



Duke Energy Corporation

Oconee Nuclear Station
7800 Rochester Highway
Seneca, SC 29672

(864) 885-3107 OFFICE
(864) 885-3564 FAX

W. R. McCollum, Jr.
Vice President

May 10, 2000

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

Subject: Oconee Nuclear Station
Docket Nos. 50-269, -270, -287
Emergency Plan Implementing Procedures Manual
Volume C Revision 2000-04

Please find attached for your use and review copies of the revision to the Oconee Nuclear Station Emergency Plan: Volume C Revision 2000-04, May, 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,
Regional Administrator, Region II
U. S. Nuclear Regulatory Commission
61 Forsyth St., SW, Suite 24T23
Atlanta, GA 30303

w/copy of attachments
Mr. Steven Baggett
Rockville, Maryland

(w/o Attachments, Oconee Nuclear Station)
NRC Resident Inspector
M. D. Thorne, Manager, Emergency Planning

A045

May 10, 2000

OCONEE NUCLEAR SITE
INTRASITE LETTER

SUBJECT: Emergency Plan Implementing Procedures
Volume C, Revision 2000-04

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

REMOVE

Cover Sheet Rev. 2000-02
Table of Contents - Page 1 & 2
RP/0/B/1000/001 - 03/27/99
RP/0/B/1000/002 - 02/14/2000
Human Resources Procedure
ONS- Guideline #8A - 06/08/98

ADD

Cover Sheet Rev. 2000-04
Table of Contents - Page 1 & 2
RP/0/B/1000/001 - 04/17/2000
RP/0/B/1000/002 - 05/03/2000
ONS Human Resources Emergency Plan
- 04/26/2000

DUKE POWER

EMERGENCY PLAN IMPLEMENTING PROCEDURES VOLUME C



APPROVED:



W. W. Foster, Manager
Safety Assurance

05/10/2000

Date Approved

05/10/2000

Effective Date

VOLUME C
REVISION 2000-04
MAY, 2000

VOLUME C
TABLE OF CONTENTS

HP/0/B/1009/018	Offsite Dose Projections - (06/02/99)
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 - (04/17/00)
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 (05/27/99)
RP/0/B/1000/20	Emergency Operations Facility Director Procedure - (12/11/98)

Revision 2000-04
May, 2000

VOLUME C
TABLE OF CONTENTS

RP/0/B/1000/21	Operations Interface (EOF) - (07/06/98)
RP/0/B/1000/22	Procedure for Site Fire Damage Assessment and Repair - (06/04/96)
RP/0/B/1000/24	Protective Action Recommendations (11/10/99)
RP/0/B/1000/28	Communications & Community Relations World of Energy Emergency Response Plan - (02/17/97)
RP/0/B/1000/29	Fire Brigade Response - (12/12/96)
RP/0/B/1000/31	Oconee Nuclear Site Joint Information Center Emergency Response Plan (08/15/98)
SR/0/B/2000/001	Standard Procedure for Public Affairs Response to the Emergency Operations Facility - (03/23/00)
Business Management	Business Management Emergency Plan - (03/29/00)
C&F Functional Area Directive 102	C&F Emergency Response Plan - ONS Specific - (02/02/2000)
Engineering Directive 5.1	Engineering Emergency Response Plan - (03/08/99)
Human Resources Procedure	ONS Human Resources Emergency Plan - (04/26/00)
Radiation Protection Manual Section 11.3	Off-Site Dose Assessment and Data Evaluation (04/06/99)
Radiation Protection Manual Section 11.7	Radiation Protection Environmental Monitoring for Emergency Conditions - (04/15/99)
Safety Assurance Directive 6.1	Safety Assurance Emergency Response Organization - (11/28/94)
Safety Assurance Directive 6.2	Safety Assurance Contingency Plan - (03/27/00)
Training Division	Training Division Emergency Response Guide DTG-007 (02/01/2000)

Revision 2000-04
May, 2000

INFORMATION ONLY

Duke Power Company PROCEDURE PROCESS RECORD

(1) ID No RP/0/B/1000/001
Revision No 007

PREPARATION

(2) Station OCONEE NUCLEAR STATION

(3) Procedure Title Emergency Classification

(4) Prepared By Donice Kelley (Signature) Donice Kelley Date 4-13-00

(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 Reene Lambell (QR) Date 4-13-00

Cross-Disciplinary Review By _____ (QR) NA AK Date _____

Reactivity Mgmt. Review By _____ (QR) NA AK 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 Stone Date 4-17-2000

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 _____

Procedure Completion Approved _____ Date _____

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

Duke Power Company Oconee Nuclear Site	Procedure No.
	RP/0/B/1000/001
	Revision No. 007
Emergency Classification	Electronic Reference No. OX002WOS
Reference Use	

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

Page Numbers

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 Classification	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

Enclosure .1
Fission Product Barrier Matrix

RP/0/B/100 .1
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)	Loss (5)	Potential Loss (4)	Loss (5)	Potential Loss (1)	Loss (3)		
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 $\geq 700^\circ$ F	Average of the 5 highest CETC $\geq 1200^\circ$ F	CETC $\geq 1200^\circ$ F ≥ 15 minutes OR CETC $\geq 700^\circ$ 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 μ Ci/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		Hours Since SD RIA57/58 - R/hr 0 - < 0.5 $\geq 300/150$ 0.5 - < 2.0 $\geq 80/40$ 2.0 - 8.0 $\geq 32/16$	Hours Since SD RIA57/58 - R/hr 0 - < 0.5 $\geq 1800/860$ 0.5 - < 2.0 $\geq 400/195$ 2.0 - 8.0 $\geq 280/130$	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 $\geq 9\%$	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)		ALERT (4-6)		SITE AREA EMERGENCY (7-10)		GENERAL EMERGENCY (11-13)	
OPERATING MODE: 1, 2, 3, 4 ♦ Any potential loss of Containment ♦ Any loss of containment		OPERATING MODE: 1, 2, 3, 4 ♦ Any potential loss or loss of the Fuel Clad ♦ Any potential loss or loss of the RCS		OPERATING MODE: 1, 2, 3, 4 ♦ 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		OPERATING MODE: 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		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	

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.

UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
<p>1. RCS LEAKAGE (BD 14) =====</p> <p>OPERATING MODE: 1, 2, 3, 4</p> <ul style="list-style-type: none"> ◆ Unidentified leakage ≥ 10 gpm ◆ Pressure boundary leakage ≥ 10 gpm ◆ Identified leakage ≥ 25 gpm <p>2. UNPLANNED LOSS OF MOST OR ALL SAFETY SYSTEM ANNUNCIATION/INDICATION IN CONTROL ROOM FOR > 15 MINUTES (BD 15) =====</p> <p>OPERATING MODE: 1, 2, 3, 4</p> <ul style="list-style-type: none"> ◆ Unplanned loss of > 50% of the following annunciators on one unit for > 15 minutes: <p>Units 1 & 3 1 SA1-9, 14-16, and 18 3 SA1-9, 14-16, and 18</p> <p>Unit 2 2 SA1-9, 14-16</p> <p align="center">AND</p> <p>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>OPERATING MODE: 1, 2, 3, 4</p> <ul style="list-style-type: none"> ◆ Required operating mode not reached within TS LCO action statement time <p align="center">(CONTINUED)</p>	<p>1. UNPLANNED LOSS OF MOST OR ALL SAFETY SYSTEM ANNUNCIATION/INDICATION IN CONTROL ROOM (BD 19) =====</p> <p>OPERATING MODE: 1, 2, 3, 4</p> <ul style="list-style-type: none"> ◆ Unplanned loss of > 50% of the following annunciators on one unit for > 15 minutes: <p>Units 1 & 3 1 SA1-9, 14-16, and 18 3 SA1-9, 14-16, and 18</p> <p>Unit 2 2 SA1-9, 14-16</p> <p align="center">AND</p> <p>Loss of annunciators/indicators requires additional personnel (beyond normal shift complement) to safely operate the unit</p> <p align="center">AND EITHER OF THE FOLLOWING:</p> <ul style="list-style-type: none"> ◆ Significant plant transient in progress <li align="center">OR ◆ Loss of the OAC and ALL PAM indications <p align="center">(END)</p>	<p>1. INABILITY TO MONITOR A SIGNIFICANT TRANSIENT IN PROGRESS (BD 21) =====</p> <p>OPERATING MODE: 1, 2, 3, 4</p> <ul style="list-style-type: none"> ◆ Unplanned loss of > 50% of the following annunciators on one unit for > 15 minutes: <p>Units 1 & 3 1 SA1-9, 14-16, and 18 3 SA1-9, 14-16, and 18</p> <p>Unit 2 2 SA1-9, 14-16</p> <p align="center">AND</p> <p>A significant transient is in progress</p> <p align="center">AND</p> <p>Loss of the OAC and ALL PAM indications</p> <p align="center">AND</p> <p>Inability to directly monitor 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>	
<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>

