOW-UP NOTIFICATIONS

7.3.1 At a minimum, obtain information to complete line items 1, 2, 3, 5, 6, & 7 on the Emergency Notification Form, similar to that shown in Attachment 1, for all follow-up notifications. Any changes in events which are occurring, any changes in parameters and/or any information which was not available within the 15 minute initial notification timeframe (items 8-15) must be reported on the appropriate line item for all follow-up notifications. Any other line item which is not changed can be left blank. It is acceptable to provide only information which has changed for any item on the form for a follow-up notification

7.3.2 Obtain the Emergency Director's approval of all information on the Emergency Notification Form. The Emergency Director's approval will be entered on line item 16.

7.3.3 Refer to steps 7.2.3 through 7.2.7 to complete the follow-up notification to the State and Local authorities.

7.4 COMMUNICATIONS PROTOCOL AND USE

7.4.1 Whenever one organization is contacting another organization, appropriate communications protocol must be used. An acceptable protocol is as follows:

Example: "GEMA, This is the EOF, over."
GEMA would then respond:
"EOF, this is GEMA, go ahead."

7.4.2 The ENN may also be used for the transmission of technical, radiological and meteorological data upon request of State and Local authorities.

7.5 FALSE NOTIFICATIONS

7.5.1 IF an attempted false notification OR other misuse of the ENN occurs, the speakers in the Emergency Operations Facility (EOF), Technical Support Center (TSC), and Control Room will automatically activate, allowing Plant Hatch personnel to also receive the information.

7.5.2 IF the information is an attempt to cause a false notification, supervisory personnel will lift the phone and state the following or a similar statement:

"Negative, Negative, Negative. This is (give Name and Title). Acknowledge negative."

7.5.3 Acknowledgment must be received from State and Local authorities. IF the State OR Local authorities fail to acknowledge using the ENN, acknowledgment must be obtained by alternate means as outlined in step 7.2.3.

7.6 NRC NOTIFICATIONS

7.6.1 The Emergency Director will ensure that notifications to the NRC will be in accordance with 31GO-OPS-013-0S and 00AC-REG-001-0S. Notifications to the NRC will be as soon as possible, but no later than one hour following declaration of the emergency.

7.6.2 The Emergency Director will designate the Emergency Response Facility which has priority over NRC Notifications and Communications (i.e., Control Room, TSC, or EOF). The Control Room will be relieved of this duty as soon as the TSC is activated.

7.6.3 IF requested by the NRC, an open communication pathway must be maintained. Follow-up notifications to the NRC are required as conditions change (reactor/plant status, emergency class, release status, etc.).

7.6.4 The primary method of communication with the NRC will be the Emergency Notification System (ENS). The ENS operates on the Federal Telecommunications System (FTS) 2000 network. To contact the NRC via the ENS, dial the telephone numbers from the ENS station as listed in the Emergency Call List.

IF the ENS communication link is inoperable, commercial lines may be utilized to contact the NRC Operations Center (NRCOC) by dialing the telephone numbers as listed in the Emergency Call List.

The other FTS 2000 communication links in the TSC and EOF may be utilized to contact the NRC Operations Center (NRCOC) as required. Refer to the Emergency Call List for the appropriate telephone numbers to use. FTS 2000 communication links are listed below.

Protective Measures Counterpart Link (PMCL)
Reactor Safety Counterpart Link (RSCL)
Management Counterpart Link (MCL)
Health Physics Network (HPN)

7.7 MAJOR LOSS OF COMMUNICATIONS SYSTEMS

7.7.1 In accordance with 10CFR50.72(b)(1)(v), a major loss of communications capability is a reportable event requiring NRC notification within one hour. A major loss of communications capability consists of:

Loss of the primary means of offsite communications to the NRC (ENS lines).

OR

Loss of the primary (ENN) AND alternate system (Bell telephone system) for the notification of State and Local authorities.

OR

Loss of the NOAA Weather Radio System.

7.7.2 IF a major loss of communications is suspected, refer to Attachment 3 to determine if the loss is a reportable event and for actions to be taken.

