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U. S. Nuclear Regulatory Commission
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Subject: Oconee Nuclear Station
Docket Nos. 50-269, -270, -287
Emergency Plan Implementing Procedures Manual
Volume C Revision 2000-05

Please find attached for your use and review copies of the revision to the Oconee Nuclear Station Emergency Plan: Volume C Revision 2000-05, June, 2000.

This revision is being submitted in accordance with 10 CFR 50-54(q) and does not decrease the effectiveness of the Emergency Plan or the Emergency Plan Implementing Procedures.

Any questions or concerns pertaining to this revision please call Mike Thorne, Emergency Planning Manager at 864-885-3210.

By copy of this letter, two copies of this revision are being provided to the NRC, Region II, Atlanta, Georgia.

Very truly yours,

W. R. McCollum, Jr.
VP, Oconee Nuclear Site

xc: (w/2 copies of attachments)
Mr. Luis Reyes,
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61 Forsyth St., SW, Suite 24T23
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(w/o Attachments, Oconee Nuclear Station)
NRC Resident Inspector
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NRR-037

A045

June 6, 2000

OCONEE NUCLEAR SITE
INTRASITE LETTER

SUBJECT: Emergency Plan Implementing Procedures
 Volume C, Revision 2000-05

Please make the following changes to the Emergency Plan Implementing Procedures Volume C by following the below instructions.

REMOVE

Cover Sheet Rev. 2000-04
Table of Contents - Page 1
HP/0/B/1009/018 - 06/02/99)
RP/0/B/1000/001 - 04/17/00
RP/0/B/1000/019 - 05/27/99
RP/0/B/1000/020 - 12/11/98

ADD

Cover Sheet Rev. 2000-05
Table of Contents - Page 1
HP/0/B/1009/018 - 05/19/2000
RP/0/B/1000/001 - 05/30/2000
RP/0/B/1000/019 - 05/30/2000
RP/0/B/1000/020 - 05/31/2000

DUKE POWER

EMERGENCY PLAN
IMPLEMENTING PROCEDURES
VOLUME C



APPROVED:

W. W. Foster

W. W. Foster, Manager
Safety Assurance

06/06/2000

Date Approved

06/06/2000

Effective Date

VOLUME C
REVISION 2000-05
JUNE, 2000

VOLUME C
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HP/0/B/1009/020	Estimating Food Chain Doses Under Post Accident Conditions - (10/09/98)
HP/0/B/1009/021	Source Term Assessment of a Gaseous Release From Non-routine Release Points - (12/01/97)
HP/0/B/1009/022	On Shift Offsite Dose Projections (06/02/99)
RP/0/B/1000/001	Emergency Classification - (05/30/00)
RP/0/B/1000/002	Control Room Emergency Coordinator Procedure - (05/03/00)
RP/0/B/1000/03A	ERDS Operation (12/03/98)
RP/0/B/1000/07	Security Event - (05/15/96)
RP/0/B/1000/009	Procedure for Site Assembly - (03/21/00)
RP/0/B/1000/10	Procedure for Emergency Evacuation/Relocation of Site Personnel -(03/21/00)
RP/0/B/1000/15A	Offsite Communications From The Control Room - (12/10/98)
RP/0/B/1000/15B	Offsite Communications From The Technical Support Center - (12/10/98)
RP/0/B/1000/15C	Offsite Communications From The Emergency Operations Facility - (12/10/98)
RP/0/B/1000/16	Medical Response - (05/27/99)
RP/0/B/1000/17	Spill Response (02/12/98)
RP/0/B/1000/18	Core Damage Assessment (09/30/97)
RP/0/B/1000/19	Technical Support Center Emergency Coordinator Procedure (05/30/00)
RP/0/B/1000/20	Emergency Operations Facility Director Procedure - (05/31/00)

Revision 2000-05
June, 2000

Duke Power Company
PROCEDURE PROCESS RECORD

(1) ID No HP/0/B/1009/018Revision No 019**INFORMATION ONLY****PREPARATION**

- (2) Station OCONEE NUCLEAR STATION
- (3) Procedure Title Off-Site Dose Projections
- (4) Prepared By Doug Berkshire Date 5/18/2000
- (5) Requires 10CFR50.59 evaluation?
☒ Yes (New procedure or revision with major changes)
☐ No (Revision with minor changes)
☐ No (To incorporate previously approved changes)
- (6) Reviewed By William D. Smith (QR) Date 5/19/00
 Cross-Disciplinary Review By _____ (QR)NA NSC Date 5/19/00
 Reactivity Mgmt. Review By _____ (QR)NA NSC Date 5/19/00
- (7) Additional Reviews
 Reviewed By _____ Date _____
 Reviewed By _____ Date _____
- (8) Temporary Approval (if necessary)
 By _____ (SRO/QR) Date _____
 By _____ (QR) Date _____
- (9) Approved By J. A. T. [Signature] Date 5/19/2000

PERFORMANCE (Compare with control copy every 14 calendar days while work is being performed.)

- (10) Compared with Control Copy _____ Date _____
 Compared with Control Copy _____ Date _____
 Compared with Control Copy _____ Date _____
- (11) Date(s) Performed _____
 Work Order Number (WO#) _____

COMPLETION

- (12) Procedure Completion Verification
☐ Yes ☐ NA Check lists and/or blanks initialed, signed, dated, or filled in NA, as appropriate?
☐ Yes ☐ NA Listed enclosures attached?
☐ Yes ☐ NA Data sheets attached, completed, dated, and signed?
☐ Yes ☐ NA Charts, graphs, etc. attached, dated, identified, and marked?
☐ Yes ☐ NA Procedure requirements met?
- Verified By _____ Date _____
- (13) Procedure Completion Approved _____ Date _____
- (14) Remarks (Attach additional pages, if necessary)

HP/O/B/1009/18
OFFSITE DOSE PROJECTIONS
Revision 19
DESCRIPTION OF CHANGES

This procedure change is intended to make the procedure easier to use, to delete references to a computer program which is no longer used (Mesorem), and to incorporate the use of the current offsite dose assessment program, (Raddose 5). This change also eliminates the manual calculations which were in the procedure and which were used prior to implementation of EPA-400 methodology. Implementation of EPA-400 methodology rendered manual dose calculations impractical.

This major re-write of the procedure uses enclosures to provide details of performing offsite dose projections.

Duke Power Company Oconee Nuclear Station Off-Site Dose Projections Reference Use	Procedure No. HP/0/B/1009/018
	Revision No. 019
	Electronic Reference No. OX002SD7

Off-Site Dose Projections

1. Purpose

- 1.1 This procedure provides instructions to Offsite Dose Assessment personnel to:
- Determine release status, path and magnitude,
 - Evaluate source term,
 - Project dose commitment,
 - Determine appropriate radiological protective actions and associated emergency classification.
- 1.2 This procedure is an Emergency Plan Implementing Procedure (EPIP). It must be forwarded to the Emergency Planning Group within three working days of approval by the responsible group. {PIP 4-O-93-0701}

2. References

- 2.1 HP/1,2,3/A/1009/017, Operating Procedure for Post-Accident Containment Air Sampling System
- 2.2 HP/0/B/1009/015, Procedure for Sampling and Quantifying High Level Gaseous, Radioiodine And Particulate Radioactivity
- 2.3 EPA 400-R-92-001, Manual of Protective Action Guides and Protective Actions for Nuclear Incidents
- 2.4 Draft NuReg-1465, Accident Source Terms for Light-Water Nuclear Power Plants
- 2.5 NuReg-0654, FEMA-REP-1, Rev. 1, Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants
- 2.6 OSC-5575, Oconee Engineering Calc File, documenting the development of NuReg-1465 Source Term and Related Data
- 2.7 RP/0/B/1000/001, Emergency Classification Procedure
- 2.8 Letter from H.B. Tucker, November 30, 1989, Re: Follow-up on McGuire Alert (March 7&8, 1989), and the definition of a release.
- 2.9 U.S. Nuclear Regulatory Commission Response Technical Manual (RTM-93)
- 2.10 HP/0/B/1009/020, Estimating Food-Chain Doses Under Post-Accident Conditions.
- 2.11 PIP 0-O-84-0743, Method to Quantify Radioactive Release From TDEFWP

2.12 PIP 4-O-93-701, Distribution Of Emergency Plan Procedures

3. Limits And Precautions

- 3.1 This procedure considers all releases to be ground level releases and that meteorological data are fifteen-minute averages.
- 3.2 This procedure is intended for use under abnormal/emergency conditions. It may be performed in part or whole. Sections may be performed in any appropriate order and some situations may require actions **NOT** addressed in this procedure.
- 3.3 In the event of a Steam Generator Tube Leak, all airborne radioactivity release pathways (example: TDEFWPs) must be considered in the offsite dose projection. Utilizing the steam generator tube leak rate, as determined by Operations or Engineering, converting the leak rate to cubic feet per minute flow rate, and inputting the cfm flow rate and applicable RCS concentrations as a Unit Vent release will account for all activity release pathways. {PIP 0-O-94-0743}
- 3.4 Review data, both automatic and manual, to ensure acceptability prior to use in dose assessments.
- 3.5 Persons communicating with the NRC (via the HPN) or with the State, should discuss only Offsite Dose information. For plant-specific questions, NRC and State representatives should be referred to the Emergency Coordinator or the EOF Director (EOFD).
- 3.6 **IF** ENF transmittal is because of EAL escalation, projected dose information (sections 11, 12, 13, and 14 is **NOT** required. This avoids delaying escalation transmittals.
- 3.7 **IF** an additional PAZ(s) is identified, notification must be made to the State via the ENF within 15 minutes.
- 3.8 Offsite Dose Assessment is **NOT** responsible for evaluating liquid releases. Questions regarding liquid releases should be directed to Chemistry in the OSC.
- 3.9 Provide enclosures and other pertinent information to Emergency Planning after drills and actual emergencies.

4. Procedure

- 4.1 Setup the Facility as applicable:
 - Setup the TSC using Enclosure 5.1 as a guide as necessary.

NOTE: Spare computers with RD5 are located in the EOF: (1) The left side of the room, when facing the stage in the EOFD's area, and (2) The Engineering room, near the back hall.

- Setup the EOF using Enclosure 5.2 as a guide as necessary.
- 4.2 Evaluate RIAs and other plant conditions, by using SDS and/or contact with other groups.
 - 4.2.1 Notify the Emergency Coordinator, or Radiological Assessment Manager, and EOFD of RIA status and significant changes.
 - 4.2.1.1 Continue evaluating RIAs and plant conditions as required by the event scenario or as directed by the RAM.
 - A. Use Enclosure 5.3 (data trending sheet) as a guide as necessary.
- 4.3 Determine release status using criteria on Enclosure 5.4.
 - 4.3.1 **IF NOT** releasing or **IF** a release has not been made, do not run Raddose-5 (RD5) unless specifically requested by the RAM.
 - 4.3.1.1 Because plant conditions may require Protective Action Recommendations (PARs), with no release in progress, use Enclosure 5.5 as necessary to select Protective Action Zones (PAZs).

NOTE: **IF** automatic data is available to RD5, assessing meteorological data will serve as a verification of data used. If automatic data is not available to RD5, meteorological data must be selected and input manually.

- 4.3.2 **IF** a release is occurring, or has occurred, assess meteorological conditions using Enclosure 5.5.
- 4.3.3 **IF** a release is occurring, or has occurred, run RD5 using Enclosure 5.6 as a guide as necessary.
 - 4.3.3.1 Obtain the RD5 "Summary Sheet" printout or display data.
 - 4.3.3.2 Obtain the RD5 "Emergency Notification Form" (ENF/ "Green Sheet"), printout or display data.
 - 4.3.3.3 Using Enclosure 5.4 and RD5 printouts/displays, evaluate release status to determine if release is above or below normal operating (SLC) limits.

- 4.3.3.4 Using Enclosure 5.7 and RD5 printouts/displays, evaluate Emergency Action Levels (EALs).
- 4.3.3.5 Using Enclosure 5.5 and RD5 printouts/displays, evaluate PAZs.
 - A. RD5 PAZs should be verified with the manual procedure to ensure accuracy.
 - B. Once PARs have been made, recheck meteorological conditions every 15 minutes to ensure that additional PAZs are identified as necessary.
- 4.3.3.6 Using Enclosure 5.8 and RD5 printouts/displays as necessary, assist in the completion of the ENF.
- 4.3.4 Notify the Emergency Coordinator, or the RAM and the EOFD of the results of the above evaluations.
- 4.4 Evaluate Field Monitoring survey results.
 - 4.4.1 Compare Field Monitoring survey results to EAL criteria in Enclosure 5.7.
 - 4.4.1.1 Make EAL recommendations based on step 4.4.1 evaluation.
 - 4.4.2 Compare Field Monitoring survey results to RD5 projections
 - 4.4.2.1 **IF** Field Monitoring results are higher than RD5 projections, evaluate the need to adjust RD5 input data to project dose.
- 4.5 **IF** requested by the State, supply the Self-Reading Dosimeter (SRD) Correction Factor from the RD5 Summary Report, to estimate emergency worker dose.
- 4.6 **IF** ingestion pathway dose calculations are necessary, refer to HP/0/B/1009/020, Estimating Food Chain Doses Under Post Accident Conditions, for limits, criteria, and additional information.
 - 4.6.1 Input Field Monitoring sample data into RD5 to calculate ingestion pathway dose.
 - 4.6.2 Communicate ingestion pathway dose calculation results to South Carolina DHEC.

5. Enclosures

- 5.1 TSC Setup
- 5.2 EOF Setup and RAM Checklist
- 5.3 Dose Assessment Data Trending Sheet
- 5.4 Release Status
- 5.5 Meteorology and PAZ Selection
- 5.6 Raddose 5 Operation
- 5.7 Emergency Action Levels and Protective Action Recommendations
- 5.8 Emergency Notification Form (ENF) Completion

TSC Setup

Initial lines as applicable, depending upon accident/drill scenario. Coordinate activities with the EOF (it is not necessary to duplicate efforts with the EOF). This is only a checklist/guide for setting up the TSC. Actual completion of this enclosure is not required. Steps may be performed in any order:

- ___ Notify Emergency Coordinator upon arrival
- ___ Log name and arrival time on TSC personnel status board
- ___ Boot RD5/SDS computer and start SDS
 - TSC computer should boot automatically using a default User ID and Password.
 - If the computer does not boot, re-start, using your network User ID and Password.
- ___ Determine release pathways (if any) using SDS and contact with other groups
 - ___ Use release criteria on Enclosure 5.4 to determine release status
 - ___ If releasing, determine if release < or > Normal Operating (SLC) Limits using RD5
 - ___ Notify TSC Emergency Coordinator
 - ___ USE RD5 results as necessary to support Emergency Notification Form (ENF) generation.
- ___ Monitor Field Team activities ___ # of Teams available
- ___ Select meteorology and PAZs, based on Enclosure 5.5, or RD5 as required
Refer to section 4.3.1.1 of the procedure
- ___ Communicate RD5 results to the Emergency Coordinator and to the Offsite Communicator as necessary
- ___ Develop 24-hour staffing schedule as needed
- ___ If requested by the NRC or ERO management, staff the HPN (Health Physics Network) phone

Enclosure 5.2
EOF Setup and RAM Checklist

HP/0/B/1009/018
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Initial lines as applicable, depending upon accident/drill scenario (mandatory items in bold). The first, or duty person should sign in as the RAM until a more experienced person arrives at the EOF. This is only a checklist/guide for setting up the TSC. Actual completion of this enclosure is not required. Steps may be performed in any order:

- ___ **Sign Attendance Log upon entry into EOF.**
- ___ **Notify EOF Director (EOFD) upon arrival.**
- ___ **Log name and arrival time on EOF personnel status board.**
- ___ **Ensure RD5 computer and SDS computers are booted. SDS could be booted on RD5 computer if necessary. Use your network User ID and Password on RD5 computer.**
- ___ **Contact TSC Dose Assessment Liaison. Maintain contact as necessary**
- ___ **Ensure that turnover is completed with the TSC (ASAP). Provide turnover sheet to EOFD.**
- ___ **Determine release pathways (if any) and release specifics**
- ___ **If releasing determine if release < or > Normal Operating (SLC) Limits using RD5**
- ___ **Ensure that Field Team activities are monitored** ___ **# of Teams available**
- ___ **Notify EOFD of the above results, and of changes affecting offsite rad conditions.**
- ___ **Ensure that the following duties are assigned (combine as needed: RAM to assume duties also):**
 - ___ **Run RD5** ___ **Monitor SDS** ___ **Assist with ENF completion**
 - ___ **Communications with TSC** ___ **Monitor Field Monitoring activities**
 - ___ **Maintain Status Board** ___ **Ensure Rad Assessment Mgr position is staffed.**
 - ___ **Assist with "risk" perspectives** ___ **Communicate with SCDHEC and NRC (via HPN)**
 (if/as necessary) (if/as requested)
- ___ **Ensure that meteorology and PAZs are determined, based on Enclosure 5.5, or RD5, as required (Refer to section 4.3.1.1 of this procedure)**
- ___ **Ensure that RD5 is run/being run (approximately every 15 minutes) to project dose and to support Emergency Notification Form (ENF) generation, if a release is in progress.**
- ___ **Communicate RD5 results to EOFD, and Offsite Communicator (as necessary, assist News Group in putting doses into "risk" perspective)**
- ___ **Ensure that Offsite Dose status board and PAZ maps in EOFD's area are maintained (as necessary)**
- ___ **Develop 24-hour staffing schedule (as necessary)**

Dose Assessment Data Trending Sheet

TURN ON		TIME:→									
CODE: ↓	PARAMETER: ↓	Normal BKG↓									
EROAREA	Main Stm RIA-16	0.01-0.09									
EROAREA	Main Stm RIA-17	0.01-0.09									
EROPROC	Aux Multi RIA-32	20-100									
EROPROC	Contr Rm RIA-39	20-60									
"	CSAE RIA-40	100-2,000									
"	SFP Gas RIA-41	20-75									

TURN ON		TIME:→									
CODE: ↓	PARAMETER: ↓	Normal BKG↓									
EROAREA	Contr Rm Area RIA-1	<1 mR/hr									
"	RB Canal Wall RIA-3	1-15 mR/hr									
"	RB Entrance RIA-4	1-15 mR/hr									
"	SFP Bld Wall RIA-6	1-10 mR/hr									
"	Hot Machine Shop RIA-7	<1 mR/hr									
"	Pri Chm Hot Lab RIA-8	<1 mR/hr									
"	Pri Sample Area RIA-10	<1 mr/hr									
"	Aux Bld Hall 3 rd floor (796') RIA-11	<1 mr/hr									
"	Chem Addn Area Aux B 2 nd fl 783' RIA-12	<1 mr/hr									
"	Waste Panel Area Aux B 1 st fl 771' RIA-13	<1 mr/hr									
"	HPI Rm Corridor RIA-15	1-10 mR/hr									
#EROECCS U.S.*	RB Spray ON/OFF	(OFF)									

** At top of SDS screen, select "Point List," then select "By Point ID." Then type in, P0162 , as the requested point.

* UNIT SPECIFIC SCREENS – Be sure you're on the correct Unit in SDS.

1. Determine release status using the following criteria:

NOTE: • Dose projection values are **NOT** required for the Emergency Notification Form unless the release is above normal operating limits.

- 1.1 No Release - no potential release of activity generated by the event.
- 1.2 Potential Release - this item is on the Emergency Notification Form, **but should be selected only if specifically instructed to do so by the RAM.**

NOTE: Dose rates are assumed to be at the Site Boundary (one mile from site).

- 1.3 Release Within Normal Operating Limits - activity generated by the event currently or previously released within normal operating limits (Total Effective Dose Equivalent $< 5.704\text{E-}2$ mrem/hr; Committed Dose Equivalent - thyroid $< 1.711\text{E-}1$ mrem/hr).

Events:

- Reactor Building pressure > 1 psig with increased activity in Reactor Building
 - OTSG Tube Leak with Main Steam Relief Valve release, or increased Unit Vent activity
 - Increased Unit Vent Activity
 - Field Team Activity
- 1.4 Release Above Normal Operating (SLC) Limits - activity generated by the event currently or previously released above normal operating limits (Total Effective Dose Equivalent $> 5.704\text{E-}2$ mrem/hr; Committed Dose Equivalent - thyroid $> 1.711\text{E-}1$ mrem/hr).

Enclosure 5.5
Meteorology and PAZ Selection

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1. Assess Meteorology and Protective Action Zones (PAZs) as follows:

NOTE: Actual, average meteorological data should be used unless it is more appropriate to use forecast data, as provided by a meteorologist.

- 1.1 Using section 2 hierarchy below, record the following on Enclosure 5.3, or other form such as the "Drill/Event Log"

NOTE: The sources of data are listed in order of preference in the flowchart in section 2 below.

- Time meteorological data taken.
- Wind speed in miles per hour.
- Direction from which the wind is blowing in degrees from North (North = 0).
- Temperature gradient in degrees centigrade ($\Delta T^{\circ}\text{C}$).
- Stability class based on ΔT .

- 1.2 Determine the PAZs using section 3 below.

2. Select Meteorology By Using the Flowchart Below:

NOTE: *Conversion formulas for the meteorological data obtained from NWS are:

- $(1.15) \times (\text{knots}) = \text{mph}$
- $(1.8 \times ^\circ\text{C}) + 32 = ^\circ\text{F}$

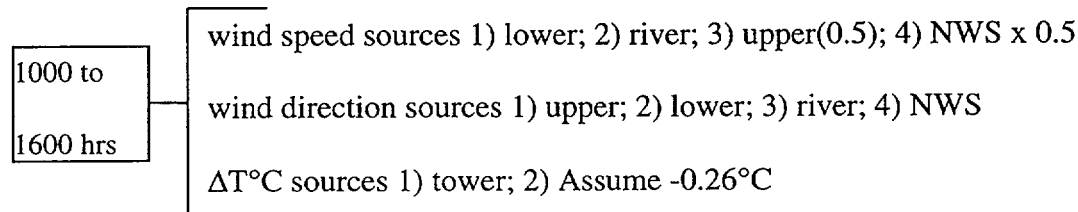
METEOROLOGICAL DATA

(All data is 15 min average except NWS.)

National Weather Service (NWS) phone number is (864) 879-1085.