**Enclosure .2
Systems Malfunctions**

UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
<p>4. UNPLANNED LOSS OF ALL ONSITE OR OFFSITE COMMUNICATIONS (BD 17)</p> <p>=====</p> <p>OPERATING MODE: All</p> <ul style="list-style-type: none"> ◆ Loss of all onsite communications capability (ROLM system, PA system, Pager system, Onsite Radio system) affecting ability to perform routine operations ◆ 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>5. FUEL CLAD DEGRADATION (BD 18)</p> <p>=====</p> <p>OPERATING MODE: All:</p> <ul style="list-style-type: none"> ◆ DEI - >5μCi/ml <p align="center">(END)</p>			
<p>INITIAL NOTIFICATION REQUIREMENTS: SEE EMERGENCY TELEPHONE DIRECTORY</p> <p>NOTIFY 1,2,3,4</p>			

Enclosure 3
Abnormal Rad Levels/Radiological Effluent

RP/0/B/100
Page 1 of 2

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><u>OPERATING MODE:</u> All</p> <ul style="list-style-type: none"> ◆ Valid indication on radiation monitor RIA 33 of $\geq 4.06E+06$ cpm for > 60 minutes (See Note 1) ◆ Valid indication on radiation monitor RIA 45 of $\geq 1.33E+06$ cpm for > 60 minutes (See Note 1) ◆ Liquid effluent being released exceeds two times SLC 16.11.1 for > 60 minutes as determined by Chemistry Procedure ◆ Gaseous effluent being released exceeds two times SLC 16.11.2 for > 60 minutes as determined by RP Procedure <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 <u>AND</u> the required assessments (procedure calculations) cannot be completed within this period, declaration must be made on the valid Radiation Monitor reading.</p> </div> <p 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><u>OPERATING MODE:</u> All</p> <ul style="list-style-type: none"> ◆ Valid indication on RIA 46 of $\geq 2.98E+04$ cpm for >15 minutes (See Note 1) ◆ RIA 33 HIGH Alarm <u>AND</u> Liquid effluent being released exceeds 200 times the level of SLC 16.11.1 for > 15 minutes as determined by Chemistry Procedure ◆ Gaseous effluent being released exceeds 200 times the level of SLC 16.11.2 for >15 minutes as determined by RP Procedure <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><u>OPERATING MODE:</u> All</p> <ul style="list-style-type: none"> ◆ Valid radiation reading ≥ 15 mRad/hr in CR, CAS <u>OR</u> Radwaste CR ◆ Unplanned/unexpected valid area monitor readings exceed limits stated in Enclosure 4.9 <p align="center">(CONTINUED)</p>	<p>1. BOUNDARY DOSE RESULTING FROM ACTUAL/IMMINENT RELEASE OF GASEOUS ACTIVITY (BD 32)</p> <p>=====</p> <p><u>OPERATING MODE:</u> All</p> <ul style="list-style-type: none"> ◆ Valid reading on RIA 46 of $\geq 2.98E+05$ cpm for >15 minutes (See Note 2) ◆ Valid reading on RIA 57 or 58 as shown on Enclosure 4.8 (See Note 2) ◆ Dose calculations result in a dose projection at the site boundary of: ≥ 100 mRem TEDE or 500 mRem CDE adult thyroid ◆ Field survey results indicate site boundary dose rates exceeding ≥ 100 mRad/hr expected to continue for more than one hour <u>OR</u> Analyses of field survey samples indicate adult thyroid dose commitment of ≥ 500 mRem CDE ($3.84 E^{-7}$ μCi/ml) for one hour of inhalation <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 valid radiation monitor reading should be used for emergency classification.</p> </div> <p align="center">(CONTINUED)</p>	<p>1. BOUNDARY DOSE RESULTING FROM ACTUAL/IMMINENT RELEASE OF GASEOUS ACTIVITY (BD 36)</p> <p>=====</p> <p><u>OPERATING MODE:</u> All</p> <ul style="list-style-type: none"> ◆ Valid reading on RIA 46 of $\geq 2.98E+06$ cpm for ≥ 15 minutes (See Note 3) ◆ Valid reading on RIA 57 or 58 as shown on Enclosure 4.8 (See Note 3) ◆ Dose calculations result in a dose projection at the site boundary of: ≥ 1000 mRem TEDE <u>OR</u> ≥ 5000 mRem CDE adult thyroid ◆ Field survey results indicate site boundary dose rates exceeding ≥ 1000 mRad/hr expected to continue for more than one hour <u>OR</u> Analyses of field survey samples indicate adult thyroid dose commitment of ≥ 5000 mRem CDE for one hour of inhalation <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 valid radiation monitor reading should be used for emergency classification.</p> </div> <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>

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

1. Average annual meteorology ($1.672 E^{-6}$ sec/m³), 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 3
Abnormal Rad Levels/Radiological Effluent

UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
<p>2. UNEXPECTED INCREASE IN PLANT RADIATION OR AIRBORNE CONCENTRATION (BD 25)</p> <p>=====</p> <p><u>OPERATING MODE:</u> All</p> <ul style="list-style-type: none"> ◆ LT 5 reading 14" and decreasing with makeup not keeping up with leakage <u>WITH</u> fuel in the core ◆ Uncontrolled water level decrease in the SFP and fuel transfer canal with all irradiated fuel assemblies remaining covered by water ◆ 1 R/hr radiation reading at one foot away from a damaged storage cask located at the ISFSI ◆ Valid area monitor readings exceeds limits stated in Enclosure 4.9, <p 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> <p>=====</p> <p><u>OPERATING MODE:</u> All</p> <ul style="list-style-type: none"> ◆ Valid RIA 3, 6, 41, OR 49 HIGH Alarm ◆ HIGH Alarm for portable area monitors on the main bridge or auxiliary bridge or SFP bridge ◆ Report of visual observation of irradiated fuel uncovered ◆ 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 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> <p>=====</p> <p><u>OPERATING MODE:</u> 5, 6</p> <ul style="list-style-type: none"> ◆ Failure of heat sink causes loss of Cold Shutdown condition <p align="center"><u>AND</u></p> <p>LT 5 indicates 0 inches after initiation of RCS makeup</p> <ul style="list-style-type: none"> ◆ Failure of heat sink causes loss of Cold Shutdown condition <p align="center"><u>AND</u></p> <p>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: 10px 0;"> <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 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
Loss of Shutdown Functions

UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
	<p>1. FAILURE OF RPS TO COMPLETE OR INITIATE A Rx SCRAM (BD 39)</p> <p>=====</p> <p><u>OPERATING MODE</u> 1, 2, 3</p> <ul style="list-style-type: none"> ◆ Valid reactor trip signal received or required <u>WITHOUT</u> automatic scram <p align="center"><u>AND ONE OF THE FOLLOWING</u></p> <p>DSS has inserted Control Rod Groups 5, 6, 7</p> <p align="center"><u>OR</u></p> <p>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> <p>=====</p> <p><u>OPERATING MODE:</u> 5, 6</p> <ul style="list-style-type: none"> ◆ Loss of LPI and/or LPSW <p align="center"><u>AND</u></p> <p>Inability to maintain RCS temperature below 200° F as indicated by either of the following:</p> <p>RCS temperature at the LPI Pump Suction <u>OR</u> visual observation</p> <p align="center">(END)</p>	<p>1. FAILURE OF RPS TO COMPLETE OR INITIATE A Rx SCRAM (BD 42)</p> <p>=====</p> <p><u>OPERATING MODE:</u> 1, 2</p> <ul style="list-style-type: none"> ◆ Valid reactor trip signal received or required <u>WITHOUT</u> automatic scram <p align="center"><u>AND</u></p> <p>DSS has <u>NOT</u> inserted Control Rod Groups 5, 6, 7</p> <p align="center"><u>AND</u></p> <p>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> <p>=====</p> <p><u>OPERATING MODE:</u> 1, 2, 3, 4</p> <ul style="list-style-type: none"> ◆ Average of the 5 highest CETCs $\geq 1200^\circ$ F shown on ICCM ◆ Unable to maintain reactor subcritical ◆ SSF feeding SG per EOP <p 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> <p>=====</p> <p><u>OPERATING MODE:</u> 1, 2</p> <ul style="list-style-type: none"> ◆ Valid Rx trip signal received or required <u>WITHOUT</u> automatic scram <p align="center"><u>AND</u></p> <p>Manual trip from the Control Room was <u>NOT</u> successful in reducing reactor power to < 5% and decreasing</p> <p align="center"><u>AND</u></p> <p>Average of the 5 highest CETCs $\geq 1200^\circ$ F on ICCM</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>

