

August 13, 1998 3F0898-10

U. S. Nuclear Regulatory CommissionAttn: Document Control DeskWashington, DC 20555-0001

Subject:

Crystal River Unit 3 Emergency Action Levels

Reference:

FPC to NRC letter, 3F0698-18, dated June 10, 1998, "Radiological Emergency

A0451

Response Plan - Revision to Emergency Action Levels"

Dear Sir:

The purpose of this letter is to provide an "Information Only" copy of Emergency Plan Implementing Procedure, EM-202, "Duties of the Emergency Coordinator." A request was made by the NRR Project Manager for Florida Power Corporation (FPC) to provide a copy of the aforementioned procedure in order to assist the NRC's review of the above referenced letter. The attached EM-202, Rev. 59, is the most current revision to this procedure.

If you have any questions regarding this submittal, please contact Mr. John Stephenson, Manager, Radiological Emergency Planning at (352) 563-4522.

Sincerely,

R. E. Grazio

Director, Nuclear Regulatory Affairs

REG/ff

Attachment

xc: Regional Administrator, Region II Senior Resident Inspector

NRR Project Manager

9808170264 980813 PDR ADOCK 05000302 F

Rev. 59

Effective Date 6-12-98

### INFORMATION ONLY

EMERGENCY PLAN IMPLEMENTING PROCEDURE

EM-202

FLORIDA POWER CORPORATION

CRYSTAL RIVER UNIT 3

DUTIES OF THE EMERGENCY COORDINATOR

APPROVED BY: Procedure Owner

DATE.

PROCEDURE OWNER: Manager, Radiological

Emergency Planning

### TABLE OF CONTENTS

SECTION	E
1.0 PURPOSE	1
2.0 REFERENCES.  2.1 IMPLEMENTING REFERENCES.	7
2.2 DEVELOPMENTAL REFERENCES	2
3.0 PERSONNEL INDOCTRINATION.  3.1 DEFINITIONS  3.1.1 Committed Dose Equivalent (CDE)  3.1.2 Deep Dose Equivalent (DDE)  3.1.3 Emergency Classification  3.1.4 Emergency Action Level (CAL)  3.1.5 Emergency Coordinator (EC)  3.1.6 Emergency Response Data System (ERDS)  3.1.7 Incident Report  3.1.8 Local Assembly Area  3.1.9 Main Assembly Area  3.1.10 Potential Release  3.1.11 Protective Action Recommendations  3.1.12 Release (State Form)  3.1.13 Security Emergency	22223344444555
3.1.15 Total Effective Dose Equivalent (TEDE)	5
3.1.16  Inplanned Release (NRC Form)  3.2 RESPONSIBILITIES.  3.3 LIMITS AND PRECAUTIONS.	5
4.0 INSTRUCTIONS  4.1 EMERGENCY COORDINATOR'S GUIDE FOR UNUSUAL EVENT	8036
ENCLOSURES	
1 Emergency Classification Table	
for Nuclear Power Plants	2
FPC Organization (Optional Records Non-Quality)	5

### 1.0 PURPOSE

Provides instructions and guidelines used by the Emergency Coordinator during initiation of the Radiological Emergency Response Plan. Specific guidelines include emergency classification, reporting and notification requirements, and protective action recommendations for non-essential generating complex personnel and the general public.

### 2.0 REFERENCES

### 2.1 IMPLEMENTING REFERENCES

- 2.1.1 Crystal River Coal Plant Site Accountability/Evacuation Manual.
- 2.1.2 EM-102, Activation, Operation, and Staffing of the Technical Support Center and Operational Support Center.
- 2.1.3 EM-103, Operation and Staffing of the CR-3 Control Room During Emergency Classification.
- 2.1.4 EM-204 (A), Off-Site Dose Assessment During Radiological Emergencies (Initial Assessment Method).
- 2.1.5 EM-204 (B), Off-Site Dose Assessment During Radiological Emergencies (Computer Method).
- 2.1.6 EM-205, Emergency Assembly, Evacuation and Accountability of Personnel Within the Protected Area.
- 2.1.7 EM-206, Emergency Plan Roster and Notification.
- 2.1.8 EM-210A, Duties of the Radiation Monitoring Team (On-Site).
- 2.1.9 EM-210B, Duties of the Radiation Monitoring Team (Off-Site).
- 2.1.10 EM-213, Medical Emergency Procedures.
- 2.1.11 EM-216, Duties of the Nuclear Plant Fire Brigade.
- 2.1.12 EM-219, Duties of the Dose Assessment Team.
- 2.1.13 EM-225, Duties of the Technical Support Center Accident Assessment Team.
- 2.1.14 Emergency Coordinator's Manual.
- 2.1.15 EOP-07, Inadequate Core Cooling.
- 2.1.16 Off-site Dose Calculation Manual.
- 2.1.17 Technical Specifications.

EM-202 Rev. 59 Page 1

2.1.18 10 CFR 50.72, Immediate Notification Requirements for Operating Nuclear Power Reactors.

### 2.2 DEVELOPMENTAL REFERENCES

- 2.2.1 Radiological Emergency Response Plan (RERP).
- 2.2.2 Manual of Protective Action Guides And Protection Actions for Nuclear Incidents, EPA-400-R-92-001, Environmental Protection Agency (October, 1991).

### 3.0 PERSONNEL INDOCTRINATION

NOTE: A Safety Assessment was performed for this procedure. A determination was made that this procedure is outside the scope of 10 CFR 50.59.

### 3.1 <u>DEFINITIONS</u>

### 3.1.1 Committed Dose Equivalent (CDE)

Dose to an organ due to the intake of radioactive materials.

### 3.1.2 Deep Dose Equivalent (DDE)

External whole body dose.

### 3.1.3 Emergency Classification

A system of classification in which emergency occurrences are rategorized according to specific protective action levels. The four emergency classification are:

### 3.1.3.1 Unusual Event

This classification refers to any event(s), in process or having occurred, indicating a potential degradation of the level of safety of the plant. This classification brings the operating staff to a state of readiness if escalation to a more severe action level classification occurs.

### 3.1.3.2 Alert

This classification refers to event(s) that are in process, or have occurred, involving an actual or potentially substantial degradation of the level of safety of the plant. The Technical Support Center (TSC) is staffed and assembly and accountability are performed at local assembly areas.

### 3.1.3.3 Site Area Emergency

This classification refers to event(s) that are in process, or have occurred, involving actual or likely major failures of plant functions needed for the protection of the public. The TSC and the Emergency Operations Facility (EOF) are staffed and radiation monitoring teams may be dispatched. Protected Area evacuation and accountability is performed at CR-3. Assembly and accountability is performed at Units 1, 2, 4 and 5.

### 3.1.3.4 General Emergency

This classification refers to event(s) that are in process, or have occurred, involving actual or imminent substantial core degradation or nuclear fuel melting with the potential for loss of containment integrity. This classification initiates predetermined protective actions for the public, provides continuous assessment of information from on-site and off-site measurements, initiates additional measures indicated by the event, and provides current information and consultation with off-site authorities and the public. The Emergency Coordinator may decide to evacuate the Generating Complex.

### 3.1.4 Emergency Action Level (EAL)

A pre-determined, observable threshold for plant conditions that places the plant in a given emergency classification.

### 3.1.5 Emergency Coordinator (EC)

The position with the highest level of authority for the CR-3 Emergency Organization and on-site emergency activities. This position is held by the Director Nuclear Plant Operations or designated alternate. The Nuclear Shift Manager assumes the position until the Director Nuclear Plant Operations or designated alternate arrives to assume Emergency Coordinator responsibilities.

### 3.1.6 Emergency Response Data System (ERDS)

NRC requirement {(10 CFR 50.72(a)(4)} to have the ability to acquire data from nuclear power plants in the event of an emergency at the plant. ERDS is a direct real-time transfer of data from FPC to NRC. Once initiated, ERDS operates automatically.

### 3.1.7 Incident Report

A report of the actual scenario of the emergency, the identified cause(s) of the emergency, and the radiological history of the emergency, including released quantities, existing radiological activity, abnormal doses for emergency worker and population doses.

### 3.1.8 Local Assembly Area

A pre-designated area personnel report for organization, roll call, and supervision following an "Alert" emergency classification.

### 3.1.9 Main Assembly Area

The place personnel report for organization and supervision following an evacuation of the CR-3 protected area. The primary Main Assembly Area is the Nuclear Administration Building, the secondary Main Assembly Area is the Receiving Warehouse.

### 3.1.10 Potential Release

A release that is probably occurring but has not been confirmed by direct measurement; OR conditions exist during which a release could occur regardless of initial mitigation efforts. Examples include the following:

High Containment Building pressure causing Design Basis Leakage.

Open Atmospheric Dump Valves and/or Main Steam Safety Valves during a possible steam generator tube rupture event.

Uncontrolled radioactive liquids or gases that could be released a monitored through open hatches or due to out-of-service effluent monitors from the Containment Building, Auxiliary Building, or other Protected Area Structures.

### 3.1.11 Protective Action Recommendations

Emergency measures recommended for purposes of preventing or minimizing radiological exposures to Generating Complex personnel or members of the general public. Protective Action Recommendations are made using all available data, primarily plant conditions. Off-site dese rojections and/or field survey results can also be factored in to Protective Action Recommendations if confidence in their accuracy is high (monitored release, confirmed field survey results).

### 3.1.12 Release (State Form)

Any increase in count rate on an effluent monitor that is a direct result of an event that has initiated an emergency declaration; or radioactivity escaping unmonitored from the plant, but detected by environmental monitoring.

### 3.1.13 Security Emergency

A Security related situation that poses a clear or imminent threat or danger to the plant and calls for prompt response and/or is confirmed as an act of sabotage.

### 3.1.14 Thyroid CDE Dose

Dose to the thyroid due to intake of radioactive iodine.

### 3.1.15 Total Effective Dose Equivalent (TEDE)

The sum of external dose (DDE) and the equivalent amount of whole body dose due to individual organ uptakes.

### 3.1.16 Unplanned Release (NRC Form)

An unintended discharge of liquid or airborne radioactivity to the environment.