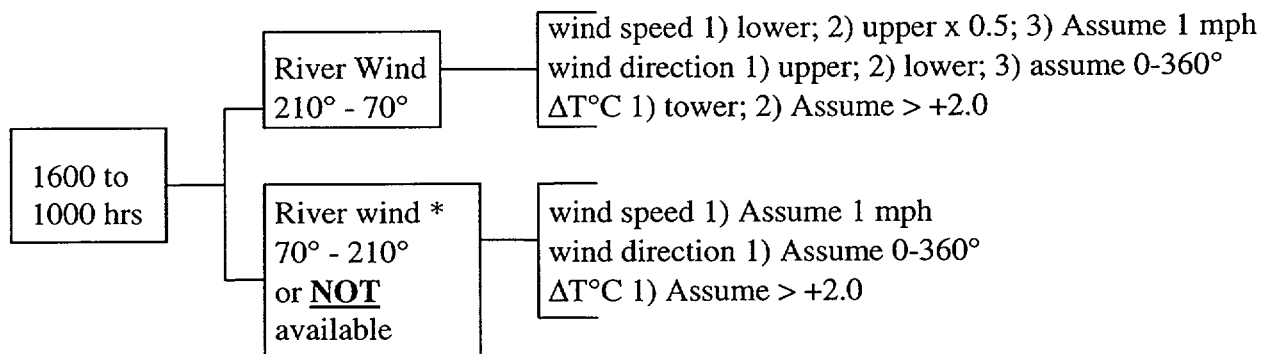
TIME

DATA SOURCE PRIORITY



TIME

DATA SOURCE PRIORITY



* Based on experiment

$\Delta T^\circ\text{C}$	I	Stability Class
≤ -0.95	I	A
-0.94 to -0.85	I	B
-0.84 to -0.75	I	C
-0.74 to -0.25	I	D
-0.24 to +0.75	I	E
+0.76 to +2.0	I	F
$> +2.0$	I	G

3. Determine PAZ by completing one of the options under Daytime or Nighttime, using meteorological data selected above.

3.1 Daytime (1000-1600 hrs):

- Wind speed ≥ 5 mph for tower or river wind direction; use the table below.
- Wind speed < 5 mph for tower or river wind direction. Assume PAZs A0, A1, B1, C1, D1, E1, and F1 are affected. Then use the table below to determine additional PAZ.
- For NWS wind direction. Assume all PAZs are affected (A0, A1 through F1, A2 through F2).

3.2 Nighttime (1600-1000 hrs.):

- **IF** river wind direction is between 210°-70, use Option A (Daytime).
- **IF** river wind direction is between 70°-210, or is **unavailable**, assume all PAZs are affected (A0, A1 through F1, A2 through F2).

Wind Direction	Protective Action Zones		
	0-2 miles;	2-5 miles;	5-10 miles
14.1°-27°	A0,	C1, D1, E1,	C2, D2, E2
27.1°-42°	A0,	C1, D1, E1,	D2, E2
42.1°-66°	A0,	D1, E1,	D2, E2
66.1°-85°	A0,	D1, E1,	D2, E2, F2
85.1°-104°	A0,	D1, E1, F1,	D2, E2, F2
104.1°-129°	A0,	E1, F1,	E2, F2
129.1°-156°	A0,	A1, E1, F1,	A2, E2, F2
156.1°-175°	A0,	A1, E1, F1,	A2, F2
175.1°-181°	A0,	A1, F1,	A2, F2
181.1°-219°	A0,	A1, B1, F1,	A2, B2, F2
219.1°-255°	A0,	A1, B1,	A2, B2,
255.1°-271°	A0,	A1, B1, C1,	A2, B2, C2
271.1°-297°	A0,	B1, C1,	B2, C2
297.1°-312°	A0,	B1, C1,	B2, C2, D2
312.1°-345°	A0,	B1, C1, D1,	B2, C2, D2
345.1°-14°	A0,	C1, D1,	C2, D2

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3.3.1 Recommend sheltering for the remainder of the 10-mile EPZ anytime that zones are recommended for evacuation.

NOTE: Default Protective Action Recommendations (PARs) upon initial declaration of a **General Emergency** are to Evacuate the 2-mile radius around the plant and out to 5-miles downwind.

3.3.2 Recommend the “default” PARs upon initial declaration of a General Emergency, unless Dose Assessment or Field Monitoring indicate that additional PAZs should be evacuated.

CAUTION: Once a zone has been added to the list of affected zones, it shall **NOT** be removed except under the direction of the RAM.

3.3.3 **IF** a General Emergency has been declared and protective action recommendations have been made, recheck meteorological conditions every 15 minutes to ensure that additional PAZs are identified as required.

3.3.3.1 **IF** additional zones need to be added to the list of PAZs, notify the Emergency Coordinator, or RAM, or EOF Director.

- The State must be notified (via the ENF) within 15 minutes of additions to PAZs.

NOTE: Default PARs for “**Severe Core Damage**” (Condition 3 failed fuel) are to Evacuate the 5-mile radius around the plant and out to 10-miles downwind of the plant.

3.3.4 **IF** Severe core damage (Condition 3 failed fuel per RP/0/B/1000/18, Core Damage Assessment) conditions exist, recommend the associated “default” PARs, unless Dose Assessment or Field Monitoring indicate that additional PAZs should be evacuated. **SAM G may be in effect at this point.**

[illegible]

1. Operate Raddose 5 (RD5) as follows:

- 1.1 Choose the RD5 icon.
- 1.2 If no icon is available, go to "Start", "Programs", "Raddose-V".
 - 1.2.1 If RD5 is not available, load it by going to "Start", "Run", and typing in, \\charf01\das\raddose\prod\setup.exe
 - 1.2.1.1 Follow the computer prompts to complete RD5 installation.

NOTE: Proper "Configuration" is required in order to transfer RD5 files between the TSC and EOF.

- 1.3 Ensure the proper "Configuration" message displays for the facility, "TSC" for TSC and "EOF" for EOF.
 - 1.3.1 Revise "Configuration" if necessary, by selecting "File" at the DAS desktop.
 - 1.3.2 Select "DAS Configuration" and choose appropriate configuration for facility.
 - 1.3.3 Reboot RD5 for "Configuration" changes to take effect.
- 1.4 Choose the affected ONS Unit.

NOTE: Accident Mode uses "live" data when in "Automatic". Drill Mode uses simulated data which must be input manually.

- 1.5 Select "Accident" or "Drill".
- 1.6 Select "Automatic" data to use "archived" data, **OR**, select "Manual" data for manual entry of data.
- 1.7 Select "Begin new incident" to begin a new scenario, **OR**, to use previously-generated dose assessments, go to step 1.12.
- 1.8 Enter reactor trip date and time.
 - 1.8.1 **IF** the reactor did **NOT** trip and shutdown is **NOT** in progress, use the current date and time for reactor trip specifics.
 - 1.8.2 **IF** the reactor did **NOT** trip and shutdown **IS** in progress, use the time and date that descent in power began as the reactor trip time and date.
- 1.9 Enter the release date and time (estimated or known).
- 1.10 Enter operator initials and either "Accept" or "Cancel".

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Raddose 5 Operation

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1.11 Go to step 1.13

1.12 If previous TSC or EOF files are to be used, select "Continue Previous Incident."

NOTE: After selecting "Network Data", select the location from which you want to take data.

1.12.1 Select either "Local Data" to use data from the local hard drive, **OR** "Network Data" to use data from the TSC or EOF.

NOTE: Any "Automatic" data may be manually overwritten if necessary.

1.13 Enter meteorological data either manually or automatically.

1.13.1 If data is entered manually, select "F9" to accept wind speed and wind direction data, or "esc" to abort.

1.13.2 Select "Accept" when meteorological data has been entered.

1.14 Enter Source Term data either manually or automatically.

NOTE:

- "Accident Type" and "NG Method" must be manually selected.
- **IF** more than one release path is used, the "Accident Type" must be the same for each path used, to ensure consistent nuclide "mix".

1.14.1 Select "Accident Type" for each applicable release path in a time step:

NOTE:

- Guidance provided in NRC document, RTM-93, indicates that between normal operating temperature (Core Exit Thermocouple readings between <650°F and ~700°F; and fuel cladding temperatures <1200°F), the GAP activity is not assumed to have been released, therefore, "normal coolant" should be assumed.
- If time permits, consult with TSC Nuclear Engineering or Operations prior to use of GAP release or Core Melt accident types.

- LOCA - Loss of coolant (normal coolant) - leaks released into containment with fission products normally found in coolant.
- LOCAG - Loss of coolant with GAP release - coolant containing radionuclides from the fuel pin GAP leaks into containment after fuel cladding has failed (e.g., core being uncovered, fuel pin heat up, and/or if mechanical fuel pin damage has occurred).

Enclosure 5.6
Raddose 5 Operation

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- LOCAM - Loss of coolant core melt - coolant containing radionuclides expected to be released from a core that is partially melted leaks into containment.
 - SGTR - Steam generator tube rupture (normal coolant) - steam generator tube rupture accidents with fission products normally found in coolant.
 - SGTRG - Steam generator tube rupture GAP release - steam generator tube rupture accidents that release fission products in the fuel pin gap after fuel cladding has failed (e.g., core uncover or fuel pin heat up and/or after mechanical fuel pin damage has occurred).
 - SGTRM - Steam generator tube rupture core melt - steam generator tube rupture accidents that release fission products expected to be released from a core that is partially melted.
 - LOCO - LOCA outside containment (normal coolant) - leaks released directly to outside environment (e.g., Auxiliary Building) with radionuclides normally found in reactor coolant.
 - LOCOG - LOCA outside containment gap release - leaks released directly to outside environment (e.g., Auxiliary Building) with radionuclides from the fuel pin gap after fuel cladding has failed (e.g., core uncover or fuel pin heat up and/or after mechanical fuel pin damage has occurred).
 - LOCOM - LOCA outside containment core melt - leaks released directly to outside environment (e.g., Auxiliary Building) with radionuclides expected to be released from a core that is partially melted.
 - FUEL - Fuel handling gap release - fuel pin fission products (GAP activity) released from fuel during refueling, or Spent Fuel Pool accident.
- 1.14.2 Enter monitor reading and flow rate data as required.
- 1.14.2.1 "Accept" data, or overwrite data if necessary
- 1.14.3 Select "Emergency Classification".
- 1.14.4 Select "Perform Calculations".
- 1.14.4.1 Select "Continue" and "Go to Report Menu".

NOTE: IF a printer is not available, the RD5 "Summary Report" screen and the "Green Form" may be displayed on-screen, from which information may be manually recorded.

- 1.14.4.2 Select "Print Summary Report".

Enclosure 5.6
Raddose 5 Operation

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1.14.4.3 Select "Return to Output Menu" and "Return to Main Menu".

1.14.5 Select "Perform Forecast".

NOTE: If "General Emergency" was selected, PAZs based solely on the General Emergency default may be displayed, or if dose warrants, PAZs based on dose may be displayed as desired. Dose PAZs and General Emergency PAZs from 5 to 10 miles from the plant may be different. PAZs should be verified to the manual procedure.

1.14.5.1 Select "Continue" and "Go to Report Menu".

1.14.5.2 Select "Print Green Form".

1.14.5.3 Select "Return to Output Menu" and "Return to Main Menu".

1.14.6 Continue with offsite dose projections as required to evaluate dose to the public and to support ENF transmittal.

NOTE: IF initial TSC offsite dose projections indicate that releases likely will not affect Emergency Classification, and IF time does not permit (ex: initial stages of TSC activation, etc), the requirement to run RD5 every 15 minutes may be relaxed.

1.14.6.1 Because of the meteorological model in RD5, data should be collected to support RD5 projections every 15 minutes if "Manual" mode is used.

1.14.6.2 If "Automatic" mode is used, RD5 should be run approximately every 15 minutes.

1.14.7 Determine approximate dose to the public beyond the 10-mile EPZ by going to the RD5 "Output Menu" and selecting "Display Point-of-Interest Doses".

1.14.7.1 Follow screen prompts to calculate dose rate at the point of interest.

1.14.7.2 Relate the dose rate to known distances at or within the 10-mile EPZ to distances beyond the 10-mile EPZ.

1.14.7.3 Note the approximate direction of the plume and the approximate distance at which PAG doses are exceeded.

**Emergency Action Levels and Protective
Action Recommendations**

1. Determine Emergency Action Levels (EALs):

- 1.1 **IF** any of doses described below are projected at the Site Boundary (one mile from plant) make the associated EAL recommendation to the RAM.
- **IF** the projected doserate at the Site Boundary $\geq 1.14\text{E-1}$ mrem/hr TEDE **OR** $\geq 3.42\text{E-1}$ mrem/hr committed dose equivalent (thyroid), then recommend an **Unusual Event** (bases: ≥ 2 times SLC limits).
 - **IF** the projected doserate at the Site Boundary $\geq 1.14\text{E1}$ mrem/hr TEDE **OR** $\geq 3.42\text{E1}$ mrem/hr committed dose equivalent (thyroid) then recommend an **Alert** (bases: ≥ 200 times SLC limits).
 - **IF** the projected dose at the Site Boundary ≥ 100 mrem TEDE **OR** ≥ 500 mrem committed dose equivalent (thyroid), then recommend a **Site Area Emergency** (bases: one tenth of PAG limit).
 - **IF** the projected dose at the Site Boundary ≥ 1000 mrem TEDE **OR** ≥ 5000 mrem committed dose equivalent (thyroid), then recommend a **General Emergency** (bases: PAG limit).
- 1.2 **IF** Field Monitoring Teams at the Site Boundary detect any of the doserates described below, make the associated EAL recommendation:
- **IF** the dose rate at the Site Boundary ≥ 100 mrem/hr TEDE **OR** ≥ 500 mrem/hr (3.84E-7 $\mu\text{Ci/ml}$ I-131 equivalent) Committed Dose Equivalent (thyroid) and either is expected to last for more than one hour, recommend a **Site Area Emergency** (bases: one tenth of PAG limit).
 - **IF** the dose rate at the Site Boundary ≥ 1000 mrem/hr TEDE **OR** ≥ 5000 mrem/hr (3.84E-6 $\mu\text{Ci/ml}$ I-131 equivalent) Committed Dose Equivalent (thyroid) and either is expected to last for more than one hour, recommend a **General Emergency** (bases: PAG limit).

**Emergency Action Levels and Protective
Action Recommendations****2. Determine Protective Action Recommendations (PARs):**

2.1 Recommend no protective action, for doses:

- < 1 Rem Total Effective Dose Equivalent **OR**,
- < 5 Rem Committed Dose Equivalent (Thyroid)

2.2 Recommend Evacuation of Population in PAZs identified on Enclosure 5.5 and sheltering of remaining PAZs in the 10-mile EPZ, for doses:

- ≥ 1 Rem Total Effective Dose Equivalent (TEDE) **OR**,
- ≥ 5 Rem Committed Dose Equivalent (CDE Thyroid).

2.3 Notify the EOFD and State Offsite Dose personnel that the area beyond the 10-mile EPZ has exceeded the Protective Action Guide (PAG) doses, for the following doses:

- ≥ 1 Rem Total Effective Dose Equivalent (TEDE) **OR**,
- ≥ 5 Rem Committed Dose Equivalent (CDE Thyroid).

2.3.1 Provide the EOFD and State Offsite Dose personnel with the approximate direction of the plume and the approximate distance at which PAG doses are exceeded.

Enclosure 5.8
Emergency Notification Form Completion
Example

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Page 1 of 2

1. Supply information to complete the ENF as follows:

NOTE: "Offsite Communicators" should actually complete the Emergency Notification Form (ENF) using radiological information supplied by Offsite Dose Assessment.

- 1.1 At line 10, indicate appropriate box, according to Enclosure 5.4 (procedure section 4.3).
 - 1.1.1 **IF** release status is "None", go to ENF line 14 (step 1.6 of this enclosure).
- 1.2 At line 11, indicate that the release is:
 - "Ground Level",
 - "Airborne", and
 - Provide the release "Start time" and "Start date".
 - **IF** release has stopped, provide the release "Stop time" and "Stop date".
- 1.3 At line 12, indicate that the release magnitude is in "Curies per sec."
 - 1.3.1 Indicate if the release is "Above" or "Below" normal operating limits, using Enclosure 5.4 and RD5 data (procedure section 4.3.3.3).
 - 1.3.2 Supply "Noble Gases," "Particulates," and "Iodines" curies per second values from RD5 data.
- 1.4 At line 13, **IF** releases < normal operating limits, go to ENF line 14 (step 1.6 of this enclosure).
- 1.5 **IF** releases > normal operating limits, indicate if the projection is "New" or "Unchanged" and provide "Projection Time" from RD5 data.
 - 1.5.1 Provide "Estimated Duration" from RD5 data.
 - 1.5.2 Provide "TEDE mrem" and "Thyroid CDE mrem" values from RD5.
- 1.6 At line 14, supply "Meteorological Data", either from SDS or from RD5.
- 1.7 At line 15, supply Offsite Dose related "Protective Action Recommendations" as determined from Enclosure 5.5 or RD5 data (procedure section 4.3.3.5).

Enclosure 5.8
Emergency Notification Form Completion
Example

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1. A ☐ THIS IS A DRILL B. ☒ ACTUAL EMERGENCY ☐ INITIAL ☐ FOLLOW-UP MESSAGE NUMBER _____
2. SITE: Oconee UNIT: 1 REPORTED BY: _____
3. TRANSMITTAL TIME/DATE: _____ / _____ / _____ CONFIRMATION PHONE NUMBER: _____
(Eastern) mm/dd/yy
4. AUTHENTICATION (If Required): _____
(Number) (Codeword)

5. EMERGENCY CLASSIFICATION: A. ☐ NOTIFICATION OF UNUSUAL EVENT
B. ☐ ALERT C. ☐ SITE AREA EMERGENCY D. ☐ GENERAL EMERGENCY

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

7. EMERGENCY DESCRIPTIONS/REMARKS: _____

8. PLANT CONDITION: ☒ IMPROVING ☐ STABLE ☐ DEGRADING

9. REACTOR STATUS: ☒ SHUTDOWN: TIME/DATE: _____ / _____ / _____ ☐ _____ % 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

☒ AIRBORNE: STARTED: 12:00 09/21/98 STOPPED: _____
Time (Eastern) Date Time (Eastern) Date
☐ LIQUID: STARTED: _____ / _____ / _____ STOPPED: _____ / _____ / _____
Time (Eastern) Date Time (Eastern) Date

**12. RELEASE MAGNITUDE: ☒ Curies Per Sec ☐ Curies NORMAL OPERATING LIMITS: ☐ BELOW ☒ ABOVE
☒ NOBLE GASES 2.56E+00 ☐ IODINES 1.81E-01
☐ PARTICULATES 9.05E-03 ☐ OTHER _____

**13. ESTIMATE OF PROJECTED OFFSITE DOSE: ☐ NEW ☐ UNCHANGED PROJECTION TIME: 12:15
TEDE (mrem) Thyroid CDE (mrem) (Eastern)
SITE BOUNDARY 1.45E+01 2.48E+02
2 MILES 2.93E+00 4.97E+01 ESTIMATED DURATION: 1.25 HRS.
5 MILES 3.93E-01 6.79E+00
10 MILES 0.00E+00 0.00E+00

**14. METEOROLOGICAL DATA: ☒ WIND DIRECTION (from) 20.0 deg ☐ SPEED (mph) 6.0
☐ STABILITY CLASS B ☐ PRECIPITATION (type) 0.00 in/15 min

15. RECOMMENDED PROTECTIVE ACTIONS:

- A. ☐ NO RECOMMENDED PROTECTIVE ACTIONS
B. ☐ EVACUATE
C. ☐ SHELTER IN-PLACE
D. ☐ OTHER _____

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

* If Items 8-14 have not changed, only items 1-7 and 15-16 are required to be completed
** Information may not be available on initial notification

May 10, 2000

MEMORANDUM TO FILE
OCONEE NUCLEAR SITE

SUBJECT: Volume A, Oconee Emergency Plan
Revision 2000-02

The following revisions were made to the Oconee Nuclear Site Emergency Plan. This revision does not decrease the effectiveness of the plan as evidenced by the following:

Title page revised for current revision number and date (Revision 2000-02, May, 2000)

List of Effective Pages, page 1 thru 6

Record of changes, page 4, added revision 2000-02

Purpose/Scope/Planning Basis

Description of change:

Page I-5, Rev. 2000-02, New Map

Reason for change:

Page I-5 reflects new revision number

Map has been reprinted to show new siren locations.

Section B

Description of change:

Page B-2 & B8

B-2 - Changed specific managers titles to appointed by Station Manager

B-8 - Changed Mechanical Systems to Engineer Manager

Reason for change:

B-2 - Titles change within the organization and this eliminates further changes in the Emergency Plan.

B-8 - Mechanical Systems position has been changed to Engineer Manager

Section C

Description of change:

Corrected typo

Reason for change:

To correct the word available

Appendix 5

Description of change:

Page 1 & 2 – Changed dates to reflect updated Letters of Agreement for # 8, 14, 15, 16, 19, 20, & 23

Reason for change:

Page 1 & 2 – Dates on Agreement Letters 8, 14, 15, 16, 19, 20 & 23 have changed.

Appendix 6

Description of change:

Page 3 – Deleted 36A

Reason for change: 36A is no longer a valid copy. The Emergency Planning Manager uses Volume 10A



Michael D. Thorne
Emergency Planning Manager
Oconee Nuclear Site

Section D

Description of change:

Page 14 – Added statement Reactor Coolant System (RCS) Leakage as defined in RCS Operational Leakage in the Technical Specifications Basis B 3.4.13.

Page 31 – Deleted auxiliary bridge from #2.

Page 71 – Added statement: This EAL applies to structures required to maintain safe operations or to establish or maintain cold shutdown.

Reason for change:

Page 14 – For clarity

Page 31 – Auxiliary fuel bridges have been removed from the reactor building.

Page 71 – The basis explanation was expanded to contain statements from the initiating conditions, added clarity.

Section H

Description of change:

Page 3, H.5.a – Changed (H-19) to (H-18)

Page 7 – Identification of Emergency kits – deleted H-18

Reason for change:

Page 3 – typo

Page 7 – Incorrect Figure numbers

Section J

Description of change:

Page 2 – Inserted after pathway, and beyond it if necessary. Added statement: If dose projections show that PAGs have been exceeded at 10 miles, the dose assessment code and in-field measurements, when available, shall be used to calculate doses at various distances down wind to determine how far from the site PAG levels are exceeded. The Radiological Assessment Manager shall forward the results to the EOF Director who will communicate this information to the offsite authorities.

Reason for change:

Page 2 – This change is necessary because Duke Power will address recommendations for protective actions beyond the 10-mile Emergency Planning Zone (EPZ), if warranted.

Section M

Description of change:

Page 2- M.3 should be M.2

Reason for change

Page 2 – Correction in numbering sequence

INFORMATION ONLY

(R06-97)

Duke Power Company PROCEDURE PROCESS RECORD

(1) ID No RP/0/B/1000/001

Revision No 008

PREPARATION

- (2) Station OCONEE NUCLEAR STATION
- (3) Procedure Title Emergency Classification
- (4) Prepared By Robert Taylor (Signature) Robert Taylor Date 05/24/00
- (5) Requires 10CFR50.59 evaluation?
☐ Yes (New procedure or revision with major changes)
☐ No (Revision with minor changes)
☐ No (To incorporate previously approved changes)
- (6) Reviewed By Ray Waterman (QR) Date 5/30-00
Cross-Disciplinary Review By RAW (QR) NA Date 5/30-00
Reactivity Mgmt. Review By _____ (QR) NA _____ Date _____
- (7) Additional Reviews
Reviewed By _____ Date _____
Reviewed By _____ Date _____
- (8) Temporary Approval (if necessary)
By _____ (SRO/QR) Date _____
By _____ (QR) Date _____
- (9) Approved By M. Q. Thorne Date 5-30-2000

PERFORMANCE (Compare with control copy every 14 calendar days while work is being performed.)