Enclos .4
Loss of Shutdown Functions

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> <p>=====</p> <p>OPERATING MODE: 5, 6</p> <ul style="list-style-type: none"> ◆ Failure of heat sink causes loss of Cold Shutdown conditions <p style="text-align: center;">AND</p> <p style="padding-left: 40px;">LT-5 indicates 0 inches after initiation of RCS makeup</p> <ul style="list-style-type: none"> ◆ Failure of heat sink causes loss of Cold Shutdown conditions <p style="text-align: center;">AND</p> <p style="padding-left: 40px;">Either train ultrasonic level indication less than 0 inches and decreasing after initiation of RCS makeup</p> <p style="text-align: center;">(END)</p>	
		<p>INITIAL NOTIFICATION REQUIREMENTS: SEE EMERGENCY TELEPHONE DIRECTORY</p> <p>NOTIFY 1, 2, 3, 4</p>	

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> <p>=====</p> <p><u>OPERATING MODE:</u> All</p> <p>◆ Loss of all offsite AC power to both the Red and Yellow Buses for > 15 minutes</p> <p style="text-align: center;"><u>AND</u></p> <p>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> <p>=====</p> <p><u>OPERATING MODE:</u> 5, 6</p> <p>◆ Unplanned loss of vital DC power to required DC busses as indicated by bus voltage less than 110 VDC</p> <p style="text-align: center;"><u>AND</u></p> <p>Failure to restore power to at least one required DC bus within 15 minutes from the time of loss</p> <p style="text-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> <p>=====</p> <p><u>OPERATING MODE:</u> 5, 6 Defueled</p> <p>◆ MFB 1 and 2 de-energized</p> <p style="text-align: center;"><u>AND</u></p> <p>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> <p>=====</p> <p><u>OPERATING MODE:</u> 1, 2, 3, 4</p> <p>◆ 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>Unit Normal Transformer Unit SU Transformer Another Unit SU Transformer CT4 CT5</p> <p style="text-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> <p>=====</p> <p><u>OPERATING MODE:</u> 1, 2, 3, 4</p> <p>◆ MFB 1 and 2 de-energized</p> <p style="text-align: center;"><u>AND</u></p> <p>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> <p>=====</p> <p><u>OPERATING MODE:</u> 1, 2, 3, 4</p> <p>◆ Unplanned loss of vital DC power to required DC busses as indicated by bus voltage less than 110 VDC</p> <p style="text-align: center;"><u>AND</u></p> <p>Failure to restore power to at least one required DC bus within 15 minutes from the time of loss</p> <p style="text-align: center;">(END)</p>	<p>1. PROLONGED LOSS OF ALL OFFSITE POWER AND ONSITE AC POWER (BD 54)</p> <p>=====</p> <p><u>OPERATING MODE:</u> 1, 2, 3, 4</p> <p>◆ MFB 1 and 2 de-energized</p> <p style="text-align: center;"><u>AND</u></p> <p>SSF fails to maintain Hot Shutdown</p> <p style="text-align: center;"><u>AND</u></p> <p>At least one of the following conditions exist:</p> <p>Restoration of power to at least one MFB within 4 hours is <u>NOT</u> likely</p> <p style="text-align: center;"><u>OR</u></p> <p>Indications of continuing degradation of core cooling based on Fission Product Barrier monitoring</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>	<p>INITIAL NOTIFICATION REQUIREMENTS: SEE EMERGENCY TELEPHONE DIRECTORY</p> <p>NOTIFY 1, 2, 3, 4</p>

Enclos .6
Fires/Explosions and Security Actions

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

Natural Disasters, Hazards and Other Conditions Affecting Plant Safety

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> <ul style="list-style-type: none"> ◆ Tremor felt and valid alarm on the strong motion accelerometer ◆ Tornado striking within Protected Area Boundary ◆ Vehicle crash into plant structures/systems within the Protected Area Boundary ◆ Turbine failure resulting in casing penetration or damage to turbine or generator seals <p>(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> <ul style="list-style-type: none"> ◆ Tremor felt and seismic trigger actuates (0.05g) ◆ Tornado, high winds, missiles resulting from turbine failure, vehicle crashes, or other catastrophic event <p><u>AND ONE OF THE FOLLOWING:</u></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>Visible damage to permanent structures or equipment required for safe shutdown of the unit</p> <p><u>OR</u></p> <p>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> <ul style="list-style-type: none"> ◆ Report/detection of toxic gases in concentrations that will be life-threatening to plant personnel ◆ Report/detection of flammable gases in concentrations that will affect the safe operation of the plant: <ul style="list-style-type: none"> • Reactor Building • Auxiliary Building • Turbine Building • Control Room <p>(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> <ul style="list-style-type: none"> ◆ Control Room evacuation has been initiated <p><u>AND</u></p> <p>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> <ul style="list-style-type: none"> ◆ Imminent/actual dam failure (includes any of the following: <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> <ul style="list-style-type: none"> ◆ Emergency Coordinator/EOF Director judgment <p>(END)</p>	<p>1. OTHER CONDITIONS WARRANT DECLARATION OF GENERAL EMERGENCY (BD 78)</p> <p>=====</p> <p><u>OPERATING MODE:</u> All</p> <ul style="list-style-type: none"> ◆ Emergency Coordinator/EOF Director judgment indicates: <p>Actual/imminent substantial core degradation with potential for loss of containment</p> <p><u>OR</u></p> <p>Potential for uncontrolled 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>(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>

Natural Disasters, Hazards and Other Conditions Affecting Plant Safety

UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
<p>2. NATURAL AND DESTRUCTIVE PHENOMENA AFFECTING KEOWEE HYDRO (BD 66)</p> <p>=====</p> <p>OPERATING MODE: All</p> <ul style="list-style-type: none"> ◆ Reservoir elevation ≥ 807 feet with all spillway gates open and the lake elevation continues to rise ◆ Seepage readings increase or decrease greatly or seepage water is carrying a significant amount of soil particles ◆ New area of seepage or wetness, with large amounts of seepage water observed on dam, dam toe, or the abutments ◆ Slide or other movement of the dam or abutments which could develop into a failure ◆ Developing failure involving the powerhouse or appurtenant structures and the operator believes the safety of the structure is questionable <p>3. RELEASE OF TOXIC OR FLAMMABLE GASES DEEMED DETRIMENTAL TO SAFE OPERATION OF THE PLANT (BD 67)</p> <p>=====</p> <p>OPERATING MODE: All</p> <ul style="list-style-type: none"> ◆ 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 ◆ Report by local, county, state officials for potential evacuation of site personnel based on offsite event <p>(CONTINUED)</p>	<p>3. TURBINE BUILDING FLOOD (BD 72)</p> <p>=====</p> <p>OPERATING MODE: All</p> <ul style="list-style-type: none"> ◆ Turbine Building flood requiring use of AP/1,2,3/A/1700/10, (Uncontrolled Flooding Of Turbine Building) <p>4. CONTROL ROOM EVACUATION HAS BEEN INITIATED (BD 73)</p> <p>=====</p> <p>OPERATING MODE: All</p> <ul style="list-style-type: none"> ◆ Evacuation of Control Room <p>AND ONE OF THE FOLLOWING:</p> <p>Plant control IS established from the Aux Shutdown Panel or the SSF OR 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> <p>=====</p> <p>OPERATING MODE: All</p> <ul style="list-style-type: none"> ◆ Emergency Coordinator judgment indicates that: <p>Plant safety may be degraded AND Increased monitoring of plant functions is warranted</p> <p>(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>

UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
<p>4. OTHER CONDITIONS EXIST WHICH WARRANT DECLARATION OF AN UNUSUAL EVENT (BD 68)</p> <p>=====</p> <p>OPERATING MODE: All</p> <ul style="list-style-type: none"> ◆ Emergency Coordinator determines potential degradation of level of safety has occurred <p style="text-align: center;">(END)</p>			
<p>INITIAL NOTIFICATION REQUIREMENTS: SEE EMERGENCY TELEPHONE DIRECTORY</p> <p>NOTIFY 1, 2, 3, 4</p>			

Radiation Monitor Readings for Emergency Classification

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

Unexpected/Unplanned Increase In Area Monitor Readings

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

- 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.
- 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 **PROTECTED AREA** - Encompasses all Owner Controlled Areas within the security perimeter fence.