### 3.2 RESPONSIBILITIES

- 3.2.1 The Emergency Coordinator controls all activities at CR-3 during activation of the Radiological Emergency Response Plan.
- 3.2.2 The Emergency Coordinator shall not delegate the decisions related to classification of the emergency condition.
- The Emergency Coordinator shall not delegate the decisions related to notification and protective action recommendations to State and Local authorities who implement off-site emergency measures, until the EOF Director communicates to the Emergency Coordinator the EOF accepts the State notification and Protective Action Recommendations (PARs) responsibilities. At this time, the EOF completes the State of Florida Notification Form.
- 3.2.4 Upon arrival on-site, the Director Nuclear Plant Operations or designated alternate contacts the Control Room Emergency Coordinator or goes to the Control Room and receives a briefing about the status of the emergency condition and the implementation of the Radiological Emergency Response Plan. When ready to assume responsibility as the Emergency Coordinator, inform the Control Room Emergency Coordinator and Technical Support Center staff.
- 3.2.5 The Emergency Coordinator provides the Emergency Operations Facility Director an incident report when a sustained Site Area Emergency or General Emergency involves a Recovery Plan. This documents the emergency and serves as a basis for recovery phase operations.
- 3.2.6 During declared emergency conditions, the Emergency Coordinator is the sole contact for emergency regulatory directives. The Emergency Coordinator evaluates these directives for possible response to the emergency condition.
- 3.2.7 The Emergency Coordinator responsibilities in other Emergency Plan Implementing Procedures are implemented when plant conditions warrant.
- 3.2.8 Based on the evaluation of the emergency condition, the Emergency Coordinator has the authority to implement the following actions:
  - Direct personnel to shelter or evacuate the Crystal River Generating Complex.
  - Order Crystal River Generating Complex Plants placed in a safe shutdown condition.
  - Notify all applicable agencies of the plant status.
  - Suspend security safeguards as appropriate. (10 CFR 50.54(x)(y)
  - Request outside assistance, if necessary.
  - Make the necessary personnel assignments to provide continuing response for long-term activities.

- 3.2.9 The Emergency Coordinator reports to the EOF Director, once the EOF is operational.
- 3.2.10 The EOF Director is responsible for the direction and control of all emergency phase activities once the EOF is declared operational. The EOF Director has authority and responsibility for management of emergency response resources, coordination of radiological and environmental assessment, recommendations for public protective actions, and coordination of emergency response activities with Federal, State, and local agencies.
- 3.2.11 Nuclear Licensing is responsible for preparing a written summary of any Alert, Site Area or General emergency for the NRC and the State of Florida within twenty-four hours (or the next working day) from termination of the event.

### 3.3 LIMITS AND PRECAUTIONS

- 3.3.1 Upon declaration of a GENERAL EMERGENCY, the minimum protective action recommendation is:
  - \* 0 5 MILE, 360 DEGREE PRECAUTIONARY EVACUATION.
- During the initial phase of an emergency condition, the lack of information may prevent the Emergency Coordinator from completing the STATE OF FLORIDA NOTIFICATION MESSAGE FORM FOR NUCLEAR POWER PLANTS. If information is not available, do not delay notification to State Warning Point Tallahassee. Indicate additional information will follow when it becomes available.
- The NRC EVENT NOTIFICATION WORKSHEET is used as a guideline to provide adequate detail to the Headquarters Operations Officer to understand the event and its significance. All the information regarding an event may not be available at the time of notification, but is to be as clear and complete as possible within the required time. If significant information not included in the initial report is identified, original information requires correction, or the emergency classification is changed, this information is reported in an update notification to the NRC when it becomes available. The NRC Event Notification worksheet may be telecopied to the NRC Operations Center before notification to preclude reading through the entire form.
- 3.3.4 For all radiological, hazardous material spills, toxic gas releases or violent weather conditions, the EC determines the safe actions for plant personnel, which may include delaying the staffing of the TSC and EOF until it is safe to do so.
- 3.3.5 The Emergency Coordinator directly notif as the Director Nuclear Plant Operations and/or EOF Director to ensure the rationale of the emergency classification is understood.
- 3.3.6 Ensure individuals assigned to make notifications are familiar with the notification procedures and communications systems.

EM-202 Rev. 59 Page 7

- The Technical Support Center (TSC) continues to complete items on the STATE OF FLORIDA NOTIFICATION MESSAGE FORM FOR NUCLEAR POWER PLANTS and transmits to the EOF until the EOF Director declares the EOF operational, AND informs the EC the EOF accepts responsibility for State notifications and Protective Action Recommendations. At this time, the EOF Director assumes full responsibility for completing the STATE OF FLORIDA NOTIFICATION MESSAGE FORM FOR NUCLEAR POWER PLANTS.
- 3.3.8 Telephone notifications to the Nuclear Regulatory Commission (NRC), State of Florida, Citrus and Levy Counties are complete when direct voice contacts are made with the responsible representatives of the agencies notified. The leaving of a message with an agency's telephone operator, secretary, answering service, or message recording device is not a completed notification.
- 3.3.9 The Emergency Action Levels are not intended for maintenance and/or testing situations where abnormal instrument readings, alarms, and observations are expected. Some maintenance evolutions may require compensatory actions.

### 4.0 INSTRUCTIONS

- 4.0.1 Record significant information, events, and actions taken during the emergency condition and retain for later evaluation. Information substantiating the sequence of events is compiled from procedures, communication logs, tape recordings, flip charts, message copies, photographs (if available) and other pertinent documentation.
- 4.0.2 Use Enclosure 1, EMERGENCY CLASSIFICATION TABLE, to determine the emergency classification.

Page 1	RADIATION/CONTAMINATION
Page 4	NATURAL PHENOMENA
Page 6	MAN-MADE PHENOMENA
Page 7	LOSS OF CONTROL FUNCTIONS
Page 9	LOSS OF POWER
Page 10	CORE/SPENT FUEL DAMAGE
Page 11	LOSS OF REACTOR COOLANT
Page 12	SECONDARY SYSTEM FAILURE
Page 13	MISCELLANEOUS
Page 14	EMERGENCY CLASSIFICATION INTERPRETATION GU

- 4.0.3 Perform steps from Emergency Coordinator Guide for each emergency classification as indicated in the following Sections:
  - 4.1 UNUSUAL EVENT
  - 4.2 ALERT
  - 4.3 SITE AREA EMERGENCY
  - 4.4 GENERAL EMERGENCY

- 4.0.4 Use the time blocks in Sections 4.1, 4.2, 4.3, and 4.4 to provide a reference of actions taken during the emergency condition. All actions, with the exception of decisions relating to classification and notification and protective actions recommendations made to State and Local authorities, can be performed in parallel by delegation from the EC.
- 4.0.5 IF an emergency classification is upgraded before the first notification is made,

  THEN ensure notification is made within 15 minutes of original classification.
- 4.0.6

  IF it is discovered that a condition previously existed that should have resulted in an emergency declaration,

  AND the condition no longer exists,

  THEN make notifications to the NRC Operations Center via ENS within one hour of discovering the undeclared event

  AND notify the Emergency Planning staff to notify the State and Local Governments. An emergency declaration is not required.

4.1	SOURCE FOR SHOULD BE FOR SHOULD BE EVENT		TIME
	UNUSUAL EVENT DECLARED	DATE/	
RECOMMEND	ED WITHIN 5 MINUTES		
4.1.1	Notify Control Room staff.		
4.1.2	IF the emergency is due to a Security Event THEN refer to Enclosure 3 before proceeding following steps.	with the	
4.1.3	Notify Plant personnel using form from sect	ion 4.1.12.	
REQUIRED	WITHIN 15 MINUTES		
4.1.4	Notify SWPT within 15 minutes of declaration Enclosure 2. (Also refer to Section 4.1.9)	n using	
RECOMMEND	ED WITHIN 15 MINUTES		
4.1.5	IF a release is occurring as a result of the THEN complete EM-204A.  If not completed before SWPT notification, results will be called in as soon as possible.	advise SWPT	
4.1.6	Notify DNPO (EM-206, Enclosure 3). Request notify the EOF Director.	the DNPO to	
RECOMMEND	ED WITHIN 30 MINUTES		
4.1.7	Notify CR-3 NRC Resident Inspector (EM-206,	Enclosure 3).	
4.1.8	Notify Units 1,2,4,5 Control Rooms per Encl	osure 5.	
REQUIRED	WITHIN 60 MINUTES		
4.1.9	Notify NRC via ENS immediately after the St within one hour of a declared event per End	ate but losure 4.	

	UNUSUAL EVENT UPDATES/TERMINATION	
4.1.10	Provide periodic plant status updates to:	TIME
	- SWPT (every 60 minutes or as agreed upon) per Enclosure 2	
	<ul> <li>NRC per Enclosure 4 (after state update, unless continuous communication established)</li> </ul>	
	- 1,2,4,& 5 Control Rooms per Enclosure 5	
	- CR-3 Plant Personnel via announcements	
4.1.11	If terminating, notify: DATE	/
	- DNPO and request DNPO to notify EOF Director	
	- SWPT and document on State Form per Enclosure 2	
	- NRC within one hour of termination with verbal summary per Enclosure 4	
	- Unit 1,2,4,& 5 Control Rooms per Enclosure 5	
	- CR-3 Plant personnel via PA announcement	

4.1.12

### PA ANNOUNCEMENT FOR AN UNUSUAL EVENT

ou	unce or perform the following: Time:
	Sound the appropriate local evacuation alarm if required.
	"ATTENTION ALL PERSONNEL, CRYSTAL RIVER 3 IS IN AN UNUSUAL EVENT BASED ON
	"THERE (IS OR IS NOT) A RADIOLOGICAL RELEASE TO THE ENVIRONMENT IN PROGRESS."
	State any appropriate special instructions (areas to be avoided or evacuated, etc.)
	Repeat the announcement.
	Establish continuous monitoring on PL-1.