- (10) Compared with Control Copy _____ Date _____
Compared with Control Copy _____ Date _____
Compared with Control Copy _____ Date _____
- (11) Date(s) Performed _____
Work Order Number (WO#) _____

COMPLETION

- (12) Procedure Completion Verification:
☐ Unit 0 ☐ Unit 1 ☐ Unit 2 ☐ Unit 3 Procedure performed on what unit?
☐ Yes ☐ NA Check lists and/or blanks initialed, signed, dated, or filled in NA, as appropriate?
☐ Yes ☐ NA Listed enclosures attached?
☐ Yes ☐ NA Data sheets attached, completed, dated, and signed?
☐ Yes ☐ NA Charts, graphs, etc. attached, dated, identified, and marked?
☐ Yes ☐ NA Procedure requirements met?
- Verified By _____ Date _____
- (13) Procedure Completion Approved _____ Date _____
- (14) Remarks (Attach additional pages, if necessary)

Duke Power Company Oconee Nuclear Site Emergency Classification Reference Use	Procedure No. RP/0/B/1000/001
	Revision No. 008
	Electronic Reference No. OX002WOS

Emergency Classification

NOTE: This procedure is an implementing procedure to the Oconee Nuclear Site Emergency plan and must be forwarded to Emergency Planning within three (3) working days of approval.

1. Symptoms

- 1.1 This procedure describes the immediate actions to be taken to recognize and classify an emergency condition.
- 1.2 This procedure identifies the four emergency classifications and their corresponding Emergency Action Levels (EALs).
- 1.3 This procedure provides reporting requirements for non-emergency abnormal events.
- 1.4 The following guidance is to be used by the Emergency Coordinator/EOF Director in assessing emergency conditions:
 - 1.4.1 The Emergency Coordinator/EOF Director shall review all applicable initiating events to ensure proper classification.
 - 1.4.2 The BASIS Document (Volume A, Section D of the Emergency Plan) is available for review if any questions arise over proper classification.
 - 1.4.3 **IF** An event occurs on more than one unit concurrently,
THEN The event with the higher classification will be classified on the Emergency Notification Form.
 - A. Information relating to the problem(s) on the other unit(s) will be captured on the Emergency Notification Form as shown in RP/0/B/1000/015A, (Offsite Communications From The Control Room), RP/0/B/1000/015B, (Offsite Communications From The Technical Support Center) or RP/0/B/1000/015C, (Offsite Communications From The Emergency Operations Facility).
 - 1.4.4 **IF** An event occurs,
AND A lower or higher plant operating mode is reached before the Classification can be made,
THEN The classification shall be based on the mode that existed at the time the event occurred.
 - 1.4.5 The Fission Product Barrier Matrix is applicable only to those events that occur at Hot Shutdown or higher.

A. An event that is recognized at Cold Shutdown or lower shall not be classified using the Fission Product Barrier Matrix.

1. Reference should be made to the additional enclosures that provide Emergency Action Levels for specific events (e.g., Severe Weather, Fire, Security).

1.5 **IF** A transient event should occur,

THEN Review the following guidance:

1.5.1 **IF** An Emergency Action Level (EAL) identifies a specific duration
AND The Emergency Coordinator/EOF Director assessment concludes that the specified duration is exceeded or will be exceeded, (i.e.; condition cannot be reasonably corrected before the duration elapses),

THEN Classify the event.

1.5.2 **IF** A plant condition exceeding EAL criteria is corrected before the specified duration time is exceeded,

THEN The event is **NOT** classified by that EAL.

A. Review lower severity EALs for possible applicability in these cases.

NOTE: Reporting under 10CFR50.72 may be required for the following step. Such a condition could occur, for example, if a follow up evaluation of an abnormal condition uncovers evidence that the condition was more severe than earlier believed.

1.5.3 **IF** A plant condition exceeding EAL criteria is not recognized at the time of occurrence, but is identified well after the condition has occurred (e.g.; as a result of routine log or record review)

AND The condition no longer exists,

THEN An emergency shall **NOT** be declared.

1.5.4 **IF** An emergency classification was warranted, but the plant condition has been corrected prior to declaration and notification,

THEN The Emergency Coordinator must consider the potential that the initiating condition (e.g.; Failure of Reactor Protection System) may have caused plant damage that warrants augmenting the on shift personnel through activation of the Emergency Response Organization.

- A. **IF** An *Unusual Event* condition exists,
THEN Make the classification as required.

1. The event may be terminated in the same notification or as a separate termination notification.

- B. **IF** An *Alert, Site Area Emergency*, or *General Emergency* condition exists,
THEN Make the classification as required,
AND Activate the Emergency Response Organization.

- 1.6 Emergency conditions shall be classified as soon as the Emergency Coordinator/EOF Director assessment determines that the Emergency Action Levels for the Initiating Condition have been exceeded.

2. Immediate Actions

- 2.1 Determine the operating mode that existed at the time the event occurred prior to any protection system or operator action initiated in response to the event.

- 2.2 **IF** The unit is at Hot Shutdown or higher
AND The condition/event affects fission product barriers,
THEN GOTO Enclosure 4.1, (Fission Product Barrier Matrix).

- 2.2.1 Review the criteria listed in Enclosure 4.1, (Fission Product Barrier Matrix) and make the determination if the event should be classified.

- 2.3 Review the listing of enclosures to determine if the event is applicable to one of the categories shown.

- 2.3.1 **IF** One or more categories are applicable to the event,
THEN Refer to the associated enclosures.

- 2.3.2 Review the EALs and determine if the event should be classified.

- A. **IF** An EAL is applicable to the event,
THEN Classify the event as required.

- 2.4 **IF** The condition requires an emergency classification,
THEN GOTO RP/0/B/1000/002, (Control Room Emergency Coordinator Procedure).

3. Subsequent Actions

- 3.1 Continue to review the emergency conditions to assure the current classification continues to be applicable.

4. Enclosures

	Enclosures	Page Number
4.1	Fission Product Barrier Matrix	6
4.2	System Malfunctions	7
4.3	Abnormal Rad Levels/Radiological Effluents	9
4.4	Loss Of Shutdown Functions	11
4.5	Loss of Power	13
4.6	Fires/Explosions And Security Actions	14
4.7	Natural Disasters, Hazards, And Other Conditions Affecting Plant Safety	15
4.8	Radiation Monitor Readings For Emergency Classification1	18
4.9	Unexpected/Unplanned Increase In Area Monitor Readings	19
4.10	Definitions	20
4.11	Operating Modes Defined In Improved Technical Specifications	23
4.12	Instructions For Using Enclosure 4.1	24

Enclosure 4.1 Fission Product Barrier Matrix

RP/0/B/1000/001
Page 1 of 1

DETERMINE THE APPROPRIATE CLASSIFICATION USING THE TABLE BELOW:

CIRCLE EALS CHOSEN. ADD POINTS TO CLASSIFY. (SEE NOTE BELOW)

RCS BARRIERS (BD 5-7)		FUEL CLAD BARRIERS (BD 8-9)		CONTAINMENT BARRIERS (BD 10-12)	
Potential Loss (4 Points)	Loss (5 Points)	Potential Loss (4 Points)	Loss (5 Points)	Potential Loss (1 Point)	Loss (3 Points)
RCS Leakrate > Makeup capacity of one HPI pump in normal makeup mode (approx. 160 gpm) with Letdown isolated.	RCS Leak rate > available makeup capacity as indicated by a loss of subcooling	Average of the 5 highest CETC ≥ 700° F	Average of the 5 highest CETC ≥ 1200° F	CETC ≥ 1200° F ≥ 15 minutes OR CETC ≥ 700° F ≥ 15 minutes with a valid RVLS reading 0"	Rapid unexplained containment pressure decrease after increase OR containment pressure or sump level not consistent with LOCA
SGTR > Makeup capacity of one HPI pump in normal makeup mode (approx. 160 gpm) with Letdown isolated.		Valid RVLS reading of 0"	Coolant activity ≥ 300 µCi/ml DEI	RB pressure ≥ 59 psig OR RB pressure ≥ 10 psig and no RBCU or RBS	Failure of secondary side of SG results in a direct opening to the environment with P/S leakage ≥ 10 gpm in the same SG
Entry into the TSOR (Thermal Shock) operating range	1RIA 57/58 reading ≥ 1.0 R/hr 2 RIA 57 reading ≥ 1.6 R/hr 2 RIA 58 reading ≥ 1.0 R/hr 3RIA 57/58 reading ≥ 1.0 R/hr		<u>Hours Since SD</u> <u>RIA57/58 R/hr</u> 0 - < 0.5 ≥ 300/150 0.5 - < 2.0 ≥ 80/40 2.0 - 8.0 ≥ 32/16	<u>Hours Since SD</u> <u>RIA57/58 - R/hr</u> 0 - < 0.5 ≥ 1800/860 0.5 - < 2.0 ≥ 400/195 2.0 - 8.0 ≥ 280/130	Failure of secondary side of SG results in a direct opening to the environment with P/S leakage ≥ 10 gpm in the other SG AND Feeding SG with secondary side failure from the affected unit
HPI Forced Cooling	RCS pressure spike ≥ 2750 psig			Hydrogen concentration ≥ 9%	Containment isolation is incomplete and a release path to the environment exists
Emergency Coordinator/EOF Director judgment	Emergency Coordinator/EOF Director judgment	Emergency Coordinator/EOF Director judgment	Emergency Coordinator/EOF Director judgment	Emergency Coordinator/EOF Director judgment	Emergency Coordinator/EOF Director judgment
UNUSUAL EVENT (1-3 Total Points)		ALERT (4-6 Total Points)		SITE AREA EMERGENCY (7-10 Total Points)	
OPERATING MODE: 1, 2, 3, 4		OPERATING MODE: 1, 2, 3, 4		OPERATING MODE: 1, 2, 3, 4	
♦ Any potential loss of Containment ♦ Any loss of containment		♦ Any potential loss or loss of the Fuel Clad ♦ Any potential loss or loss of the RCS		♦ Loss of any two barriers ♦ Loss of one barrier and potential loss of either RCS or Fuel Clad Barriers ♦ Potential loss of both the RCS and Fuel Clad Barriers	
INITIAL NOTIFICATION REQUIREMENTS: SEE EMERGENCY TELEPHONE DIRECTORY NOTIFY 1,2,3,4		INITIAL NOTIFICATION REQUIREMENTS: SEE EMERGENCY TELEPHONE DIRECTORY NOTIFY 1,2,3,4		INITIAL NOTIFICATION REQUIREMENTS: SEE EMERGENCY TELEPHONE DIRECTORY NOTIFY 1,2,3,4	
				♦ Loss of any two barriers and potential loss of the third barrier ♦ Loss of all three barriers	
				INITIAL NOTIFICATION REQUIREMENTS: SEE EMERGENCY TELEPHONE DIRECTORY NOTIFY 1,2,3,4	

NOTE: An event with multiple events could occur which would result in the conclusion that exceeding the loss or potential loss threshold is **IMMINENT** (i.e., within 1-3 hours). In this IMMINENT LOSS situation, use judgment and classify as if the thresholds are exceeded.

Enclosure 4.2
Systems Malfunctions

RP/0/B/1001
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UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
<p>1. RCS LEAKAGE (BD 14)</p> <p>=====</p> <p>OPERATING MODE: 1, 2, 3, 4</p> <p>A. Unidentified leakage \geq 10 gpm</p> <p>B. Pressure boundary leakage \geq 10 gpm</p> <p>C. Identified leakage \geq 25 gpm</p> <p>2. UNPLANNED LOSS OF MOST OR ALL SAFETY SYSTEM ANNUNCIATION/ INDICATION IN CONTROL ROOM FOR > 15 MINUTES (BD 15)</p> <p>=====</p> <p>OPERATING MODE: 1, 2, 3, 4</p> <p>A.1 <i>Unplanned</i> loss of > 50% of the following annunciators on one unit for > 15 minutes:</p> <p align="center"><u>Units 1 & 3</u> 1 SA1-9, 14-16, and 18 3 SA1-9, 14-16, and 18</p> <p align="center"><u>Unit 2</u> 2 SA1-9, 14-16</p> <p>AND</p> <p>A.2 Loss of annunciators or indicators requires additional personnel (beyond normal shift complement) to safely operate the unit</p> <p>3. INABILITY TO REACH REQUIRED SHUTDOWN WITHIN LIMITS (BD 16)</p> <p>=====</p> <p>OPERATING MODE: 1, 2, 3, 4</p> <p>A. Required operating mode not reached within TS LCO action statement time (CONTINUED)</p>	<p>1. UNPLANNED LOSS OF MOST OR ALL SAFETY SYSTEM ANNUNCIATION/ INDICATION IN CONTROL ROOM (BD 19)</p> <p>=====</p> <p>OPERATING MODE: 1, 2, 3, 4</p> <p>A.1 <i>Unplanned</i> loss of > 50% of the following annunciators on one unit for > 15 minutes:</p> <p align="center"><u>Units 1 & 3</u> 1 SA1-9, 14-16, and 18 3 SA1-9, 14-16, and 18</p> <p align="center"><u>Unit 2</u> 2 SA1-9, 14-16</p> <p>AND</p> <p>A.2 Loss of annunciators/indicators requires additional personnel (beyond normal shift complement) to safely operate the unit</p> <p>AND</p> <p>A.3.1 Significant plant transient in progress</p> <p align="center">OR</p> <p>A.3.2 Loss of the OAC and ALL PAM indications</p> <p align="center">(END)</p>	<p>1. INABILITY TO MONITOR A SIGNIFICANT TRANSIENT IN PROGRESS (BD 21)</p> <p>=====</p> <p>OPERATING MODE: 1, 2, 3, 4</p> <p>A.1 <i>Unplanned</i> loss of > 50% of the following annunciators on one unit for > 15 minutes:</p> <p align="center"><u>Units 1 & 3</u> 1 SA1-9, 14-16, and 18 3 SA1-9, 14-16, and 18</p> <p align="center"><u>Unit 2</u> 2 SA1-9, 14-16</p> <p>AND</p> <p>A.2 A significant transient is in progress</p> <p>AND</p> <p>A.3 Loss of the OAC and ALL PAM indications</p> <p>AND</p> <p>A.4 <i>Inability to directly monitor</i> any one of the following functions:</p> <ol style="list-style-type: none"> 1. Subcriticality 2. Core Cooling 3. Heat Sink 4. RCS Integrity 5. Containment Integrity 6. RCS Inventory <p align="center">(END)</p>	
INITIAL NOTIFICATION REQUIREMENTS: SEE EMERGENCY TELEPHONE DIRECTORY NOTIFY 1, 2, 3, 4	INITIAL NOTIFICATION REQUIREMENTS: SEE EMERGENCY TELEPHONE DIRECTORY NOTIFY 1, 2, 3, 4	INITIAL NOTIFICATION REQUIREMENTS: SEE EMERGENCY TELEPHONE DIRECTORY NOTIFY 1, 2, 3, 4	INITIAL NOTIFICATION REQUIREMENTS: SEE EMERGENCY TELEPHONE DIRECTORY NOTIFY 1, 2, 3, 4

UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
<p>4. UNPLANNED LOSS OF ALL ONSITE OR OFFSITE COMMUNICATIONS (BD 17)</p> <p>=====</p> <p><u>OPERATING MODE:</u> All</p> <p>A. Loss of all onsite communications capability (ROLM system, PA system, Pager system, Onsite Radio system) affecting ability to perform Routine operations</p> <p>B. Loss of all onsite communications capability (Selective Signaling, NRC FTS lines, Offsite Radio System, AT&T line) affecting ability to communicate with offsite authorities.</p> <p>5. FUEL CLAD DEGRADATION (BD 18)</p> <p>=====</p> <p><u>OPERATING MODE:</u> All:</p> <p>A. DEI - >5μCi/ml</p> <p>(END)</p>			
<p>INITIAL NOTIFICATION REQUIREMENTS: SEE EMERGENCY TELEPHONE DIRECTORY</p> <p>NOTIFY 1,2,3,4</p>			

Enclosure 4.3
Abnormal Rad Levels/Radiological Effluent

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UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
<p>1. ANY UNPLANNED RELEASE OF GASEOUS OR LIQUID RADIOACTIVITY TO THE ENVIRONMENT THAT EXCEEDS TWO TIMES THE SLC LIMITS FOR 60 MINUTES OR LONGER (BD 23)</p> <p>=====</p> <p>OPERATING MODE: All</p> <p>A. Valid indication on radiation monitor RIA 33 of $\geq 4.06\text{E}+06$ cpm for > 60 minutes (See Note 1)</p> <p>B. Valid indication on radiation monitor RIA 45 of $\geq 1.33\text{E}+06$ cpm for > 60 minutes (See Note 1)</p> <p>C. Liquid effluent being released exceeds two times SLC 16.11.1 for > 60 minutes as determined by Chemistry Procedure</p> <p>D. Gaseous effluent being released exceeds two times SLC 16.11.2 for > 60 minutes as determined by RP Procedure</p> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p>NOTE 1: If monitor reading is sustained for the time period indicated in the EAL AND the required assessments (procedure calculations) cannot be completed within this period, declaration must be made on the <i>valid</i> Radiation Monitor reading.</p> </div> <p style="text-align: center;">(CONTINUED)</p>	<p>1. ANY UNPLANNED RELEASE OF GASEOUS OR LIQUID RADIOACTIVITY TO THE ENVIRONMENT THAT EXCEEDS 200 TIMES RADIOLOGICAL TECHNICAL SPECIFICATIONS FOR 15 MINUTES OR LONGER (BD 28)</p> <p>=====</p> <p>OPERATING MODE: All</p> <p>A. Valid indication on RIA 46 of $\geq 2.98\text{E}+04$ cpm for >15 minutes (See Note 1)</p> <p>B.1 RIA 33 HIGH Alarm</p> <p>AND</p> <p>B.2 Liquid effluent being released exceeds 200 times the level of SLC 16.11.1 for > 15 minutes as determined by Chemistry Procedure</p> <p>C. Gaseous effluent being released exceeds 200 times the level of SLC 16.11.2 for >15 minutes as determined by RP Procedure</p> <p>2. RELEASE OF RADIOACTIVE MATERIAL OR INCREASES IN RADIATION LEVELS THAT IMPEDES OPERATION OF SYSTEMS REQUIRED TO MAINTAIN SAFE OPERATION OR TO ESTABLISH OR MAINTAIN COLD SHUTDOWN (BD 30)</p> <p>=====</p> <p>OPERATING MODE: All</p> <p>A. Valid radiation reading ≥ 15 mRad/hr in CR, CAS, or, Radwaste CR</p> <p>B. Unplanned/unexpected <i>valid</i> area monitor readings exceed limits stated in Enclosure 4.9</p> <p style="text-align: center;">(CONTINUED)</p>	<p>1. BOUNDARY DOSE RESULTING FROM ACTUAL/IMMINENT RELEASE OF GASEOUS ACTIVITY (BD 32)</p> <p>=====</p> <p>OPERATING MODE: All</p> <p>A. Valid reading on RIA 46 of $\geq 2.98\text{E}+05$ cpm for >15 minutes (See Note 2)</p> <p>B. Valid reading on RIA 57 or 58 as shown on Enclosure 4.8 (See Note 2)</p> <p>C. Dose calculations result in a dose projection at the <i>site boundary</i> of:</p> <p style="padding-left: 40px;">≥ 100 mRem TEDE or 500 mRem CDE adult thyroid</p> <p>D. Field survey results indicate <i>site boundary</i> dose rates exceeding ≥ 100 mRad/hr expected to continue for more than one hour</p> <p>OR</p> <p>D.1 Analyses of field survey samples indicate adult thyroid dose commitment of ≥ 500 mRem CDE ($3.84 \text{E}^{-7} \mu\text{Ci/ml}$) for one hour of inhalation</p> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p>NOTE 2: If actual Dose Assessment cannot be completed within 15 minutes, then the <i>valid</i> radiation monitor reading should be used for emergency classification.</p> </div> <p style="text-align: center;">(CONTINUED)</p>	<p>1. BOUNDARY DOSE RESULTING FROM ACTUAL/IMMINENT RELEASE OF GASEOUS ACTIVITY (BD 36)</p> <p>=====</p> <p>OPERATING MODE: All</p> <p>A. Valid reading on RIA 46 of $\geq 2.98\text{E}+06$ cpm for ≥ 15 minutes (See Note 3)</p> <p>B. Valid reading on RIA 57 or 58 as shown on Enclosure 4.8 (See Note 3)</p> <p>C. Dose calculations result in a dose projection at the <i>site boundary</i> of:</p> <p style="padding-left: 40px;">C.1 ≥ 1000 mRem TEDE</p> <p style="padding-left: 40px;">OR</p> <p style="padding-left: 40px;">C.2 ≥ 5000 mRem CDE adult thyroid</p> <p>D. Field survey results indicate <i>site boundary</i> dose rates exceeding ≥ 1000 mRad/hr expected to continue for more than one hour</p> <p>OR</p> <p>D.1 Analyses of field survey samples indicate adult thyroid dose commitment of ≥ 5000 mRem CDE for one hour of inhalation</p> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p>NOTE 3: If actual Dose Assessment cannot be completed within 15 minutes, then the <i>valid</i> radiation monitor reading should be used for emergency classification.</p> </div> <p style="text-align: center;">(END)</p>
INITIAL NOTIFICATION REQUIREMENTS: SEE EMERGENCY TELEPHONE DIRECTORY NOTIFY 1, 2, 3, 4	INITIAL NOTIFICATION REQUIREMENTS: SEE EMERGENCY TELEPHONE DIRECTORY NOTIFY 1, 2, 3, 4	INITIAL NOTIFICATION REQUIREMENTS: SEE EMERGENCY TELEPHONE DIRECTORY NOTIFY 1, 2, 3, 4	INITIAL NOTIFICATION REQUIREMENTS: SEE EMERGENCY TELEPHONE DIRECTORY NOTIFY 1, 2, 3, 4

Assumptions used for calculation of vent monitors RIA 45 & 46:

1. Average annual meteorology ($1.672 \text{E}^{-6} \text{ sec/m}^3$), semi-elevated
2. Vent flow rate 65,000 cfm (average daily flow rate)
3. No credit is taken for vent filtration
4. One hour release duration for *Unusual Event*, 15 minute duration for *Alert*, *Site Area Emergency*, *General Emergency*
5. General Emergency PAGs are 1 rem TEDE and 5 rem CDE; *Site Area Emergency* determination is based on 10% of the *General Emergency* PAGs
6. Calculations for monitor readings are based on whole body dose
7. Standard ODCM guidance together with NUMARC guidance indicates that effluent releases are based on Technical Specification releases