- 1.14 REACTOR COOLANT SYSTEM (RCS) LEAKAGE – RCS Operational Leakage as defined in the Technical Specification Basis B 3.4.13.
- 1.15 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.
- 1.16 SABOTAGE - Deliberate damage, mis-alignment, or mis-operation of plant equipment with the intent to render the equipment unavailable.
- 1.17 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.
- 1.18 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
- 1.19 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.
- 1.20 SELECTED LICENSEE COMMITMENT (SLC) - Chapter 16 of the FSAR
- 1.21 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).
- 1.22 TOXIC GAS - A gas that is dangerous to life or health by reason of inhalation or skin contact (e.g.; Chlorine)
- 1.23 UNCONTROLLED - Event is not the result of planned actions by the plant staff
- 1.24 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.
- 1.25 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.

Enclosure 4.10
Definitions/Acronyms

RP/0/B/1000/001
Page 3 of 3

- 1.26 **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.
- 1.27 **VIOLENT** - Force has been used in an attempt to injure site personnel or damage plant property.
- 1.28 **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
Page 1 of 1

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.

INFORMATION ONLY

Duke Power Company PROCEDURE PROCESS RECORD

(1) ID No RP/0/B/1000/002

Revision No 005

PREPARATION

(2) Station OCONEE NUCLEAR STATION

(3) Procedure Title Control Room Emergency Coordinator Procedure

(4) Prepared By Rodney Brown (Signature) Rodney Brown Date 05/02/2000

- (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 5/3/2000

Cross-Disciplinary Review By Neil Constantino (QR)NA Date 5-3-00

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 D Thorne Date 5-3-2000

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)

<p style="text-align: center;">Duke Power Company Oconee Nuclear Site</p> <p style="text-align: center;">Control Room Emergency Coordinator Procedure</p> <p style="text-align: center;">Reference Use</p>	<p>Procedure No. RP/0/B/1000/002</p>
	<p>Revision No. 005</p>
	<p>Electronic Reference No. OX002WOT</p>

Control Room 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 Events are in process or have occurred which require activation of the Oconee Nuclear Site Emergency Plan.

2. Immediate Actions

The Operations Shift Manager/Emergency Coordinator shall use this procedure until relieved by the Station Manager/Alternate in the Technical Support Center.

NOTE: Place Keeping Aids: at left of steps may be used for procedure place keeping. ()

- 2.1 **IF** General Emergency conditions are met,
THEN GO TO Enclosure 4.1 (General Emergency).
- 2.2 **IF** Site Area Emergency conditions are met,
THEN GO TO Enclosure 4.2 (Site Area Emergency).
- 2.3 **IF** Alert conditions are met,
THEN GO TO Enclosure 4.3 (Alert).
- 2.4 **IF** Unusual Event conditions are met,
THEN GO TO Enclosure 4.4 (Unusual Event).
- 2.5 **IF** An Emergency Classification does **NOT** exist and ERO Activation is desired,
THEN GO TO Step 1.6 of Enclosure 4.4 (Unusual Event).

3. Subsequent Actions

NOTE: Actions are **NOT** required to be followed in any particular sequence.

- 3.1 **IF** RIA 46 is on scale,
THEN Use Enclosure 4.3 of RP/0/B/1000/001, (Emergency Classification), to determine if the emergency classification should be upgraded to a Site Area Emergency or General Emergency based on radiation activity.
- 3.1.1 Instruct RP to perform an Offsite Dose Calculation and determine any additional Protective Action Recommendations.

- 3.2 **IF** RIA 57 or 58 are on scale,
THEN Use Enclosure 4.1 or 4.8 of RP/0/B/1000/001, (Emergency Classification), to determine if the emergency classification should be upgraded to a Site Area Emergency or General Emergency based on radiation activity.
- 3.3 **IF** RIA 16 or 17 are in Alert or High Alarm (≥ 2.5 mR/hr),
THEN Instruct RP to perform an Offsite Dose Calculation using the RIA values.
- 3.3.1 Use Enclosure 4.3 of RP/0/B/1000/001, (Emergency Classification), and the Offsite Dose Calculation results to determine if the emergency classification should be upgraded to a Site Area Emergency or General Emergency based on dose projection at the site boundary.
- 3.3.2 Determine any additional Protective Action Recommendations.
- 3.4 **IF** A large scale fire or flood damage has occurred or is occurring,
THEN Use RP/0/B/1000/022, (Procedure For Site Fire Damage Assessment And Repair), to determine additional actions that may be required.
- 3.5 **IF** A Security Event is in progress,
THEN Use RP/0/B/1000/007, (Security Event), to determine additional actions that may be required.
- 3.6 **IF** A hazardous substance has been released,
THEN Use RP/0/B/1000/017, (Spill Response), to determine additional actions that may be required.

NOTE: Priority should be placed on providing treatment for the most life-threatening event (i.e., medical vs radiation exposure - OSC procedure RP/0/B/1000/011, (Planned Emergency Exposure). The Emergency Coordinator may authorize (either verbal or signature) exposures greater than 25 rem TEDE (Total Effective Dose Equivalent) for lifesaving missions.

- 3.7 **IF** A medical response is required,
THEN Use RP/0/1000/016, (Medical Response).
- 3.7.1 Document verbal approval of Planned Emergency Exposures required for lifesaving missions in the Control Room Emergency Coordinator Log.
- 3.8 **IF** Changing plant conditions require an emergency classification upgrade,
THEN **GO TO** the applicable enclosure, designated in the Immediate Actions section of this procedure, required for the appropriate emergency classification.

- 3.9 Announce over the Plant Public address System the following information:
 - 3.9.1 The current emergency classification level and plant status UE/Alert/SAE/GE
 - 3.9.2 If appropriate, the status of contamination and how people are to handle themselves:

Plant personnel should assume they are contaminated until surveyed by RP or until they have frisked themselves.

NO eating, drinking, or smoking until the area is cleared by RP

Identify areas of contamination to plant personnel:

NOTE:

- The Outside Air Booster Fans (Control Room Ventilation System - CRVS) are used to provide positive pressure in the Control Room to prevent smoke, toxic gases, or radioactivity from entering the area as required by NuReg 0737.
- Chlorine Monitor Alarm will either stop the Air Booster Fans or will not allow them to start.

- 3.10 **IF** There is an indication that smoke or toxic gases from the Turbine Building may enter the Control Room.
THEN Instruct Control Room personnel to turn on the Outside Air Booster Fans.
 Fans On _____ Time: _____

- 3.11 **IF** RIA-39 is in **ALARM**,
THEN Follow AP/1/2/3/1700/018, (Abnormal Release Of Radioactivity).
 Fans On _____ Time: _____

- Secure fans if back-up sample by RP shows RIA-39 is in error.
- Isolate source of airborne contamination to the Control Room if sample from RP shows RIA alarm is valid.
- Secure fans if dose levels in CR/TSC/OSC are increased by the addition of outside filtered air.

Fans Off _____ Time: _____

- 3.12 **IF** The Emergency Response Organization was activated,
THEN Provide turnover to the Technical Support Center using Enclosure 4.5 of this procedure.

Technical Support Center Activated _____ Time: _____

A. Turn over all emergency response procedures in use to the TSC.

- 3.13 **IF** An Unusual Event classification is being terminated,
THEN **REFER TO** Enclosure 4.6, (Emergency Classification Termination Criteria), of this procedure for termination guidance.

- 3.13.1 Verify that the Offsite Communicator has provided termination message to the offsite agencies.

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

- 3.13.2 Notify Emergency Planning Section (Emergency Planning Duty person after hours) that the Unusual Event has been terminated.
- 3.13.3 Emergency Planning shall hold a critique following termination of any actual Unusual Event.

4. Enclosures

- 4.1 General Emergency
- 4.2 Site Area Emergency
- 4.3 Alert
- 4.4 Unusual Event
- 4.5 Operations Shift Manager to TSC Emergency Coordinator Turnover Sheet
- 4.6 Emergency Classification Termination Criteria
- 4.7 Condition A/Condition B Response Actions
- 4.8 ERO Pager Activation By Security

1. Immediate Actions

NOTE:

- State and County Agencies must be notified of event classification within **15 minutes** of Emergency Declaration.
- Provide Offsite Communicator with declaration time.

- 1.1 **IF** It has been determined that an Emergency Action Level for an Initiating Condition has been met,
THEN Declare a **General Emergency**.

Time of Declaration: _____

- 1.2 Appoint a person to maintain the Emergency Coordinator Log **OR** maintain the log yourself.

NOTE:

- Remind the Control Room Offsite Communicator that Follow Up notifications (updates) are required at least every **60 Minutes** for this classification.
- Condition A, Dam Failure (Keowee or Jocassee), **OR** Condition B also requires notification of the Georgia Emergency Management Agency and National Weather Service. Remind the Control Room Offsite Communicator to notify these agencies in addition to and after SC State, Oconee County, and Pickens County.

- 1.3 Appoint Control Room Offsite Communicator(s).
- 1.4 Provide the following Protective Action Recommendations for use by the Offsite Communicator to complete the Emergency Notification Form.