4.2	EMERGENCY COORDINATOR'S GUIDE FOR AN ALER	RI		TIME
	ALERT DECLARED	DATE	/_	
RECOMMEND	ED WITHIN 5 MINUTES			
4.2.1	Notify Control Room staff.			
4.2.2	IF the emergency is due to a Security Eventher THEN refer to Enclosure 3 before proceeding following steps.			
4.2.3	Notify Security to activate the TSC.			
4.2.4	Notify Plant personnel using form from se	ection 4.2.16.		
REQUIRED	WITHIN 15 MINUTES			
4.2.5	Notify SWPT within 15 minutes of declarate (Also refer to Section 4.2.7)	tion per Enclosure	2.	-
RECOMMEND	ED WITHIN 15 MINUTES			
4.2.6	IF a release is occurring as a result of THEN complete EM-204A.  If not completed before SWPT notification results will be called in as soon as poss	n, advise SWPT		
RECOMMEND	ED WITHIN 30 MINUTES			
4.2.7	Notify DNPO (EM-206, Enclosure 3). Requentify the EOF Director.	est DNPO to		Minima Aman, sala
4.2.8	Notify CR-3 NRC Resident Inspector (EM-20	06, Enclosure 3).		
4.2.9	Notify Units 1,2,4,& 5 Control Rooms per	Enclosure 5.		
REQUIRED	WITHIN 60 MINUTES			
4.2.10	Notify NRC via ENS immediately after the within one hour of declared emergency per			
4.2.11	Activate ERDS within one hour per Enclose	ure 6.		
ONCE TSC	OPERATIONAL			
4.2.12	Notify Corporate Security Specialist (EM	-206, Enclosure 3)		
4.2.13	Notify FPC Risk Management (EM-206, Encl	osure 3).		

### ALERT UPDATES/TERMINATION

4.2.14	Provide periodic plant status updates to:	TIME
	prant states updates to.	
	- SWPT (every 60 minutes or as agreed upon)per Enclosure 2	
	- 1,2,4, & 5 Control Rooms per Enclosure 5	
	- CR-3 Plant Personnel via announcements	
4.2.15	If terminating, notify: DATE	/
	- DNPO and Request DNPO to notify EOF Director	
	- SWPT and document on State Form per Enclosure 2	
	- NRC within one hour of termination with verbal summary	Charles
	- Unit 1,2,4, & 5 Control Rooms per Enclosure 5	***************************************
	- CR-3 Plant personnel via PA announcement	***************************************
	- Corporate Security Specialist (EM-206, Enclosure 3)	
	- FPC Risk Management (EM-206, Enclosure 3)	
	- Licensing to prepare a written summary within twenty-four hours (or next working day) of termination to SWPT and NRC	

4.2.16

### PA ANNOUNCEMENT FOR AN ALERT

ou	nce or perform the following:	
	Sound the appropriate local evacuation alarm if required.	
	"ATTENTION ALL PERSONNEL, CRYSTAL RIVER 3 IS IN AN ALERT BASED ON	"
	"THERE (IS OR IS NOT) A RADIOLOGICAL RELEASE TO THE ENVIRONMENT IN PROGRESS."	
	"ACTIVATE THE TSC/OSC. REPORT TO YOUR SHOP OR LOCAL ASSEMBLY AREA IN-SHOP ACCOUNTABILITY."	FO
	State any appropriate special instructions (areas to be avoided or evacuated, etc.)	

7) Establish continuous monitoring on PL-1.

### 4.3 EMERGENCY COORDINATOR'S GUIDE FOR SITE AREA EMERGENCY

	TIME
	SITE AREA EMERGENCY DECLARED DATE/
RECOMMEND	ED WITHIN 5 MINUTES
4.3.1	Notify Control Room staff.
4.3.2	IF the emergency is due to a Security Event, THEN refer to Enclosure 3 before proceeding with the following steps.
4.3.3	Notify Security to activate the EOF and TSC.
4.3.4	Notify Plant personnel using form from section 4.3.19 and sound Site Evacuation Alarm.
REQUIRED	WITHIN 15 MINUTES
4.3.5	Notify SWPT within 15 minutes of declaration per Enclosure 2. (Also refer to Section 4.3.11).
RECOMMEND	DED WITHIN 15 MINUTES
4.3.6	Determine protective actions for Generating Complex using Enclosure 7. Notify Nuclear Security to coordinate with Corporate Security to ensure protective action instructions are provided for all areas of the Generating Complex.
4.3.7	Notify Units 1,2,4 & 5 Control Rooms per Enclosure 5.
4.3.8	IF a release is occurring as a result of this event, THEN complete EM-204A.  If not completed before SWPT notification, advise SWPT results will be called in as soon as possible.
RECOMMEN	DED WITHIN 30 MINUTES
4.3.9	Notify DNPO (EM-206, Enclosure 3). Request DNPO to notify the EOF Director.
4.3.10	Notify CR-3 NRC Resident Inspector (EM-206, Enclosure 3)
REQUIRED	₩ITHIN 60 MINUTES
4.3.11	Notify NRC via ENS immediately after the State but within one hour of declared emergency per Enclosure 4. (Once operational, this responsibility stays at TSC).
4.3.12	Ensure ERDS has been activated within one hour per Enclosure 6

EM-202

ONCE TSC	OPERATIONAL
4.3.13	Verify Protected Area accountability is completed by Security within 30 minutes of an evacuation of the Protected Area.
4.3.14	Notify FPC Risk Management (EM-206, Enclosure 3).
	SITE AREA UPDATES/TERMINATION  TJAE
4.3.15	Provide periodic plant status updates to:
	- SWPT (every 60 minutes or as agreed upon) per Enclosure 2
	- 1,2,4,& 5 Control Rooms per Enclosure 5
	- CR-3 Plant Personnel via announcements
4.3.16	IF terminating or de-escalating the event,  THEN coordinate the decision with the State, counties, and the EOF Director before completing the State of Florida Notification Form for Nuclear Power Plants Considered the following when making this determination:
	<ul> <li>Is a release continuing,</li> <li>Are plant conditions stable and expected to remain stable,</li> <li>Is the full emergency response organization needed to support safe and stable operation,</li> <li>Do radiological and other conditions permit resumption of normal access to plant and surrounding areas.</li> </ul>
4.3.17	NOTIFY: DATE /
	- NRC within one hour of termination with verbal summary,
	- Unit 1,2,4, & 5 Control Rooms per Enclosure 5.
	- CR-3 Plant personnel via PA announcement.
	- Corporate Security Specialist (EM-206, Enclosure 3).
	- FPC Risk Management (EM-206, Enclosure 3).
4.3.18	Request Licensing to prepare a written summary within twenty-four hours (or next working day) of termination to SWPT and NRC.

### 4.3.19 PA ANNOUNCEMENT FOR A SITE AREA EMERGENCY

Annou	nce or perform the following:	Time:
1)	Sound the Site Evacuation alarm.	
2)	"ATTENTION ALL PERSONNEL, CRYSTAL RIVER 3 IS IN A SI BASED ON	TE AKEA EMERGENCY
3)	"THERE (IS OR IS NOT) A RADIOLOGICAL RELEASE TO THE PROGRESS."	ENVIRONMENT IN
4)	IF the TSC/OSC is not activated, THEN announce: "ACTIVATE THE TSC/OSC."	
5)	"PERSONNEL ARE TO EVACUATE THE PROTECTED AREA AND RE (determine which one) (NUCLEAR ADMINISTRATION BUILDING) (WAREHOUSE) FOR ACCOUNTABILITY."	
6)	"ALL EOF PERSONNEL, REPORT TO THE EOF."	
7)	State any appropriate special instructions (areas to evacuated, etc.)	be avoided or
8)	Repeat the announcement.	
9)	Establish continuous monitoring on PL-1.	

### 4.4 EMERGENCY COORDINATOR'S GUIDE FOR GENERAL EMERGENCY

	GENERAL EMERGENCY DECLARED.	DATE	TIME
RECOMMENDED WITHIN 5 MINUTES			
4.4.1	Notify Control Room staff.		Manufacture and a second second second
4.4.2	<u>IF</u> the emergency is due to a Security Ev <u>THEN</u> refer to Enclosure 3 before proceed steps.	ent, ing with the fol	lowing
4.4.3	Notify Security to activate the TSC and	EOF (if not activ	/ated)
4.4.4	Notify Plant personnel using form from s Site Evacuation Alarm if PROTECTED AREA	ection 4.4.20 and not already evac	sound
REQUIRED	WITHIN 15 MINUTES		
4.4.5	Determine Protective Action Recommendati (Minimum Protective Action Recommendatio 360 degree evacuation.)	ons per Enclousre ns will be 0-5 m	e 8 ile
4.4.6	Notify SWPT within 15 minutes of declara (Also refer to Section 4.4.12)	tion per Enclosu	re 2.
RECOMMEND	ED WITHIN 15 MINUTES		
4.4.7	Determine Generating Complex protective and notify Nuclear Security to coordinat Security to ensure evacuation instruction for all areas of the Generating Complex.	e with Corpora e	osure 7
4.4.8	Notify Units 1,2,4 & 5 Control Rooms per	Enclosure 5.	Martin of the State and the St
4.4.9	IF a release is occurring as a result of THEN complete EM-204A.  If not completed before SWPT notification results will be called in as soon as pos	n. advise SWPT	
RECOMMEND	DED WITHIN 30 MINUTES (Not necessary if TS	C and EOF Operat	ional)
4.4.10	Notify DNPO (EM-206, Enclosure 3). Requinotify the EDF Director.	est DNPO to	************
4.4.11	Notify CR-3 NRC Resident Inspector (EM-2	06, Enclosure 3)	
REQUIRED WITHIN 60 MINUTES			
4.4.12	Notify NRC via ENS immediately after the within one hour per Enclosure 4. (Once of this responsibility stays at TSC).	State but perational	
4.4.13	Ensure ERDS has been Activated within on	e hour per Enclo	sure 6

Rev. 59

Page 19

EM-202

ONCE TSC	IS OPERATIONAL
4.4.14	Verify Protected Area accountability is completed by Security within 30 minutes of an evacuation of the Protected Area.
4.4.15	Notify FPC Risk Management. (EM-206, Enclosure 3).
	GENERAL EMERGENCY UPDATES/TERMINATION
4.4.16	Provide periodic plant status updates to:
	- SWPT (every 60 minutes or as agreed upon) per Enclosure 2
	- 1,2,4, & 5 Control Rooms per Enclosure 5
	- CR-3 Plant Personnel via announcements
4.4.17	IF terminating or de-escalating the event,  THEN coordinate the decision with the State, counties, and the EOF Director before completing the State of Florida Notification Form for Nuclear Power Plants Consider the following when making this determination:
	Is a release continuing,  Are plant conditions stable and expected to remain stable,  Is the full emergency response organization needed to support safe and stable operation,  Do radiological and other conditions permit resumption of normal access to plant and surrounding areas.  DATE/
4.4.18	NOTIFY:
	- Notify NRC within one hour of termination with verbal summary.
	- Unit 1,2,4, & 5 Control Rooms per Enclosure 5.
	- CR-3 Plant personnel via PA announcement.
	- Corporate Security Specialist (EM-206, Enclosure 3).
	- FPC Risk Management (EM-206, Enclosure 3)
4.4.19	Request Licensing to prepare a written summary within twenty-four hours (or next working day) of termination to SWFT and NRC.

