



March 12, 2001

L-2001-043
10 CFR 50 Appendix E

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

Re: St. Lucie Units 1 and 2
Docket Nos. 50-335 and 50-389
Emergency Plan Implementing Procedure

In accordance with 10 CFR 50 Appendix E, enclosed is a copy of the revised procedure that implements the Emergency Plan as listed below.

<u>Number</u>	<u>Title</u>	<u>Revision</u>	<u>Implementation Date</u>
EPIP-01	Classification of Emergencies	3	February 13, 2001

EPIP-01 Revision 3 added Plant Management Action Item (PMAI) references; added definitions for owner controlled area (OCA), protected area (PA), and power block; clarified classification guidance; and made administrative/editorial changes.

Please contact us if there are any questions regarding this procedure.

Very truly yours,

Rajiv S. Kundalkar
Vice President
St. Lucie Plant

RSK/tlt

Enclosure

cc: Regional Administrator, USNRC, Region II (2 copies)
Senior Resident Inspector, USNRC, St. Lucie Plant w/o

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**ST. LUCIE PLANT
EMERGENCY PLAN
IMPLEMENTING PROCEDURE**
SAFETY RELATED

Procedure No.
EPIP-01

Current Rev. No.
3

Effective Date:
02/13/01

Title:

CLASSIFICATION OF EMERGENCIES

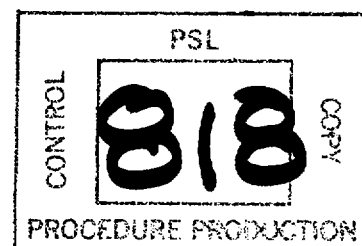
Responsible Department: **EMERGENCY PLANNING**

Revision Summary

Revision 3 - Added PMAI references, added definitions for OCA, PA and power block, clarified classification guidance and made editorial/administrative changes.
(J. R. Walker, 02/09/01)

Revision 2 - Clarified initiating conditions and emergency action levels to correspond to changes in the PSL emergency plan in accordance with PMAI PM99-09-154, defined classification table and made editorial changes. (J. R. Walker, 10/13/00)

Revision 1 - Revised to RCS EAL for alert based on NESP007 guidance. (J. R. Walker, 04/21/00)



Revision	FRG Review Date	Approved By	Approval Date	S__OPS
0	12/15/97	J. Scarola Plant General Manager	12/15/97	DATE _____ DOCT PROCEDURE DOCN EPIP-01 SYS _____ COMP COMPLETED ITM 3
Revision	FRG Review Date	Approved By	Approval Date	
3	02/08/01	R. G. West Plant General Manager	02/09/01	
		N/A Designated Approver		
		N/A Designated Approver (Minor Correction)		

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1.0 PURPOSE

This procedure provides instructions on the classification of emergencies at St. Lucie Plant.

Emergency classifications in order of increasing seriousness are:

- Unusual Event
- Alert
- Site Area Emergency
- General Emergency

Specific criteria are provided to assure proper escalation and de-escalation between emergency classification levels.

NOTE

One or more of the following symbols may be used in this procedure:

- § Indicates a Regulatory commitment made by Technical Specifications, Condition of License, Audit, LER, Bulletin, etc., and shall NOT be revised without Facility Review Group review and Plant General Manager approval.
- ¶ Indicates a management directive, vendor recommendation, plant practice or other non-regulatory commitment that should NOT be revised without consultation with the plant staff.

2.0 REFERENCES/RECORDS REQUIRED/COMMITMENT DOCUMENTS

2.1 References

1. St. Lucie Plant Radiological Emergency Plan (E-Plan)
2. E-Plan Implementing Procedures (EPIP 00-13)
3. C-200, Offsite Dose Calculation Manual (ODCM).
4. AP 0010502, Oil and Hazardous Material Emergency Response Plan.

¶₁

5. NUREG-1022, Section 3.1.1.

/R3

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2.0 REFERENCES/RECORDS REQUIRED/COMMITMENT DOCUMENTS
(continued)

2.1 (continued)

¶ ₂	6. NRC IEN No. 85-80, Timely Declaration of an Emergency Class, Implementation of an Emergency Plan, and Emergency Notifications, October 15, 1985.	/R3
¶ ₃	7. NRC EPPOS No. 2, Emergency Preparedness Position (EPPOS) on Timeliness of Classification of Emergency Conditions, August, 1995.	/R3
¶ ₄	8. PMAI PM98-01-017, Loss of Seismic Monitoring Capability.	/R3

2.2 Records Required

The basis for classifying an emergency condition shall be recorded in appropriate emergency logs.