PROTECTIVE ACTION RECOMMENDATION	PICKENS COUNTY SECTORS							OCONEE COUNTY SECTORS						
	A0	A1	B1	C1	A2	B2	C2	A0	D1	E1	F1	D2	E2	F2
EVACUATE	X	X	X	X				X	X	X	X			
SHELTER					X	X	X					X	X	X

- 1.4.1 **IF** Condition A, Imminent or Actual Dam Failure (Keowee or Jocassee) exists,
THEN REFER TO Enclosure 4.7, (Condition A/Condition B Response Actions), Step 1.0, for additional Protective Action Recommendations.

Enclosure 4.1
General Emergency

RP/0/B/1000/002
Page 2 of 4

NOTE: Steps 1.6 - 1.13 may be started/completed while the Emergency Notification Form is being prepared by the Offsite Communicator.

- 1.5 Review and approve completed Emergency Notification Form.

1.5.1 Sign Emergency Notification Form.

NOTE: Activate the Alternate TSC and OSC in the Oconee Office Building, Rooms 316 and 316A, if a fire in the Turbine Building, flooding conditions, security events, or onsite/offsite hazardous materials spill have occurred or area occurring.

- 1.6 Activate the Emergency Response Organization (ERO) by completing the following actions.

1.6.1 Activate ERO Pagers as follows:

NOTE: Flooding/dam failure/earthquake conditions assume bridges may be impassable to reach emergency facilities. Provide the code below for these conditions.

- A. **IF** ERO activation for an Emergency (Blue Echo) is required,
THEN Press ERO Pager Activation Panel Button 1.
 - B. **IF** ERO activation for an Emergency affecting bridges (Blue Echo Bridges) is required,
THEN Press ERO Pager Activation Panel Button 2.
 - C. **IF** ERO activation for a Drill (Blue Delta) is required,
THEN Press ERO Pager Activation Panel Button 3.
 - D. **IF** ERO activation for a Drill affecting bridges (Blue Delta Bridges) is required,
THEN Press ERO Pager Activation Panel Button 4.
 - E. **IF** Alternate TSC/OSC will be used,
THEN Press ERO Pager Activation Panel Button 5.
 - F. **IF** A Security Event is in progress,
THEN Press ERO Pager Activation Panel Button 6.
- 1.6.2 Wait one minute and repeat step 1.6.1.
- 1.6.3 Monitor ERO Pager and verify that message has been provided to the ERO.
- 1.6.4 Repeat steps 1.6.1 - 1.6.3 if message is not displayed on ERO Pager.
- A. **REFER TO** Enclosure 4.8, (ERO Pager Activation By Security), if the ERO Pager is not activated by the completion of Steps 1.6.1 - 1.6.3.

General Emergency

- 1.6.5 **IF** ERO activation is after normal working hours,
THEN Contact Security at extension 3636 or 2309.

Security Officer Name _____

- A. Request Security Officer to activate the CAN call list.

WARNING: Conducting Site Assembly during a Security Event may not be prudent.

- 1.7 Contact the Security Shift Supervisor.

1.7.1 Inform the Security Shift Supervisor that the ERO has been activated.

1.7.2 Discuss the need to conduct Site Assembly.

- 1.8 **IF** A Security Event does **NOT** exist,
OR A Security Event does exist and the Security Shift Supervisor agrees,
THEN Conduct Site Assembly per RP/0/B/1000/009, (Procedure For Site Assembly),
Enclosure 4.1 and 4.3.

- 1.9 **IF** Area Radiation Monitors are in **ALARM**,
OR Steam Line Break has occurred,
THEN Contact shift RP and dispatch onsite monitoring teams.

NOTE:

- Remind the NRC Communicator to complete the NRC Event Notification Worksheet and Plant Status Sheet from OMP 1-14 (Notifications)
- An open line to the NRC may be required.

- 1.10 Appoint an SRO to notify the NRC immediately after notification of the Offsite Agencies but not later than **one (1) hour** after declaration of the emergency.

1.10.1 NRC Communicator (SRO) Name _____

NOTE: The NRC Communicator should be used to activate ERDS.

- 1.10.2 Start the Emergency Response Data System (ERDS) for unit(s) involved within **one (1) hour** of the emergency classification.

- A. **REFER TO** RP/0/B/1000/003A, (ERDS Operation).

General Emergency

- 1.11 Evacuate all non-essential personnel from the site after personnel accountability has been reached.
 - 1.11.1 **REFER TO** RP/0/B/1000/010, (Procedure For Emergency Evacuation/Relocation Of Site Personnel).
- 1.12 **IF** Condition A, Imminent or Actual Dam Failure (Keowee or Jocassee),
OR Condition B (Keowee) exists,
THEN **REFER TO** Enclosure 4.7, (Condition A/Condition B Response Actions), Step 2.0 or 3.0, for additional response actions.
- 1.13 Notify the Unit Operations Coordinator/Duty person of emergency status.
- 1.14 Return to Step 3.0, (Subsequent Actions), of this procedure.

1. Immediate Actions

- NOTE:**
- State and County Agencies must be notified of event classification within **15 minutes** of Emergency Declaration.

 - Provide Offsite Communicator with declaration time.

- 1.1 **IF** It has been determined that an Emergency Action Level for an Initiating Condition has been met,
THEN Declare a **Site Area Emergency**.

Time of Declaration: _____

- 1.2 Appoint a person to maintain the Emergency Coordinator Log **OR** maintain the log yourself.

- NOTE:**
- Remind the Control Room Offsite Communicator that Follow Up notifications (updates) are required at least every **60 Minutes** for this classification.

 - Condition A, Dam Failure (Keowee or Jocassee), **OR** Condition B also requires notification of the Georgia Emergency Management Agency and National Weather Service. Remind the Control Room Offsite Communicator to notify these agencies in addition to and after SC State, Oconee County, and Pickens County.

- 1.3 Appoint Control Room Offsite Communicator(s).
- 1.4 Provide the Protective Action Recommendations from Enclosure 4.7, (Condition A/ Condition B Response Actions), Step 1.0, for use by the Offsite Communicator if a Condition A, Imminent or Actual Dam Failure, exists.

- NOTE:** Steps 1.6 - 1.12 may be started/completed while the Emergency Notification Form is being prepared by the Offsite Communicator.

- 1.5 Review and approve completed Emergency Notification Form.
- 1.5.1 Sign Emergency Notification Form.

Enclosure 4.2
Site Area Emergency

RP/0/B/1000/002
Page 2 of 3

NOTE: Activate the Alternate TSC and OSC in the Oconee Office Building, Rooms 316 and 316A, if a fire in the Turbine Building, flooding conditions, security events, or onsite/offsite hazardous materials spill have occurred or area occurring.

1.6 Activate the Emergency Response Organization (ERO) by completing the following actions.

1.6.1 Activate ERO Pagers as follows:

NOTE: Flooding/dam failure/earthquake conditions assume bridges may be impassable to reach - emergency facilities. Provide the code below for these conditions.

- A. **IF** ERO activation for an Emergency (Blue Echo) is required,
THEN Press ERO Pager Activation Panel Button 1.
- B. **IF** ERO activation for an Emergency affecting bridges (Blue Echo Bridges) is required,
THEN Press ERO Pager Activation Panel Button 2.
- C. **IF** ERO activation for a Drill (Blue Delta) is required,
THEN Press ERO Pager Activation Panel Button 3.
- D. **IF** ERO activation for a Drill affecting bridges (Blue Delta Bridges) is required,
THEN Press ERO Pager Activation Panel Button 4.
- E. **IF** Alternate TSC/OSC will be used,
THEN Press ERO Pager Activation Panel Button 5.
- F. **IF** A Security Event is in progress,
THEN Press ERO Pager Activation Panel Button 6.

1.6.2 Wait one minute and repeat step 1.6.1.

1.6.3 Monitor ERO Pager and verify that message has been provided to the ERO.

1.6.4 Repeat steps 1.6.1 - 1.6.3 if message is not displayed on ERO Pager.

A. **REFER TO** Enclosure 4.8, (ERO Pager Activation By Security), if the ERO Pager is not activated by the completion of Steps 1.6.1 - 1.6.3.

1.6.5 **IF** ERO activation is after normal working hours,
THEN Contact Security at extension 3636 or 2309.

Security Officer Name _____

A. Request Security Officer to activate the CAN call list.

WARNING: Conducting Site Assembly during a Security Event may not be prudent.