### 4.4.20

### PA ANNOUNCEMENT FOR A GENERAL EMERGENCY

Announce or perform the following:

- IF the Protected Area has not been evacuated, THEN sound the Site Evacuation alarm.
- 2) "ATTENTION ALL PERSONNEL, CRYSTAL RIVER 3 IS IN A GENERAL EMERGENCY BASED ON \_\_\_\_\_
- 3) "THERE (IS OR IS NOT) A RADIOLOGICAL RELEASE TO THE ENVIRONMENT IN PROGRESS."
- 4) IF the TSC/OSC is not activated, THEN announce: "ACTIVATE THE TSC/OSC."
- 5) IF the Protected Area has not been evacuated,

  THEN announce: "ALL NON-ESSENTIAL PERSONNEL, EVACUATE THE PROTECTED AREA
  AND REPORT TO THE (determine which one) (NUCLEAR ADMINISTRATION BUILDING) OR

  (RECEIVING WAREHOUSE) FOR ACCOUNTABILITY."
- 6) IF the EOF is not activated, THEN amnounce: "ALL EOF PERSONNEL, REPORT TO THE EOF."
- State any appropriate special instructions (areas to be avoided or evacuated, etc.)
- 8) Repeat the announcement.
- 9) Establish continuous monitoring on PL-1.

(Page 1 of 16)

## RADIATION/CONTAMINATION

COMOTITON	IMDICATIONS	UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	CENERAL. ENERGENCY
ODCN Woble Gases instantaneous release rate limit exceeded.	RM-A1 and/or RM-A2	×	×		
[See Off-Site Dose Calculation Manual (ODCM), Section 2.7(a).]	low range gas channel	ODCM limit exceeded (high rad interlock actuation).	2 10 times 00CM limit (10 times high rad interlock actuation setpoint)		
Effluent monitors and/or portable devices detec levels at the 0.83 mile Site Boundary > 50 mREM/hour DDE for 30 minutes or \$ 500 mREM/hour DDE for 2 minutes (or 5 times these levels to the thyroid).	RM-A1 and/or RM-A2 and/or portable monitors, air samples, and calculations			×	
Projected dose [44] at the 0.83 mile Site Boundary corresponds to > 1.0 REM TEDE or > 5.0 REM Thyroid CDE under actual meteorological conditions, based on 1 hour of exposure.	Portable monitors and/or calculations				×
Sustained [29] and unevaluated [33] airborne radioactivity concentration exceeding radiation monitor high alarm limits.	RM-A1 thru RM-AB and/or RM-A11, RM-A12	×			

### ACCIDENT CONDITION:

# RADIATION/CONTAMINATION (Cont'd)

CONDITTON	* IMDICATIONS	UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERCENCY
Removable surface contamination (beta, gamma) outside RCA 2,200 dpm/100 cm² averaged [3] over 160 ft' area.	Survey	×			
Removable surface contenination (alpha) outside RCA > 50 dpm/100 cm averaged [3] over 100 ft' area.	Survey	×			
Unexplained [34] direct radiation level increase exceeding radiation monitor alarm limits.	RM-G1 thru RM-G18	X (> 100 times normal)	X (> 1,000 times normal)		
Containment Gross Gamma monitor reading exceeding limit (via Control Room instrumentation).	RM-G30	X > 10 R/hr	X > 100 R/hr	X > 1,000 R/hr plus two of the following:	X > 10,000 R/hr plus two of the following:
				RCS Pressure > 1,500 psig	RCS Pressure > 1,500 psig
				Containment Pressure > 4 psig	Containment Pressure > 30 psig
				Average Containment Temperature > 180°F	Average Containment Temperature > 200°F

(Page 3 of 16)

ACCIDENT CONDITION:

# RADIATION/CONTAMINATION (Cont'd)

COMULTION	1 INDICATIONS	UNUSUAL EVENT	ALENT	SITE WEA EMERCENCY	GENERAL EMENGENCY
High Reactor Coolant Activity	RM-L1 and/or sample	×	×		
		> 1.0 µCi/gm Dose Equivalent I-131 or > 100/E-bar [41] µCi/gm for 48 hrs.[8]	≥ 300 µCi/gm Bose Equivalent I-131		
Other conditions exist, from whatever source, that make release of large [13] amounts of radioactivity in a short time period possible (core melt situation).	High radiation and/or contamination levels				×

### ACCIDENT CONDITION:

### NATURAL PHENOMENA

IS UNUSE
MET Tower  Within the 0.83 mile site boundary, the sustained [30] wind speed is > 110 mph.
Seismic monitors activate. X Any earthquake causing seismic annunciator alarm.
visual X X  visual Nearby [19] that could Strikes the Protected Area.
Fire alarm,  Visual  > 10 min. duration  Safety-related systems > 10 min. duration.
ESATCOM, X  Intake Canal level  At levels > 98.0 ft. to At levels > 129.0 ft.

(Page 5 of 16)

ACCIDENT CONDITION:

## NATURAL PHENOMENA (Cont'd)

COMBITTION	DOLLATIONS	IMEISTAL EVENT	ALERT	SITE AREA EMERGENCY	CENERAL ENERGYICA
Missile Impact	Noise, visual		×	×	
			From any source potentially affecting [38] safe shutdown equipment.	Affecting [1] plant operations with severe damage to safe shitdown	

### MAN-MADE PHENOMENA

SITE AREA EMERGENCY GENERAL EMERGENCY	×	Affecting [1] CR-3 operations with severe damage [39]causing the failure of safe shutdown equipment.	X Entry into Vital Areas.[40]	×	Hitting Vital Areas [40] with unit not in COLD SHUTDOWN.	×	Imminent [11] loss of loss of physical control control of the Protected Area Area.	
SETE ARE		Affecti operation damage [3 failure of	Entry into V		Hitting Vit with unit SHU		Imminent control of An	
ALERT	×	Affecting [3]: CR-3 operations, but no damage affecting the operation of safe shundown equipment.	X Entry into Frotected Area, not affecting Vital Areas. [40]	×	Hitting within the Protected Area.	×	Ongoing security compromise.[7]	
INGSUAL EVENT	×	Near or within the 0.83 mile Site Boundary, (includes all Generating Complex facilities), but not affecting [1] CR-3 operations.	Near of within the 0.83 mile Site Boundary, (includes all Generating Complex facilities), but not entering Protected	×	Within the 0.83 mile Site Boundary, but not hitting the Protected Area.	×	Attempted entry or attempted sabotage [2,28]	×
INDICATIONS	Noise, visual (fireball,	scattered debris)	Odor, breathing difficulty, explosion, etc.	Noise, visual		Visual		Visual
COMPITION	Severe Explosion resulting in life-	threatening forces OR significant damage to equipment or adjacent structures.	Toxic or flaemable gas in the environment at life-threatening [15] levels.	Aircraft crash or unusual [36] aircraft activity	over facility.	Security Threat		Train denailment on-site affecting access or containing hazardous materials.

(Page 7 of 16)

### ACCIDENT CONDITION:

## LOSS OF CONTROL FUNCTIONS

(Page 8 of 16)

ACCIDENT CONDITION:

# LOSS OF CONTROL FUNCTIONS (Cont'd)

COMBITTION	DADICATIONS	EMESTAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL
Evacuation of Main Control Room.	Not Applicable		×	×	
			Local Control [42]	No local control [42] > 15 min.	
All alarms lost.	All annunciator systems and computer alarms inoperable.		×	> 15 min. with plant transient [32]	
Loss of alarms or indications for process parameters requiring shutdown (Table 12.3, RERP)[27].	Loss of appropriate component indication or alarm.	×			
Significant loss of assessment or communications capability.	Loss of ALL Radiation Monitoring System instrumentation or ALL off-site phone communications (commercial and microwave).	×			

### LOSS OF POWER

CONDITION	IMPICATIONS	IMUSIJAL EVENT	ALERT	SITE AREA EMERGENCY	CENERAL ENERGENCY
Loss of off-site power [20] OR all on-site AC power. [21]	Loss of feeder breakers, loss of Control Rosm lighting, loss of RC pumps, etc. OR both Emergency Diese! Generators not	×	X > 15 min.		
Loss of off-site power[20] AND all on-site AC power [21].	Loss of feeder breakers, loss of Control Room lighting, loss or RC pumps, etc.		X s 15 min.	X > 15 min.	X No EFW [43] > 3 hrs.
Loss of v*** on-site DC	"DC bus available" status lights off		X s 15 min.	X > 15 ette.	