Enclosure 4.3
Abnormal Rad Levels/Radiological Effluent

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UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
<p>2 UNEXPECTED INCREASE IN PLANT RADIATION OR AIRBORNE CONCENTRATION (BD 25)</p> <hr/> <p>OPERATING MODE: All</p> <p>A. LT 5 reading 14" and decreasing with makeup not keeping up with leakage WITH fuel in the core</p> <p>B. <i>Uncontrolled</i> water level decrease in the SFP and fuel transfer canal with all irradiated fuel assemblies remaining covered by water</p> <p>C. 1 R/hr radiation reading at one foot away from a damaged storage cask located at the ISFSI</p> <p>D. <i>Valid</i> area monitor readings exceeds limits stated in Enclosure 4.9.</p> <p style="text-align: center;">(END)</p>	<p>3. MAJOR DAMAGE TO IRRADIATED FUEL OR LOSS OF WATER LEVEL THAT HAS OR WILL RESULT IN THE UNCOVERING OF IRRADIATED FUEL OUTSIDE THE REACTOR VESSEL (BD 31)</p> <hr/> <p>OPERATING MODE: All</p> <p>A. <i>Valid</i> RIA 3, 6, 41, OR 49 HIGH Alarm</p> <p>B. HIGH Alarm for portable area monitors on the main bridge or SFP bridge</p> <p>C. Report of visual observation of irradiated fuel uncovered</p> <p>D. Operators determine water level drop in either the SFP or fuel transfer canal will exceed makeup capacity such that irradiated fuel will be uncovered</p> <p style="text-align: center;">(END)</p>	<p>2. LOSS OF WATER LEVEL IN THE REACTOR VESSEL THAT HAS OR WILL UNCOVER FUEL IN THE REACTOR VESSEL (BD 35)</p> <hr/> <p>OPERATING MODE: 5, 6</p> <p>A.1 Failure of heat sink causes loss of Cold Shutdown condition</p> <p>AND</p> <p>A.2 LT 5 indicates 0 inches after initiation of RCS makeup</p> <p>B.1 Failure of heat sink causes loss of Cold Shutdown condition</p> <p>AND</p> <p>B.2 Either train ultrasonic level indication less than 0 inches and decreasing after initiation of RCS makeup</p> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p>NOTE: This Initiating Condition is also located in Enclosure 4.4., (Loss of Shutdown Functions). High radiation levels will also be seen with this condition.</p> </div> <p style="text-align: center;">(END)</p>	
<p>INITIAL NOTIFICATION REQUIREMENTS: SEE EMERGENCY TELEPHONE DIRECTORY</p> <p>NOTIFY 1, 2, 3, 4</p>	<p>INITIAL NOTIFICATION REQUIREMENTS: SEE EMERGENCY TELEPHONE DIRECTORY</p> <p>NOTIFY 1, 2, 3, 4</p>	<p>INITIAL NOTIFICATION REQUIREMENTS: SEE EMERGENCY TELEPHONE DIRECTORY</p> <p>NOTIFY 1, 2, 3, 4</p>	

Enclosure 4.4
Loss of Shutdown Functions

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UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
	<p>1. FAILURE OF RPS TO COMPLETE OR INITIATE A Rx SCRAM (BD 39)</p> <hr/> <p style="text-align: center;"><u>OPERATING MODE:</u> 1, 2, 3</p> <p>A.1 <i>Valid</i> reactor trip signal received or required <u>WITHOUT</u> automatic scram</p> <p><u>AND</u></p> <p>A.1.1 DSS has inserted Control Rod Groups 5, 6, 7</p> <p style="text-align: center;"><u>OR</u></p> <p>A.1.2 Manual trip from the Control Room is successful and reactor power is less than 5% and decreasing</p> <p>2. INABILITY TO MAINTAIN PLANT IN COLD SHUTDOWN (BD 41)</p> <hr/> <p style="text-align: center;"><u>OPERATING MODE:</u> 5, 6</p> <p>A.1 Loss of LPI and/or LPSW</p> <p><u>AND</u></p> <p>A.2 Inability to maintain RCS temperature below 200° F as indicated by either of the following:</p> <p>A.2.1 RCS temperature at the LPI Pump Suction</p> <p style="text-align: center;"><u>OR</u></p> <p>A.2.2 Visual observation</p> <p style="text-align: center;">(END)</p>	<p>1. FAILURE OF RPS TO COMPLETE OR INITIATE A Rx SCRAM (BD 42)</p> <hr/> <p style="text-align: center;"><u>OPERATING MODE:</u> 1, 2</p> <p>A.1 <i>Valid</i> reactor trip signal received or required <u>WITHOUT</u> automatic scram</p> <p><u>AND</u></p> <p>A.2 DSS has <u>NOT</u> inserted Control Rod Groups 5, 6, 7</p> <p><u>AND</u></p> <p>A.3 Manual trip from the Control Room was <u>NOT</u> successful in reducing reactor power to less than 5% and decreasing</p> <p>2. COMPLETE LOSS OF FUNCTION NEEDED TO ACHIEVE OR MAINTAIN HOT SHUTDOWN (BD 43)</p> <hr/> <p style="text-align: center;"><u>OPERATING MODE:</u> 1, 2, 3, 4</p> <p>A. Average of the 5 highest CETCs $\geq 1200^{\circ}$ F shown on ICCM</p> <p>B. Unable to maintain reactor subcritical</p> <p>C. SSF feeding SG per EOP</p> <p style="text-align: center;">(CONTINUED)</p>	<p>1. FAILURE OF RPS TO COMPLETE AUTOMATIC SCRAM AND MANUAL SCRAM NOT SUCCESSFUL WITH INDICATION OF CORE DAMAGE (BD 45)</p> <hr/> <p style="text-align: center;"><u>OPERATING MODE:</u> 1, 2</p> <p>A.1 <i>Valid</i> Rx trip signal received or required <u>WITHOUT</u> automatic scram</p> <p><u>AND</u></p> <p>A.2 Manual trip from the Control Room was <u>NOT</u> successful in reducing reactor power to < 5% and decreasing</p> <p><u>AND</u></p> <p>A.3 Average of the 5 highest CETCs $\geq 1200^{\circ}$ F on ICCM</p> <p style="text-align: center;">(END)</p>
	<p>INITIAL NOTIFICATION REQUIREMENTS: SEE EMERGENCY TELEPHONE DIRECTORY</p> <p>NOTIFY 1, 2, 3, 4</p>	<p>INITIAL NOTIFICATION REQUIREMENTS: SEE EMERGENCY TELEPHONE DIRECTORY</p> <p>NOTIFY 1, 2, 3, 4</p>	<p>INITIAL NOTIFICATION REQUIREMENTS: SEE EMERGENCY TELEPHONE DIRECTORY</p> <p>NOTIFY 1, 2, 3, 4</p>

Enclosure 4.4
Loss of Shutdown Functions

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UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
		<p>3. LOSS OF WATER LEVEL IN THE REACTOR VESSEL THAT HAS OR WILL UNCOVER FUEL IN THE REACTOR VESSEL (BD 44)</p> <hr/> <p><u>OPERATING MODE:</u> 5, 6</p> <p>A.1 Failure of heat sink causes loss of Cold Shutdown conditions</p> <p><u>AND</u></p> <p>A.2 LT-5 indicates 0 inches after initiation of RCS Makeup</p> <p>B.1 Failure of heat sink causes loss of Cold Shutdown conditions</p> <p><u>AND</u></p> <p>B.2 Either train ultrasonic level indication less than 0 inches and decreasing after initiation of RCS makeup</p> <p align="center">(END)</p>	
		<p>INITIAL NOTIFICATION REQUIREMENTS: SEE EMERGENCY TELEPHONE DIRECTORY</p> <p>NOTIFY 1, 2, 3, 4</p>	

Enclosure 4.5
Loss of Power

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UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
<p>1. LOSS OF ALL OFFSITE POWER TO ESSENTIAL BUSES FOR GREATER THAN 15 MINUTES (BD 47)</p> <hr/> <p>OPERATING MODE: All</p> <p>A.1 Loss of all offsite AC power to both the Red and Yellow Buses for > 15 minutes</p> <p>AND</p> <p>A.2 Unit auxiliaries are being supplied from Keowee or CT5</p> <p>2. UNPLANNED LOSS OF REQUIRED DC POWER FOR GREATER THAN 15 MINUTES (BD 48)</p> <hr/> <p>OPERATING MODE: 5, 6</p> <p>A.1 <i>Unplanned</i> loss of vital DC power to required DC buses as indicated by bus voltage less than 110 VDC</p> <p>AND</p> <p>A.2 Failure to restore power to at least one required DC bus within 15 minutes from the time of loss</p> <p align="center">(END)</p>	<p>1. LOSS OF ALL OFFSITE AC POWER AND LOSS OF ALL ONSITE AC POWER TO ESSENTIAL BUSES (BD 49)</p> <hr/> <p>OPERATING MODE: 5, 6 Defueled</p> <p>A.1 MFB 1 and 2 de-energized</p> <p>AND</p> <p>A.2 Failure to restore power to at least one MFB within 15 minutes from the time of loss of both offsite and onsite AC power</p> <p>2. AC POWER CAPABILITY TO ESSENTIAL BUSES REDUCED TO A SINGLE SOURCE FOR GREATER THAN 15 MINUTES (BD 50)</p> <hr/> <p>OPERATING MODE: 1, 2, 3, 4</p> <p>A. AC power capability has been degraded to a single power source for > 15 minutes due to the loss of all but one of:</p> <p align="center">Unit Normal Transformer Unit SU Transformer Another Unit SU Transformer CT4 CT5</p> <p align="center">(END)</p>	<p>1. LOSS OF ALL OFFSITE AC POWER AND LOSS OF ALL ONSITE AC POWER TO ESSENTIAL BUSES (BD 51)</p> <hr/> <p>OPERATING MODE: 1, 2, 3, 4</p> <p>A.1 MFB 1 and 2 de-energized</p> <p>AND</p> <p>A.2 Failure to restore power to at least one MFB within 15 minutes from the time of loss of both offsite and onsite AC power</p> <p>2. LOSS OF ALL VITAL DC POWER (BD 52)</p> <hr/> <p>OPERATING MODE: 1, 2, 3, 4</p> <p>A.1 <i>Unplanned</i> loss of vital DC power to required DC buses as indicated by bus voltage less than 110 VDC</p> <p>AND</p> <p>A.2 Failure to restore power to at least one required DC bus within 15 minutes from the time of loss</p> <p align="center">(END)</p>	<p>1. PROLONGED LOSS OF ALL OFFSITE POWER AND ONSITE AC POWER (BD 54)</p> <hr/> <p>OPERATING MODE: 1, 2, 3, 4</p> <p>A.1 MFB 1 and 2 de-energized</p> <p>AND</p> <p>A.2 SSF fails to maintain Hot Shutdown</p> <p>AND</p> <p>A.3 At least one of the following conditions exist:</p> <p>A.3.1 Restoration of power to at least one MFB within 4 hours is NOT likely</p> <p align="center">OR</p> <p>A.3.2 Indications of continuing degradation of core cooling based on Fission Product Barrier monitoring</p> <p align="center">(END)</p>
<p>INITIAL NOTIFICATION REQUIREMENTS: SEE EMERGENCY TELEPHONE DIRECTORY</p> <p>NOTIFY 1, 2, 3, 4</p>	<p>INITIAL NOTIFICATION REQUIREMENTS: SEE EMERGENCY TELEPHONE DIRECTORY</p> <p>NOTIFY 1, 2, 3, 4</p>	<p>INITIAL NOTIFICATION REQUIREMENTS: SEE EMERGENCY TELEPHONE DIRECTORY</p> <p>NOTIFY 1, 2, 3, 4</p>	<p>INITIAL NOTIFICATION REQUIREMENTS: SEE EMERGENCY TELEPHONE DIRECTORY</p> <p>NOTIFY 1, 2, 3, 4</p>

Encl 4.6
Fires/Explosions and Security Actions

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UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
<p>1. FIRES/EXPLOSIONS WITHIN THE PLANT (BD 57)</p> <hr/> <p style="text-align: center;"><u>OPERATING MODE:</u> All</p> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p>NOTE: Within the plant means Turbine Building, Auxiliary Building, Reactor Building, Keowee Hydro.</p> </div> <p>A. Fire within the plant not extinguished within 15 minutes of Control Room notification or verification of a Control Room alarm</p> <p>B. Unanticipated explosion within the plant resulting in <i>visible damage</i> to permanent structures/equipment</p> <p>2. CONFIRMED SECURITY THREAT INDICATES POTENTIAL DEGRADATION IN THE LEVEL OF SAFETY OF PLANT (BD 58)</p> <hr/> <p style="text-align: center;"><u>OPERATING MODE:</u> All</p> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p>NOTE: RP/0/B/1000/007, (Security Event), shall be used in conjunction with all security related emergency classifications.</p> </div> <p>A. Discovery of <i>bomb</i> within plant <i>protected area</i> and outside security vital areas</p> <p>B. <i>Hostage/Extortion</i> situation</p> <p>C. <i>Violent</i> civil disturbance within the owner controlled area</p> <p style="text-align: center;">(END)</p>	<p>1. FIRE/EXPLOSION AFFECTING OPERABILITY OF PLANT SAFETY SYSTEMS REQUIRED TO ESTABLISH/MAINTAIN SAFE SHUTDOWN (BD 59)</p> <hr/> <p style="text-align: center;"><u>OPERATING MODE:</u> All</p> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p>NOTE: Only one train of a system needs to be affected or damaged in order to satisfy this condition.</p> </div> <p>A.1 <i>Fire/explosions</i></p> <p>AND</p> <p>A.1.1 Affected safety-related system parameter indications show degraded performance</p> <p>OR</p> <p>A.1.2 Plant personnel report <i>visible damage</i> to permanent structures or equipment required for safe shutdown</p> <p>2. SECURITY EVENT IN A PLANT PROTECTED AREA (BD 60)</p> <hr/> <p style="text-align: center;"><u>OPERATING MODE:</u> All</p> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p>NOTE: RP/0/B/1000/007, (Security Event), shall be used in conjunction with all security related emergency classifications.</p> </div> <p>A. <i>Intrusion</i> into plant <i>protected area</i> by a hostile force</p> <p>B. <i>Bomb</i> discovered in an area containing safety related equipment</p> <p style="text-align: center;">(END)</p>	<p>1. SECURITY EVENT IN A PLANT VITAL AREA (BD 61)</p> <hr/> <p style="text-align: center;"><u>OPERATING MODE:</u> All</p> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p>NOTE: RP/0/B/1000/007, (Security Event), shall be used in conjunction with all security related emergency classifications</p> </div> <p>A. <i>Intrusion</i> into any of the following plant areas by a hostile force: Reactor Building Auxiliary Building Keowee Hydro</p> <p>B. <i>Bomb</i> detonated in any of the following areas:</p> <ul style="list-style-type: none"> • Keowee Hydro • Keowee Dam • ISFSI • Reactor Building • Auxiliary Building • SSF <p style="text-align: center;">(END)</p>	<p>1. SECURITY EVENT RESULTING IN LOSS OF ABILITY TO REACH AND MAINTAIN COLD SHUTDOWN (BD 62)</p> <hr/> <p style="text-align: center;"><u>OPERATING MODE:</u> All</p> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p>NOTE: RP/0/B/1000/007, (Security Event), shall be used in conjunction with all security related emergency classifications</p> </div> <p>A. Loss of physical control of the control room due to security event</p> <p>B. Loss of physical control of the Aux Shutdown panel and the SSF due to a Security Event</p> <p style="text-align: center;">(END)</p>
<p>INITIAL NOTIFICATION REQUIREMENTS: SEE EMERGENCY TELEPHONE DIRECTORY NOTIFY 1, 2, 3, 4</p>	<p>INITIAL NOTIFICATION REQUIREMENTS: SEE EMERGENCY TELEPHONE DIRECTORY. NOTIFY 1, 2, 3, 4</p>	<p>INITIAL NOTIFICATION REQUIREMENTS: SEE EMERGENCY TELEPHONE DIRECTORY NOTIFY 1, 2, 3, 4</p>	<p>INITIAL NOTIFICATION REQUIREMENTS: SEE EMERGENCY TELEPHONE DIRECTORY NOTIFY 1, 2, 3, 4</p>

Enclosure 4.7
Natural Disasters, Hazards and Other Conditions Affecting Plant Safety

RP/0/B/1000/001
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UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
<p>1. NATURAL AND DESTRUCTIVE PHENOMENA AFFECTING THE PROTECTED AREA (BD 64)</p> <p>=====</p> <p><u>OPERATING MODE:</u> All</p> <p>A. Tremor felt and <i>valid</i> alarm on the strong motion accelerograph</p> <p>B. Tornado striking within <i>Protected Area</i> Boundary</p> <p>C. Vehicle crash into plant structures/systems within the <i>Protected Area</i> Boundary</p> <p>D. Turbine failure resulting in casing penetration or damage to turbine or generator seals</p> <p style="text-align: center;">(CONTINUED)</p>	<p>1. NATURAL AND DESTRUCTIVE PHENOMENA AFFECTING THE PLANT VITAL AREA (BD 69)</p> <p>=====</p> <p><u>OPERATING MODE:</u> All</p> <p>A. Tremor felt and seismic trigger actuates (0.05g)</p> <p>B.1 Tornado, high winds, missiles resulting from turbine failure, vehicle crashes, or other catastrophic event</p> <div style="border: 1px solid black; padding: 5px; margin: 5px 0;"> <p>NOTE: Only one train of a safety-related system needs to be affected or damaged in order to satisfy these conditions.</p> </div> <p>B.1.1 <i>Visible damage</i> to permanent structures or equipment required for safe shutdown of the unit</p> <p><u>OR</u></p> <p>B.1.2 Affected safety system parameter indications show degraded performance</p> <p>2. RELEASE OF TOXIC/FLAMMABLE GASES JEOPARDIZING SYSTEMS REQUIRED TO MAINTAIN SAFE OPERATION OR ESTABLISH MAINTAIN COLD SHUTDOWN (BD 71)</p> <p>=====</p> <p><u>OPERATING MODE:</u> All</p> <p>A. Report/detection of <i>toxic gases</i> in concentrations that will be life-threatening to plant personnel</p> <p>B. Report/detection of flammable gases in concentrations that will affect the safe operation of the plant:</p> <ul style="list-style-type: none"> • Reactor Building • Auxiliary Building • Turbine Building • Control Room <p style="text-align: center;">(CONTINUED)</p>	<p>1. CONTROL ROOM EVACUATION AND PLANT CONTROL CANNOT BE ESTABLISHED (BD 75)</p> <p>=====</p> <p><u>OPERATING MODE:</u> All</p> <p>A.1 Control Room evacuation has been initiated</p> <p><u>AND</u></p> <p>A.2 Control of the plant cannot be established from the Aux Shutdown Panel or the SSF within 15 minutes</p> <p>2. KEOWEE HYDRO DAM FAILURE (BD 76)</p> <p>=====</p> <p><u>OPERATING MODE:</u> All</p> <p>A. Imminent/actual dam failure includes any of the following:</p> <ul style="list-style-type: none"> • Keowee Hydro Dam • Little River Dam • Dikes A, B, C, or D • Intake Canal Dike <p>3. OTHER CONDITIONS WARRANT DECLARATION OF SITE AREA EMERGENCY (BD 77)</p> <p>=====</p> <p><u>OPERATING MODE:</u> All</p> <p>A. Emergency Coordinator/EOF Director judgment</p> <p style="text-align: center;">(END)</p>	<p>1. OTHER CONDITIONS WARRANT DECLARATION OF GENERAL EMERGENCY (BD 78)</p> <p>=====</p> <p><u>OPERATING MODE:</u> All</p> <p>A.1 Emergency Coordinator/EOF Director judgment indicates:</p> <p>A.1.1 Actual/imminent substantial core degradation with potential for loss of containment</p> <p><u>OR</u></p> <p>A.1.2 Potential for <i>uncontrolled</i> radionuclide releases that would result in a dose projection at the site boundary greater than 1000 mRem TEDE or 5000 mRem CDE Adult Thyroid</p> <p style="text-align: center;">(END)</p>
INITIAL NOTIFICATION REQUIREMENTS: SEE EMERGENCY TELEPHONE DIRECTORY NOTIFY 1, 2, 3, 4	INITIAL NOTIFICATION REQUIREMENTS: SEE EMERGENCY TELEPHONE DIRECTORY NOTIFY 1, 2, 3, 4	INITIAL NOTIFICATION REQUIREMENTS: SEE EMERGENCY TELEPHONE DIRECTORY NOTIFY 1, 2, 3, 4	INITIAL NOTIFICATION REQUIREMENTS: SEE EMERGENCY TELEPHONE DIRECTORY NOTIFY 1, 2, 3, 4

Encl 4.7
Natural Disasters, Hazards and Other Conditions Affecting Plant Safety

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UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
<p>2. NATURAL AND DESTRUCTIVE PHENOMENA AFFECTING KEOWEE HYDRO (BD 66)</p> <p>=====</p> <p><u>OPERATING MODE:</u> All</p> <p>A. Reservoir elevation \geq 807 feet with all spillway gates open and the lake elevation continues to rise</p> <p>B. Seepage readings increase or decrease greatly or seepage water is carrying a significant amount of soil particles</p> <p>C. New area of seepage or wetness, with large amounts of seepage water observed on dam, dam toe, or the abutments</p> <p>D. Slide or other movement of the dam or abutments which could develop into a failure</p> <p>E. Developing failure involving the powerhouse or appurtenant structures and the operator believes the safety of the structure is questionable</p> <p>3. RELEASE OF TOXIC OR FLAMMABLE GASES DEEMED DETRIMENTAL TO SAFE OPERATION OF THE PLANT (BD 67)</p> <p>=====</p> <p><u>OPERATING MODE:</u> All</p> <p>A. Report/detection of toxic or flammable gases that could enter within the site area boundary in amounts that can affect normal operation of the plant</p> <p>B. Report by local, county, state officials for potential evacuation of site personnel based on offsite event</p> <p style="text-align: center;">(CONTINUED)</p>	<p>3. TURBINE BUILDING FLOOD (BD 72)</p> <hr/> <p><u>OPERATING MODE:</u> All</p> <p>A. Turbine Building flood requiring use of AP/1,2,3/A/1700/10, (<i>Uncontrolled Flooding Of Turbine Building</i>)</p> <p>4. CONTROL ROOM EVACUATION HAS BEEN INITIATED (BD 73)</p> <hr/> <p><u>OPERATING MODE:</u> All</p> <p>A.1 Evacuation of Control Room</p> <p><u>AND</u></p> <p>A.1.1 Plant control IS established from the Aux shutdown Panel or the SSF</p> <p><u>OR</u></p> <p>A.1.2 Plant control IS BEING established from the Aux Shutdown Panel or SSF</p> <p>5. OTHER CONDITIONS WARRANT CLASSIFICATION OF AN ALERT (BD 74)</p> <hr/> <p><u>OPERATING MODE:</u> All</p> <p>A.1 Emergency Coordinator judgment indicates that:</p> <p>A.1.1 Plant safety may be degraded</p> <p><u>AND</u></p> <p>A.1.2 Increased monitoring of plant functions is warranted</p> <p style="text-align: center;">(END)</p>		
INITIAL NOTIFICATION REQUIREMENTS: SEE EMERGENCY TELEPHONE DIRECTORY NOTIFY 1, 2, 3, 4	INITIAL NOTIFICATION REQUIREMENTS: SEE EMERGENCY TELEPHONE DIRECTORY NOTIFY 1, 2, 3, 4	INITIAL NOTIFICATION REQUIREMENTS: SEE EMERGENCY TELEPHONE DIRECTORY NOTIFY 1, 2, 3, 4	INITIAL NOTIFICATION REQUIREMENTS: SEE EMERGENCY TELEPHONE DIRECTORY NOTIFY 1, 2, 3, 4

UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
<p>4 OTHER CONDITIONS EXIST WHICH WARRANT DECLARATION OF AN UNUSUAL EVENT (BD 68)</p> <hr/> <p><u>OPERATING MODE:</u> All</p> <p>A. Emergency Coordinator determines potential degradation of level of safety has occurred</p> <p style="text-align: center;">(END)</p>			
<p>INITIAL NOTIFICATION REQUIREMENTS: SEE EMERGENCY TELEPHONE DIRECTORY</p> <p>NOTIFY 1, 2, 3, 4</p>			

Enclosure 4.8
Radiation Monitor Readings for Emergency Classification

Rp/0/B/1000.001
Page 1 of 1

NOTE: **IF** Actual Dose Assessment **cannot** be completed within 15 minutes.
THEN The *valid* monitor reading should be used for Emergency Classification.