- 1.7 Contact the Security Shift Supervisor.
 - 1.7.1 Inform the Security Shift Supervisor that the ERO has been activated.
 - 1.7.2 Discuss the need to conduct Site Assembly.
- 1.8 **IF** A Security Event does **NOT** exist,
OR A Security Event does exist and the Security Shift Supervisor agrees,
THEN Conduct Site Assembly per RP/0/B/1000/009, (Procedure For Site Assembly),
Enclosure 4.1 and 4.3.
- 1.9 **IF** Area Radiation Monitors are in **ALARM**,
OR Steam Line Break has occurred,
THEN Contact shift RP and dispatch onsite monitoring teams.

NOTE:

- Remind the NRC Communicator to complete the NRC Event Notification Worksheet and Plant Status Sheet from OMP 1-14 (Notifications)
- An open line to the NRC may be required.

- 1.10 Appoint an SRO to notify the NRC immediately after notification of the Offsite Agencies but not later than **one (1) hour** after declaration of the emergency.
 - 1.10.1 NRC Communicator (SRO) Name _____

NOTE: The NRC Communicator should be used to activate ERDS.

- 1.10.2 Start the Emergency Response Data System (ERDS) for unit(s) involved within **one (1) hour** of the emergency classification.
 - A. **REFER TO** RP/0/B/1000/003A, (ERDS Operation).
- 1.11 **IF** Condition A, Imminent or Actual Dam Failure (Keowee or Jocassee),
OR Condition B (Keowee) exists,
THEN **REFER TO** Enclosure 4.7, (Condition A/Condition B Response Actions),
Step 2.0 or 3.0, for additional response actions.
- 1.12 Notify the Unit Operations Coordinator/Duty person of emergency status.
- 1.13 Return to Step 3.0, (Subsequent Actions), of this procedure.

1. Immediate Actions

- NOTE:**
- State and County Agencies must be notified of event classification within **15 minutes** of Emergency Declaration.
 - Provide Offsite Communicator with declaration time.

- 1.1 **IF** It has been determined that an Emergency Action Level for an Initiating Condition has been met,
THEN Declare an **Alert**.

Time of Declaration: _____

- 1.2 Appoint a person to maintain the Emergency Coordinator Log **OR** maintain the log yourself.

- NOTE:**
- Remind the Control Room Offsite Communicator that Follow Up notifications (updates) are required at least every **60 minutes** for this classification.
 - Condition B for Keowee Hydro Project Dams/Dikes also requires notification of the Georgia Emergency Management Agency and National Weather Service. Remind the Control Room Offsite Communicator to notify these agencies in addition to and after SC State, Oconee County, and Pickens County.

- 1.3 Appoint Control Room Offsite Communicator(s).

- NOTE:** Steps 1.5 - 1.11 may be started/completed while the Emergency Notification Form is being prepared by the Offsite Communicator.

- 1.4 Review and approve completed Emergency Notification Form.

1.4.1 Sign Emergency Notification Form.

NOTE: Activate the Alternate TSC and OSC in the Oconee Office Building, Rooms 316 and 316A, if a fire in the Turbine Building, flooding conditions, security events, or onsite/offsite hazardous materials spill have occurred or area occurring.

- 1.5 Activate the Emergency Response Organization (ERO) by completing the following actions.

1.5.1 Activate ERO Pagers as follows:

NOTE: Flooding/dam failure/earthquake conditions assume bridges may be impassable to reach emergency facilities. Provide the code below for these conditions.

- A. **IF** ERO activation for an Emergency (Blue Echo) is required,
THEN Press ERO Pager Activation Panel Button 1.
- B. **IF** ERO activation for an Emergency affecting bridges (Blue Echo Bridges) is required,
THEN Press ERO Pager Activation Panel Button 2.
- C. **IF** ERO activation for a Drill (Blue Delta) is required,
THEN Press ERO Pager Activation Panel Button 3.
- D. **IF** ERO activation for a Drill affecting bridges (Blue Delta Bridges) is required,
THEN Press ERO Pager Activation Panel Button 4.
- E. **IF** Alternate TSC/OSC will be used,
THEN Press ERO Pager Activation Panel Button 5.
- F. **IF** A Security Event is in progress,
THEN Press ERO Pager Activation Panel Button 6.
- 1.5.2 Wait one minute and repeat step 1.5.1.
- 1.5.3 Monitor ERO Pager and verify that message has been provided to the ERO.
- 1.5.4 Repeat steps 1.5.1 - 1.5.3 if message is not displayed on ERO Pager.
- A. **REFER TO** Enclosure 4.8, (ERO Pager Activation By Security), if the ERO Pager is not activated by the completion of Steps 1.5.1 - 1.5.3.
- 1.5.5 **IF** ERO activation is after normal working hours,
THEN Contact Security at extension 3636 or 2309.

Security Officer Name _____

- A. Request Security Officer to activate the CAN call list.

WARNING: Conducting Site Assembly during a Security Event may not be prudent.

- 1.6 Contact the Security Shift Supervisor.
- 1.6.1 Inform the Security Shift Supervisor that the ERO has been activated.
- 1.6.2 Discuss the need to conduct Site Assembly.
- 1.7 **IF** A Security Event does **NOT** exist,
OR A Security Event does exist and the Security Shift Supervisor agrees,
THEN Conduct Site Assembly per RP/0/B/1000/009, (Procedure For Site Assembly),
Enclosure 4.1 and 4.3.
- 1.8 **IF** Area Radiation Monitors are in **ALARM**,
OR Steam Line Break has occurred,
THEN Contact shift RP and dispatch onsite monitoring teams

NOTE:

- Remind the NRC Communicator to complete the NRC Event Notification Worksheet and Plant Status Sheet from OMP 1-14 (Notifications).
- An open line to the NRC may be required.

- 1.9 Appoint an SRO to notify the NRC immediately after notification of the Offsite Agencies but not later than **one (1) hour** after declaration of the emergency.
- 1.9.1 NRC Communicator (SRO) Name _____

NOTE: The NRC Communicator should be used to activate ERDS.

- 1.9.2 Start the Emergency Response Data System (ERDS) for unit(s) involved within **one (1) hour** of the emergency classification.
- A. **REFER TO** RP/0/B/1000/003A, (ERDS Operation).
- 1.10 **IF** Condition B at Keowee exists,
THEN **REFER TO** Enclosure 4.7, (Condition A/Condition B Response Actions),
Step 3.0, for additional response actions.
- 1.11 Notify the Unit Operations Coordinator/Duty person of emergency status.
- 1.12 Return to Step 3.0, (Subsequent Actions), of this procedure.

1. Immediate Actions

- NOTE:**
- State and County Agencies must be notified of event classification within **15 minutes** of Emergency Declaration.
 - Provide Offsite Communicator with declaration time.

- 1.1 **IF** It has been determined that an Emergency Action Level for an Initiating Condition has been met,
THEN Declare an **Unusual Event**.

Time of Declaration: _____

- 1.2 Appoint a person to maintain the Emergency Coordinator Log **OR** maintain the log yourself.

- NOTE:**
- Remind the Control Room Offsite Communicator that an Initial Message and a Termination Message are required for this classification. No Follow Up Notifications (updates) are required unless requested by the Offsite Agencies.
 - Condition B for Keowee Hydro Project Dams/Dikes also requires notification of the Georgia Emergency Management Agency and National Weather Service. Remind the Control Room Offsite Communicator to notify these agencies in addition to and after SC State, Oconee County, and Pickens County.

- 1.3 Appoint Control Room Offsite Communicator(s).

- NOTE:** Steps 1.5 - 1.11 may be started/completed while the Emergency Notification Form is being prepared by the Offsite Communicator.

- 1.4 Review and approve completed Emergency Notification Form.

1.4.1 Sign Emergency Notification Form.

- 1.5 **IF** Condition B at Keowee exists,
THEN **REFER TO** Enclosure 4.7, (Condition A/Condition B Response Actions), Step 3.0, for additional response actions.

- NOTE:**
- Activation of the ERO is **NOT** required for an Unusual Event Classification.
 - Activate the Alternate TSC and OSC in the Oconee Office Building, Rooms 316 and 316A, if a fire in the Turbine Building, flooding conditions, security events, or onsite/offsite hazardous materials spills have occurred or are occurring.

- 1.6 **IF** Emergency Response Organization (ERO) activation is desired,
THEN Complete the following actions.

1.6.1 Activate ERO Pagers as follows:

- NOTE:** Flooding/dam failure/earthquake conditions assume bridges may be impassable to reach emergency facilities. Provide the code below for these conditions.