7.7.3 Ensure the following are notified of any communications problems:

- Hatch Duty Manager
- Emergency Preparedness Coordinator
- Information Resources (MIS)

7.8 DOCUMENTATION AND RECORDS

7.8.1 Emergency Response Facility personnel responsible for offsite notifications will document the notifications, acknowledgments, and pertinent communications to the State and Local authorities on the Emergency Notification Form. Notifications to the NRC will be documented in accordance with 31GO-OPS-013-0S, Notifications and Reports, and 00AC-REG-001-0S, Federal and State Reporting Requirements.

7.8.2 All data and information generated during the emergency event will be miantained by applicable emergency response personnel in each facility. This information will be utilized to generate a written close-out report upon termination of the emergency event. The report will be prepared as described in 73EP-ADM-001-0S, Maintaining Emergency Preparedness.

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

The following provides information on the type of information to include on the various line items of the Emergency Notification Form.

Item 1 Drill/Actual Emergency:

Check the appropriate block indicating the Emergency Notification is for drill/exercise ("This is a Drill") or an actual emergency condition ("This is an Actual Emergency").

Initial/Follow-up

Indicate whether it is an initial or follow-up notification message by checking the appropriate block.

Message Number

Enter the facility abbreviation and sequential number of the notification being made. The facility where notifications are made may change based on location of the Emergency Director, however, the number will remain sequential throughout the event (i.e., CR-1, TSC-2, EOF-3 etc.).

Item 2 Site:

Site location already filled in.

Unit:

Enter the affected unit number 1 or 2. In the event both units are involved in the emergency, enter unit number 1 & 2.

Reported by:

Enter name of person transmitting information.

Item 3 Transmittal Time/Date:

Enter time (Eastern) and date WHEN the transmission of data begins.

Confirmation Phone Number:

Enter a plant phone number and extension (in your facility), to be used by the State and Local authorities for verification of information being transmitted.

Item 4 Authentication

This block is NOT applicable for emergency notifications made at Plant Hatch.

Item 5 Emergency Classification:

Check the appropriate block indicating the current emergency classification declared. Refer to Facility Management to confirm this information.

Item 6 Emergency Declaration at:

Enter the time (Eastern) and date when the current emergency classification was declared. Refer to Facility Management to confirm this information.

Emergency Termination at:

Enter the time (Eastern) and date the emergency is terminated and proceed to item 16. Refer to Facility Management to confirm this information.

Item 7 Emergency Description:

Enter a brief description of the initiating conditions for the emergency classification declared and any other current information regarding significant events which have occurred, since the last notification was made. This may include information on significant equipment which is out of service or malfunctioning. The use of acronyms to describe the emergency needs to be avoided. This section can also include important information to be given to the State and Local authorities. For example, IF a site evacuation is taking place, they will need to know information about the evacuation direction provided to evacuated plant personnel (i.e., evacuation route and applicable Reception Center). Refer to Facility Management to confirm this information.

Item 8 Plant Condition:

Check the most accurate prognosis of current plant condition. Refer to Facility Management to confirm this information.

Item 9 Reactor Status:

Check the appropriate block to indicate the current status of the affected unit's reactor. IF the unit is shutdown, enter the time (Eastern) and date of the shutdown. IF the unit is operating, indicate % power. Refer to Facility Management to confirm this information.

Item 10 Emergency Releases:

Check the appropriate block to indicate status of a radiological release:

A. None (Go to item 14)
B. Potential (Go to item 14);
C. Is Occurring
D. Has Occurred

The presence of an actual release is defined by the NRC as "During a classifiable emergency, indication of an abnormal step increase of an order of magnitude over and above daily operating levels constitutes a Release". Daily operating levels are described as average daily release levels for steady state operations. This value normally runs in the E-3 mr/hr range or below.

IF no release is occurring, check the "None" block and proceed to item 14. IF a potential for release exists, check the "Potential" block and proceed to next step; IF a release is occurring, check the "Is Occurring" block and enter start time (eastern), expected duration and proceed to next step, IF a release has occurred, check the "Has Occurred" block and enter start time (eastern) and proceed to next step.
Refer to Facility Management (i.e., TSC HP Supervision or EOF Dose Assessment) to confirm this information.

> NOTE
>
> Item 11 may be omitted from the initial notification IF it is NOT available within the 15 minute initial notification time frame. It must be included on the subsequent message.

Item 11 Type of Release:

Check the appropriate block to indicate IF the release is an elevated release (through the main stack) or a ground level release (through the reactor building vents) for the appropriate release. IF the release type is NOT known, assume that the release is noble gas from the elevated release point until informed otherwise.