All RIA values are considered **GREATER THAN** or **EQUAL TO**

HOURS SINCE REACTOR TRIPPED	RIA 57 R/hr		RIA 58 R/hr*	
	Site Area Emergency	General Emergency	Site Area Emergency	General Emergency
0.0 - < 0.5	5.9E+003	5.9E+004	2.6E+003	2.6E+004
0.5 - < 1.0	2.6E+003	2.6E+004	1.1E+003	1.1E+004
1.0 - < 1.5	1.9E+003	1.9E+004	8.6E+002	8.6E+003
1.5 - < 2.0	1.9E+003	1.9E+004	8.5E+002	8.5E+003
2.0 - < 2.5	1.4E+003	1.4E+004	6.3E+002	6.3E+003
2.5 - < 3.0	1.2E+003	1.2E+004	5.7E+002	5.7E+003
3.0 - < 3.5	1.1E+003	1.1E+004	5.2E+002	5.2E+003
3.5 - < 4.0	1.0E+003	1.0E+004	4.8E+002	4.8E+003
4.0 - < 8.0	1.0E+003	1.0E+004	4.4E+002	4.4E+003

*** RIA 58 is partially shielded**

Assumptions used for calculation of high range in-containment monitors RIA 57 and 58:

1. Average annual meteorology ($7.308 \text{ E}^{-6} \text{ sec/m}^3$)
2. Design basis leakage ($5.6 \text{ E}^6 \text{ ml/hr}$)
3. One hour release duration
4. *General Emergency* PAGs are 1 rem TEDE and 5 rem CDE; *Site Area Emergency* determination is based on 10% of the *General Emergency* PAGs
5. Calculations for monitor readings are based on CDE because thyroid dose is limiting
6. No credit is taken for filtration
7. LOCA conditions are limiting and provide the more conservative reading

Enclosure 4.9
Unexpected/Unplanned Increase In Area Monitor Readings

RP/0/B/1000,001
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NOTE: This Initiating Condition is not intended to apply to anticipated temporary increases due to planned events (e.g.; incore detector movement, radwaste container movement, depleted resin transfers, etc.).

MONITOR NUMBER	UNITS 1, 2, 3	
	UNUSUAL EVENT 1000x NORMAL LEVELS mRAD/HR	ALERT mRAD/HR
RIA 7, Hot Machine Shop Elevation 796	150	≥ 5000
RIA 8, Hot Chemistry Lab Elevation 796	4200	≥ 5000
RIA 10, Primary Sample Hood Elevation 796	830	≥ 5000
RIA 11, Change Room Elevation 796	210	≥ 5000
RIA 12, Chem Mix Tank Elevation 783	800	≥ 5000
RIA 13, Waste Disposal Sink Elevation 771	650	≥ 5000
RIA 15, HPI Room Elevation 758	NOTE*	≥ 5000

NOTE: RIA 15 normal readings are approximately 9 mRad/hr on a daily basis. Applying 1000x normal readings would put this monitor greater than 5000 mRad/hr just for an *Unusual Event*. For this reason, an *Unusual Event* will **NOT** be declared for a reading less than 5000 mRad/hr.

1. List of Definitions and Acronyms

NOTE: Definitions are italicized throughout procedure for easy recognition.

- 1.1 **ALERT** - Events are in process or have occurred which involve an actual or potential substantial degradation of the level of safety of the plant. Any releases are expected to be limited to small fractions of the EPA Protective Action Guideline exposure levels.
- 1.2 **BOMB** - A fused explosive device
- 1.3 **CONDITION A** - Failure is Imminent or Has Occurred - A failure at the dam has occurred or is about to occur and minutes to days may be allowed to respond dependent upon the proximity to the dam.
- 1.4 **CONDITION B** - Potentially Hazardous Situation is Developing - A situation where failure may develop, but preplanned actions taken during certain events (such as major floods, earthquakes, evidence of piping) may prevent or mitigate failure.
- 1.5 **CIVIL DISTURBANCE** - A group of ten (10) or more people *violently* protesting station operations or activities at the site.
- 1.6 **EXPLOSION** - A rapid, *violent*, unconfined combustion, or a catastrophic failure of pressurized equipment that imparts energy of sufficient force to potentially damage permanent structures, systems, or components. A sudden failure of a pressurized pipe/line could fit this definition. This definition includes MS line rupture and FW line ruptures.
- 1.7 **EXTORTION** - An attempt to cause an action at the station by threat of force.
- 1.8 **FIRE** - Combustion characterized by heat and light. Sources of smoke, such as slipping drive belts or overheated electrical equipment, do NOT constitute *fires*. Observation of flames is preferred but is NOT required if large quantities of smoke and heat are observed.
- 1.9 **GENERAL EMERGENCY** - Events are in process or have occurred which involve actual or imminent substantial core degradation or melting with potential for loss of containment integrity. Releases can be reasonably expected to exceed EPA Protective Action Guidelines exposure levels outside the Exclusion Area Boundary.
- 1.10 **HOSTAGE** - A person or object held as leverage against the station to ensure demands will be met by the station.
- 1.11 **INTRUSION/INTRUDER** - Suspected hostile individual present in a *Protected Area* without authorization.
- 1.12 **INABILITY TO DIRECTLY MONITOR** - Operational Aid Computer data points are unavailable or gauges/panel indications are NOT readily available to the operator.

- 1.13 **LOSS OF POWER** – Emergency Action Levels (EALs) apply to the ability of electrical energy to perform its intended function, reach its intended equipment. Ex. – If both MFBs, are energized but all 4160v switchgear is not available, the electrical energy can not reach the motors intended. The result to the plant is the same as if both MFBs were de-energized.
- 1.14 **PROTECTED AREA** - Encompasses all Owner Controlled Areas within the security perimeter fence.
- 1.15 **REACTOR COOLANT SYSTEM (RCS) LEAKAGE** – RCS Operational Leakage as defined in the Technical Specification Basis B 3.4.13.
- 1.16 **RUPTURED** (As relates to Steam Generator) - Existence of Primary to Secondary leakage of a magnitude sufficient to require or cause a reactor trip and safety injection.
- 1.17 **SABOTAGE** - Deliberate damage, mis-alignment, or mis-operation of plant equipment with the intent to render the equipment unavailable.
- 1.18 **SAFETY-RELATED SYSTEMS AREA** - Any area within the *Protected area* which contains equipment, systems, components, or material, the failure, destruction, or release of which could directly or indirectly endanger the public health and safety by exposure to radiation.
- 1.19 **SIGNIFICANT TRANSIENT** - An *unplanned* event involving one or more of the following:
- (1) Automatic turbine runback > 25% thermal reactor power
 - (2) Electrical load rejection > 25% full electrical load
 - (3) Reactor Trip
 - (4) Safety Injection System Activation
- 1.20 **SITE AREA EMERGENCY** - Events are in process or have occurred which involve actual or likely major failures of plant functions needed for the protection of the public. Any releases are NOT expected to result in exposure levels which exceed EPA Protective Action Guideline exposure levels outside the Exclusion Area Boundary.
- 1.21 **SELECTED LICENSEE COMMITMENT (SLC)** -Chapter 16 of the FSAR
- 1.22 **SITE BOUNDARY** - That area, including the *Protected Area*, in which DPC has the authority to control all activities including exclusion or removal of personnel and property (1 mile radius from the center of Unit 2).
- 1.23 **TOXIC GAS** - A gas that is dangerous to life or health by reason of inhalation or skin contact (e.g.; Chlorine).
- 1.24 **UNCONTROLLED** - Event is not the result of planned actions by the plant staff.

Enclosure 4.10
Definitions/Acronyms

RP/0/B/1000/001
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- 1.25 **UNPLANNED** - An event or action is **UNPLANNED** if it is not the expected result of normal operations, testing, or maintenance. Events that result in corrective or mitigative actions being taken in accordance with abnormal or emergency procedures are **UNPLANNED**.

- 1.26 **UNUSUAL EVENT** - Events are in process or have occurred which indicate a potential degradation of the level of safety of the plant. No releases of radioactive material requiring offsite response or monitoring are expected unless further degradation of safety systems occurs.

- 1.27 **VALID** - An indication or report or condition is considered to be **VALID** when it is conclusively verified by: (1) an instrument channel check; or, (2) indications on related or redundant instrumentation; or, (3) by direct observation by plant personnel such that doubt related to the instrument's operability, the condition's existence, or the report's accuracy is removed. Implicit with this definition is the need for timely assessment.

- 1.28 **VIOLENT** - Force has been used in an attempt to injure site personnel or damage plant property.

- 1.29 **VISIBLE DAMAGE** - Damage to equipment or structure that is readily observable without measurements, testing, or analyses. Damage is sufficient to cause concern regarding the continued operability or reliability of affected safety structure, system, or component. Example damage: deformation due to heat or impact, denting, penetration, rupture,

Enclosure 4.11
Operating Modes Defined In Improved
Technical Specifications

RP/0/B/1000/001

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MODES

MODE	TITLE	REACTIVITY CONDITION (K_{eff})	% RATED THERMAL POWER (a)	AVERAGE REACTOR COOLANT TEMPERATURE (°F)
1	Power Operation	≥ 0.99	> 5	NA
2	Startup	≥ 0.99	≤ 5	NA
3	Hot Standby	< 0.99	NA	≥ 250
4	Hot Shutdown (b)	< 0.99	NA	$250 > T > 200$
5	Cold Shutdown (b)	< 0.99	NA	≤ 200
6	Refueling (c)	NA	NA	NA

(a) Excluding decay heat.

(b) All reactor vessel head closure bolts fully tensioned.

(c) One or more reactor vessel head closure bolts less than fully tensioned.

1. Instructions For Using Enclosure 4.1 – Fission Product Barrier Matrix

- 1.1 If the unit was at Hot S/D or above, (Modes 1, 2, 3, or 4) and one or more fission product barriers have been affected, refer to Enclosure 4.1, (Fission Product Barrier Matrix) and review the criteria listed to determine if the event should be classified.
- 1.1.1 For each Fission Product Barrier, review the associated EALs to determine if there is a Loss or Potential Loss of that barrier. Circle any that apply.

NOTE: An event with multiple events could occur which would result in the conclusion that exceeding the loss or potential loss thresholds is imminent (i.e. within 1-3 hours). In this situation, use judgement and classify as if the thresholds are exceeded.

- 1.2 Three possible outcomes exist for each barrier. No challenge, potential loss, or loss. Use the worst case for each barrier and the classification table at the bottom of the page to determine appropriate classification.
- 1.3 The numbers in parentheses out beside the label for each column can be used to assist in determining the classification. If no EAL is met for a given barrier, that barrier will have 0 points. The points for the columns are as follows:

<u>Barrier</u>	<u>Failure</u>	<u>Points</u>
RCS	Potential Loss	4
	Loss	5
Fuel Clad	Potential Loss	4
	Loss	5
Containment	Potential Loss	1
	Loss	3

- 1.3.1 To determine the classification, add the highest point value for each barrier to determine a total for all barriers. Compare this total point value with the numbers in parentheses beside each classification to see which one applies.
- 1.3.2 Finally as a verification of your decision, look below the Emergency Classification you selected. The loss and/or potential loss EALs selected for each barrier should be described by one of the bullet statements.

Instructions For Using Enclosure 4.1

EXAMPLE: Failure to properly isolate a 'B' MS Line Rupture outside containment, results in extremely severe overcooling.

TSOR entry conditions were satisfied.

Stresses on the 'B' S/G resulted in failure of multiple S/G tubes.

RCS leakage through the S/G exceeds available makeup capacity as indicated by loss of subcooling margin.

Barrier	EAL	Failure	Points
RCS	SGTR > Makeup capacity of one HPI pump in normal makeup mode with letdown isolated	Potential Loss	4
	Entry into TSOR operating range	Potential Loss	4
	RCS leak rate > available makeup capacity as indicated by a loss of subcooling	Loss	5
Fuel Clad	No EALs met and no justification for classification on judgment	No Challenge	0
Containment	Failure of secondary side of SG results in a direct opening to the environment	Loss	3

RCS 5 + Fuel 0 + Containment 3 = Total 8

- A. Even though two Potential Loss EALs and one Loss EAL are met for the RCS barrier, credit is only taken for the worst case (highest point value) EAL, so the points from this barrier equal 5.
- B. No EAL is satisfied for the Fuel Clad Barrier so the points for this barrier equal 0.
- C. One Loss EAL is met for the Containment Barrier so the points for this barrier equal 3.
- D. When the total points are calculated the result is 8, therefore the classification would be a *Site Area Emergency*.
- E. Look in the box below "*Site Area Emergency*". You have identified a loss of two barriers. This agrees with one of the bullet statements. The classification is correct.

PREPARATION

- (2) Station OCONEE NUCLEAR STATION
- (3) Procedure Title Technical Support Center Emergency Coordinator Procedure
- (4) Prepared By Rodney Brown (Signature) Rodney Brown Date 05/08/2000
- (5) Requires 10CFR50.59 evaluation?
☒ Yes (New procedure or revision with major changes)
☐ No (Revision with minor changes)
☐ No (To incorporate previously approved changes)
- (6) Reviewed By Robert Taylor (QR) Date 5/10/2000
Cross-Disciplinary Review By _____ (QR) NA RET Date 5/10/2000
Reactivity Mgmt. Review By _____ (QR) NA _____ Date _____
- (7) Additional Reviews
Reviewed By _____ Date _____
Reviewed By _____ Date _____
- (8) Temporary Approval (if necessary)
By _____ (SRO/QR) Date _____
By _____ (QR) Date _____
- (9) Approved By M. R. Thorne Date 5-30-2000

PERFORMANCE (Compare with control copy every 14 calendar days while work is being performed.)

- (10) Compared with Control Copy _____ Date _____
Compared with Control Copy _____ Date _____
Compared with Control Copy _____ Date _____
- (11) Date(s) Performed _____
Work Order Number (WO#) _____

COMPLETION

- (12) Procedure Completion Verification:
☐ Unit 0 ☐ Unit 1 ☐ Unit 2 ☐ Unit 3 Procedure performed on what unit?
☐ Yes ☐ NA Check lists and/or blanks initialed, signed, dated, or filled in NA, as appropriate?
☐ Yes ☐ NA Listed enclosures attached?
☐ Yes ☐ NA Data sheets attached, completed, dated, and signed?
☐ Yes ☐ NA Charts, graphs, etc. attached, dated, identified, and marked?
☐ Yes ☐ NA Procedure requirements met?
Verified By _____ Date _____
- (13) Procedure Completion Approved _____ Date _____
- (14) Remarks (Attach additional pages, if necessary)

Duke Power Company Oconee Nuclear Station Technical Support Center Emergency Coordinator Procedure Reference Use	Procedure No. RP/0/B/1000/019
	Revision No. 007
	Electronic Reference No. OX002WPG

Technical Support Center Emergency Coordinator Procedure

NOTE: This procedure is an implementing procedure to the Oconee Nuclear Site Emergency Plan and must be forwarded to Emergency Planning within three (3) working days of approval.

1. Symptoms

- 1.1 Conditions exist where events are in progress or have occurred which indicate a potential degradation in the level of safety of the plant and activation of the Emergency Response Organization has been initiated.

2. Immediate Actions

NOTE:

- Enclosure 4.2 contains listing of abbreviations/acronyms.
- Actions in Sections 2.0 and 3.0 **are NOT** required to be followed in any particular sequence.
- Place keeping aids: ☐ at left of steps may be used for procedure place keeping (☒). Major events are required to be documented in the TSC Emergency Coordinator Log.

- ☐ 2.1 Establish the Technical Support Center as operational by doing the following:
- ☐ 2.1.1 Use the attached Enclosure 4.3, (TSC Personnel Log Sheets) for sign-in by all personnel reporting to the TSC. Assign responsibility to the TSC Log Keeper.
 - ☐ 2.1.2 Ensure **Names** are also listed on the TSC Personnel Status Board in the TSC

NOTE: The TSC **must** assume turnover from the Control Room within **75 minutes** of the initiating Emergency Classification time.

- ☐ 2.1.3 Determine the following minimum staff requirements for TSC activation.

	<u>NAME</u>
Emergency Coordinator	_____
Dose Assessment Liaison	_____
Nuclear Engineering	_____
Offsite Communicator	_____
Tech Assistant to EC	_____

- ☐ 2.1.4 Verify that the phone system is operational or make other provisions for communications.
- ☐ 2.1.5 Verify that the OSC is Operational.
- ☐ 2.1.6 Verify that a log of TSC actions and activities has been started.
- ☐ 2.1.7 **IF** Activation of the Alternate TSC is required prior to completion of turnover with the OSM.
THEN **REFER TO** Step 1.0 of Enclosure 4.6, (Alternate TSC/OSC Activation).
- ☐ 2.2 Receive turnover from the Operations Shift Manager using Enclosure 4.1, (Operations Shift Manager To TSC Emergency Coordinator Turnover Sheet)

TSC and OSC Activated Time _____
- ☐ 2.3 Determine the status of Site Accountability from the TSC Offsite Communicator.
 - ☐ 2.3.1 Request the TSC/OSC Liaison to have a **Search & Rescue Team** dispatched from the OSC if personnel within the Protected Area have not been accounted for by their group.
- ☐ 2.4 Verify that the electronic status board is set up and that someone is available to maintain it.
- ☐ 2.5 Discuss any off-site radiological concerns with the TSC Dose Assessment Liaison.
- ☐ 2.6 Announce the following over the TSC/OSC Public Address System:
 - ☐ 2.6.1 The current Emergency Classification level and plant status.
 - ☐ 2.6.2 "Anyone who has consumed alcohol within the past five (5) hours notify either the Emergency Coordinator in the TSC or the OSC Manager in the OSC."
 - ☐ 2.6.3 "Personnel should assume that areas are contaminated until surveyed by RP."
 - ☐ 2.6.4 "No eating, drinking, or smoking until the TSC and OSC are cleared by RP."

- ☐ 2.7 Turn office page over ride switch **ON**, and dial **70** on the Emergency Coordinator's phone.

2.7.1 Announce the following information over the Plant Public Address System:

Drill Message:

Attention all site personnel. This is (name). I am the Emergency Coordinator. This is a drill. This is a drill.

You have been assembled as a part of an emergency exercise. The simulated emergency conditions are _____

If this was a real emergency, you would be asked to remain assembled waiting on further information, or given instructions to leave the site in accordance with our site evacuation plan. At this time, however, we will continue with the emergency exercise and you may now return to your normal work assignments. I repeat.... you may now return to your normal work assignments.

Thank you for your participation.

Emergency Message:

Attention all site personnel. This is (name). I am the Emergency Coordinator. This is an emergency message.

At the present time we have a(n) _____ emergency classification. The plant status is as follows _____.

Please remain at your site assembly location until you receive further instructions. Information will be provided to you as conditions change.

- ☐ 2.8 Contact the State Director Emergency Planning at the SEOC.

	<u>NAME</u>	<u>TELEPHONE NUMBERS</u>
SDEP	_____	<u>1(803) 737-8564</u>
<u>IF</u>	The SEOC has not been activated,	
<u>THEN</u>	Contact the County Directors of Emergency Planning (CDEP) to discuss plant status.	
Oconee CDEP	_____	<u>1(864) 638-4200</u>
Pickens CDEP	_____	<u>1(864) 898-5943</u>

- ☐ 2.9 Perform the following concurrently.
- Use Step 2.10 for emergency classification.
 - Use Step 2.11 for turnover to the EOF Director.
 - Use steps in 3.0 for tasks that must continue regardless of emergency classification.

(Step 2.10 on next page)

- ☐ 2.10 Review emergency classification and verify that it meets the criteria of RP/0/B/1000/001 (Emergency Classification). Discuss changing plant conditions with the Superintendent of Operations. Discuss emergency classification prior to making recommendations.

- ☐ 2.10.1 **IF** An **Unusual Event Classification** exists,
THEN Initiate the following actions:

- ☐ A. Notify counties/state within 15 minutes of event classification.

NOTE:

- Remind the TSC NRC Communicator to complete the NRC Event Notification Worksheet and Plant Status Sheet prior to contacting the NRC.
- NRC should be notified immediately after notification of Offsite Agencies **but NOT** later than **one (1) hour** after declaration of the emergency.

- ☐ B. Notify NRC of event classification

NOTE: Condition B for Keowee Hydro Project Dams/Dikes also requires notification of the Georgia Emergency Management Agency and National weather service. Remind the TSC Offsite Communicator to notify these agencies in addition to and after SC State, Oconee County, and Pickens County.

- ☐ C. **IF** Condition B at Keowee exists,
THEN Notify the Area Hydro Manager (refer to Section 6 of the Emergency Telephone Directory, Keowee Hydro Project Dam/Dike Notification).

- ☐ D. Discuss classification with SDEP and CDEP

	<u>NAME</u>	<u>TELEPHONE NUMBERS</u>
SDEP	_____	<u>1(803) 737-8564</u>
Oconee CDEP	_____	<u>1(864) 638-4200</u>
Pickens CDEP	_____	<u>1(864) 898-5943</u>

(Unusual Event Classification guidance continued on next page)

- ☐ E. **IF** An Unusual Event classification is being terminated
THEN **REFER TO** Enclosure 4.5, (Emergency Classification Termination Criteria) of this procedure for termination guidance.

NOTE: The EP Section shall develop a written report, for signature by Site Vice President, to the State Emergency Preparedness Agency, Oconee County EPD, and Pickens County EPD within 24 working hours of the event termination.

- ☐ 1. Notify Emergency Planning that the Unusual Event has been terminated.
- ☐ 2. Emergency Planning shall hold a critique following termination of the Unusual Event.

(Step 2.10.2, Alert Classification on next page)

- ☐ 2.10.2 **IF** An **Alert Classification** exists,
THEN Initiate the following actions:
- ☐ A. Notify counties/state within 15 minutes of event classification
 - ☐ B. Follow Up Notifications (updates) are required a minimum of every 60 minutes
 - Significant changes in plant status should be communicated to offsite agencies as they occur
 - ☐ C. Notify NRC of change in classification
 - ☐ D. Start ERDS (TSC NRC Communicator - RP/0/B/1000/003A, ERDS Operation)
 - ☐ E. Discuss change in classification with the State Director of Emergency Preparedness (SDEP) and County Directors of Emergency Preparedness (CDEP)

	<u>NAME</u>	<u>TELEPHONE NUMBERS</u>
SDEP	_____	1(803) 737-8564
1. <u>IF</u>	The SEOC has not been activated,	
<u>THEN</u>	Contact the CDEP to discuss plant status.	
Oconee CDEP	_____	1(864) 638-4200
Pickens CDEP	_____	1(864) 898-5943

NOTE: Condition B for Keowee Hydro Project Dams/Dikes also requires notification of the Georgia Emergency Management Agency and National Weather Service. Remind the TSC Offsite Communicator to notify these agencies in addition to and after SC State, Oconee County, and Pickens County. {2}

- ☐ F. **IF** Condition B at Keowee exists,
THEN Notify the Area Hydro Manager (refer to Section 6 of the Emergency Telephone Directory, Keowee Hydro Project Dam/Dike Notification).