- A. **IF** ERO activation for an Emergency (Blue Echo) is required,
THEN Press ERO Pager Activation Panel Button 1.
 - B. **IF** ERO activation for an Emergency affecting bridges (Blue Echo Bridges) is required,
THEN Press ERO Pager Activation Panel Button 2.
 - C. **IF** ERO activation for a Drill (Blue Delta) is required,
THEN Press ERO Pager Activation Panel Button 3.
 - D. **IF** ERO activation for a Drill affecting bridges (Blue Delta Bridges) is required,
THEN Press ERO Pager Activation Panel Button 4.
 - E. **IF** Alternate TSC/OSC will be used,
THEN Press ERO Pager Activation Panel Button 5.
 - F. **IF** A Security Event is in progress,
THEN Press ERO Pager Activation Panel Button 6.
- 1.6.2 Wait one minute and repeat step 1.6.1.
- 1.6.3 Monitor ERO Pager and verify that message has been provided to the ERO.
- 1.6.4 Repeat steps 1.6.1 - 1.6.3 if message is not displayed on ERO Pager.
- A. **REFER TO** Enclosure 4.8, (ERO Pager Activation By Security), if the ERO Pager is not activated by the completion of Steps 1.6.1 - 1.6.3.

Unusual Event

- 1.6.5 **IF** ERO activation is after normal working hours,
THEN Contact Security at extension 3636 or 2309.

Security Officer Name _____

- A. Request Security Officer to activate the CAN call list.

WARNING: Conducting Site Assembly during a Security Event may not be prudent.

- 1.7 Contact the Security Shift Supervisor.
- 1.7.1 Inform the Security Shift Supervisor that the ERO has been activated.
- 1.7.2 Discuss the need to conduct Site Assembly.

NOTE: Consider conducting a Site Assembly if a Hazardous Materials spill affecting personnel safety is involved; or, if personnel safety is a concern.

- 1.8 **IF** The Emergency Response Organization is needed to assist with the Unusual Event emergency activities,
AND A Security Event does **NOT** exist,
OR A Security Event does exist and the Security Shift Supervisor agrees,
THEN Conduct Site Assembly per RP/0/B/1000/009, (Procedure For Site Assembly), Enclosure 4.1 and 4.3.
- 1.8.1 Document the decision to conduct Site Assembly in the Control Room Emergency Coordinator Log.
- 1.9 **IF** Area Radiation Monitors are in **ALARM**,
OR Steam Line Break has occurred,
THEN Contact shift RP and dispatch onsite monitoring teams

NOTE:

- Remind the NRC Communicator to complete the NRC Event Notification Worksheet and Plant Status Sheet from OMP 1-14 (Notifications).
- An open line to the NRC may be required.

- 1.10 Appoint an SRO to notify the NRC immediately after notification of the Offsite Agencies but not later than **one (1) hour** after declaration of the emergency.
- 1.10.1 NRC Communicator (SRO) Name _____
- 1.11 Notify the Unit Operations Coordinator/Duty person of emergency status.
- 1.12 Return to Step 3.0, (Subsequent Actions), of this procedure.

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 _____

Operations Shift Manager To TSC Emergency Coordinator Turnover Sheet

Classification Procedure in Use:

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

Is RP/0/B/1000/03A, (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.)

Three horizontal lines for handwritten input.

Next message due to Offsite Agencies at Time: _____

Operations Shift Manager/CR _____ Time: _____

Emergency Coordinator/TSC _____ Time: _____

Enclosure 4.6
Emergency Classification Termination
Criteria

RP/0/B/1000/002
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. Existing conditions no longer meet the existing emergency classification criteria and it appears unlikely that conditions will deteriorate further.
- _____ 2. Radiation levels in affected in-plant areas are stable or decreasing to below acceptable levels.
- _____ 3. Releases of radioactive material to the environment greater than Technical Specifications are under control or have ceased.
- _____ 4. The potential for an uncontrolled release of radioactive material is at an acceptably low level.
- _____ 5. Containment pressure is within Technical Specification requirements.
- _____ 6. Long-term core cooling is available.
- _____ 7. The shutdown margin for the core has been verified.
- _____ 8. A fire, flood, earthquake, or similar emergency condition is controlled or has ceased.
- _____ 9. Offsite power is available per Technical Specification requirements.
- _____ 10. All emergency action level notifications have been completed.
- _____ 11. The Area Hydro Manager has been notified of termination of Condition B for Keowee Hydro Project.
 - ◆ **REFER TO** Section 6 of the Emergency Telephone Directory, (Keowee Hydro Project Dam/Dike Notification).
- _____ 12. The Regulatory Compliance Section has evaluated plant status with respect to Technical Specifications and recommends Emergency classification termination.
- _____ 13. Emergency terminated. Request the Control Room Offsite Communicator to complete an Emergency Notification Form for a Termination Message using guidance in RP/0/1000/015A, (Offsite Communications From The Control Room), and provide information to offsite agencies.
 - ◆ Return to Step 3.13.1.

Date/Time

Initial

1. Condition A Response - Immediate Actions

- 1.1 **IF** Condition A, Imminent or Actual Dam Failure (Keowee or Jocassee) exists,
THEN Perform the following actions:
 - 1.1.1 Provide the following **protective action recommendations** to Oconee County and Pickens County for imminent/actual dam failure.
 - A. Provide the following recommendation for Emergency Notification Form Section 15 (B) Evacuate:
 - 1. Move residents living downstream of the Keowee Hydro Project dams to higher ground.
 - B. Provide the following recommendation for Emergency Notification Form Section 15 (D) Other:
 - 1. Prohibit traffic flow across bridges identified on your inundation maps until the danger has passed.
- 1.2 Return to applicable Enclosure (4.1 or 4.2).
 - 1.2.1 **IF** A General Emergency has been declared,
THEN GO TO Step 1.5 of Enclosure 4.1, (General Emergency).
 - 1.2.2 **IF** A Site Area Emergency has been declared,
THEN GO TO Step 1.5 of Enclosure 4.2, (Site Area Emergency).

2. Condition A Response - Subsequent Actions

- 2.1 Notify the Duke Power System Coordinator (Systems Operation Center) on the Control Room Dispatcher phone and provide information related to the event.
- 2.2 Relocate Keowee personnel to the Operational Support Center (OSC) if events occur where their safety could be affected.
 - 2.2.1 **IF** Keowee personnel are relocated to the OSC,
THEN Notify the Duke Power System Coordinator (Systems Operation Center) on the Control Room Dispatcher phone.

NOTE: A loss of offsite communications capabilities (Selective Signaling and the Wide Area Network - 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**.

- 2.3 Notify Telecommunications Group in Charlotte to begin rerouting the Oconee Fiber Optic Network.

2.3.1 **REFER TO** Selective Signaling Section of the Emergency Telephone Directory (page 9).

- 2.4 Request Security to alert personnel at the Security Track/Firing Range and Building 8055 (Warehouse #5) to relocate to work areas inside the plant.

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 (Newry Dam) or Dikes A-D will take longer to affect this road.
- PA Announcements can be made by the Control Room using the Office Page Override feature or Security.

- 2.5 Make a PA Announcement to relocate personnel at the following locations to the World Of Energy/Operations Training Center.

_____ Oconee Complex

_____ Oconee Garage

_____ Oconee Maintenance Training Facility

- 2.6 Dispatch operators to the SSF and establish communications.

- 2.7 Return to applicable Enclosure (4.1 or 4.2).

- 2.7.1 **IF** A General Emergency has been declared,
THEN **GO TO** Step 1.13 of Enclosure 4.1, (General Emergency).

- 2.7.2 **IF** A Site Area Emergency has been declared,
THEN **GO TO** Step 1.12 of Enclosure 4.2, (Site Area Emergency).

3. Condition B Response - Immediate Actions

- 3.1 **IF** Condition B at Keowee exists,
THEN Notify the Area Hydro Manager.
 - 3.1.1 **REFER TO** Section 6 of the Emergency Telephone Directory, (Keowee Hydro Project Dam/Dike Notification).
- 3.2 Return to applicable Enclosure (4.1, or 4.2, or 4.3, or 4.4).
 - 3.2.1 **IF** A General Emergency has been declared,
THEN **GO TO** Step 1.13 of Enclosure 4.1, (General Emergency).
 - 3.2.2 **IF** A Site Area Emergency has been declared,
THEN **GO TO** Step 1.12 of Enclosure 4.2, (Site Area Emergency).
 - 3.2.3 **IF** An Alert has been declared,
THEN **GO TO** Step 1.11 of Enclosure 4.3, (Alert).
 - 3.2.4 **IF** An Unusual Event has been declared,
THEN **GO TO** Step 1.6 of Enclosure 4.4, (Unusual Event).

ERO Pager Activation By Security

1. Symptoms

1.1 Activation of the ERO Pagers using the ERO Pager Activation Panel in the TSC was unsuccessful.

2. Immediate Actions

2.1 Activate the Emergency Response Organization (Technical Support Center, Operational Support Center, and Emergency Operations Facility) by completing the following actions.:

2.1.1 Contact Security.

A. Dial 3636 (Dial 2309 if no response is received).

Security Officer Name _____

2.1.2 Read the following information to the Security:

A. The Emergency Response Organization (Technical Support Center, Operational Support Center, and Emergency Response Facility) is being activated for an emergency relating to Unit # _____.