2.3 Commitment Documents

§ ₁	CR 00-0614 (RCS leakage during shutdown cooling)
§ ₂	PMAI PM99-09-154 (IC and EAL changes submitted under FPL letter L-98-2000).

3.0 RESPONSIBILITIES

3.1 Nuclear Plant Supervisor (NPS)

- The Nuclear Plant Supervisor is responsible to promptly classify abnormal situations into one of the four defined categories.
- If an emergency has been declared, the Nuclear Plant Supervisor is responsible for assuming the position of Emergency Coordinator and retaining this position until relieved.

3.2 Emergency Coordinator (EC)

The Emergency Coordinator is responsible to continually evaluate changes in plant conditions against the classification table in this procedure.

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4.0 DEFINITIONS		
4.1 Emergency Classes		/R3
1. Unusual Event		/R3
<p>This classification is represented by off-normal events or conditions at the plant for which no significant degradation of the level of safety of the plant has occurred or is expected. Any releases of radioactive material which may have occurred or which may be expected are minor and constitute no appreciable health hazard.</p>		
2. Alert		/R3
<p>This classification is represented by events which involve an actual or potential substantial degradation of the level of safety of the plant combined with a potential for limited uncontrolled releases of radioactivity from the plant.</p>		
3. Site Area Emergency		/R3
<p>This classification is composed of events which involve actual or likely major failures of plant functions needed for protection of the public combined with a potential for significant uncontrolled releases of radioactivity from the plant.</p>		
4. General Emergency		/R3
<p>This classification is composed of events which involve actual or imminent substantial core degradation and potential loss of containment integrity combined with a likelihood of significant uncontrolled releases of radioactivity from the plant.</p>		
4.2 Classification Table		/R3
<p>A composite of Emergency Action Levels (EALs) and their Initiating Conditions (ICs) used to evaluate off normal/emergency conditions resulting in declaration of one of the four Emergency Classes, as appropriate. The Table is arranged in the following categories:</p>		
1. Events Affecting Primary Pressure		/R3
A. Abnormal Primary Leak Rate		
B. Abnormal Primary/Secondary Leak Rate		

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4.0 DEFINITIONS (continued)

4.2 (continued)

1. (continued)

C. Loss of Secondary Coolant

2. Abnormal Radiation, Contamination and Effluent Releases

A. Uncontrolled Effluent Release

B. High Radiation Levels in Plant

3. Fires, Explosions

4. Accident Involving Fuel

A. Fuel Element Failure

B. Fuel Handling

5. Natural Emergencies

A. Earthquake

B. Hurricane

C. Tornado

D. Abnormal Water Level

6. Miscellaneous Events

A. Increased Awareness or Potential Core Melt

7. Electrical Malfunctions

A. Loss of Power

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4.0 DEFINITIONS (continued)

4.2 (continued)

8. Degradation of Control Capabilities

- A. Loss of Plant Control Functions
- B. Loss of Alarms, Communications, Monitoring

9. Hazards to Station Operation

- A. Aircraft, Missile
- B. Turbine Failure
- C. Toxic or Flammable Gas

10. Security Threat

4.3 Plant - The St. Lucie Plant, Unit 1 and Unit 2

4.4 Site - A general term referring to the location of the St. Lucie Nuclear Power Plant. Other terms related to the site are given below:

1. **Owner Controlled Area** - That portion of FPL property surrounding and including the St. Lucie Nuclear Power Plant which is subject to limited access and control as deemed appropriate by FPL.
2. **Protected Area** - The area (within the Owner Controlled Area) occupied by the nuclear units and associated equipment and facilities enclosed with the security perimeter fence. The area within which accountability of personnel is maintained in an emergency.
3. **Power Block** - Structures, systems or components in the areas listed below that support the production of power. This includes any equipment needed for the direct generation of power or necessary for safe operation and/or shutdown of one or both of the reactors.