Indicate IF; A. Airborne (Noble Gases) or B. Liquid release is occurring or has occurred by entering the start time (eastern) and date and IF applicable the time and date the release stopped.

NOTE

Item 12 may be omitted from the initial notification IF it is not available within the 15 minute initial notification time frame. It must be included on the subsequent message.

Item 12 Release Magnitude

This section requires the completed results of dose assessment:

Check the appropriate block indicating units of measurement for the release. Enter the release rate (in Ci/sec or total Curies) next to noble gases, iodines and other as appropriate.

Normal Operating Limits indicate IF release is above or below the Technical Specification limit of .057 mr/hr. IF release rate is below Tech Spec limit of .057 mr/hr but higher than normal average daily release levels for steady state operations check the below block. Check above block IF release rate is determined to be greater than Tech Spec limit.

The iodine/noble gas ratio will be supplied via dose assessment results or designated as not available. In the TSC, ask the HP/Chem Supervisor or Support personnel, in the EOF, ask the Dose Assessment Manager or staff.

NOTE

Item 13 may be omitted from the initial notification IF it is NOT available within the 15 minute initial notification time frame. It must be included on the subsequent message.

Item 13 Estimate of Projected Offsite Dose:

Check the appropriate block indicating IF the projected offsite dose is new information or unchanged information from the last notification.

This section requires the completed results of dose assessment.

Check the appropriate block indicating IF the projected offsite dose is new information or unchanged information from the last notification. Enter the duration of dose projection in hours, this is normally a four (4) hour projected dose.

Enter the projected Total Effective Dose Eq. (TEDE) and Committed Dose Eq. (CDE) thyroid dose (in mrem) at site boundary, 2, 5, and 10 miles distances.

NOTE

Recording of Stability Class or the actual differential temperature (°F) reading is acceptable.

Item 14 Meteorological Data:

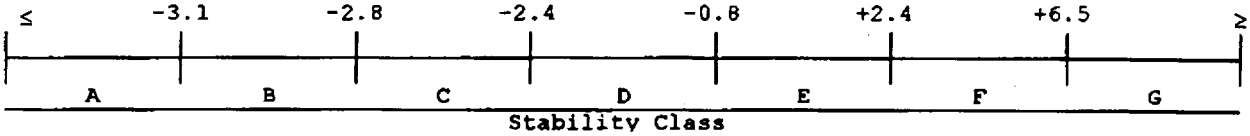
This information is to be included on all notifications to the State and Local authorities. This information may be found on SPDS Meteorological Screen or the MET/RAD Status Board.

To obtain Stability Class Information, use the following chart to convert differential temperatures to Stability Class:

Stability Class Conversion Chart

Elevated Release

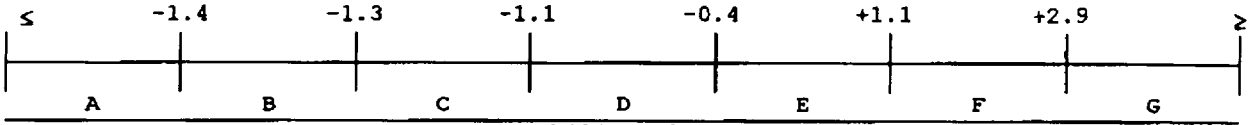
Primary Tower - 90 meter (100-10M) Differential Temperature (°F)



Stability Class

Ground Level Release

Primary Tower - 50 meter (60-10m) Differential Temperature (°F)



Stability Class

Item 15 Recommended Protective Actions:

This section requires the completed results of 73EP-EIP-054-0S, "Protective Action Recommendations to State and Local Authorities". This information will be provided by HP Supervisor and/or Operations Supervision in the TSC or Ops Advisor in the EOF upon approval by the Emergency Director.

Check the appropriate block to indicate:

a. No recommended protective actions;
b. Enter distance and affected zones recommended for evacuating;
c. Enter distance and affected zones recommended for sheltering in place;
d. Enter other recommended protective actions as appropriate.

Item 16 Approved By:

Obtain concurrence and approval of emergency information from the Emergency Director prior to transmission of any message to offsite authorities. Any changes to form after the Emergency Director's approval will require his concurrence.

Time/Date:

The Emergency Director will enter the time (Eastern) and date the emergency notification form is approved.