NOTE: Activate the Alternate TSC and OSC in the Oconee Office Building, Rooms 316 and 316A, if a fire in the Turbine Building, flooding conditions, security events, or onsite/offsite hazardous materials spills have occurred or are occurring.

B. _____ Primary TSC/OSC will be used

OR

_____ Alternate TSC/OSC will be used

C. This is a _____ Blue Delta (Drill) activation

OR

This is a _____ Blue Echo (Emergency) activation

NOTE: Flooding/dam failure/earthquake conditions assume bridges may be impassable to reach emergency facilities. Provide the code below for these conditions.

D. This is a _____ Blue Delta Bridges (Drill) activation

OR

This is a _____ Blue Echo Bridges (Emergency) activation

INFORMATION ONLY

ONS Human Resources Procedure

Approved: Anthony Rose

Approval Date: 4-26-00

ONS Human Resources Emergency Plan

1.0 PURPOSE

The purpose of this procedure is to delineate the role that the Oconee HR Group fulfills in support of the ONS Emergency Plan.

NOTE: The Emergency Preparedness Section must review revisions to this procedure and receive a control copy within three (3) working days of approval.

2.0 APPLICABILITY

This procedure applies to the Oconee Human Resources (OHR) Group (i.e., Core HR, Security, Medical) and applicable vendor/contract personnel.

3.0 DESCRIPTION

This procedure broadly defines the role of the Oconee Human Resource (OHR) Group during an emergency/drill. Each HR section shall develop a mechanism to fulfill requirements identified by this procedure (e.g., training/guidelines/procedure). Additional implementation guidance may be included as part of other documents (e.g., Response Procedures, Site Directives).

The guidance in this procedure shall not prevent any member of the HR group from taking actions deemed necessary to contend with urgent circumstances.

4.0 PROCEDURE

4.1 **ACCOUNTABILITY of PERSONNEL**

All HR personnel shall assemble at their designated assembly location.

Core HR personnel who are **inside** the protected area during a site assembly and whose designated assembly point is **inside** the protected area, should:

1. proceed to designated assembly point,
2. swipe security badge at the nearest security badge card reader (badge reader locations can be found in NSD-114),
3. notify designated site assembly contact person within 10 minutes, and
4. remain at designated assembly location and await further instructions.

Core HR personnel who are **inside** the protected area during a site assembly and whose designated assembly point is **outside** the protected area, should:

1. exit the protected area,
2. proceed to the HR Manager's office,
3. notify designated site assembly contact person within 10 minutes,
4. remain in the HR Manager's office and await further instructions.

Core HR personnel (non-ERO) who are **outside** the protected area during a site assembly and whose designated assembly point is **inside** the protected area, should:

1. notify designated site assembly contact person within 10 minutes,
2. remain where they are and await further instructions.

(Note: ERO personnel will respond according to their ERO responsibilities.)

Core HR personnel who are **outside** the protected area during a site assembly and whose designated assembly point is **outside** the protected area, should:

1. proceed to designated site assembly point
2. notify designated site assembly contact person within 10 minutes, and
3. remain at designated assembly location and await further instructions.

Personnel shall remain at their assembly locations until released by the Emergency Coordinator/designee. In the event special instructions are necessary (e.g., site evacuation), information will be provided through the TSC/supervisory process at assembly locations.

4.1.1 Site Assembly - Normal Work Hours (Monday - Thursday)

Designated site assembly contacts (reference Enclosure 5.1) shall be responsible for ensuring that their section accountability status is reported per the following:

- 1) Medical personnel should report accountability to Core HR Site Assembly Contact within 10 minutes.
- 2) Core HR Site Assembly Contact should report accountability for **both** Core HR and Medical to extension 5050 within 15 minutes. Site assembly contact is responsible for following the instructions given on the phone mail message when extension 5050 is called.

4.1.2 Site Assembly - Backshifts, Weekends, and Holidays

If present, the supervisor/designee shall report accountability status for their employees to extension 5050 within 15 minutes, and await further instructions.

If a supervisor/designee is not present, each individual is responsible for calling extension 5050 to report their accountability status.

Site assembly contacts are responsible for following the instructions given on the phone mail message when extension 5050 is called.

4.2 TECHNICAL/OPERATIONAL SUPPORT CENTER (TSC/OSC)

4.2.1 Locations

a. Primary

- TSC: Unit 1&2 Control Room
- OSC: Unit 3 Control Room

b. Alternate

- TSC: Oconee Office Building Room 316
- OSC: Oconee Office Building Room 316A

4.2.2 Staffing

4.2.2.1 Technical Support Center

No routine staffing requirements exist for Oconee Human Resource (OHR) personnel in the Technical Support Center. However, circumstances may dictate that OHR personnel fulfill certain roles/duties within the TSC (as required by the Emergency Coordinator/designee).

4.2.2.2 OSC Security Liaison

The Security Manager/designee shall report to the OSC in accordance with applicable Security Guidelines.

4.2.2.3 EOF Access and Control

Upon activation of the TSC/OSC/EOF, designated Security personnel shall respond to the Emergency Operations Facility in accordance with applicable procedures/guidelines.

4.2.3 **Notification of Activation**

a. Normal Work Hours

Notification of TSC/OSC/EOF activation will normally occur over the site public address system. Designated TSC/OSC/EOF personnel shall respond as required.

b. Off-Normal Work Hours

During backshift, weekends, and holidays TSC/OSC/EOF response personnel shall be notified as described in their applicable section procedures and guidelines. Fitness for Duty (FFD) considerations are applicable for TSC/OSC/EOF call-outs.

4.3 **CONTROL of SITE INGRESS/EGRESS**

During a Site Assembly/Event, Security personnel shall be responsible for:

1. controlling site owner controlled area access via electronic/mechanical access control systems or by posting of security personnel, and
2. assisting in the orderly evacuation of personnel from the site as necessary.

4.4 **SITE EVACUATION or RELOCATION**

The position of Human Resource Group Evacuation Coordinator is fulfilled by designated OHR Managers as listed in Enclosure 5.1. The Group Evacuation Coordinator should work with the Security Liaison in the OSC to:

- (1) determine essential personnel who should remain on-site,
- (2) provide continuous (24 hour) coverage for essential functions,
- (3) convey preliminary evacuation instructions to each OHR Section Manager/Assembly Point Contact; and
- (4) coordinate evacuation/relocation of OHR personnel.

Evacuation/relocation instructions will be provided to assembly point contacts by the OHR Group Evacuation Coordinator. Evacuation instructions may also be provided to site personnel: (1) over the Site public address system by the Emergency Coordinator/designee; and (2) on-line using the “Evacuation Plan” icon (shown below) located in the Oconee Information Library”.



← Evacuation Plan icon is located in the Oconee Information Library

4.5 **DRILL TEAM SCENARIO TEAM REPRESENTATIVES**

Security shall maintain a standing representative on the Site Drill Scenario Development Team. The Security Manager shall be responsible for selecting an individual for assignment to this team and determining the length of the assignment. As needed, additional support from Human Resource Personnel may be necessary to assist in scenario development/drills.

The Security Scenario Development Team Representative shall be responsible for: documenting participation of all involved OHR drill/training participants; attending team meetings and assisting in the development of drill scenarios; participating in drill critiques and providing feedback to Human Resources personnel as necessary; initiating changes to applicable procedures as necessary; and coordinating the resolution of findings, commitments, or action items identified in drill critiques with applicable sections.

5.0 **ENCLOSURES**

Enclosure 5.1 - “OHR Site Assembly Contacts and Group Evacuation Coordinators”

OHR Site Assembly Contacts and Group Evacuation Coordinators

- **SITE ASSEMBLY SECTION CONTACTS**

Core Human Resources (HR).....Non-Security Human Resource Personnel
Medical Personnel

- ◆ **Primary Contact**.....Teresa Stewart (3004)
- ◆ **Alternate Contact**.....Donna Hellams (3366)

(Note: This person is responsible for reporting **both** Core HR and Medical accountability to extension 5050.)

- **HR GROUP EVACUATION COORDINATORS**

- ◆ **Primary Contact**.....Don Karns (4070)
- ◆ **Alternate Contact**.....Paulette LeCroy (3165)

- **OSC SECURITY LIASION**

- ◆ **Primary OSC**.....extension 3176
- ◆ **Alternate OSC**.....extension 3421

- **EOF SECURITY CONTACT**

- ◆ **EOF Lobby Area**.....624-4960 or 624-4959

- **SECURITY SHIFT SUPERVISOR CONTACT** - extension 2309