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- A. Reactor Containment and Shield Buildings

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4.0 DEFINITIONS (continued)

4.4 (continued)

3. (continued)

B. Reactor Auxiliary Buildings including the following areas:

- 1. Refueling Water Tank (RWT)**
- 2. Component Cooling Water (CCW) platform area**
- 3. Diesel Generator Buildings and Fuel Oil Storage Tanks**
- 4. Fuel Handling Building**
- 5. Primary Water Tank and Pumps**

C. Intake Area

D. Discharge Canal & Headwall

E. Ultimate Heat Sink Structure

F. Fire Protection System including the fire pumps and the City Water Storage Tanks (CWST), but not including parts of the system associated with the North or South Service Buildings or other outlying facilities.

G. Turbine Buildings (all levels)

H. Condensate Storage Tanks (CST)

I. Main, Auxiliary and Startup Transformers

J. Steam Trestles

K. Turbine Lube Oil Storage Tanks

L. Gas House

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5.0 INSTRUCTIONS

5.1 Direct Initial Investigative and Mitigating Actions to Address the Event

1. If the event involves entry into the Off-Normal Operating Procedures (ONOPs) or Emergency Operating Procedures (EOPs), Then perform steps per ONOPs or EOPs until appropriate or directed to classify event.
2. If the event involves a release of hazardous materials to the environment, Then respond per AP 0010502, Oil and Hazardous Material Emergency Response Plan.
3. If the event involves a release of radioactive material to the environment, Then direct Chemistry personnel to implement EPIP-09, Off-site Dose Calculations.

/R3

END OF SECTION 5.1

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5.0 INSTRUCTIONS (continued)

NOTE

Emergency Action Levels/Initiating Conditions are applicable to all modes unless otherwise indicated.

5.2 Classifying the Event

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1. A goal of fifteen (15) minutes should be used for assessing and classifying an emergency once indications (initiating conditions) are available to Control Room Operators that an Emergency Action Level (EAL) has been exceeded.

A. This goal should allow time for determination of indications (leak rate, etc.) and detailed review of Attachment 1, Emergency Classification Table.

2. Use the best information available when working through the Emergency Classification Table. When confronted with conflicting information for which resolution is not apparent, classify the condition at the highest appropriate emergency class.

3. If, in the judgement of the Nuclear Plant Supervisor (NPS)/Emergency Coordinator (EC), a situation is more serious than indicated by instrument readings or other parameters, Then classify the emergency condition at the more serious level (i.e., at the highest appropriate emergency class).

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4. If an EAL was met and the condition completely cleared prior to an emergency classification being declared, Then:

A. Classify the event in accordance with Attachment 1.

B. Termination of the event

1. An event classified as an Unusual Event or Alert may be terminated at the time of declaration by the EC.
2. An event classified as a Site Area Emergency or General Emergency may only be downgraded and/or terminated by the Recovery Manager (RM).

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END OF SECTION 5.2

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5.0 INSTRUCTIONS (continued)

5.3 Classification of An Event Based On Subsequent Information

1. If subsequent information of a more detailed nature (e.g., sampling results) becomes available after the initial classification has been made, Then reclassify as appropriate.
2. If results of a protracted review (i.e., Engineering Evaluation, CR disposition, etc.) of an event indicate that conditions were met for an Emergency classification, and the condition has completely cleared prior to recognition of possible classification, Then notify NRC within one hour of discovery of the undeclared event.
 - A. Contact Emergency Preparedness for briefing of state and local agencies.

END OF SECTION 5.3

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EPIP-01**EPIP-01****ST. LUCIE PLANT****ATTACHMENT 1
EMERGENCY CLASSIFICATION TABLE****(Page 1 of 20)**

§₂ **CAUTION**
Section 1.A should not be used for a steam generator tube leak/rupture.