(Page 10 of 16)

## CORE/SPENT FUEL DAMAGE

	1 INDICATIONS	IMISTIAL EVENT	ALERT	SITE AREA EMERGENCY	CENERAL EMERGENCY
In-core alarm,	In-core thermocouples, kM-ll alarm, T., meter, NI Error, SPNDs, etc.			×	
RM-	RM-L1 alarm, sample	×	×		
		Sample indicates > 0.1% falled fuel in 30 min [31]	Sample indicates > 1.0% falled fuel in 30 min. [31] or 5% total fuel failure.		
M-G15 thr -G30, RM-	RM-G15 thru RM-G18 and RM-G29, RM-G30, RM-A1 thru RM-A4 and RM-	×	×	×	
	A6	No release of radioactivity.	Limited [14] damage with release of radioactivity.	Major [18] fuel damage or water below fuel level.	
core ther	In-core thermocouples, T <sub>set</sub> meter, SPNDs, etc.				×
RM-L1, femperature (See EP	RM-L1, RC pressure, RC temperature, T <sub>ast</sub> meter, SPMDs, etc. (See EM-202, Enc. 8, page 3 of 3.)				×

(Page 11 of 16)

## LOSS OF REACTOR COOLANT

COMDITION	DARCATIONS	IMUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL ENERGENCY
RCS Code Safety or PORV stuck open.	VPIs [37], tail piece temperatures, RCS pressure, RCDT level, pressurizer	×			
Reactor Coolant Leak [26]	RC pressure, pressurizer level, RS sump level, RB temperature, RB pressure RM-G16 thru RM-G18 RM-G29, RM-G30,	X > 1.0 gpm unidentified [35] leakage in Modes 1 thru 4	× 50 gpm	X > 1,000 gpm	With ECCS failure and subsequent failure of containment heat removal system for > 3 hrs.
Steam Generator Tube Leak	RM-G25 thru RM-G28 and RM-A12, and Chemistry samples	X > 3.0 to ≤ 50 gpm	X > 50 to 200 gpm	X > 200 gpm	
Rupture of steam generator tube with loss of off-site power [20]	RM-G2S thru RM-G28, loss of feeder breakers, loss of lighting, etc.		X ≤ 200 gpm	X > 200 gpm	

## SECONDARY SYSTEM FAILURE

COMDITION	INDICATIONS	UNUSTAL EYENT	ALERT	SITE AREA EMERGENCY	CENERAL ENERGENCY
Rapid depressurization [25] of secondary systems.	MSIV actuation, feedwater flow, etc.	×			
Steam line break with primary-to-secondary leak.	RM-G25 thru RM-G28, M5 pressure, MSIV actuation		X With > 10 gpm primary-to-secondary leakage.	X With > 50 gpm primary-to-secondary leakage with indication of fuel damage.	
Turbine Failure	Turbine rotating component failure, causing rapid plant shutdown.	×	X Causing casing penetration.		
Loss of Main and Emergency Feedwater	Feed flow, steam generator level, RC pressure, RC temperature, etc.	X HPI available.		X No core cooling available for > 20 min.	X No core cooling available with core damage imminent.[10]

# EMERGENCY CLASSIFICATION TABLE

(Page 13 of 16)

# ACCIDENT CONDITION:

CONDITION	INDICATIONS	UNUSUAL EVENT	ALERT	SITE AREA EMENCENCY	CENERAL ENERGENCY
Inability to reach required shutdown within Technical Specifications limits.		×			
Other conditions that warrant.	Not Applicable	×	×	×	
		Increased awareness [12] of Plant Staff.	Activation of Technical Support Center (75C)/ Operational Support Center (05C) and Emergency Operations Facility (E0F).	Activation of TSC/0SC, EOF, monitoring teams, and public notification.	

| Interpretation guidance is provided for the underlined, numbered terms on pages 14-16 of this enclosure.

#### EMERGENCY CLASSIFICATION INTERPRETATION GUIDE

he numbers below correspond to the underlined, numbered terms in the Emergency Classification Table.

- 1. <u>Severe explosion/missile impact AFFECTING plant/CR-3 operations</u> Causing entry into Abnormal Procedures or Emergency Operating Procedures.
- 2. ATTEMPTED entry/sabotage UNUSUAL EVENT: (1) Hostile force is attempting to penetrate the Protected Area, (2) evidence of unsuccessful unauthorized entry into the Protected Area, or (3) unsuccessful sabotage in the Protected Area (see Sabotage).
- 3. AVERAGED over 100 ft<sup>2</sup> area. Contaminated area must be at least 100 ft<sup>2</sup>.
- 4. <u>Degraded core with possible loss of COOLABLE GEOMETRY</u> Core damage has resulted in increased incore temperatures, indicating hot spots (possibly caused by flow restrictions).
- 5. Loss of COLD SHUTDOWN CAPABILITY Inability to achieve or maintain reactor coolant \$200° F (Mode 5) when desired. Administrative loss of equipment does not meet the intent. (See Containment Integrity.)
- 6. <u>CONTAINMENT INTEGRITY</u> The intent is that the containment isolation requirement for Modes 5 and 6 is still applicable such that the containment and associated systems and components provide a functional barrier to fission product release.
- Ongoing security COMPROMISE ALERT: (1) Bomb discovered in the Protected Area (2) hostile force has penetrated the Protected Area, or (3) successful sabotage (see Sabotage). NOTE: Other EALs involving the loss of safe shutdown equipment should be reviewed.
- High RCS activity [for 48 HOURS] The Unusual Event EAL is met if either parameter exceeds its limit for 48 hours.
- 9. Loss of HOT SHUTDOWN CAPABILITY Inability to achieve or maintain reactor coolant <280° F (Mode 4) when desired.
- 10. Loss of main and emergency feedwater [with Core damage IMMINENT] Steam generator cooling is not available and core cooling is not available or not adequate and cannot be restored before core melting will occur. See Core Melt LIKELY.
- 11. IMMINENT loss of control of the Protected Area SITE AREA EMERGENCY: (1) Bomb discovered in a Vital Area, (2) hostile force has penetrated a Vital Area, (3) unauthorized personnel at an unknown location within the Protected Area with unknown intentions, or (4) authorized (badged) personnel within the Protected Area with suspected intentions of sabotage (see Sabotage).
- 12. INCREASED AWARENESS of plant staff Unusual conditions that in the judgment of the Emergency Coordinator warrant entry into the RERP. These may include conditions that (1) require plant staff to change work plans, schedules, or surveillances, or (2) prompt staffing of emergency facilities. Also see emergency class definitions in Section 3.1.

- .3. Release of LARGE amounts of radioactivity A fuel damage situation resulting in a release yielding a Site Boundary dose requiring public protective action (i.e., doses in the Protective Action Guideline dose range of 1 REM TEDE or 5 REM thyroid CDE).
- 14. <u>LIMITED [fuel] damage with release of radioactivity</u> Fuel handling accident causing any increases in local area radiation levels/monitors or effluent radiation monitors.
- 15. Toxic or flammable gas at LIFE-THREATENING levels General area samples at the scene indicate ≥ IDLH levels (Immediate Danger to Life or Health) or LEL levels (Lower Explosive Limit) per Material Safety Data Sheets, etc., or actual exposure causes severe distress.
- 16. Core melt LIKELY Projected entry into Inadequate Core Cooling Region 4.
  - 17. LOSS of two of three fission product barriers This EAL is not intended to address steam generator tube rupture events. Steam generator tube ruptures are addressed in specific EALs.
- 18. MAJOR fuel damage Fuel handling accident potentially causing measurable exposure to the general plant staff.
- 19. Tornado NEARBY that could strike the Protected Area Clearly visible from the Protected Area.
- 20. Loss of OFF-SITE POWER Neither ES 4160V bus can be energized from an offsite power source.
- 21. Loss of all ON-SITE AC POWER Neither emergency diesel generator is capable of energizing its respective bus. Administrative loss of equipment does not meet the intent.
- 22. Loss of vital ON-SITE DC POWER Loss of both DC distribution systems or station batteries A and B not available.
- 23. Loss of PHYSICAL CONTROL of the Protected Area GENERAL EMERGENCY: Hostile force has taken control of plant equipment such that plant personnel are unable to operate equipment required to achieve and maintain safe shutdown conditions.
- 24. Fire POTENTIALLY AFFECTING safety-related systems Fire involving safety-related systems or fire is close enough where heat or debris could cause safety-related system components to fail.
- 25. RAPID DEPRESSURIZATION of secondary systems Causing main steam or main feedwater isolation, automatic reactor trip, or safety injection actuation.
- 26. REACTOR COOLANT LEAK HPI/PORV cooling is not considered an RCS leak.
- 27. Loss of alarms and indications for process parameters [RERP TABLE 12.3] This table lists process monitors. This condition is met if alarms or indications for any of these monitors is lost AND Improved Technical Specifications requires plant shutdown because of the loss.

- 28. SABOTAGE Deliberate alterations, damage, misalignment, or misoperation of safe shutdown equipment with the intent to render the equipment inoperable. NOTE: AI-1830 defines vandalism as malicious destruction of plant equipment or property where the health and safety of the public is not compromised.
- 29. SUSTAINED airborne radioactivity > 15 minutes.
- 30. SUSTAINED wind speed Wind speed > 110 mph for > 15 minutes.
- 31. Percent Failed fuel in 30 MINUTES Percent net increase in failed fuel over a 30 minute period.
- 32. All alarms lost with plant TRANSIENT (1) Automatic turbine trip at > 25% reactor thermal power, (2) electrical load rejection > 25% electrical load (3) plant runback, (4) reactor trip, (5) safety injection system actuation (6) >10% thermal power occillation, or (7) loss of decay heat removal capability in Modes 5 or 6.
- 33. UNEVALUATED airborne radioactivity Samples not analyzed and source is unknown.
- 34. <u>UNEXPLAINED direct radiation level increase</u> Increase in background radiation levels exceeding monitor alarm setpoints due to an unknown cause.
- 35. UNIDENTIFIED [RCS] LEAKAGE As defined by Improved Technical Specifications.
- 36. <u>UNUSUAL aircraft activity</u> Crash, unplanned landing, potentially threatening flight (e.g., low altitude, reckless flight path).
- 37. <u>VPI</u> Valve position indication of RCS code safety or PORV stuck open.
- 38. <u>Missile impact POTENTIALLY AFFECTING safe shutdown equipment</u> Impact is sufficient to question equipment reliability and loss of equipment would prevent safe shutdown.
- 39. [Missile impact with] SEVERE DAMAGE to safe shutdown equipment Equipment required to achieve safe shut down is not available.
- 40. <u>VITAL AREAS</u> Areas or structures containing equipment necessary to establish and maintain safe shutdown.
- 41. [High Reactor Coolant Activity] >100/E-bar E-bar is the weighted average energy of RCS isotopes. This portion of the EAL is met if RCS gross  $\mu$ Ci/gm is greater than the quantity (100 + average energy) for a period of 48 hours.
- 42. LOCAL CONTROL ALERT: Control of the plant is established at the Remote Shutdown Panel within 15 minutes of the first attempt to turn the transfer switch. SITE AREA EMERGENCY: Control of the plant can not be established within 15 minutes.
- 43. NO EFW [with loss of offsite power and all on-site power] If Auxiliary Feedwater is adequately and reliably cooling the core, General Emergency conditions may not exist.
- PROJECTED DOSE [of ≥ 1 REM TEDE or ≥ 5 REM Thyroid CDE] This EAL addresses dose projections for an actual release or planned release (e.g., containment venting). It is not intended for hypothetical situations unless containment is challenged and could fail at any time. Doses of this magnitude at the Site Boundary require fuel damage.