(Step 2.10.3, Site Area Emergency Classification on next page)

- ☐ 2.10.3 **IF** A Site Area Emergency Classification exists,
THEN Initiate the following actions:

- ☐ A. Notify counties/state within 15 minutes of event classification
- ☐ B. **IF** Condition A, Dam Failure (Keowee or Jocassee) exists,
THEN Make the following protective action recommendations to Oconee County and Pickens County for imminent/actual dam failure and include on the Emergency Notification Form under Section 15 (B) and (D):
 - 1. Move residents living downstream of the Keowee Hydro Project dams to higher ground.
 - 2. Prohibit traffic flow across bridges identified on your inundation maps until the danger has passed.
- ☐ C. Follow Up Notifications (updates) are required a minimum of every 60 minutes
 - 1. Significant changes in plant status should be communicated to offsite agencies as they occur
- ☐ D. Notify NRC of change in classification
- ☐ E. Start ERDS (TSC NRC Communicator - RP/0/B/1000/003A, ERDS Operation)
- ☐ F. Discuss change in classification with SDEP and CDEP

	<u>NAME</u>	<u>TELEPHONE NUMBERS</u>
SDEP	_____	<u>1(803) 737-8564</u>
1. <u>IF</u>	The SEOC has not been activated,	
<u>THEN</u>	Contact the CDEP to discuss plant status.	
Oconee CDEP	_____	<u>1(864) 638-4200</u>
Pickens CDEP	_____	<u>1(864) 898-5943</u>

- ☐ G. **IF** Condition A, Dam Failure (Keowee or Jocassee) exists,
THEN **REFER TO** Step 3.1.

NOTE: Condition B for Keowee Hydro Project Dams/Dikes also requires notification of the Georgia Emergency Management Agency and National Weather Service. Remind the TSC Offsite Communicator to notify these agencies in addition to and after SC State, Oconee County, and Pickens County. {2}

- ☐ H. **IF** Condition B at Keowee exists,
THEN Notify the Area Hydro Manager (refer to Section 6 of the Emergency Telephone Directory, Keowee Hydro Project Dam/Dike Notification).

(Step 2.10.4, General Emergency Classification, on next page)

2.10.4 **IF** A General Emergency Classification exists,
THEN Initiate the following actions:

- ☐ A. Evacuate 2 mile radius and 5 miles downwind **unless** conditions make evacuation dangerous. Shelter all sectors not evacuated. Request the TSC Dose Assessment Liaison to determine the actual sectors affected.
- ☐ B. **IF** Condition A, Dam Failure (Keowee or Jocassee) exists,
THEN Make the following protective action recommendations to Oconee County and Pickens County for imminent/actual dam failure and include on the Emergency Notification Form under Section 15B and D:
 - 1. Move residents living downstream of the Keowee Hydro Project dams to higher ground.
 - 2. Prohibit traffic flow across bridges identified on your inundation maps until the danger has passed.
- ☐ C. Notify counties/state within 15 minutes of event classification
- ☐ D. Follow Up Notifications (updates) are required a minimum of every 60 minutes
 - 1. Significant changes in plant status should be communicated to offsite agencies as they occur
- ☐ E. Notify NRC of change in classification
- ☐ F. Start ERDS (TSC NRC Communicator - RP/0/B/1000/003A, ERDS Operation)
- ☐ G. Discuss change in classification and Protective Action Recommendations with SDEP and/or CDEP. Provide any known information concerning conditions that would make evacuation dangerous.

	<u>NAME</u>	<u>TELEPHONE NUMBERS</u>
SDEP	_____	<u>1(803) 737-8564</u>

1. **IF** The SEOC has not been activated,
THEN Contact the CDEP to discuss plant status.

Oconee CDEP	_____	<u>1(864) 638-4200</u>
-------------	-------	------------------------

Pickens CDEP	_____	<u>1(864) 898-5943</u>
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- ☐ H. **IF** Condition A, Dam Failure (Keowee or Jocassee) exists,
THEN REFER TO Step 3.1.

NOTE: Condition B for Keowee Hydro Project Dams/Dikes also requires notification of the Georgia Emergency Management Agency and National Weather Service. Remind the TSC Offsite Communicator to notify these agencies in addition to and after SC State, Oconee County, and Pickens County. {2}

- ☐ I. **IF** Condition B at Keowee exists,
THEN Notify the Area Hydro Manager (refer to Section 6 of the Emergency Telephone Directory, Keowee Hydro Project Dam/Dike Notification).

(Step 2.11 on next page)

- ☐ 2.11 When notified by the EOF Director that the Emergency Operations Facility (EOF) is operational, notify the following TSC personnel to exchange information with their counterpart in the EOF.

TSC Dose Assessment Liaison
 TSC Offsite Communicator
 Control Room/EOF Liaison (Operations Network)

NOTE: EOF Director will notify the Emergency Coordinator when the information has been received and establish a time for turnover. Turnover should be initiated **as soon as possible**. A goal of 30minutes should be used to complete turnover after the EOF is declared *Operational*. {1}

- ☐ 2.11.1 Obtain the current copy of the Emergency Notification Form and plant status. The EOF Director shall provide to the Emergency Coordinator the information he has been provided with in the following areas:

- Present Emergency Classification _____ Time _____
 Initial Emergency Classification _____ Time _____
- Initiating Condition/Unit affected
- Present status of affected unit(s), including significant equipment out of service
 Improving _____ Stable _____ Degrading _____
- Status of unaffected unit(s):
 Unit 1 shutdown at _____ or at _____% power
 Unit 2 shutdown at _____ or at _____% power
 Unit 3 shutdown at _____ or at _____% power
- Emergency Releases: NO _____
 Airborne _____ Liquid _____ Is occurring _____ Has occurred _____ Time _____
 Normal Operating Limits: Below _____ Above _____
 Protective Action Recommendations
- Site Evacuation NO _____ YES _____ If yes, location _____
 Time of evacuation _____
- Last Message Number _____ Next Message due at _____

2.11.2 Emergency Coordinator turnover to EOF Director complete.

EOF Activated _____ Time _____

- ☐ 2.11.3 Request NRC Communicator to notify the NRC EOC that the EOF is activated.

3. Subsequent Actions

3.1 **IF** Condition A, Dam Failure (Keowee or Jocassee) exists,
THEN Perform the following actions:

- ☐ 3.1.1 Notify the Duke Power System Coordinator (System Operations Center) and provide information related to the event. Refer to Section 6 of the Emergency Telephone Directory.
- ☐ 3.1.2 Relocate Keowee personnel to the Operational Support Center if events occur where their safety could be affected.
- ☐ 3.1.3 Notify the Duke Power System Coordinator if Keowee personnel are relocated to the OSC.

NOTE: A loss of offsite communications capabilities (Selective Signaling and the WAN) could occur within 1.5 hours after Keowee Hydro Dam failure. Rerouting of the Fiber Optic Network through Bad Creek should be started **AS SOON AS POSSIBLE**.

- ☐ 3.1.4 **IF** The EOF **is NOT** activated,
THEN Notify Telecommunications Group in Charlotte to begin rerouting the Oconee Fiber Optic Network. Refer to Selective Signaling Section of the Emergency Telephone Directory (page 9).
- ☐ 3.1.5 Notify Security to alert personnel at the Security Track/Firing Range and Warehouse #5 to relocate to work areas inside the plant.
- ☐ 3.1.6 Relocate personnel at the following locations to the World of Energy/Operations Training Center:

NOTE: Plant access road to the Oconee Complex could be impassable within 1.5 hours if the Keowee Hydro Dam fails. A loss of the Little River Dam or Dikes A-D will take longer to affect this road.

_____ Oconee Complex

_____ Oconee Garage

_____ Oconee Maintenance Training Facility

☐ 3.1.7 Ensure Operations has dispatched operators to the SSF and established communications.

☐ 3.2 Periodically evaluate with TSC personnel the need to conduct evacuation. Log the status of this action on the TSC Status Board.

NOTE:

- Twenty-four (24) hour staffing **must be** accomplished prior to personnel being evacuated from the site. RP/0/B/1000/010, (Procedure for Emergency Evacuation/Relocation of Site Personnel).
- Determine if personnel with special radiological exposure limits need to be evacuated (e.g.; declared pregnant women, personnel with radio-pharmaceutical limitations).

3.2.1 Consider the following for making Site Evacuation decisions:

- Alert - determined by actual plant conditions
- Site Area Emergency - consider evacuation/relocation of non-essential site personnel. World of Energy personnel should be evacuated at the same time as non-essential personnel.
- General Emergency - evacuate all non-essential personnel. Notify the EOF Director to evacuate the World of Energy.
- Notify the EOF anytime personnel are relocated on site or evacuated from the site.

- ☐ 3.3 Periodically evaluate the need to operate the outside air booster fans (Control Room Pressurization and Filter System - CRVS) with TSC personnel. Log status of this system on the TSC Status Board.

NOTE:

- Outside air booster fans are used to provide positive pressure in the Control Room/TSC/OSC to prevent smoke, toxic gas, or radioactivity from entering the area as required by NUREG 0737, Control Room Habitability.
- Chlorine Monitor Alarm will either stop the outside air booster fans **OR** will not allow them to start.

- ☐ 3.3.1 **IF** Smoke/toxic gas in the Turbine Building or Auxiliary Building is expected to reach the Control Room,
THEN Instruct the Control Room to turn **ON** the outside air booster fans.

Fans On _____ Time _____

- ☐ A. Request OSC to verify operability of the Control Room Ventilation System per AP/1,3/A/1700/018, (Abnormal Release of Radioactivity).

- 3.3.2 **IF** RIA-39 is in **Alarm**
THEN Verify that the Control Room has turned on the outside air booster fans.

- ☐ A. Request OSC to verify operability of the Control Room Ventilation System per AP/1,3/A/1700/018, (Abnormal Release of Radioactivity).

- ☐ B. Request backup air sample from the OSC to verify RIA alarm

- ☐ C. **IF** Air sample determines that RIA-39 alarm is not valid,
THEN Secure outside air booster fans.

- ☐ D. **IF** Air sample determines that RIA-39 alarm is valid,
THEN Isolate the source of airborne contamination to the Control Room/TSC/OSC

- ☐ E. **IF** Dose levels in the Control Room/TSC/OSC are being increased by the addition of outside filtered air,
THEN Secure outside air booster fans.

Fans Off _____ Time _____

- ☐ 3.4 Periodically evaluate the need to activate the Alternate TSC and/or OSC.
 - 3.4.1 **IF** Activation of the Alternate TSC and/or OSC is required,
THEN **REFER TO** Step 2.0 of Enclosure 4.6, (Alternate TSC/OSC Activation).
 - 3.4.2 Notify the EOF Director once relocation to the Alternate TSC is completed.

<p>NOTE: The NRC will send a response team to the site at a Site Area or General Emergency Classification.</p>

- ☐ 3.5 **IF** An NRC team is enroute,
THEN Perform the following steps:
 - ☐ 3.5.1 Notify Alternate Emergency Coordinator to report to the TSC for an update on plant conditions.
 - A. Record Alternate Emergency Coordinator's name on Enclosure 4.4 (NRC Site Team Response Form).
 - B. Brief Alternate Emergency Coordinator on current plant conditions.
 - ☐ 3.5.2 Provide Enclosure 4.4 (NRC Site Team Response Form), to the TSC NRC Communicator.
 - A. Instruct TSC NRC Communicator to complete Steps 1.2 – 1.5 of Enclosure 4.4 (NRC Site Team Response Form).
 - ☐ 3.5.3 Notify OSC Manager and request RP Manager and Security to implement actions required to process NRC Site Team.
- ☐ 3.6 Provide periodic updates to the EOFD concerning plant status. Request the EOFD to provide dose assessment and field monitoring data to the TSC on a periodic basis.
 - 3.6.1 **IF** Failed Fuel Condition Three (3) has been determined,
THEN Immediately notify the EOFD.
 - A. Failed Fuel Condition Three (3) requires additional Protective Action Recommendations.

- ☐ 3.7 Authorize exposure greater than normal operating limits for planned equipment repair missions and/or emergency lifesaving missions.

3.7.1 Approval may be either verbal or written.

3.7.2 This authority may be delegated to the RP Manager in the OSC.

- ☐ 3.8 Update TSC and OSC personnel approximately every 30 minutes on the Emergency Classification and plant status via the TSC/OSC public address system. (Timer is available in the Emergency Procedures Cart)

- ☐ 3.9 Establish twenty-four (24) hour staffing and have the Managers prepare as needed.

3.9.1 TSC Personnel Log Sheets (Enclosure 4.3) are to be used for this purpose.

NOTE: Long term use of the SFP as a makeup source will deplete the SFP inventory. Engineering has evaluated and approved the following method for refilling of the SFP with filtered lake water.

- ☐ 3.10 **IF** Offsite fire apparatus is needed to provide water to the Spent Fuel Pool, Request the EOFD to contact the Oconee CDEP to provide sufficient fire apparatus (at least 3 pumper trucks of 1000 gpm, or greater capacity) to Oconee Nuclear Site (If available, Keowee Ebenezer, Corinth Shiloh, or Keowee Key Rural Volunteer Fire Departments should be requested to provide support).

- ☐ 3.10.1 **THEN** Provide the OSC Manager with the following information and request support from the OSC:

- Fire apparatus is being dispatched from Oconee County to provide water to the Spent Fuel Pool
- Request Security Liaison to have Security Officers meet the fire apparatus at the determined site entrance
- Request Maintenance Manager to initiate MP/0/A/3009/012A (Emergency Plan For Refilling Spent Fuel Pool).

- NOTE:**
- 10CFR50.54(x) allows for reasonable actions that depart from a License Condition or Technical Specification to be performed in an emergency when this action is immediately needed to protect the health and safety of the public and no action consistent with the License Condition or Technical Specification that can provide adequate or equivalent protection is immediately apparent.
 - 10CFR50.54(y) requires approval of any 10CFR50.54(x) actions by a Licensed Senior Operator.
 - Implementation of Oconee Severe Accident Guidelines (OSAG) requires the use of 10CFR50.54 (x) and (y) provisions.

- ☐ 3.11 **IF** Plant conditions require a decision to implement 10CFR50.54(x),
THEN Perform the following steps:
- ☐ 3.11.1 Obtain approval of a Licensed Senior Reactor Operator prior to taking any action.
 - ☐ 3.11.2 Document decision and actions taken in the Reactor Operator Log Book.
 - ☐ 3.11.3 Document decision and actions taken in the TSC Emergency Coordinator Log.

NOTE: NRC **must be** notified of any 10CFR50.54(x) decisions and actions within one (1) hour.

- ☐ 3.11.4 Request TSC NRC Communicator to report decision and actions taken to the NRC.

NOTE: 10CFR50.72 requires NRC notification for specific plant conditions.

- ☐ 3.12 **IF** Plant conditions require NRC notification under 10CFR50.72,
THEN Request the TSC NRC Communicator to provide this notification using the guidance in OMP 1-14, (Notifications).

- 3.13 **IF** A LOCA exists inside containment,
THEN Initiate the following actions:
 - 3.13.1 Request the Operations Superintendent to have Operations personnel refer to OP/1,2,3/A/1102/023, (Operation Of Containment Hydrogen Recombiner System).
 - 3.13.2 Request the Operations Superintendent to have Operations personnel refer to OP/0/A/1104/019 (Control Room Ventilation System).
- 3.14 Establish a Recovery Organization (Section M of the ONS Emergency Plan, Volume A, located in the Operations Shift Manager's office) once the emergency has been terminated.
 - 3.14.1 Request the OSC Manager to review Section M of the Emergency Plan (Volume 17A is located in Unit 3 Control Room) to begin preparation for recovery.
- 3.15 Emergency Planning Section shall be responsible for completing all Procedure Process Records of Emergency Plan Implementing procedures initiated by the TSC.

4. Enclosures

- 4.1 Operations Shift Manager to TSC Emergency Coordinator Turnover Sheet
- 4.2 Emergency Preparedness Acronyms
- 4.3 TSC Personnel Log
- 4.4 NRC Site Team Response Form
- 4.5 Emergency Classification Termination Criteria
- 4.6 Alternate TSC/OSC Activation
- 4.7 References

**Operations Shift Manager To TSC Emergency
Coordinator Turnover Sheet**

EMERGENCY CLASSIFICATION _____ TIME DECLARED _____

DESCRIPTION OF EVENT _____
_____Unit One Status:

Reactor Power _____ RCS Pressure _____ RCS Temperature _____

Auxiliaries Being Supplied Power From _____ ES Channels Actuated _____

MAJOR EQUIPMENT OUT OF SERVICE _____
_____JOBS IN PROGRESS _____
_____Unit Two Status:

Reactor Power _____ RCS Pressure _____ RCS Temperature _____

Auxiliaries Being Supplied Power From _____ ES Channels Actuated _____

MAJOR EQUIPMENT OUT OF SERVICE _____
_____JOBS IN PROGRESS _____
_____Unit Three Status:

Reactor Power _____ RCS Pressure _____ RCS Temperature _____

Auxiliaries Being Supplied Power From _____ ES Channels Actuated _____

MAJOR EQUIPMENT OUT OF SERVICE _____
_____JOBS IN PROGRESS _____

Enclosure 4.1
Operations Shift Manager To TSC Emergency
Coordinator Turnover Sheet

RP/0/B/1000/019
Page 2 of 2

Classification Procedure in Use:

RP/0/B/1000/002 Control Room Emergency Coordinator Procedure

Is RP/0/B/1000/003A, ERDS Operation, in use? Yes _____ No _____ If Yes, Unit No. _____
Step No. _____

Is RP/0/B/1000/007, (Security), in use? Yes _____ No _____ If Yes, Step No. _____

Is RP/0/B/1000/016, (Medical), in use? Yes _____ No _____ If Yes, Step No. _____

Is RP/0/B/1000/017, (Spill Response), in use? Yes _____ No _____ If Yes, Step No. _____

Is RP/0/B/1000/022, (Fire/Flood), in use? Yes _____ No _____ If Yes, Step No. _____

IF Condition A, Dam Failure, has been declared for Keowee Hydro Project,
THEN provide the following information to the TSC Emergency Coordinator:

- Status of Offsite Agency Notifications _____
- Recommendations made to offsite agencies _____
- Status of relocation of site personnel _____

What is the status of Site Assembly? (This question is only applicable for those times that the Emergency Response Organization is activated after hours, holidays, or weekends.)

Next message due to Offsite Agencies at Time: _____

Operations Shift Manager/CR _____ Time: _____

Emergency Coordinator/TSC _____ Time: _____

Emergency Preparedness Acronyms

CDEP	County Director of Emergency Preparedness
EC	Emergency Coordinator
EOF	Emergency Operations Facility
EOFD	Emergency Operation, Facility Director
FTS2000	NRC Emergency Telephone Communications System
LEC	Law Enforcement Center
NRC EOC	Nuclear Regulatory Commission Emergency Operations Center
OSC	Operational Support Center
PAR	Protective Action Recommendation
SCC	State/County Communicator
SDEP	State Director of Emergency Preparedness
SEOC	State Emergency Operations Center
SWP	State Warning Point
TSC	Technical Support Center

Enclosure
TSC Personnel Log

RP/0/B/1000/019
Page 1 of 2

DATE: _____

PRIMARY					RELIEF		
POSITION	NAME (Last, First, MI)	SOCIAL SECURITY EMPLOYEE ID	TIME IN AT TSC	SHIFT SCHEDULE	NAME (Last, First, MI)	SOCIAL SECURITY EMPLOYEE ID	SHIFT SCHEDULE
Emergency Coordinator**							
Offsite Communicator**							
Dose Assessment Liaison*							
Nuclear Engineering**							
Tech Assist to EC (Mech Engineer)**							
Operations Superintendent							
TSC/OSC Liaison							

*45 Minute Responder
** 75 Minute Responder

Enclosure
TSC Personnel Log

RP/0/B/1000/019
Page 2 of 2

PRIMARY					RELIEF		
POSITION	NAME (Last, First, MI)	SOCIAL SECURITY EMPLOYEE ID	TIME IN AT TSC	SHIFT SCHEDULE	NAME (Last, First, MI)	SOCIAL SECURITY EMPLOYEE ID	SHIFT SCHEDULE
TSC/OSC Liaison Support							
Engineering Manager							
NRC Communicator (ENS)							
Dose Assessors							
Emergency Planning							
Community Relations (WOE)							
Local I/T							

Enclosure 4.4
NRC Site Team Response Form

RP/0/B/1000/019
Page 1 of 1

1. NRC Site Team Response Form

1.1 Alternate Emergency Coordinator _____
(name)

1.2 NRC Site Team Personnel Information:

NAME	SOCIAL SECURITY NUMBER
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

1.3 Estimated Time of Arrival (ETA): _____

1.4 Mode of Transportation: _____

Access Gate (Circle One): Hwy 130 - Main Station/WOE Entrance (Gate 1)

Hwy 183 - Intake Owner Controlled Area (OCA) Gate (Gate 3)

Hwy 183 - Complex/Branch OCA Gate (Gate 4)

1.5 Telecopy this form to the OSC and Security using Speed Dial Code 031 or One-Touch Dial Code 31.

1.6 GET and BBA Requirements Waived:

RP Manager _____ Date _____

Enclosure 4.5
Emergency Classification Termination
Criteria

RP/0/B/1000/019

Page 1 of 1

IF The following guidelines applicable to the present emergency condition have been met or addressed,

THEN An emergency condition may be considered resolved when:

- ☐ 1.1 Existing conditions no longer meet the existing emergency classification criteria and it appears unlikely that conditions will deteriorate further.
- ☐ 1.2 Radiation levels in affected in-plant areas are stable or decreasing to below acceptable levels.
- ☐ 1.3 Releases of radioactive material to the environment greater than Technical Specifications are under control or have ceased.
- ☐ 1.4 The potential for an uncontrolled release of radioactive material is at an acceptably low level.
- ☐ 1.5 Containment pressure is within Technical Specification requirements.
- ☐ 1.6 Long-term core cooling is available.
- ☐ 1.7 The shutdown margin for the core has been verified.
- ☐ 1.8 A fire, flood, earthquake, or similar emergency condition is controlled or has ceased.
- ☐ 1.9 Offsite power is available per Technical Specification requirements.
- ☐ 1.10 All emergency action level notifications have been completed.
- ☐ 1.11 The Area Hydro Manager has been notified of termination of Condition B for Keowee Hydro Project.
- ☐ 1.12 The Regulatory Compliance Section has evaluated plant status with respect to Technical Specifications and recommends Emergency Classification termination.

Date/Initial/Time

- ☐ 1.13 Emergency terminated. Request the TSC Offsite Communicator to complete an Emergency Notification Form for a Termination Message using guidance in RP/0/B/1000/015B, (Offsite Communications From The Technical Support Center), and provide information to offsite agencies.
 - Return to Step 2.10.1.E.1

1. Activation of the Alternate TSC prior to completion of turnover with the OSM

- ☐ 1.1 Request OSC Manager/SPOC Supervisor to initiate steps to setup the Alternate TSC located in RP/0/B/1000/25 (OSC Manager Procedure).
- ☐ 1.2 Request TSC Logkeeper (or designee) to announce over the plant PA that the Alternate TSC is being activated.
- ☐ 1.3 Relocate TSC personnel, except for the following, to the Alternate TSC, Room 316 of the Oconee Office Building:
 - ☐ 1.3.1 TSC Offsite Communicator (1)
 - ☐ 1.3.2 TSC Logkeeper
 - ☐ 1.3.3 Emergency Planning (if available)
- ☐ 1.4 Return to Step 2.2 of this procedure and complete turnover with the OSM.
 - ☐ 1.4.1 Report to the Alternate TSC with remaining support personnel after completion of turnover.