The back of the notification form may be used for recording the roll call prior to transmitting the information and the acknowledgment after the information has been transmitted. Record the date and time (eastern) of notification of the State and each Local authority.

(TYPICAL - USE LATEST REVISION)

E M E R G E N C Y N O T I F I C A T I O N

MESSAGE NUMBER _____

1. [A] THIS IS A DRILL [B] ACTUAL EMERGENCY [C] INITIAL [D] FOLLOW-UP

2. SITE: PLANT HATCH UNIT: _____ REPORTED BY: _____

3. TRANSMITTAL TIME/DATE: _____ (Eastern) ____/____/____ mm dd yy CONFIRMATION PHONE NUMBERS: _____

4. AUTHENTICATION (If Required): _____ (Number) _____ (Codeword)

5. EMERGENCY CLASSIFICATION:
   [A] NOTIFICATION OF UNUSUAL EVENTS [B] ALERT
   [C] SITE AREA EMERGENCY [D] GENERAL EMERGENCY

6. [A] Emergency Declaration At: [B] Termination At: TIME/DATE: _____
   (If B, go to Item 16) - (Eastern) mm dd yy

7. EMERGENCY DESCRIPTION/REMARKS: _____

8. PLANT CONDITION: [A] IMPROVING [B] STABLE [C] DEGRADING

9. REACTOR STATUS: [A] SHUTDOWN TIME/DATE: ____/____/____ [B] _____%POWER
   Eastern) mm dd yy

10. EMERGENCY RELEASE(S):
    [A] NONE (Go to Item 14.) [B] POTENTIAL (Go to Item 14.)
    [C] IS OCCURRING [D] HAS OCCURRED

**11. TYPE OF RELEASE: [ ] ELEVATED [ ] GROUND LEVEL
    [A] AIRBORNE: Started: ____/____/____ Stopped: ____/____/____
    Time (Eastern) date Time(Eastern) date
    [B] LIQUID: Started: ____/____/____ Stopped: ____/____/____
    Time (Eastern) date Time(Eastern) date

**12. RELEASE MAGNITUDE: [ ] CURIES PER SEC. [ ] CURIES
    NORMAL OPERATING LIMITS: [ ] BELOW [ ] ABOVE
    [A] NOBLE GASES [B] IODINES
    [C] PARTICULATES [D] OTHER

**13. ESTIMATE OF PROJECTED OFFSITE DOSE:
    [ ] NEW [ ] UNCHANGED PROJECTION TIME: _____ (EASTERN)

	TEDE (mrem)	THYROID CDE (mrem)
SITE BOUNDARY		
2 MILES		
5 MILES		
10 MILES		

ESTIMATED DURATION: _____HRS

14. METEOROLOGICAL DATA:
    [A] WIND DIRECTION(from) [B] SPEED (mph)
    [C] STABILITY CLASS [D] PRECIPITATION (type)

15. RECOMMENDED PROTECTIVE ACTIONS:
    [A] NO RECOMMENDED PROTECTIVE ACTIONS
    [B] EVACUATE _____
    [C] SHELTER-IN-PLACE _____
    [D] OTHER _____

16. APPROVED BY: _____ (Name) _____ (Title) TIME/DATE: _____ (EASTERN) mm dd yy

** Information may not be available on initial notifications.

Major Loss of Communications Systems

1. Loss of ENS

A loss of ENS is confirmed in the Control Room by the inability to contact the NRC Operations Center (NRCOC) on the ENS phone. If this occurs, contact the NRCOC using a commercial telephone line using the telephone numbers listed in the Emergency Call List.

Report that the ENS line is out of service. This is considered a Notification of Significant Event in accordance with 10CFR50.72(b) (1) (v).

The other FTS 2000 communication links in the TSC and EOF may be utilized to contact the NRC Operations Center (NRCOC) as required. Refer to the Emergency Call List for the appropriate telephone numbers to use. FTS 2000 communication links are listed below.

Protective Measures Counterpart Link (PMCL)
Reactor Safety Counterpart Link (RSCL)
Management Counterpart Link (MCL)
Health Physics Network (HPN)

2. Loss of ENN

A loss of ENN is confirmed in the Control Room by the inability to contact ANY State or Local authority over the ENN system. If this occurs, establish contact with the State/Local authorities by calling them using commercial telephone lines and the telephone numbers listed in the Emergency Call List. Report that the ENN is out of service and we are verifying operability of our backup system. This is not considered a reportable event.