EVENT/CLASS	UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
1.A. <u>ABNORMAL</u> <u>PRIMARY</u> <u>LEAK RATE</u> (Page 1 of 2)	<u>Reactor Coolant System</u> <u>(RCS) Leakage</u> 1. RCS leakage GREATER THAN 10 gpm as indicated by: A. Control Room observation <u>OR</u> B. Inventory balance calculation <u>OR</u> C. Field observation <u>OR</u> D. Emergency Coordinator judgement <u>OR</u> 2. Indication of leaking RCS safety or relief valve which causes RCS pressure to drop below setpoints: - Unit 1 - 1600 psia - Unit 2 - 1736 psia	<u>RCS Leakage GREATER</u> <u>THAN 50 gpm</u> 1. Unisolable RCS leakage as indicated by Charging/letdown mismatch greater than 50 gpm but less than available charging pump capacity. <u>OR</u> 2. Unisolable measured RCS leakage indicating greater than 50 gpm but less than available charging pump capacity.	<u>LOCA GREATER THAN</u> capacity of charging pumps 1. RCS leakage greater than available charging pump capacity occurring with RCS pressure above HPSI shutoff head. <u>OR</u> 2. RCS leakage greater than available makeup occurring with RCS pressure below HPSI shutoff head. <u>OR</u> 3. Loss of RCS subcooled margin due to RCS leakage (saturated conditions). <u>OR</u> 4. Containment High Range Radiation Monitors indicate 7.3×10^{-3} R/hr (If CHRRM inoperable, Post-LOCA monitors indicate between 100 and 1000 mR/hr).	<u>A release has occurred or is</u> <u>in progress resulting in:</u> 1. Containment High Range Radiation monitor greater than 1.46×10^5 R/hr (If CHRRM inoperable, Post- LOCA monitors greater than 1000 mR/hr). <u>OR</u> 2. Performance of EPIP-09 (Off-site Dose Calculations) or measured dose rates from off-site surveys indicate site boundary (1 mile) exposure levels have been exceeded as indicated by either A, B, C or D below: A. 1000 mrem/hr (total dose rate) B. 1000 mrem (total dose - TEDE) C. 5000 mrem/hr (thyroid dose rate) D. 5000 mrem (thyroid dose - CDE) (continued on next page)

1.A. ABNORMAL
PRIMARY
LEAK RATE**AFTER CLASSIFYING, GO TO EPIP-02, DUTIES AND RESPONSIBILITIES OF THE EMERGENCY COORDINATOR**

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**ATTACHMENT 1
EMERGENCY CLASSIFICATION TABLE**

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GENERAL EMERGENCY

Loss of 2 of the 3 fission product barriers with imminent loss of the third (any two of the following exist and the third is imminent).

1. Fuel element failure (confirmed DEQ I-131 activity greater than 275 $\mu\text{Ci/mL}$).
AND
2. LOCA or Tube rupture on unisolable steam generator.
AND
3. Containment integrity breached.

NOTE
Also refer to Potential Core Melt Event/ Class 6.A.

SITE AREA EMERGENCY

Rapid gross failure of steam generator tubes (GREATER THAN charging pump capacity) with a loss of offsite power

1. Measured RCS to secondary leakage is greater than charging pump capacity.
AND
2. Secondary plant activity is detected.
AND
3. Loss of both Non-Vital 4.16 KV buses.

(continued on next page)

ALERT

Rapid gross failure of one steam generator tube (WITHIN charging pump capacity) with loss of offsite power

1. Measured RCS to secondary leakage greater than Tech. Spec. Limits and within charging pump capacity.
AND
2. Secondary plant activity is detected.
AND
3. Loss of both Non-Vital 4.16 KV buses.

(continued on next page)

UNUSUAL EVENT

RCS PRI/SEC Leakage

1. Measured RCS to secondary leakage exceeds Tech. Spec. limits.
AND
2. Secondary plant activity is detected.

EVENT/CLASS

1.B. ABNORMAL PRIMARY TO SECONDARY LEAK RATE
(Page 1 of 2)

1.B. ABNORMAL PRIMARY TO SECONDARY LEAK RATE

AFTER CLASSIFYING, GO TO EPIP-02, DUTIES AND RESPONSIBILITIES OF THE EMERGENCY COORDINATOR

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ATTACHMENT 1
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EVENT/CLASS	UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
1.B. <u>ABNORMAL</u> <u>PRIMARY TO</u> <u>SECONDARY</u> <u>LEAK RATE</u> (Page 2 of 2)		<p><u>Rapid failure of steam generator tubes (GREATER THAN charging pump capacity)</u></p> <ol style="list-style-type: none"> 1. Measured RCS to secondary leakage greater than charging pump capacity. <u>AND</u> 2. Secondary plant activity is detected. 	<p>§₂ <u>Rapid failure of steam generator tube(s) (GREATER THAN charging pump capacity) with steam release in progress</u></p> <ol style="list-style-type: none"> 1. Measured RCS to secondary leakage greater than charging pump capacity. <u>AND</u> 2. Secondary plant activity is detected. <u>AND</u> 3. Secondary steam release in progress from affected generator (i.e., ADVs, stuck steam safety(s) or unisolable leak.) 	
1.B. <u>ABNORMAL</u> <u>PRIMARY TO</u> <u>SECONDARY</u> <u>LEAK RATE</u>				