Enclosure 4.6
Alternate TSC/OSC Activation

RP/0/B/1000/019
Page 2 of 2

2. Activation of the Alternate TSC/OSC

- ☐ 2.1 Direct the TSC/OSC Liaison to inform the OSC Manager of the need to relocate the following emergency response facilities:
- _____ TSC
- _____ OSC
- _____ TSC and OSC
- ☐ 2.2 Provide guidance on best available route to personnel being relocated to the Alternate TSC.
- 2.2.1 **IF** A radiological release is in progress,
THEN Direct the TSC/OSC Liaison to request RP to determine the best available route to the Alternate TSC.
- ☐ 2.3 Direct the following TSC personnel to report to the Alternate TSC to assist with setup of the facility and establish communications with the TSC:
- _____ (1) TSC Offsite Communicator
- _____ (1) Dose Assessor
- _____ Ops Superintendent Assistant
- _____ TSC/OSC Liaison Technical Assistant
- ☐ 2.4 Direct the TSC NRC Communicator to inform the NRC that the Alternate TSC is being activated.
- ☐ 2.5 Direct the remaining TSC personnel to report to the Alternate TSC.
- ☐ 2.6 Inform the EOF Director that the Alternate TSC is being activated and that TSC personnel, including the Emergency Coordinator, are enroute to that facility.
- ☐ 2.7 Return to Step 3.4.2 of this procedure after reporting to the Alternate TSC.

Enclosure 4.7

References

RP/0/B/1000/019

Page 1 of 1

1. PIP O-98-04996
2. PIP O-99-00743

INFORMATION ONLY

Duke Power Company
PROCEDURE PROCESS RECORD

(1) ID No RP/0/B/1000/020Revision No 004**PREPARATION**(2) Station OCONEE NUCLEAR STATION(3) Procedure Title Emergency Operations Facility Director Procedure(4) Prepared By Rodney Brown (Signature) *Rodney Brown* Date 05/16/2000

(5) Requires 10CFR50.59 evaluation?

☒ Yes (New procedure or revision with major changes)☐ No (Revision with minor changes)☐ No (To incorporate previously approved changes)(6) Reviewed By *Robert Taylor* (QR) Date 5/30/2000Cross-Disciplinary Review By RET (QR)NA RET Date 5/30/2000Reactivity Mgmt. Review By RET (QR)NA RET Date 5/30/2000

(7) Additional Reviews

Reviewed By _____ Date _____

Reviewed By _____ Date _____

Temporary Approval (if necessary)

By _____ (SRO/QR) Date _____

By _____ (QR) Date _____

(9) Approved By *M. R. Thorne* Date 5-31-2000**PERFORMANCE** (Compare with control copy every 14 calendar days while work is being performed.)

(10) Compared with Control Copy _____ Date _____

Compared with Control Copy _____ Date _____

Compared with Control Copy _____ Date _____

(11) Date(s) Performed _____

Work Order Number (WO#) _____

COMPLETION

(12) Procedure Completion Verification:

☐ Unit 0 ☐ Unit 1 ☐ Unit 2 ☐ Unit 3 Procedure performed on what unit?☐ Yes ☐ NA Check lists and/or blanks initialed, signed, dated, or filled in NA, as appropriate?☐ Yes ☐ NA Listed enclosures attached?☐ Yes ☐ NA Data sheets attached, completed, dated, and signed?☐ Yes ☐ NA Charts, graphs, etc. attached, dated, identified, and marked?☐ Yes ☐ NA Procedure requirements met?

Verified By _____ Date _____

(13) Procedure Completion Approved _____ Date _____

(14) Remarks (Attach additional pages, if necessary)

Duke Power Company Oconee Nuclear Site Emergency Operations Facility Director Procedure Reference Use	Procedure No. RP/0/B/1000/020
	Revision No. 004
	Electronic Reference No. OX002WPH

Emergency Operations Facility Director Procedure

NOTE: This procedure is an implementing procedure to the Oconee Nuclear Site Emergency Plan and must be forwarded to Emergency Planning within three (3) working days of approval.

1. Symptoms

- 1.1 Conditions exist where events are in progress or have occurred which indicate a potential degradation of the level of safety of the plant and activation of the Emergency Response Organization has been initiated.

2. Immediate Actions

- NOTE:**
- Place Keeping Aids: ☐ at left of steps may be used for procedure place keeping (☒). Major events are required to be documented in the EOF Director's log.
 - The EOF must be operational within **75 minutes** of an **Alert** or higher classification. Turnover may or may not have occurred. Turnover should occur with the TSC at a time that will not decrease the effectiveness of communications with the offsite agencies.
 - Enclosure 3.4, (Emergency Preparedness Acronyms) contains a list of abbreviations.

- ☐ 2.1 Sign in on the EOF Personnel Status Board.
- ☐ 2.2 Initiate a log of major activities and decisions.
- ☐ 2.3 Assure EOFD PA system has been turned on in the telephone room.
- ☐ 2.4 Turn switch to "ALL CALL" for announcements to all rooms.
 - 2.4.1 Select individual room if only one room is to receive announcement.
- ☐ 2.5 Notify the Emergency Coordinator in the TSC of arrival and establish an open phone line. Dial 66-3921 **OR** 66-3704 on the 624-4350 line (Reference: Emergency Telephone Directory, page 14). {5}
- ☐ 2.6 Assure access control has been established.
- ☐ 2.7 Make EOF announcement concerning fitness-for-duty.

"Any one who has consumed alcohol within the past five (5) hours, notify either the EOF Director or the appropriate EOF Manager."

- ☐ 2.8 Declare the EOF operational when the following positions are filled, and they have contacted their counterpart in the TSC.

2.8.1 Ensure that the following names are listed on the EOF Personnel Status Board.

NAME

EOF Director _____

Offsite Communications Manager _____

State/County Communicator _____

Radiological Assessment Manager _____

Operations Interface Manager _____

Access Control Security Guard _____

- ☐ 2.8.2 EOF Operational Time: _____ {3}

- ☐ 2.9 Contact the Emergency Coordinator at the TSC and inform him that the EOF is operational and will commence gathering plant status information.

NOTE: The following individuals will exchange information. Three separate enclosures will be provided to the EOF Director. These enclosures are a part of RP/0/B/1000/021, (Operations Interface (EOF)), RP/0/B/1000/015C, (Offsite Communications From The Emergency Operations Facility) and RP Manual Section 11.3, (Off-Site Dose Assessment And Data Evaluation)

TSC

EOF

Dose Assessment Liaison

Radiological Assessment Manager

Offsite Communicator

State/County Communicator

EOF Liaison

Operations Interface Manager

- NOTE:**
- EOF Managers will inform the EOFD when information is received.
 - Turnover with the TSC should be initiated **As Soon As Possible**. A goal of **30 minutes** should be used to complete turnover after the EOF is declared *Operational*.

{1}

- ☐ 2.10 Contact Emergency Coordinator to conduct turnover using the information prepared by the EOF Managers.

Present emergency classification _____ Time _____

Initial emergency classification _____ Time _____

Initiating Condition/Unit affected:

Present status of affected unit(s), including significant pieces of equipment out of service.

Improving _____ Stable _____ Degrading _____

Status of unaffected unit(s):

Unit 1 shutdown at _____ or at _____ %power.

Unit 2 shutdown at _____ or at _____ %power.

Unit 3 shutdown at _____ or at _____ %power.

Emergency Releases: NO _____ YES _____

Airborne _____ Liquid _____ Is occurring _____ Has occurred _____ Time _____

Normal operating limits: Below _____ Above _____

Protective Action Recommendations:

Site Evacuation NO _____ YES _____ If yes, where _____

Time of evacuation _____

Last message number _____ Next message due at _____.

- ☐ 2.10.1 Request Emergency Coordinator to provide periodic updates to the EOFD concerning plant status.
- ☐ 2.10.2 Inform the Emergency Coordinator that the EOFD will provide dose assessment and field monitoring data on a periodic basis.
- ☐ 2.10.3 Record EOF Activation Time: _____

NOTE: TSC remains responsible for all Offsite Notifications required by Title III (Hazardous Materials Spills).

- ☐ 2.11 Announce to all EOF personnel that the EOF is activated. Provide time of activation and name of EOF Director.

NOTE: For all drills, precede messages with "This is a drill."

Example message:

"May I have your attention please. The EOF is activated as of (time) hours. This is (Name). I am the EOF Director and have taken responsibility for emergency management from the Emergency Coordinator in the Technical Support Center.

The plant status is....."

- ☐ 2.12 Determine that the EOF Managers understand they are responsible for each of the following actions:

NAME

EOF Director

- ◆ Emergency Classification
- ◆ Protective Action Recommendations
- ◆ Approval of news releases.

NOTE: News releases may be approved by Public Spokesperson if the news releases only contain information already approved by the EOFD on the notification form.

Offsite Communications Manager

- ◆ Notification to offsite agencies.
- ◆ Contact for offsite agency support (i.e.; medical, fire, law enforcement)

Operations Interface Manager

- ◆ Emergency classification recommendation
- ◆ Plant status

Step 2.12 Continued to the next page.

Radiological Assessment Manager _____

- ◆ Dose Calculations
- ◆ Field Monitoring
- ◆ HPN Communication
- ◆ TSC radio to the EOF operational

NOTE: The following two managers do not have to be in place in a required time frame. Sign off Step 2.12 when the first four managers are identified. Continuation to Step 2.13 should commence while completing this step.

News Director _____

- ◆ Interface with news media.
- ◆ Update of company officers.
- ◆ Update Industry groups. This includes INPO.
- ◆ Provide technical briefers to the SC Emergency Operations Center (SEOC), Pickens Emergency Operations Center (PEOC) and Oconee Emergency Operations Center (OEOC), and the Joint Information Center (JIC). (Note: JIC is in the EOF).

Commodities & Facilities Manager _____

- ◆ Update of Duke Power Insurance Department
- ◆ Access Control
- ◆ Responsible for any actions relating to Security
- ◆ Facility equipment repair
- ◆ Assure 24 hr. Staffing for EOF positions

- ☐ 2.13 Notify SEPD and Oconee and Pickens CEPD that the EOF has assumed turnover from the TSC. This duty may be assigned to the following positions:

- ◆ EOF Logkeeper
- ◆ Emergency Planning Manager

2.13.1 Contact SEPD after each message is transmitted to provide additional information/follow-up.

- ☐ 2.14 Verify with the News Director that the Senior Vice president, Nuclear Generation, has been notified of the emergency status.
- ☐ 2.15 Make an announcement over the EOF PA system requesting persons who are medical first responders or EMT's to register that information with the C&F Manager.
- ☐ 2.16 EOF Director may approve entry of personnel to the Emergency Operations Facility if the individual's training is not current. Each case would be decided on its own merits. Document decision in the EOF Director's log.

- ☐ 2.17 Hold round-table discussions with EOF managers every hour. (Secure timer from procedures cart.)
- ☐ 2.18 Keep EOF personnel updated on changing plant conditions after each round-table discussion. This duty may be assigned to the EOF Logkeeper.
- ☐ 2.19 **REFER TO** Enclosure 3.1, (Emergency Classification Tracking Sheet).

3. Enclosures

- 3.1 Emergency Classification Tracking Sheet
- 3.2 Emergency Classification Termination/Reduction Flowchart
- 3.3 Recovery Guidelines
- 3.4 Emergency Preparedness Acronyms
- 3.5 References

Enclosure 3.1
Emergency Classification Tracking Sheet

RP/0/B/1000/020
Page 1 of 16

1. Emergency Classification Tracking

Review emergency classification and verify it meets the criteria of RP/0/B/1000/001, (Emergency Classification). Discuss changing plant conditions with Emergency Coordinator. Discuss classification prior to making recommendation.

- ☐ 1.1 **IF** A General Emergency is/or should be classified,
 THEN **GO TO** Step 4.0 of this Enclosure, (Enclosure 3.1, Emergency Classification Tracking Sheet).
- ☐ 1.2 **IF** A Site Area Emergency is/or should be classified,
 THEN **GO TO** Step 3.0 of this Enclosure, (Enclosure 3.1, Emergency Classification Tracking Sheet).
- ☐ 1.3 **IF** An Alert is/or should be classified,
 THEN **GO TO** Step 2.0 of this Enclosure, (Enclosure 3.1, Emergency Classification Tracking Sheet).

2. Alert

NOTE: If Steps 2.1 and 2.2 are verified to have been completed by the Emergency Coordinator then they may be marked COMPLETE on this procedure.

- ☐ 2.1 Discuss need to change classification with the Emergency Coordinator. Determine the following:
 - ◆ Have any medical emergencies occurred? Status? Transported offsite? Where?

NOTE: World Of Energy personnel **must be** evacuated if non-essential site personnel are evacuated.

- ◆ Status of non-essential personnel evacuation
- ◆ Have any chemical spills occurred? If yes, what?
- ◆ Has fire brigade responded to any fires? Has offsite fire department responded?
- ◆ Has a Condition B been determined for a Keowee Hydro Project Dam/Dike? {2}
- ☐ 2.2 Declare an Alert. Notify Offsite Communications Manager to complete an Emergency Notification Form in accordance with RP/0/B/1000/015C, (Offsite Communications From the Emergency Operations Facility), get it approved, and fax to the offsite agencies. (The Alert is officially declared when the Emergency Action Levels for the initiating condition have been exceeded.)
 - 2.2.1 Time of declaration: _____

Enclosure 3.1
Emergency Classification Tracking Sheet

RP/0/B/1000/020
Page 2 of 16

NOTE:

- Message form transmission must begin within **15 minutes** of declaration.
- Condition B for Keowee Hydro Project Dams/Dikes also requires notification of the Georgia Emergency Management Agency and National Weather Service. Remind the EOF Communications Manager to notify these agencies in addition to and after SC State, Oconee County, and Pickens County. {2}

- ☐ 2.3 When the message form is completed and the form has been sent, contact the SEPD at the SEOC. This is in addition to contact by the State/County Communicator.

	<u>NAME</u>	<u>Telephone Numbers</u>
SEPD	_____	<u>8-1(803)737-8564</u>

- ☐ 2.3.1 **IF** the SEOC has **NOT** been activated,
THEN Contact the County Emergency Preparedness Directors (CEPD) to discuss plant status.

Oconee CEPD _____		<u>8-1(864)638-4200</u>
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Pickens CEPD _____		<u>8-1(864)898-5943</u>
--------------------	--	-------------------------

- ☐ 2.3.2 **IF** Condition B at Keowee exists,
THEN Notify the Area Hydro Manager (Refer to Section 6 of the Emergency Telephone Directory, Keowee Hydro Project Dam/Dike Notification). {2}

- ☐ 2.4 Notify Emergency Coordinator of change in classification. Request Emergency Coordinator to notify the NRC EOC regarding current emergency classification.

NOTE: Announcements should be made approximately every **30 minutes**. Provide current plant status also.

- ☐ 2.5 Announce the emergency class and the time of classification to EOF personnel.

NOTE: C&F will manage the staffing sheets and route to the EOF Director.

- ☐ 2.6 Evaluate the need for 24-hour staffing and instruct managers to prepare for it if needed. Telephone numbers and staffing sheets are located in the procedures cart.

Emergency Classification Tracking Sheet

- ☐ 2.7 Review emergency classification to determine if it is current and meets the criteria of RP/0/B/1000/001, (Emergency Classification).
 - ☐ 2.7.1 **IF** the emergency classification remains as an Alert,
THEN have the Offsite Communications Manager continue updating the state and counties by message form every **60 minutes**.
 - ☐ 2.7.2 Keep EOF personnel informed concerning plant conditions.
 - ☐ 2.7.3 Keep EC aware of offsite conditions.
 - ☐ 2.7.4 Log actions in the EOF Director's log.
 - ☐ 2.7.5 Remain in this step until plant conditions dictate a change in emergency classification.
- ☐ 2.8 **IF** A Site Area Emergency is determined,
THEN **GO TO** Step 3.0 of this Enclosure, (Enclosure 3.1, Emergency Classification Tracking Sheet).
- ☐ 2.9 **IF** A General Emergency is determined,
THEN **GO TO** Step 4.0 of this Enclosure, (Enclosure 3.1, Emergency Classification Tracking Sheet).
- ☐ 2.10 **IF** The termination criteria of Enclosure 3.2, (Emergency Classification Termination Criteria) has been met,
THEN **GO TO** Step 5.0 of this Enclosure, (Enclosure 3.1, Emergency Classification Tracking Sheet).

Enclosure 3.1
Emergency Classification Tracking Sheet

RP/0/B/1000/020
Page 4 of 16

3. Site Area Emergency

NOTE: If Steps 3.1 and 3.2 are verified to have been completed by the Emergency Coordinator then they may be marked COMPLETE on this procedure.

- ☐ 3.1 Discuss need to change classifications with the Emergency Coordinator. Determine the following:

◆ Have any medical emergencies occurred? Status? Transported offsite? Where?

NOTE: World Of Energy personnel **must be** evacuated if non-essential site personnel are evacuated.

- ◆ Status of non-essential personnel evacuation?
- ◆ Have any chemical spills occurred? If yes, what?
- ◆ Has fire brigade responded to any fires? Have offsite fire department responded?
- ◆ Has dam failure for Keowee or Jocassee occurred? Actions taken?
- ◆ Has a Condition B been determined for a Keowee Hydro Project Dam/Dike? {2}

- ☐ 3.2 Declare a Site Area Emergency. Notify Offsite Communications Manager to complete an Emergency Notification Form in accordance with RP/0/B/1000/015C, (Offsite Communications From the Emergency Operations Facility), get it approved, and fax to the offsite agencies. (The Site Area Emergency is officially declared when the Emergency Action Levels for the initiating condition have been exceeded.)

3.2.1 Time of declaration: _____

Enclosure 3.1
Emergency Classification Tracking Sheet

RP/0/B/1000/020
Page 5 of 16

NOTE:

- Message form transmission must begin within **15 minutes** of declaration.
- Condition B for Keowee Hydro Project Dams/Dikes also requires notification of the Georgia Emergency Management Agency and National Weather Service. Remind the EOF Communications Manager to notify these agencies in addition to and after SC State, Oconee County, and Pickens County. {2}

- ☐ 3.3 **IF** Condition A, Dam Failure (Keowee or Jocassee) exists,
 THEN Make the following protective action recommendations to Oconee County and Pickens County for imminent/actual dam failure **AND** include on the Emergency Notification Form under Section 15 (B) and (D):

- ◆ Move residents living downstream of the Keowee Hydro Project dams to higher ground.
- ◆ Prohibit traffic flow across bridges identified on your inundation maps until the danger has passed

- ☐ 3.4 When message form has been sent, contact SEPD. This is in addition to contact by the State/County Communicator.

	<u>NAME</u>	<u>Telephone Numbers</u>
SEPD	_____	<u>8-1(803)737-8564</u>

- ☐ 3.4.1 **IF** the SEOC has **NOT** been activated,
 THEN Contact the County Emergency Preparedness Directors (CEPD) to discuss plant status.

Oconee CEPD	_____	<u>8-1(864)638-4200</u>
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Pickens CEPD	_____	<u>8-1(864)898-5943</u>
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- ☐ 3.4.2 **IF** Condition B at Keowee exists,
 THEN Notify the Area Hydro Manager (Refer to Section 6 of the Emergency Telephone Directory, Keowee Hydro Project Dam/Dike Notification). {2}

- ☐ 3.5 Notify Emergency Coordinator of change in classification. Request Emergency Coordinator to notify the NRC EOC regarding current emergency classification.

NOTE: Announcements should be made approximately every **30 minutes**. Provide current plant status also.

- ☐ 3.6 Announce the emergency class **AND** the time of classification to EOF personnel.

Emergency Classification Tracking Sheet

- ☐ 3.7 **IF** Fire apparatus is needed to provide water to the spent fuel pool,
THEN Contact the Oconee CEPD to provide sufficient fire apparatus (at least three pumper trucks of 1000 gpm, or greater, capacity) to Oconee Nuclear Site (If available, Keowee Ebenezer, Corinth Shiloh and Keowee Key Rural Volunteer Fire Departments should be requested to provide support). Provide instructions concerning entry to the site.

NOTE: A loss of offsite communications capabilities (Selective Signaling and the WAN) could occur within **1.5 hours** after Keowee Hydro dam failure. Rerouting of the Fiber Optic Network through Bad Creek should be stated **AS SOON AS POSSIBLE**.

- ☐ 3.8 **IF** A Condition A, Keowee Dam failure, exists,
THEN Request Commodities & Facilities to notify Telecommunications Group in Charlotte to begin rerouting the Oconee Fiber Optic Network. Refer them to Selective Signaling Section of the Emergency Telephone Directory (page 9).
- ☐ 3.9 Request Radiological Assessment Manager to provide information regarding potential sectors that would be affected should emergency be upgraded to a General Emergency.

NOTE: C&F will manager the staffing sheets and route to the EOF Director.

- ☐ 3.10 Evaluate the need for 24-hour staffing and instruct managers to prepare for it if needed. Telephone numbers and staffing sheets are available in the emergency procedures cart.
- ☐ 3.11 Review emergency classification to determine if it is current and meets the criteria of RP/0/B/1000/001, (Emergency Classification).
- ☐ 3.11.1 **IF** the emergency classification remains as a Site Area Emergency,
THEN have the Offsite Communications Manager continue updating the counties by message form every **60 minutes**.
- ☐ 3.11.2 Keep EOF personnel informed concerning plant conditions.
- ☐ 3.11.3 Keep EC aware of offsite conditions.
- ☐ 3.11.4 Log actions in the EOF Director's log.
- ☐ 3.11.5 Remain in this step until plant conditions dictate a change in emergency classification.
- ☐ 3.12 **IF** A General Emergency is determined,
THEN **GO TO** Step 4.0 of this enclosure, (Enclosure 3.1, Emergency Classification Tracking Sheet).

Emergency Classification Tracking Sheet

- ☐ 3.13 **IF** the termination criteria of Enclosure 3.2, (Emergency Classification Termination Criteria) has been met,
THEN **GO TO** Step 5.0 of this enclosure, (Enclosure 3.1, Emergency Classification Tracking Sheet).
- ☐ 3.14 **IF** the reduction criteria of Enclosure 3.2, (Emergency Classification Termination Criteria) has been met,
THEN **REFER TO** Step 3.17.
- ☐ 3.15 Notify Offsite Communications Manager to complete a message form in accordance with RP/0/B/1000/015C, (Offsite Communications From The Emergency Operations Facility), get it approved, and send it to the offsite agencies.
- ☐ 3.16 When message form has been sent, contact SEPD to discuss emergency classification reduction. This is in addition to contact by the State/County Communicator.

NAMETelephone Numbers

SEPD _____

8-1(803)737-8564

- 3.16.1 **IF** the SEOC has **NOT** been activated,
THEN Contact the County Emergency Preparedness Directors (CEPD) to discuss plant status.

Oconee CEPD _____

8-1(864)638-4200

Pickens CEPD _____

8-1(864)898-5943

- ☐ 3.17 Consider the present working copy procedure as being completed since the classification is reduced to an Alert. Obtain a new working copy of RP/0/B/1000/020, (Emergency Operations Facility Director Procedure) from the Procedures Cart and GOTO Enclosure 3.1, (Emergency Classification Tracking Sheet) Step 2.1.