IF you are unable to establish contact with any of the above authorities through either the ENN system or commercial lines, try contacting them using the Civil Defense Radio in the Control Room. IF unable to establish contact with ANY of the above authorities through either the ENN or commercial telephone lines THEN this is considered a Notification of Significant Event in accordance with 10CFR50.72(b) (1) (v), regardless of the ability to contact offsite authorities with the Civil Defense Radio.

Emergency Notification Network (ENN) Equipment Inoperability

In the event the Emergency Notification Network (ENN) is inoperable, the following actions will be taken to return the equipment to service:

1. Dispatch personnel to the Communications Room in the Unit 1 Service Building. The Communications Room is located directly across from the Dosimetry Office. The key may be obtained from the Control Room key box. Upon entering the Communications Room, personnel will proceed into the switching room to the ENN control box. The ENN control box is located on the west wall of the switching room.

2. Personnel will change the position of the (4) dual position switches in the ENN control box in order to transfer to the alternate path to re-establish communications. Change the position of the four (4) switches from the "DOWN" (normal) position to the "UP" (alternate) position to change to the alternate path for the ENN. Indicator lights will illuminate for each switch WHEN placed in the alternate position.

3. Once this action is completed, notify the Emergency Director so that notifications may continue over the ENN.

3. Loss of NOAA Weather Radio System

A complete loss of the broadcast ability of NOAA Weather Alert radio system is considered a major loss of Offsite Notification System capability and is considered a Notification of Significant Event in accordance with 10CFR50.72(b)(1)(v). This is a reportable event under 10CFR50.72(b)(1)(v).

4. Loss of Commercial Telephone Lines

IF a loss of Bell telephone lines offsite is reported and confirmed in the Control Room by the inability to make offsite long distance phone calls, confirm the operability of the following notification systems:

Ensure the operability of the ENS system by contacting the NRC Operations Center using the ENS and reporting a test of the ENS. (This is not considered a Notification of Significant Event). IF unable to establish contact with the NRC Operations Center through the ENS THEN this is considered a Notification of Significant Event in accordance with 10CFR50.72(b)(1)(v).

Ensure the operability of the ENN system by conducting a roll call of the State and Local authorities over the ENN. IF unable to establish contact with all of the above authorities through either the ENN OR commercial telephone lines, THEN this is considered a Notification of Significant Event in accordance with 10CFR50.72(b)(1)(v).

1.0 OBJECTIVE

This procedure provides instructions for responding to and mitigating the results of a Radiological Event.

TABLE OF CONTENTS

2.0 APPLICABILITY

This procedure is applicable to all personnel upon the declaration of a Radiological Event.

3.0 REFERENCES

3.1 60AC-HPX-001-0S, Radiation Exposure Limits

3.2 60AC-HPX-002-0S, Personnel Dosimetry Program

3.3 60AC-HPX-003-0S, Bioassay Program

3.4 60AC-HPX-004-0S, Radiation and Contamination Control

3.5 60AC-HPX-006-0S, Respiratory Protection Program

3.6 60AC-HPX-007-0S, Control of Radioactive Materials

4.0 REQUIREMENTS

4.1 PERSONNEL REQUIREMENTS

4.1.1 A Level 1 Health Physics (HP) Technician is the minimum level of qualification required to perform radiological monitoring.

4.1.2 Control Room Shift Supervisor is the minimum level of qualification necessary to declare a Radiological Event AND will make immediate decisions concerning Emergency Call List notifications.

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

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

4.3.1 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.

4.3.2 Transportation of contaminated injured individual to offsite hospital is a criteria for declaring an Emergency in accordance with 73EP-EIP-001-0S, Emergency Classification and Initial Actions.

4.3.3 When notification of personnel by title, e.g., Nuclear Plant 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.

4.3.4 Accurate record keeping during abnormal conditions or events is especially important to facilitate reconstruction of incident when required.

5.0 PRECAUTION/LIMITATIONS

5.1 PRECAUTIONS

5.1.1 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 the area by underestimating the dose rate.

5.1.2 An UNEXPECTED air sample result of greater than 1 Derived Air Concentration (DAC) in an occupied area may be the first indication of a continuing or ongoing problem. Careful consideration must be given to locating the source, identifying isotopes, establishing boundaries and evaluating exposure.