AFTER CLASSIFYING, GO TO EPIP-02, DUTIES AND RESPONSIBILITIES OF THE EMERGENCY COORDINATOR

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**ATTACHMENT 1
EMERGENCY CLASSIFICATION TABLE**

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EVENT/CLASS	UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
1.C. <u>LOSS OF SECONDARY COOLANT</u> (Page 1 of 2)	<u>Rapid depressurization of secondary plant</u> 1. Rapid drop in either steam generator pressure to less than 600 psia.	<u>Major steam leak with GREATER THAN 10 gpm primary/secondary leakage</u> 1. Rapid drop in either steam generator pressure to less than 600 psia. <u>AND</u> 2. Known pri/sec leak of greater than 10 gpm. <u>AND</u> 3. Secondary plant activity is detected.	<u>Major steam leak with GREATER THAN 50 gpm primary/secondary leakage and fuel damage indicated</u> 1. Rapid drop in either steam generator pressure to less than 600 psia. <u>AND</u> 2. Known pri/sec leak of greater than 50 gpm. <u>AND</u> 3. Secondary plant activity is detected. <u>AND</u> 4. Fuel element damage is indicated (Refer to Fuel Element Failure Event/Class 4.A).	<u>A release has occurred or is in progress resulting in:</u> 1. Containment High Range Radiation monitor greater than 1.46×10^5 R/hr (If CHRRM inoperable, Post-LOCA monitors greater than 1000 mR/hr). <u>OR</u> 2. Performance of EPIP-09 (Off-site Dose Calculations) or measured dose rates from off-site surveys indicate site boundary (1 mile) exposure levels have been exceeded as indicated by either A, B, C or D below: A. 1000 mrem/hr (total dose rate) B. 1000 mrem (total dose - TEDE) C. 5000 mrem/hr (thyroid dose rate) D. 5000 mrem (thyroid dose-CDE)
		<u>Total loss of feedwater</u> 1. No main or auxiliary feedwater flow available for greater than 15 minutes when required for heat removal. <u>AND</u> 2. Steam Generator levels are less than 40% wide range.	<u>TLOF with once-through cooling initiated</u> 1. No main or auxiliary feedwater flow available. <u>AND</u> 2. PORV(s) have been opened to facilitate core heat removal.	(continued on next page)

1.C. LOSS OF SECONDARY COOLANT

AFTER CLASSIFYING, GO TO EPIP-02, DUTIES AND RESPONSIBILITIES OF THE EMERGENCY COORDINATOR

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ATTACHMENT 1
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EVENT/CLASS	UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
1.C. <u>LOSS OF SECONDARY COOLANT</u> (Page 2 of 2)				<p><u>Loss of 2 of the 3 fission product barriers with imminent loss of the third</u> (any two of the following <u>exist</u> and the third is imminent).</p> <ol style="list-style-type: none"> 1. Fuel element failure (confirmed DEQ I-131 activity greater than 275 $\mu\text{Ci/mL}$). <u>AND</u> 2. LOCA or Tube rupture on unisolable steam generator. <u>AND</u> 3. Containment Integrity Breached. <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p style="text-align: center;">NOTE</p> <p>Also refer to Potential Core Melt Event/Class 6.A.</p> </div>
1.C. <u>LOSS OF SECONDARY COOLANT</u>				