Enclosure 3.1
Emergency Classification Tracking Sheet

RP/0/B/1000/020
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4. General Emergency

NOTE: If Steps 4.1 **AND** 4.2 are verified to have been completed by the Emergency Coordinator then they may be marked COMPLETE on this procedure.

- ☐ 4.1 Discuss changing plant conditions **AND** emergency classification with Emergency Coordinator prior to making recommendation. Determine the following:

◆ Have any medical emergencies occurred? Status? Transported offsite? Where?

NOTE: World Of Energy personnel **must be** evacuated if non-essential site personnel are evacuated.

- ◆ Status of non-essential personnel evacuation?
- ◆ Have any chemical spills occurred? If yes, what?
- ◆ Has fire brigade responded to any fires? Have offsite fire departments responded?
- ◆ Has dam failure at Keowee or Jocassee occurred? Actions taken?
- ◆ Has a Condition B been determined for a Keowee Hydro Project Dam/Dike? {2}

NOTE:

- The General Emergency is officially declared at this time.
- Protective Action recommendations are the sole responsibility of the EOF Director. Use input from other managers. Continually review plant status for change in Protective Action Recommendations. Review the requirements of RP/0/B/1000/024, (Protective Action Recommendations).

- ☐ 4.2 Declare a General Emergency. Initial protective action recommendation is to evacuate 2 mile radius and 5 miles downwind.

4.2.1 Time of Declaration: _____

Enclosure 3.1
Emergency Classification Tracking Sheet

RP/0/B/1000/020
Page 9 of 16

- NOTE:**
- Message form transmission must begin within **15 minutes** of declaration.
 - Condition B for Keowee Hydro Project Dams/Dikes also requires notification of the Georgia Emergency Management Agency and National Weather Service. Remind the EOF Communications Manager to notify these agencies in addition to and after SC State, Oconee County, and Pickens County. {2}

- ☐ 4.2.2 Notify Offsite Communications Manager to begin completing a message form in accordance with RP/0/B/1000/015C, (Offsite Communications From The Emergency Operations Facility).
- A. Request Radiological Assessment Manager to determine the exact sectors to be evacuated and sheltered using HP/0/B/1009/018, (Offsite Dose Projections).
- B. Provide the following protective action recommendations for use by the offsite communicator to complete the emergency notification form.

	PICKENS COUNTY							OCONEE COUNTY						
	A0	A1	B1	C1	A2	B2	C2	A0	D1	E1	F1	D2	E2	F2
EVACUATE														
SHELTER														

- C. **IF** Condition A, Dam Failure (Keowee or Jocassee) exists,
THEN Make the following protective action recommendations to Oconee County and Pickens County for imminent/actual dam failure and include on the Emergency Notification Form under Section 15 (B) and (D):
- ◆ Move residents living downstream of the Keowee Hydro Project dams to higher ground.
 - ◆ Prohibit traffic flow across bridges identified on your inundation maps until the danger has passed.

Emergency Classification Tracking Sheet

- ☐ 4.3 When message form is completed and the form has been sent, contact SEPD. This is in addition to contact by the State/County Communicator.

Protective Action Recommendation: Read from the approved emergency notification form the protective action recommendations. Provide any known information concerning conditions that would make evacuation dangerous.

- ☐ 4.3.1 **IF** the State Emergency Operations Center has been activated,
THEN contact the SEPD.

NAME

Telephone Numbers

SEPD

8-1(803)737-8564

- ☐ 4.3.2 **IF** the State Emergency Operations Center has **NOT** been activated,
THEN contact the CEPD.

Oconee CEPD

8-1(864)638-4200

Pickens CEPD

8-1(864)898-5943

- ☐ 4.3.3 Request SEPD or CEPD to call back after a decision has been made on actual protective actions recommended by the State and Counties for the plume exposure pathway population.

A. Record below the actions that have been taken by SEPD or CEPD:

B. Information received from : _____ Time: _____

- ☐ 4.4 Notify the Emergency Coordinator of the change in classification **AND** the current protective action recommendations. Request Emergency Coordinator to notify the NRC EOC of the change in emergency classification **AND** the protective action recommendations.

NOTE: Announcements should be made approximately every **30 minutes**. Provide current plant status also.

- ☐ 4.5 Announce the emergency class **AND** the time of classification to EOF personnel. Provide the current protective action recommendations.

Emergency Classification Tracking Sheet

- ☐ 4.6 **IF** Condition B at Keowee exists,
THEN Notify the Area Hydro Manager (Refer to Section 6 of the Emergency Telephone Directory, Keowee Hydro Project Dam/Dike Notification). {2}
- ☐ 4.7 **IF** Fire apparatus is needed to provide water to the Spent Fuel Pool,
THEN Contact the Oconee CEPD to provide sufficient fire apparatus (at least three pumper trucks of 1000 gpm, or greater, capacity) to Oconee Nuclear Site (If available, Keowee Ebenezer, Corinth Shiloh and Keowee Key Rural Volunteer Fire Departments should be requested to provide support). Provide instructions concerning entry to the site.
- ☐ 4.8 Evaluate plant status.
- ☐ 4.8.1 **IF** emergency classification remains as a General Emergency,
THEN have Offsite Communications Manager continue updating the counties by message form every **60 minutes**. -
- ☐ 4.8.2 Keep EOF personnel informed concerning plant conditions.
- ☐ 4.8.3 Keep EC aware of offsite conditions.
- ☐ 4.8.4 Log actions in the EOF Director's log.
- ☐ 4.8.5 Remain in this step until plant conditions dictate a change in protective action **OR** emergency classification.
- ☐ 4.8.6 **IF** Additional protective action recommendations are required by RP/0/B/1000/024, (Protective Action Recommendations),
THEN **GO TO** Step 4.9.
- ☐ A. Additional PAR Determination Time: _____ {4}
- ☐ 4.8.7 **IF** The termination criteria of Enclosure 3.2, (Emergency Classification Termination Criteria) are met,
THEN **GO TO** Step 5.0 of this Enclosure, (Enclosure 3.1, Emergency Classification Tracking Sheet).

NOTE: Transmission of a change in protective action recommendations **must** begin within **15 minutes** of determination.

- ☐ 4.9 Notify Offsite Communications Manager to complete a message form in accordance with RP/0/B/1000/015C, (Offsite Communications From The Emergency Operations Facility) providing the additional protective action recommendations, get it approved, and send it to the offsite agencies.

Emergency Classification Tracking Sheet

- ☐ 4.10 When the message form has been sent, contact SEPD. This is in addition to contact by the State/County Communicator.

Protective Action Recommendation: Read from the approved emergency notification form the protective action recommendations. Provide any known information concerning conditions that would make evacuation dangerous.

- ☐ 4.10.1 **IF** the State Emergency Operations Center has been activated,
THEN contact the SEPD.

NAME

Telephone Numbers

SEPD

8-1(803)737-8564

- ☐ 4.10.2 **IF** the State Emergency Operations Center has **NOT** been activated,
THEN contact the CEPD.

Oconee CEPD

8-1(864)638-4200

Pickens CEPD

8-1(864)898-5943

- ☐ 4.10.3 Request SEPD or CEPD to call back after a decision has been made on actual protective actions recommended by the State and Counties for the plume exposure pathway population.

A. Record below the actions that have been taken by SEPD or CEPD:

B. Information received from : _____ Time: _____

- ☐ 4.11 Notify the Emergency Coordinator of the change in protective action recommendations.

4.11.1 Request Emergency Coordinator to notify the NRC EOC of the change in protective action recommendations.

NOTE: Announcements should be made approximately every **30 minutes**. Provide current plant status also.

- ☐ 4.12 Announce the current protective action recommendation **AND** plant status to EOF personnel.

Emergency Classification Tracking Sheet

☐ 4.13 Evaluate Plant status.

4.13.1 **IF** emergency classification remains as a General Emergency,
THEN have the Offsite Communications Manager continue updating the
counties by message form every **60 minutes**.

☐ 4.13.2 Keep EOF personnel informed concerning plant conditions.

☐ 4.13.3 Keep EC aware of offsite conditions.

☐ 4.13.4 Log actions in the EOF Director's log.

☐ 4.13.5 Remain in this step until plant conditions dictate a change in protective action **OR**
emergency classification.

☐ 4.13.6 **IF** Additional protective action recommendations are required by
RP/0/B/1000/024, (Protective Action Recommendations),
THEN **GO TO** Step 4.14.

☐ A. Additional PAR Determination Time: _____ {4}

☐ 4.13.7 **IF** The termination criteria of Enclosure 3.2, (Emergency Classification
Termination Criteria) are met,
THEN **GO TO** Step 5.0 of this Enclosure, (Enclosure 3.1, Emergency
Classification Tracking Sheet).

NOTE: Transmission of a change in protective action recommendations must begin within 15 minutes of determination.

☐ 4.14 Notify Offsite Communications Manager to complete a message form in accordance with
RP/0/B/1000/015C, (Offsite Communications From The Emergency Operations Facility)
providing the additional protective action recommendations, get it approved, and send it to
the offsite agencies.

Emergency Classification Tracking Sheet

- ☐ 4.15 When the message form has been sent, contact SEPD. This is in addition to contact by the State/County Communicator.

Protective Action Recommendation: Read from the approved emergency notification form the protective action recommendations. Provide any known information concerning conditions that would make evacuation dangerous.

- ☐ 4.15.1 **IF** the State Emergency Operations Center has been activated,
THEN contact the SEPD.

	<u>NAME</u>	<u>Telephone Numbers</u>
SEPD	_____	8-1(803)737-8564

- ☐ 4.15.2 **IF** the State Emergency Operations Center has **NOT** been activated,
THEN contact the CEPD.

Oconee CEPD	_____	8-1(864)638-4200
Pickens CEPD	_____	8-1(864)898-5943

- ☐ 4.15.3 Request SEPD or CEPD to call back after a decision has been made on actual protective actions recommended by the State and Counties for the plume exposure pathway population.

A. Record below the actions that have been taken by SEPD or CEPD:

B. Information received from : _____ Time: _____

- ☐ 4.16 Notify the Emergency Coordinator of the change in protective action recommendations.

4.16.1 Request Emergency Coordinator to notify the NRC EOC of the change in protective action recommendations.

NOTE: Announcements should be made approximately every **30 minutes**. Provide current plant status also.

- ☐ 4.17 Announce the current protective action recommendation **AND** plant status to EOF personnel.

Enclosure 3.1
Emergency Classification Tracking Sheet

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NOTE: C&F will manage the staffing sheets and route to the EOF Director.

- ☐ 4.18 Evaluate the need for 24-hour staffing and instruct managers to prepare for it if needed. Telephone numbers and staffing sheets are available in the emergency procedures cart.
- ☐ 4.19 **WHEN** termination criteria are met, **GO TO** Step 5.0 of Enclosure 3.1 (Emergency Classification Tracking Sheet).

5. Termination

- ☐ 5.1 **IF** Terminating from an Alert or Site Area Emergency,
THEN **GO TO** Step 5.3.
- ☐ 5.2 **IF** In a General Emergency,
THEN Discuss with the NRC Director of Site Operations (NRCDSO) and the SEPD that the termination criteria have been met.

5.2.1 Secure agreement from the two directors to terminate the event.

5.2.2 Document names and time decision made below.

	<u>NAME</u>	<u>Telephone Numbers</u>	<u>Time</u>
SEPD	_____	8-1(803)737-8564	

NRCDSO	_____	(In person in EOF)	_____

- ☐ 5.3 Request Offsite Communications Manager to complete message form and send it in accordance with RP/0/B/1000/015C, (Offsite Communications From The Emergency Operations Facility) to terminate the emergency.

- ☐ 5.4 **IF** terminating from an Alert or a Site Area Emergency,
THEN notify the following agencies.

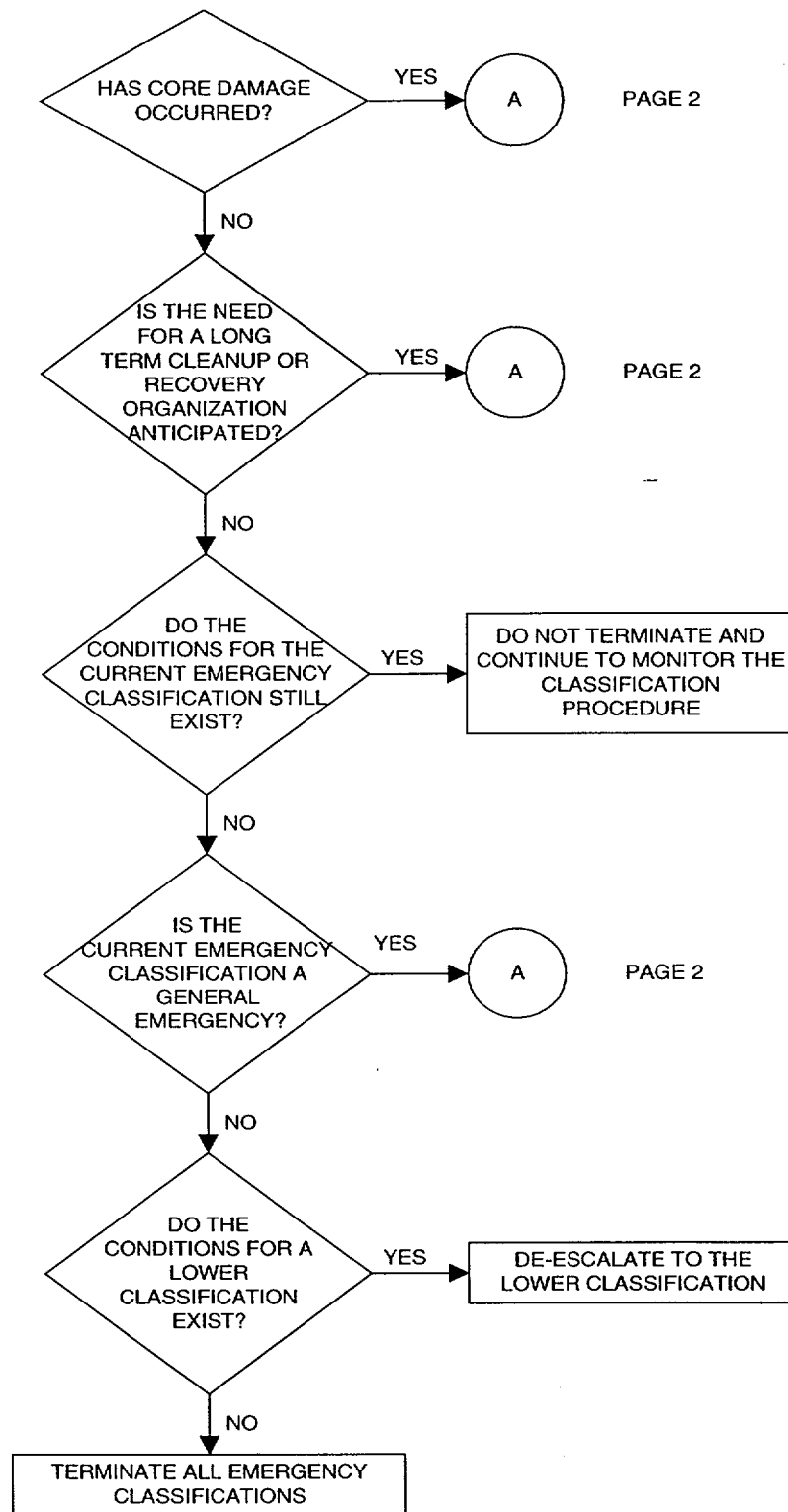
	<u>NAME</u>	<u>Telephone Numbers</u>
SEPD	_____	8-1(803)737-8564
5.4.1	<u>IF</u> the SEOC has <u>NOT</u> been activated, <u>THEN</u> contact the County Directors of Emergency Planning (CEPD).	
Oconee CEPD	_____	8-1(864)638-4200
Pickens CEPD	_____	8-1(864)898-5943

Emergency Classification Tracking Sheet

- ☐ 5.5 **IF** terminating from an emergency involving dam failure (Keowee or Jocassee),
THEN discuss termination with the Hydro Emergency Operations Facility in Charlotte.
- ☐ 5.6 Establish Recovery Organizations if needed.
 - 5.6.1 **GO TO** Enclosure 3.3, (Recovery Guidelines).
 - 5.6.2 **IF** Recovery Organizations are **NOT** required,
THEN GO TO Step 5.7.
- ☐ 5.7 Request Emergency Planning to provide a copy of the License Event Report (LER) to state and county agencies at the time it is sent to the NRC.

Enclosure 3.2
Emergency Classification Termination
Criteria

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Enclosure 3.2
Emergency Classification Termination
Criteria

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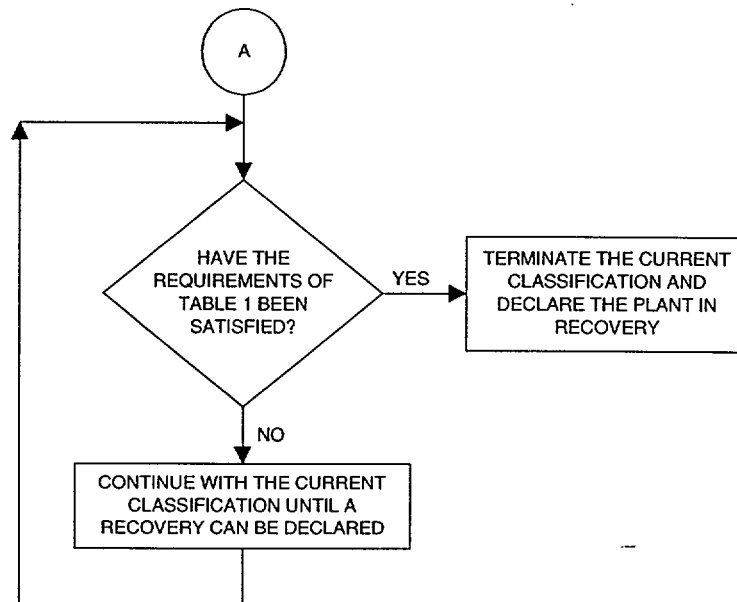


TABLE 1

RECOVERY CONDITIONS	
<input type="checkbox"/>	NO NEW EVACUATION OR SHELTERING PROTECTIVE ACTIONS ARE ANTICIPATED
<input type="checkbox"/>	CONTAINMENT PRESSURE IS LESS THAN DESIGN PRESSURE
<input type="checkbox"/>	CONTAINMENT HYDROGEN LEVELS ARE BEING MAINTAINED WITHIN LIMITS
<input type="checkbox"/>	LONG TERM CORE/DEBRIS COOLING HAS BEEN ESTABLISHED
<input type="checkbox"/>	THE RISKS FROM RECRITICALITY ARE ACCEPTABLY LOW
<input type="checkbox"/>	RADIATION PROTECTION IS MONITORING ACCESS TO RADIOLOGICALLY HAZARDOUS AREAS
<input type="checkbox"/>	OFF-SITE CONDITIONS DO NOT LIMIT PLANT ACCESS
<input type="checkbox"/>	THE NEWS DIRECTOR, NRC OFFICIALS, AND STATE REPRESENTATIVES HAVE BEEN CONSULTED TO DETERMINE THE AFFECTS OF TERMINATION ON THEIR ACTIVITIES
<input type="checkbox"/>	THE RECOVERY ORGANIZATION IS READY TO ASSUME CONTROL OF RECOVERY OPERATIONS

Enclosure 3.3
Recovery Guidelines

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1. Recovery Guidelines

The Recovery Manager shall be responsible for the following:

- ☐ 1.1 Make a PA announcement as follows:

“Agreement has been reached between Duke, the State of South Carolina and the NRC that the General Emergency classification is terminated. Recovery Operations are being initiated at the site. Actions are underway to determine when people who have been evacuated from their homes can return. As this information is made available, it will be released to the public.”

- ☐ 1.2 Establish a Recovery Organization to handle offsite consequences.

1.2.1 The offsite recovery organization will stay at the EOF and work with the counties and state if radiological conditions exist beyond the ONS site boundary.

1.2.2 The onsite recovery organization will be established by the Emergency Coordinator.

- ☐ 1.3 Make the following assignments:

Recovery Manager _____

Radiological Assessment Manager _____

Field Monitoring Coordinator _____

Emergency Planning Manager _____

Commodities & Facilities Manager _____

- ☐ 1.4 Assure staffing for long-term operation.

NOTE: Once recovery has been determined, the emergency notification message forms are no longer used.

- ☐ 1.5 Contact the SEPD to discuss work in progress at the EOF and determine communication channels and notifications expected.

- ☐ 1.6 Discuss with each manager the activities they have in progress.

Enclosure 3.3
Recovery Guidelines

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- ☐ 1.7 Radiological Assessment Responsibilities
 - 1.7.1 Provide ingestion pathway dose assessments
 - 1.7.2 Provide ongoing communications with DHEC Nuclear Emergency Planning
 - 1.7.3 Evaluate environmental concentrations within the radiological footprint
 - 1.7.4 Provide technical assistance to Joint Information Center
 - 1.7.5 Help plan for reactor building purge as needed
- ☐ 1.8 Emergency Planning Responsibilities
 - 1.8.1 Communications to the State and County Emergency Directors
 - 1.8.2 Review information being released through the news medium
- ☐ 1.9 Commodities & Facilities Manager Responsibilities
 - 1.9.1 Assure ANI (insurance) is set up for public inquiry
 - 1.9.2 Provide services as required
- ☐ 1.10 Joint Information Center Responsibilities
 - 1.10.1 Providing news releases
 - 1.10.2 Work with media/public to reduce rumors
- ☐ 1.11 Responsibilities of the Site's Outage Manager
 - 1.11.1 Provide Recovery Manager with updates on work in progress at the site
- ☐ 1.12 Keep the Emergency Operations Facility activated and staffed until consensus is reached by Duke and State of South Carolina there is no basis for continuous staffing.
 - ☐ 1.12.1 Record time and date that Emergency Operations Facility/Joint Information Center were closed.

A. EOF/JIC Closed _____
Time/Date

Enclosure 3.4
Emergency Preparedness Acronyms

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BSHWM	Bureau of Solid and Hazardous Waste Management
CEPD	County Emergency Preparedness Director/Division
DHEC	Department of Health and Environmental Control
EC	Emergency Coordinator
EOF	Emergency Operations Facility
EOFD	Emergency Operations Facility Director
EPA	Emergency Preparedness Agency
FAX	Facsimile
FEOC	Forward Emergency Operations Center (Clemson)
FTS-2000	NRC Emergency Telephone Communication System
LEC	Law Enforcement Center
NEP	Nuclear Emergency Planning (BSHWM)
NRCDSO	Nuclear Regulatory Commission Director of Site Operations
NRC EOC	Nuclear Regulatory Commission Emergency Operations Center
OSC	Operational Support Center
PAR	Protective Action Recommendations
SCC	State/County Communicator
SEPD	State Emergency Preparedness Director/Division
SEOC	State Emergency Operations Center (Columbia)
SWP	State Warning Point
TSC	Technical Support Center

1. PIP References

- 1.1 PIP O-98-04996
- 1.2 PIP O-99-00743
- 1.3 PIP O-99-03527
- 1.4 PIP O-99-03971
- 1.5 PIP O-99-04165