5.2 LIMITATIONS

Personnel will not be authorized to exceed radiation exposure limits as set forth in 60AC-HPX-001-0S, Radiation Exposure Limits, to investigate or mitigate the consequences of a Radiological Event.

6.0 PREREQUISITES

The Control Room Shift Supervisor, normally in consultation with HP Supervision, must have determined it to be prudent to alert plant personnel to an unusual radiological condition PRIOR to initiating a Radiological Event. Such conditions include, but are not limited to the following:

6.1 An Area Radiation Monitor (ARM) UNEXPECTEDLY alarms indicating radiation levels in the vicinity of the monitor of greater than 10 times normal but NOT sufficiently high to cause the monitor to go off-scale on the high end.

6.2 An air sample taken in an occupied area which is normally not an Airborne Radioactivity Area UNEXPECTEDLY yields results of $\geq$ 1.0 DAC.

REFERENCE

7.0 PROCEDURE

7.1 INVOLVED PERSONNEL

CAUTION

PERSONNEL MUST NOT BE SENT INTO AN AREA OF UNKNOWN RADIATION CONDITIONS WITHOUT HP COVERAGE, DOSIMETRY AND APPROPRIATE PROTECTIVE EQUIPMENT.

7.1.1 Control Room Personnel

Upon determining that a Radiological Event has occurred, the Shift Supervisor will perform the following actions:

7.1.1.1 Direct the Control Room Operator to make the following announcement over the public address system:

A RADIOLOGICAL EVENT IS OCCURRING. ABOVE NORMAL RADIATION (OR AIRBORNE RADIOACTIVITY) EXISTS IN THE ___(location)___ AREA. EVACUATE AND STAY CLEAR OF THE ___(location)___ AREA(S).

7.1.1.2 Direct the Control Room Operator to repeat the announcement a second time.

7.1.1.3 Contact the Health Physics Office to assist in investigating the condition. Inform HP of the indicated dose rate of the area, IF the event was initiated due to an alarming ARM, and any other pertinent information, e.g., dropped fuel bundle, indication of leak, etc..

7.1.1.4 Attempt to confirm accuracy of alarmed ARMs and effluent monitors by directing that the status of ARMs and effluent monitors near or associated with incident area be checked for recent or sudden change.

7.1.1.5 Check habitability of Control Room by observing radiation monitors OR possible automatic isolation of control room ventilation.

7.1.1.6 Ensure that START HIST (history) light on the SPDS keyboard is ILLUMINATED; if not, simultaneously DEPRESS the CTRL and START HIST keys. Cancel or continue history as directed by the SOS.

7.1.1.7 Observe Control Room instrumentation and controls. Implement corrective action to eliminate cause of this abnormal condition, IF possible, from the Control Room.

7.1.2 Personnel In Affected Area

Personnel in affected areas must immediately evacuate the affected area. IF possible that other personnel in the immediate or adjacent areas may not have heard the announcement, ensure that they are informed of the event.

7.1.2.1 Personnel in a contaminated area will:

7.1.2.1.1 Remove outer protective clothing (rubber shoes, gloves and coveralls) at step-off-pad and evacuate to a non-affected area.

7.1.2.1.2 Inform HP of their location, area they were in, and route used to get to present location.

7.1.2.1.3 IF no apparent immediate danger exists, wait for HP assistance.

7.1.2.2 Personnel who have been in an airborne radioactivity area without respiratory protection will report for a whole body count.

7.1.2.3 Personnel who were in the affected area when an ARM alarmed will report to HP to have their accumulated dose assessed.

7.1.3 Health Physics Personnel

Upon the announcement of a Radiological Event, the most senior HP person available will perform the following:

7.1.3.1 Determine from the Control Room the location, nature and apparent extent of the Radiological Event.

7.1.3.2 Dispatch available personnel to "event" location to perform the following:

> NOTE
>
> HP personnel will determine appropriate dress and respiratory requirements based on known plant conditions, circumstances of "event" and results of surveys.

7.1.3.2.1 Ensure that all non-involved personnel are out of the affected area AND all adjacent areas.

7.1.3.2.2 Investigate the cause and extent of radiological problems AND mitigate their consequences as much as possible.

7.1.3.2.3 Assist all personnel who left affected areas while dressed in protective clothing in removing AND bagging protective clothing AND in performing a whole body frisk.