AFTER CLASSIFYING, GO TO EPIP-02, DUTIES AND RESPONSIBILITIES OF THE EMERGENCY COORDINATOR

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ATTACHMENT 1
EMERGENCY CLASSIFICATION TABLE
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EVENT/CLASS	UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
2.A. <u>UNCONTROLLED EFFLUENT RELEASE</u>	<p>Radiological effluent limits exceeded</p> <ol style="list-style-type: none"> Plant effluent monitor(s) exceed alarm setpoint(s). <u>AND</u> Confirmed analysis results for gaseous or liquid release which exceeds ODCM limits. <div> <p>NOTE If analysis is not available within one hour and it is expected that release is greater than ODCM limit, classify as UNUSUAL EVENT.</p> </div>	<p>A release has occurred or §₂ is in progress that is <u>10 times the effluent limit</u></p> <ol style="list-style-type: none"> Plant effluent monitor(s) significantly exceed alarm setpoints. <u>AND</u> Confirmed analysis results for gaseous or liquid release which exceeds <u>10 times ODCM limits.</u> <div> <p>NOTE If analysis is not available within one hour and it is expected that release is equal to or greater than <u>10 times ODCM limit</u>, classify as ALERT.</p> </div>	<p>A release has occurred or is in progress resulting in:</p> <ol style="list-style-type: none"> Containment High Range Radiation Monitor greater than 7.3×10^3 R/hr (Post-LOCA monitors indicate between 100 and 1000 mR/hr, if CHRRM inoperable). <u>OR</u> Measured Dose Rates or Offsite Dose Calculation (EPIP-09) worksheet values at one mile in excess of: <ol style="list-style-type: none"> 50 mrem/hr (total dose rate) or 250 mrem/hr (thyroid dose rate) for 1/2 hour. <u>OR</u> 500 mrem/hr (total dose rate) or 2500 mrem/hr (thyroid dose rate) for two minutes at one mile. 	<p>A release has occurred or is in progress resulting in:</p> <ol style="list-style-type: none"> Containment High Range Radiation monitor greater than 1.46×10^5 R/hr (If CHRRM inoperable, Post-LOCA monitors greater than 1000 mR/hr). <u>OR</u> Performance of EPIP-09 (Off-site Dose Calculations) or measured dose rates from off-site surveys indicate site boundary (1 mile) exposure levels have been exceeded as indicated by either A, B, C or D below: <ol style="list-style-type: none"> 1000 mrem/hr (total dose rate) 1000 mrem (total dose - TEDE) 5000 mrem/hr (thyroid dose rate) 5000 mrem (thyroid dose-CDE)

ODCM - refers to Chemistry Procedure C-200, Offsite Dose Calculation Manual (ODCM)

2.A. UNCONTROLLED EFFLUENT RELEASE

AFTER CLASSIFYING, GO TO EPIP-02, DUTIES AND RESPONSIBILITIES OF THE EMERGENCY COORDINATOR

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EVENT/CLASS	UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
2.B. <u>HIGH RADIATION LEVELS IN PLANT</u>		<p><u>High radiation levels or high airborne contamination which indicates a severe degradation in the control of radioactive materials</u></p> <p>1. Any valid area monitor alarm from indeterminable source with meter near or greater than full scale deflection (10^3 mR/hr). <u>OR</u></p> <p>2. Unexpected plant iodine or particulate airborne concentration of 1000 DAC as seen in routine surveying or sampling. <u>OR</u></p> <p>3. Unexpected direct radiation dose rate reading or unexpected airborne radioactivity concentration from an indeterminable source in excess of 1000 times normal levels.</p>		
2.B. <u>HIGH RADIATION LEVELS IN PLANT</u>				

AFTER CLASSIFYING, GO TO EPIP-02, DUTIES AND RESPONSIBILITIES OF THE EMERGENCY COORDINATOR

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EVENT/CLASS	UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
3. <u>FIRE</u>	§ ₂ <u>Uncontrolled fire within the Power Block lasting more than 10 minutes.</u>	<u>Uncontrolled fire</u> 1. Potentially affecting safety systems. AND 2. Requiring off-site support in the opinion of the NPS/EC.	§ ₂ <u>Fire compromising the function of safety systems (e.g., both trains rendered inoperable).</u>	<div> NOTE Refer to Potential Core Melt Event/Class 6.A. </div>
	<div> NOTE §₂ Explosion is defined as a rapid chemical reaction resulting in noise, heat and rapid expansion of gas. </div>			
<u>EXPLOSION</u>	§ ₂ <u>Occurrence of an explosion within the Owner Controlled Area.</u>	§ ₂ <u>Damage to structures/components in the Protected Area by explosion which affects plant operation.</u>	§ ₂ <u>Severe damage to safe shutdown equipment from explosion (e.g., both trains rendered inoperable).</u>	
3. <u>FIRE</u>				
<u>EXPLOSION</u>				