# STATE OF FLORIDA NOTIFICATION MESSAGE FORM FOR NUCLEAR POWER PLANTS

HIS IS CRYSTAL RIVER UNIT 3. THE ASSURE STATE CITRUS	HIS IS A DRILL   THIS IS AN ACTUAL EMERGENCY. I HAVE A MESSAGE.   LEVY   Rad. Control-Orlando (day M-F only) ARE ON LIN
1. A. Time/Date C. Message Number	
2. SITE CRYSTAL RIVER UNIT	ST LUCIE UNIT 2 D TURKEY POINT UNIT 4
3. ACCIDENT CLASSIFICATION  O NOTIFICATION OF UNUSUAL EV  ALERT	ENT □ SITE AREA EMERGENCY □ GENERAL EMERGENCY
4. CURRENT EMERGENCY DECLARATIONS:	TIME: DATE:
S. INCIDENT DESCRIPTION OR UPDATE:	
5. INJURIES A. Contaminated	B. Non-contaminated
7. RELEASE STATUS: A.   No Release (Go to Item 1 B.  Potential (Possible) rel	11) C.   A Release is occurringexpected durationease D.   A Release occurred, but stoppedduration
C. D. *TYPE OF RELEASE IS (Marks an	NOBLE GASES: Curies per second
DISTANCE THYRO	
A. Wind direction (from)  B. Sectors affected	decrease C Wind Spood
(Note: If message refers  MILES NO ACTION  0-2 2-5 5-10	this time.  Ike the following protective actions:  to 360' radius, use the word "ALL" under sectors.)  SHELTER/SECTORS  EVACUATE/SECTORS
13. HAS EVENT BEEN TERMINATED?	A. □ NO B. □ YES: Time Date
MESSAGE RECEIVED BY: Name HIS IS CRYSTAL RIVER UNIT 3.   TH	IS IS A DRILL   Time Date  IS IS A DRILL   THIS IS AN ACTUAL EMERGENCY. END OF MESSAGE
EC/EOF DIRECTOR INITIALS:  *This information may not be available on in	ritial notifications.

#### STATE OF FLORIDA NOTIFICATION PROTOCOL

WITHIN 15 MINUTES of declaration of emergency classification, notify STATE WARNING POINT TALLAHASSEE. [This also notifies Citrus and Levy counties and the Department of Health, Bureau of Radiation Control (DHBRC)-Orlando. If information is not available, do not delay notification to State Warning Point Tallahassee.

Using one of the following communications networks listed by priority:

- State Hot Ringdown (SHRD) Station 120 or 121
- Commercial Telephone System 1-850-413-9911 or 1-800-320-0519 or 1-850-413-9900
- Florida Emergency Satellite Communication System (ESATCOM)
- Local Government Radio (LGR) via Citrus County
- Portable Satellite Phone (Located in TSC cabinet)

If the Commercial Telephone is used for notification, a separate notification to Citrus (726-4488 ext. 277) and Levy County (1-352-486-5212) is required.

When making the initial notification of an emergency condition to SWPT, report the current emergency classification declared at the time the notification is made. If prior to initial notification or since the previous notification conditions were met (even briefly) for a higher classification, explain in Incident Description or Update.

#### INITIAL NOTIFICATION

Once communications are established with the SWPT Duty Officer and the station roll call is complete, the SWPT Duty Officer instructs the FPC Communicator to state the message. Read the message in its entirety. Repeat the incident description (Item 5) and ask for questions. When time permits, FAX the State Form by using List 1 (from Control Room) List 3 (from TSC) of the Enhanced Fax Instructions.

#### SECTORS AFFECTED

DEGREES 3491 (349-371) 12-33 (372-393) 34-56 (394-416) 57-78 (417-438) 79-101 (439-461)	SECTORS HJK JKL KLM LMN MNP	<u>DEGREES</u> 102-123 (462-483) 124-146 (484-506) 147-168 (507-528) 169-191 (529-540) 192-213	SECTORS NPQ PQR QRA RAB ABC	DEGREES 214-236 237-258 259-281 282-303 304-326	SECTORS BCD CDE DEF EFG FGH
				327-348	GHJ

#### UPDATE NOTIFICATION

Update SWPT every sixty minutes after initial notification and upgrades of emergency classification.

The use of the STATE OF FLORIDA NOTIFICATION MESSAGE FORM FOR NUCLEAR POWER PLANTS is required for:

- Initial notification that an emergency condition exists (Item 3)
- Any change in emergency classification (Item 3)
- Any change in release status (Item 7)
- Any change in Protective Action Recommendations (Item 12)
- Termination of an emergency classification (Item 13)

Other updated information not meeting the above criteria does not require the use of the form.

The sixty minute update notification is still required with a statement there is no change from last update, unless the SWPT agrees to less frequent updates.

ENCLOSURE 2 (Page 3 of 3)

TIME/DATE: Enter the time and date that contact is made with the SWPT by the FPC Communicator (Talker). 1A

- REPORTED BY: Enter name and title of the FPC Communicator talking to the SWPT.
- MESSAGE NUMBER: Number the forms sequentially. 1C
- FROM: Check the emergency facility making the notification. 1D
- SITE: Check "Crystal River Unit 3".

ITEM

- ACCIDENT CLASSIFICATION: Check the classification corresponding to current plant conditions. If, prior to the initial 3 notification or since the previous notification, conditions were met (even briefly) for a higher classification, ensure that classification is noted in Section 5.
- CURRENT EMERGENCY DECLARATION: Enter emergency declaration time and date for the current accident classification. 4
- INCIDENT DESCRIPTION OR UPDATE: Give a brief description of the situation. Avoid highly technical terms. Acronyms MUST be spelled out during the notification. Note the reason for accident classification changes. The event description should be tied with the specific EAL used to declare the event. If conditions were met (even briefly) for a higher classification that has not been reported in Section 3, report it here. Ensure information carried over from previous forms is still applicable.
- INJURIES: In 6A, enter the number of contaminated or potentially contaminated injured personnel. This number should not be reduced for the remainder of the emergency, unless a victim was considered potentially contaminated and later found not contaminated. In 6B, enter the number of non-contaminated injured personnel. Provide an explanation of any changes in the Incident Description or Update section (Step 5).
- RELEASE STATUS: Check the appropriate release status. If No Release, then go to step 11. If any other box is selected, then continue with remainder of form, starting with Step 8. If release is in progress or release has occurred, fill in the blank with the appropriate release duration information. If release has stopped, mark Steps 8 and 9 "N/A". If the duration is unknown, enter unknown in Step 7C.
- RELEASE RATE: (A) Enter the Noble Gas Release Rate (curies per second) and check appropriate box (default value or measured value). (B) Enter the Iodine Release Flate (curies per second) in the appropriate blank (default value or measured value). If dose assessment was performed using the initial method of EM-204A, record lodine release rate as "N/A." (C) Releases monitored by RM-A1 or RM-A2 are within normal operating limits if the low-range gas channel is below its high alarm setpoint. Do not make this selection for other releases unless they have been evaluated per the ODCM.
- TYPE OF RELEASE: Check the letter by the appropriate type of release. If specific nuclides are known, write them in the blank next to the selection. Most releases will probably be radioactive gases.
- PROJECTED OFFSITE DOSE RATE: Enter mR/hr for projected Thyroid Dose Rate and projected Total Dose Rate at (Site Boundary), 2, 5, and 10 miles. (Thyroid = CDE; Total Dose = TEDE)
- METEOROLOGICAL DATA: Data should be from the 33' level on the primary or secondary towers. If the 175' data is used, make a notation on the form to this effect. Enter the meteorological data as follows: If Met Tower's OOS, estimate wind direction visually (cooling towers)

A. The Wind Direction in degrees.

B. The downwind sector(s) and the adjacent sectors.

Theta.

C. The wind speed in miles per hour (MPH).

D. The stability class (A thru ), determined by delta T or Sigma

(Sectors on previous page)	AT(°F)	SIGMA THETA (deg)	Stability Class
	≤ -1.45	≥ 22.5	A (most dispersed plume)
	-1.45 to -1.31	<22.5 to 17.5	В
	-1.30 to -1.16	<17.5 to 12.5	C
	-1.15 to -0.39	<12.5 to 7.5	D
	-0.38 to 1.15	< 7.5 to 3.8	F
	>1.15	< 3.8	F G/most concentrated plume

- UTILITY RECOMMENDED PROTECTIVE ACTIONS: Check the appropriate section. Check "No recommendations at this time" if no further comments are required in this step. If protective actions are required, enter the protective actions that FPC is recommending for the State/counties to carry out. For each distance range: enter in the first column the sectors where no action is recommended; enter in the second column the sectors where sheltering is recommended; enter in the third column the sectors where evacuation is recommended. When sheltering or evacuation is recommended, a minimum of three sectors must be listed, the downwind sector(s) and the two adjacent sectors.
- 13 HAS EVENT BEEN TERMINATED? If "NO" is checked, then no further information is needed in this section. If "YES" is checked, then enter the time and date the event was terminated.
- 14 MESSAGE RECEIVED BY: Enter the name of the communicator at the SWPT that received the message and the time and
- EC/EOF DIRECTOR INITIALS: The information on this form must be approved (initialed) before the SWP7 is notified.

#### CONSIDERATIONS FOR A SECURITY EMERGENCY

CAUTION: Security may use physical or deadly force to protect plant personnel or vital plant equipment. Under no circumstances are personnel to be requested to move around inside the protected area until the Security Emergency is cleared.

Security notifies the Control Room of the Security Emergency.

OR

- IF Security is not aware of the potential Security Emergency, THEN notify the Security Shift Supervisor immediately.
- In concurrence with Security, the Control Room announces the Security Emergency directing personnel to secure equipment and take suitable cover immediately, until an "All Clear" announcement is made.
- Maintain contact between the Control Room and the Security Shift Supervisor.
- Retain personnel in the Control Room and await instructions from the Security Shift Supervisor.
- DO NOT sound the evacuation alarm.
- DO NOT staff the TSC/OSC (unless already activated).
- DO NOT call in TSC staff by phone or pagers.
- DO NOT instruct personnel to go to their Local or Main Assembly Areas.
- Maintain EC duties and functions in the Control Room until the EC determines it is safe to sound the evacuation alarms and/or staff the TSC/OSC.
- Return to the appropriate procedure section to continue making appropriate notifications, except as identified above.