7.1.3.2.4 Survey the route used by potentially contaminated personnel who left the affected area.

7.1.3.2.5 Rope-off AND post areas of high radiation OR airborne activity as conditions permit AND clear area of personnel where necessary.

7.1.3.3 Assess the accumulated dose of personnel who may have been exposed to unexpected high dose rates or airborne activity.

7.1.3.4 Ensure that the Control Room is kept informed of ALL findings related to the "event". These include, but are not limited to:

* Radiation dose rates
* Contamination levels
* Airborne Radioactivity level
* Apparent cause
* Respirator requirements
* Protective clothing requirements
* Names of personnel who were exposed (internal or external) from the "event" and the amount of exposure

7.1.4 Shift Supervisor Follow-up Action

Upon receiving a status report on the cause, extent and affects of the incident, the Shift Supervisor will perform the following:

7.1.4.1 IF conditions warrant, escalate to a more severe classification in accordance with the criteria described in 73EP-EIP-001-0S, Emergency Classification and Initial Actions.

7.1.4.2 When the abnormal condition no longer exists, announce an all clear over the public address system.

7.2 NON-INVOLVED PERSONNEL

Upon the announcement of a Radiological Event, non-involved personnel will perform the following:

7.2.1 Evacuate affected areas specified by PA announcement.

7.2.2 Listen for further public address announcements.

7.2.3 Be prepared to implement Notification Of Unusual Event, Alert, Site Area or General Emergency procedures if the emergency is reclassified.

1.0 OBJECTIVE

This procedure provides guidance to ensure that exposure to radiation is maintained as low as reasonably achievable (ALARA) while performing repair and corrective action during an emergency situation.

2.0 APPLICABILITY

This procedure is applicable to all emergency response personnel upon the declaration of an ALERT or higher emergency classification.

3.0 REFERENCES

3.1 NUREG-0654, Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Incidents

3.2 EPA-520/1-75 001, Manual of Protective Action Guides and Protective Actions for Nuclear Incidents

3.3 60AC-HPX-001-0S, Radiation Exposure Limits

3.4 60AC-HPX-002-0S, Personnel Dosimetry Program

3.5 60AC-HPX-003-0S, Bioassay Program

3.6 60AC-HPX-009-0S, ALARA Program

3.7 62RP-RAD-001-0S, Dosimetry Issuance and Tracking

3.8 62RP-RAD-003-0S, Use and Care of Respirators

3.9 62RP-RAD-004-0S, Personnel Decontamination

3.10 62RP-RAD-008-0S, Radiation and Contamination Surveys

3.11 62RP-RAD-013-0S, Indirect Bioassay Program

3.12 62RP-RAD-034-0S, Emergency Air Sampling

3.13 73EP-EIP-017-0S, Emergency Exposure Guidelines

3.14 Edwin I. Hatch Nuclear Plant Unit 1 and 2 Emergency Plan, Section K

3.15 NCRP #39, Basic Radiation Protection Criteria

4.0 REQUIREMENTS

4.1 PERSONNEL REQUIREMENTS

Personnel who have received instruction in applicable emergency implementing procedures may 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

5.1.1 During actual emergencies, abnormally high radiation levels may be encountered in some areas. Exercise extreme caution when entering these areas. Take all precautions necessary to maintain personnel exposure ALARA.

5.1.2 Area Radiation Monitors (ARMs) will only reveal the dose rate at the detector; the dose rate of the area or room MAY be considerably higher.

5.1.3 An unexpected air sample result of greater than 1 Derived Air Concentration (DAC) in an occupied area may be the first indication of a continuing or ongoing problem. Careful consideration must be given to locating the source, identifying isotopes, establishing boundaries and evaluating exposure.

5.2 LIMITATIONS

Personnel will not be authorized to exceed radiation exposure limits as set forth in 60AC-HPX-001-0S, Radiation Exposure Limits, without prior approval of the Emergency Director.

6.0 PREREQUISITES

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

REFERENCE

7.0 PROCEDURE

The topics listed below are presented for clarification and guidance. Specific instructions for tasks to be performed may be found in the appropriate emergency implementing procedure.