1) Use ENS phone sticker # for NRC direct IF ENS OUT OF SERVICE , use 2) Commercial 1-301-816-5100 or 1-301-951-0550

#### NRC EVENT NOTIFICATION WORKSHEET

NRC	COMMUNICATOR	NRC EVENT	

NOTIFICATION TIME	FACILITY CRYSTAL RIVER	UNIT 3	CALLER'S NAME	CALL BACK ENS # 700-821-0027 Or # 1-362-795-6968
EVENT TIME	EVENT DATE		POWER/MODE BEFORE	POWER/MODE AFTER
				Annual Annual Control of the Control

EVENT CLASSIFICATIONS - 50.72 (a)(1)	1-HOUR NON-EMERGENCY 50.72 (b)(1) (Cont'd)	4 HOUR NON-EMERGENCY 50,72 (b){2 (Cont'd)		
GENERAL EMERGENCY	□ (iii) Tomado	☐ (iii)(B) RHR Capability		
SITE AREA EMERGENCY	🗆 (iii) Other Natural Phenomena	☐ (iii)(C) Control of Rad Release		
DALERT	☐ (iv) ECCS Discharge to RCS	(iii)(D) Accident Mitigation		
D UNUSUAL EVENT	□ (v) Lost ENS	☐ (iv)(A) Air Release > 20X Appendix B		
1-HOUR NON-EMERGENCY 50.72(b)(1)	(v) Lost Emergancy Assessment	□ (iv)(B) Liq Release > 20X Appendix B		
	□ (v) Lost Offsite Communications	□ (v) Offsite Medical		
(i)(A) TS Required Shut Down	□ (v) Emergency Sirens Inoperable	☐ (vi) Offsite Notification		
(i)(B) TS Deviation	☐ (vi) Fire	OTHER EVENTS		
☐ (ii) Degraded Condition	□ (vi) Toxic Gas			
(ii)(A) Unanalyzed Condition	☐ (vi) Rad Release	□ PHYSICAL SECURITY (73.71)		
🗆 (ii)(B) Outside Design Basis	☐ (vi) Other Hampering Safe Operation	☐ TRANSPORTATION		
(ii)(C) Not Covered By OPs/EPs	4 HOUR NON-EMERGENCY 50.72 (bit2)	☐ MATERIAL/EXPOSURE (20.2202)		
🛘 (iii) Earthquake		☐ FITNESS FOR DUTY		
□ (iii) Flood	[] (i) Degrade While Shut Down	□ OTHER		
(iii) Hurricane	☐ (ii) RPS Actuation (scram)			
□ (iii) Ice/Hail	(ii) ESF Actuation			
O (iii) Lightning	☐ (iii)(A) Safe Shut/Down Capability			

DESCRIPTION
Include: Systams affected, actuations & their initiating signals, causes, offect of event on plant, actions taken or planned, etc.

NOTIFICATIONS	YES	NO	WILL BE	ANYTHING UNUSUAL OR NOT UNDERSTOOD?	YES (explain above)	NO
NRC RESIDENT						
STATE WARNING POINT				DID ALL SYSTEMS FUNCTION AS REQUIRED?	YES	NO (explain above
CITRUS&LEVY COUNTIES						
STATE BUREAU OF RADIATION CONTROL				MODE OF OPERATION UNTIL CORRECTED:	ESTIMATE FOR RESTART DATE:	ADDITIONAL INFO ON BACK?
MEDIA/PRESS RELEASE						

Rediological Release	Check or Fill in	Applicable Items (a	pecific details	s/explanations shou	ald be covered i	n event descriptio	on)	and the second second
Offsite Release tete release peth in description)	Offsite Prote	active Actions		☐ Areas Evacuated	1	□ Perso	nnel Exposed or	Contaminated
Release Description	Check or Fill in	Applicable Items (s	pecific details	s/explanations shou	ıld be covered i	n event description	n)	
Liquid Release	☐ Monitored	☐ Unmonitored	□ Plannes	Unplanned	□ Ongoing	□ Corminated	□ ODCM Exceeded	☐ RM Alarms
Gaseous Release	☐ Monitored	Unmonitored	☐ Planned	Unplanned	□ Ongoing	☐ Terminated	D ODCM Exceeded	☐ RM Alarms
Release Rates/Limits (From Dose Assessment Team)		se Rate	% 0	DCM Limit	Tot	al Activity	% (	ODCM Limit
Noble Gas	100				+	(CI)		
lodine					-			
Particulate			*************		-			
Liquid (excluding tritium & dissolved noble goses)							+ -	
Liquid (tritium)					-			
Total Activity					-			
Rad Monitor Readings		Stack		ser/Air Ejector		Steam Line 25,26,27,28)	0	ther (List)
AD Monitor Readings:								
Alarm Setpoints:								
% ODCM Limit (if applicable)								
RCS or SG Tube Leaks	Check or Fill In	Applicable Items: (	specific detai	lls/explanations sho	uld be covered	in event descripti	on)	
Location of the leak (e.g., SG#,	valve, pipe, etc.)							
Leak Rate:	Units: gpm/gpc	i		S.T.S. Limits:	Para communicación de la visua de la compansión de la compansión de la compansión de la compansión de la compa	□ Sud	den or 🖂 Long 1	Term Development
Leak Start Date:	Time:	THE RESIDENCE AND ADDRESS OF THE PARTY OF TH		Coolant Activity	Primary	μCi/ml	Secondary	μCi/ml
List of Safety Related Equipment	Not Operational					p-0//111	Occinally	pol/m
	_	EVENT	DESCRIPTION	N (Continued from f	ront)		Allan acordon acordon	
					Marie I de la Colonia de la Co	************		
	EC IN	ITIALS			DA	TE:		

ENCLOSURE 5

#### EMERGENCY NOTIFICATION UNITS 1 2, 4, & 5

Use (	Enclo lex p	osure 7 to determine protective act personnel. (None for Unusual Event	ion recommendations for or Alert.)	r Generating
Unit	1 &	2 (ext. 2120 or 563-4454)	Contact	Time
Unit	4 &	5 (ext. 5283 or 563-4460)	Contact	Time
		FOLLOWING INFORMATION TO THE FOSSI		
1.	Your	r name and position:		· ·
2.		rgency or drill:		
3.		rent Emergency Classification:		
4.		efly explain plant conditions using		
5.	Star	te (a) or (b):		
	(a)	"NO RADIOACTIVE MATERIAL WAS RELEA	SED."	
	(b)	"RADIOACTIVE MATERIAL IS BEING REL	EASED."	
6.	Sta	te if conditions are:		
	a. b. c.	"IMPROVING" "STABLE" "DEGRADING"		
7.	Sta	te (a) or (b) or (c) or (d):		
	a.	(IF UNUSUAL EVENT OR ALERT) "NO ASSEMB	LY OR EVACUATION IS NEC	CESSARY AT
	b.	(SITE AREA EMERGENCY: see Enclosure 7) "B ACCOUNTABILITY. REFER TO THE CRYS ACCOUNTABILITY/EVACUATION MANUAL. NOTIFY CR-3 SECURITY AT EXTENSION	ONCE ACCOUNTABILITY IS	TTE S COMPLETE.

- "BEGIN STANDARD ASSEMBLY AND ACCOUNTABILITY. REFER TO THE CRYSTAL RIVER COAL PLANT SITE ACCOUNTABILITY/EVACUATION MANUAL. ONCE ACCOUNTABILITY IS COMPLETE, NOTIFY CR-3 SECURITY AT EXTENSION 3258 OR 3838, AND EVACUATE NON-ESSENTIAL PERSONNEL. STANDBY FOR FURTHER INSTRUCTION."
- d. (General Emergency, release has occurred or is likely to occur within 3 hours; see Enclosure 7) "SECURE THE PLANT AND EVACUATE. DO NOT PERFORM ASSEMBLY."
- 8. If time permits and you feel qualified, ask for questions.
- 9. State: "WE WILL KEEP YOU INFORMED."

FURTHER INSTRUCTIONS."

# INITIATION OF THE EMERGENCY RESPONSE DATA SYSTEM (ERDS)

WITHIN THE FIRST HOUR of the declaration of an ALERT, SITE AREA EMERGENCY or GENERAL EMERGENCY classification activate ERDS. Once activated, ERDS operates automatically.

ERDS IS LOCATED in the Control Room in the Cabinet labeled "Computer Main Frame,
Cab. #5"

ACTIVATION OF ERDS - Open the cabinet and perform the following:

- Push button "B" on the COMMANDER for ERDS initiation. Make sure the red light comes on.
- 2) Push ALT-C on the keyboard,

The ERDS window will display a series of messages such as "Waiting for Connect" and "Waiting for Accept." Once the connection with the NRC has been established, the messages will alternate between "Transmitting" and "Idle." If no activation response is indicated on the monitor, contact the Nuclear Computer Controls Specialist for assistance, and notify the NRC over the ENS link, providing parameters as requested. If the link is inadvertently terminated once communications are established, ERDS automatically continues trying to reestablish communications.

#### DEACTIVATION OF ERDS

Notify the NRC before disconnecting the ERDS data link. Once concurrence is given by the NRC, ERDS transmission is terminated. If the above message is not on the monitor, it means that ERDS is not activated. Proceed with the following only if ERDS is still activated. The NRC also has the capability of terminating the ERDS transmission if needed.

- 1) Push button "B" on the COMMANDER for ERDS deactivation.
- Push ALT-C on the keyboard.

A series of messages will appear in the ERDS window. When the shut down is finished, the message "Shutdown Completed" will be displayed.