7.1 ACCESS CONTROL

During an emergency, access to the protected area will be controlled. In addition, access to all areas in the power block will require specific authorization AND will be limited to personnel who are needed to perform specific functions. An example of the personnel who will receive authorized clearance to these areas are: Control Room personnel, personnel on the Fire Brigade, Radiological Emergency Team (RET) members for the purpose of internal surveys AND personnel required for repair and corrective action.

7.2 EXPOSURE LIMITS AND AUTHORIZATION

7.2.1 All exposures to personnel are to be maintained ALARA. This pertains to all personnel who are required to remain on-site during an emergency situation for the purpose of accident recovery.

7.2.2 During emergency conditions, it may be necessary to exceed 10CFR20 exposure limits in some instances. In such instances, refer to 73EP-EIP-017-0S, Emergency Exposure Control.

7.3 CONDITIONS OF EXPOSURE

Persons performing the planned actions will meet the requirements of 73EP-EIP-017-0S, Emergency Exposure Control.

7.4 RADIATION WORK PERMITS

7.4.1 WHEN practical, a radiation work permit (RWP) will be initiated before any work is performed.

7.4.2 The most current survey information for the area in which the work is to be performed is to be utilized when issuing RWPs unless conditions exist where there are indications that the radiation levels in the area have increased significantly. ARMs are to be used to the maximum extent possible in predicting general area radiation levels.

7.4.3 IF there is not enough information available regarding the area radiation levels OR more current information is deemed necessary, the TSC Manager, after consultation with Health Physics Supervision, may elect to dispatch an Internal Radiological Emergency Team (Internal - RET) into the area to determine the radiation levels.

7.4.4 All survey information will be documented in accordance with 62RP-RAD-008-0S, Radiation and Contamination Surveys. These surveys will aid in the routing of workers, determination of stay times, and in the estimation of man-rem for the job.

7.4.5 In instances where the work needs to be performed immediately, the TSC Manager, after consultation with Health Physics Supervision, may elect to appoint an Internal - RET member to accompany the repair and corrective action team to survey the area while the work is being performed. In such instances it may also be necessary to complete all documentation at a later time.

7.4.6 Low volume AND/OR High volume air samplers are to be used in accordance with 62RP-RAD-034-0S, Emergency Air Sampling.

7.5 EXPOSURE CONTROL

7.5.1 No person, other than an Internal - RET member with appropriate survey instrumentation, may enter an area where dose rates are unknown, except as noted in step 7.4.5.

7.5.2 Personnel will NOT enter areas where dose rates are beyond the range of the instrument being used.

7.5.3 All personnel will be equipped with the proper dosimetry capable of measuring anticipated radiation doses. This will normally include, but not be restricted to the following:

A digital alarming dosimeter with a predetermined alarm setpoint.

A thermoluminescent dosimeter (TLD) to permanently record whole body exposure.

Extremity dosimetry as required by 62RP-RAD-001-0S, Dosimetry Issuance and Tracking.

7.5.4 Protective clothing will be worn by workers entering areas for the purpose of repair and corrective action in accordance with 60AC-HPX-004-0S, Radiation and Contamination Control.

7.5.5 Respiratory protection will be worn as appropriate in accordance with 62RP-RAD-003-0S, Use and Care of Respirators.

7.5.6 Distribution of Potassium Iodide (KI) tablets will be performed as required in accordance with 73EP-EIP-017-0S, Emergency Exposure Control.

NOTE

Radioiodine contamination of the skin will be handled in the same manner as other skin contamination. Refer to 62RP-RAD-004-0S, Personnel Decontamination.

7.5.7 Upon leaving a radiation controlled area, workers will be decontaminated as necessary. Bioassay techniques will be utilized as appropriate in accordance with 60AC-HPX-003-0S, Bioassay Program, and 62RP-RAD-013-0S, Indirect Bioassay Sampling.

7.6 ALARA CONSIDERATIONS

In order to maintain radiation exposures of personnel performing repair and corrective actions during an emergency condition ALARA, the following will be performed, WHEN practical:

7.6.1 A pre-job briefing will be held for the involved workers in accordance with 60AC-HPX-009-0S. All workers will be familiar with the consequences of the expected exposure. Every attempt will be made to maintain exposures below the man-rem estimate.

7.6.2 Implementation of exposure controls during the execution of the job.

7.6.3 A post job briefing will be held with the involved workers in accordance with 60AC-HPX-009-0S, ALARA Program, to aid in the planning of future jobs.