#### EVACUATION PLANNING GUIDE

#### GENERATING COMPLEX PROTECTIVE ACTIONS

- Determine protective actions for the Generating Complex using B or C or D below. (Use information in the tables and map on the following pages of this enclosure as necessary.)
  - A. UNUSUAL EVENT OR ALERT: NO PROTECTIVE ACTIONS
  - B. SITE AREA EMERGENCY:
    - Perform assembly and accountability and instruct Fossil Control Rooms to report results to CR-3 Security at extension 3258 or 3838.
    - Consider sheltering for releases lasting less than two hours.
       For releases lasting greater than two hours or for planned releases evacuate non-essential personnel.
  - C. GENERAL EMERGENCY: (Release has not occurred and release not likely within 3 hours.)
    - Perform assembly and accountability and instruct Fossil Control Rooms to report results to CR-3 Security at extension 3258 or 3838.

Evacuate non-essential personnel.

- Notify fossil control rooms to standby for instructions.
- Consider supplying dosimetry to remaining personnel.
- D. GENERAL EMERGENCY: (Release has occurred or is likely to occur within 3 hours.)

Notify fossil control rooms to secure their plants.

- Evacuate the Generating Complex even if a release has already started.
- Evacuate without performing assembly.
- 2. Notify the fossil units using Enclosure 5.
- Notify Nuclear Security to coordinate with Corporate Security to ensure these protective action instructions are provided to all areas of the Generating Complex.

Evacuation Considerations:

- Approximately 35 minutes for notification, equipment shutdown, assembly and accountability.

- Approximately 125 minutes to evacuate site using Access Road.\*

- Approximately 160 minutes to evacuate site during adverse weather. \* - Consider a suitable evacuation route from the site.

 Early evacuation may be required under certain meteorological or radiological conditions.

\* Based on 1344 vehicles on-site (approximately 700 - 1000 vehicles on the Generating Complex during normal operations.

#### EVACUATION PLANNING GUIDE

### WIND DIRECTION DATA

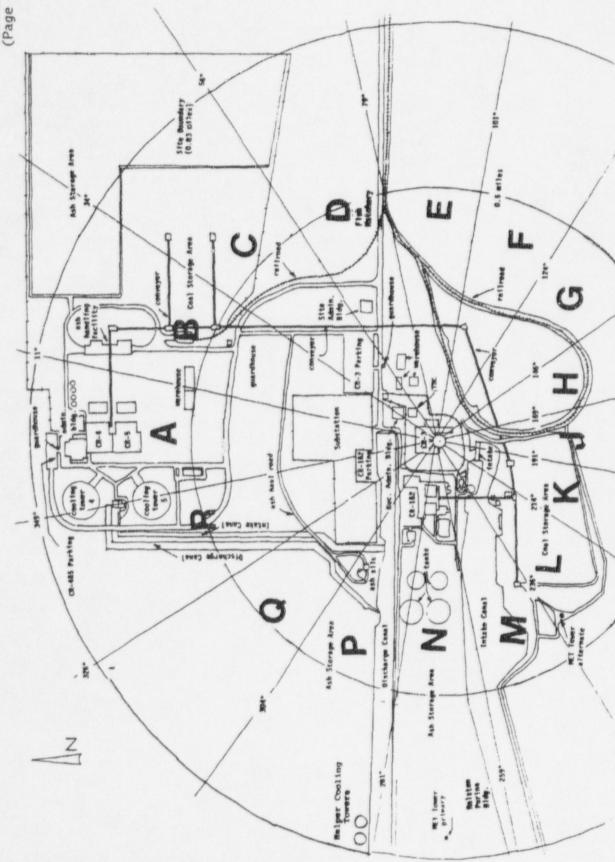
WIND FROM DIRECTION	WIND FROM DEGREES	SECTORS AFFECTED
N	349-11 (349-371)	нзк
NNE	12-33 (372-393)	J K L
NE	34-56 (394-416)	KLM
ENE	57-78 (417-438)	LMN
E	79-101 (439-461)	MNP
ESE	102-123 (462-483)	NPQ
SE	124-146 (484-506)	PQR
SSE	147-168 (507-528)	QRA
S	169-191 (529-540)	RAB
SSW	192-213	A B C
SW	214-236	B C D
WSW	237-258	CDE
W	259-281	DEF
WNW	282-303	EFG
NW	304-326	FGH
NNW	327-348	GHJ

#### EVACUATION PLANNING GUIDE

#### CONTACTS FOR PERSONNEL ASSEMBLY

SECTOR	AREA	Units 4 & 5 Control Room Public Address System	
A	Units 4 & 5		
B / C	Nuclear Administration Bldg.		
B / C	North Coal Yard	Units 4 & 5 Contro	
D / E	CR-3 Warehouse Area Site Administration Building	Corporate Security Specialist	
D / E	Nuclear Operations Trailers Mariculture Center	Corporate Security Specialist	
E/F/G/H	Coal Train Yard	Units 4 & 5 Contro	
J / K / L	South Coal Yard	Units 1 & 2 Contro	
N	Units 1 & 2	Units 1 & 2 Contro	
N	Ralston Purina Building	Corporate Security Specialist	

(Page 4 of 4)



# GUIDELINES FOR PROTECTIVE ACTION RECOMMENDATIONS FOR NON-ESSENTIAL GENERATING COMPLEX PERSONNEL AND GENERAL POPULATION

	RECOMMENDED ACTION		
PLANT CONDITIONS/OFF-SITE DOSE ESTIMATES	0-2 MILES		5-10 MILES
1. CONDITION: GENERAL EMERGENCY DECLARED. NO APPARENT CORE DAMAGE.  CORE DAMAGE INDICATIONS: a. RC5 pressure vs temperature in normal region (See EM-202, Enc. 8, page 3 of 3); or b. RM-G29/30 reading < 100 R/hr; or c. PASS results.	Evacuate 360°	Evacuate 360°	None (See Note 1.)
2. CONDITION: GENERAL EMERGENCY DECLARED. CLAD DAMAGE INDICATIONS: a. RCS pressure vs temperature in gas gap failure region (See EM-202, Enc. 8, page 3 of 3); or b. Core uncovered for 15-30 minutes; or c. RM-G29/30 reading of 100-75,000 R/hr (RB spray off) OR 100-25,000 R/hr (RB spray on); or d. PASS results.  OR:  Dose at the 0.83 mile Site Boundary is projected to be: a) TEDE: ≥ 1.0 Rem b) Thyroid CDE: ≥ 5.0 Rem	Evacuate 360°	Evacuate 360°	Shelter 360° (See Note 1.)
3. CONDITION: GENERAL EMERGENCY DECLARED. CORE MELT OCCURRING OR LIKELY.  CORE DAMAGE INDICATIONS: a. RCS pressure vs temperature in the core melt region (See EM-202, Enc. 8, page 3 of 3); or b. Core uncovered for > 30 minutes; or c. RM-G29/30 reading > 75,000 R/hr (RB spray off) or > 25,000 R/hr (RB spray on).  WITH:  NO projected containment failure and NO release underway.  Projected containment failure and/or release underway.	Evacuate 360° Evacuate 360°	Evacuate 360° Evacuate 360°	Shelter 360° (See Note 1.) Evacuate 360°

<sup>\*</sup> PARs within the first hour of an event should be based on PLANT CONDITIONS ONLY until the TSC Dose Assessment Team is operational.

NOTE 1: Relocate/evacuate population affected by any ground contamination after plume passage or at any time projected dose is ≥ 1.0 REM TEDE or ≥ 5.0 REM Thyroid CDE.

NOTE 2: Evacuation time estimates are 2 hours for a 5 mile evacuation and 4 hours for a 10 mile evacuation. (These times do not include notification or preparation time for evacuees.)

# GUIDELINES FOR FPC EMERGENCY WORKER EXPOSURE

CONDITION	DOSE LIMIT (REM TEDE)	GUIDANCE
Emergency conditions not requiring actions to prevent serious injury or protect valuable property.	5	Emergency worker exposure should not exceed 5 REM TEDE. Exposures in excess of this limit a:e voluntary and are authorized by the Emergency Coordinator.
Emergency conditions requiring actions to prevent serious injury or protect valuable property.	10	Exposure greater than 5 REM TEDE should be on a voluntary basis with approval of the Emergency Coordinator. Appropriate controls for emergency workers include time limitations and respirators.
Emergency conditions requiring lifesaving actions or actions to protect large populations.	25	Exposure greater than 5 REM TEDE should be on a voluntary basis with approval of the Emergency Coordinator. Appropriate controls for emergency workers include time limitations, respirators, and thyroid blocking.
Emergency conditions requiring lifesaving actions or actions to protect large populations.	> 25	Exposure greater than 5 REM TEDE should be on a voluntary basis with approval of the Emergency Coordinator. Volunteers should be healthy, above the age of 45, have an understanding of the health risks involved, and, preferably, be those whose normal duties have trained them for such missions. Appropriate controls for emergency workers include time limitations, respirators, and thyroid blocking.

NOTE: Reference for this table is Table 2.2 in the <u>Manual of Protective Action</u> Guides and Protective Actions for Nuclear Incidents (EPA 400-R/92-001).

#### FISSION PRODUCT BARRIER ASSESSMENT

There are three fission product barriers: fuel clad, Reactor Coolant System, and the Containment Building. Loss of two of three of these barriers with a potential for losing the third is grounds for a General Emergency. This enclosure lists these barriers with potential failure indications.

# FUEL CLAD FAILURE INDICATIONS (challenged by high temperature, lose parts)

1. RM-L1 increasing

2. PASS indicating increased RCS activity

3. RM-G29/30 increasing (requires RCS failure also)
Gas Gap Failure = 100-75,000 R/hr (Building Spray off)
OR 100-25,000 R/hr (Building Spray on)

Core Melt = > 75,000 R/hr (Building spray off) OR > 25,000 R/hr (Building Spray on)

4. RCS pressure/incore temperature graph in Regions 3 or 4. (Refer to EOP-7)

# RCS FAILURE INDICATIONS (LOCA) (challenged by high RCS pressure, vibration)

1. RCS pressure decreasing

2. RB pressure increasing

- 3. RB temperature increasing
- 4. RB sump level increasing
- 5. RM-A6 monitors increasing
- 6. RM-G16/17/18 increasing
- 7. RM-G29/30 increasing

# CONTAINMENT FAILURE INDICATIONS (challenged by high RB pressure and temperature)

1. RM-A2 monitors increasing

2. Other Auxiliary Building radiation monitors increasing

3. Abnormal radiation levels in Intermediate Building and on berm surveys