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EVENT/CLASS	UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
4.A. <u>FUEL</u> <u>ELEMENT</u> <u>FAILURE</u>	<p><u>Fuel element damage</u></p> <ol style="list-style-type: none"> Process monitors or area radiation surveys indicate increased letdown activity <u>AND</u> Confirmed RCS sample indicating: <ol style="list-style-type: none"> Coolant activity greater than the Tech Spec limit for iodine spike (Tech Spec Figure 3.4-1.). <u>OR</u> Coolant activity greater than 100/E $\mu\text{Ci}/\text{gram}$ specific activity. <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p style="text-align: center;">NOTE</p> <p>If analysis is not available within one hour and it is expected that activity is greater than Tech Spec limit, classify as <u>UNUSUAL EVENT</u>.</p> </div>	<p><u>Fuel element failure</u></p> <ol style="list-style-type: none"> Process monitors or area radiation surveys indicate increased letdown activity and confirmed RCS Samples indicating DEQ I-131 activity greater than or equal to 275 $\mu\text{Ci}/\text{mL}$. <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p style="text-align: center;">NOTE</p> <p>If analysis is not available within one hour and it is expected that RCS activity for DEQ I-131 is greater than 275 $\mu\text{Ci}/\text{mL}$, classify as an <u>ALERT</u>.</p> </div>	<p><u>Fuel element failure with inadequate core cooling</u></p> <ol style="list-style-type: none"> RCS DEQ I-131 activity greater than or equal to 275 $\mu\text{Ci}/\text{mL}$. <u>AND</u> Highest CET per core quadrant indicates greater than 10°F superheat or 700°F. 	<p><u>A release has occurred or is in progress resulting in:</u></p> <ol style="list-style-type: none"> Containment High Range Radiation monitor greater than $1.46 \times 10^5 \text{ R/hr}$ (If CHRRM inoperable, Post-LOCA monitors greater than 1000 mR/hr). <u>OR</u> Performance of EPIP-09 (Off-site Dose Calculations) or measured dose rates from off-site surveys indicate site boundary (1 mile) exposure levels have been exceeded as indicated by either A, B, C or D below: <ol style="list-style-type: none"> 1000 mrem/hr (total dose rate) 1000 mrem (total dose - TEDE) 5000 mrem/hr (thyroid dose rate) 5000 mrem (thyroid dose - CDE)
4.A. <u>FUEL</u> <u>ELEMENT</u> <u>FAILURE</u>				

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EVENT/CLASS	UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
5.A. <u>EARTHQUAKE</u>	<p>§₂ <u>A confirmed earthquake has occurred</u></p> <p>1. A confirmed earthquake has been experienced within the Owner Controlled Area.</p> <p align="center"><u>OR</u></p> <p>2. <u>1₄</u> An earthquake is detected by plant seismic monitor instruments or other means.</p>	<p>§₂ <u>A confirmed earthquake has occurred.</u></p> <p>1. A confirmed earthquake has occurred which registered GREATER THAN 0.05g within the Owner Controlled Area.</p> <p align="center"><u>OR</u></p> <p>2. A confirmed earthquake has occurred that could or has caused trip of the turbine generator or reactor.</p>	<p>§₂ <u>A confirmed earthquake has occurred.</u></p> <p>1. A confirmed earthquake has occurred which registered GREATER THAN 0.1g within the Owner Controlled Area and the plant not in Cold Shutdown.</p> <p align="center"><u>OR</u></p> <p>2. A confirmed earthquake has occurred that has caused loss of any safety system function (e.g., both trains inoperable).</p>	<div> <p align="center">NOTE Refer to Potential Core Melt Event/Class 6.A.</p> </div>
5.B. <u>HURRICANE</u>	<p><u>Hurricane Warning</u></p> <p>1. Confirmed hurricane warning is in effect.</p>	<p><u>Hurricane warning with winds near design basis</u></p> <p>1. Confirmed hurricane warning is in effect and winds are expected to exceed 175 mph within the Owner Controlled Area.</p>	<p><u>Hurricane warning with winds GREATER THAN design basis</u></p> <p>1. Plant not at cold shutdown.</p> <p align="center"><u>AND</u></p> <p>2. Confirmed hurricane warning is in effect and winds are expected to exceed 194 mph within the Owner Controlled Area.</p>	<div> <p align="center">NOTE Refer to Potential Core Melt Event/Class 6.A.</p> </div>
5.A. <u>EARTHQUAKE</u>	<div> <p align="center">NOTE At FPL's request, NOAA will provide an accurate projection of wind speeds onsite 24 hours prior to the onset of hurricane force winds. If that projection is not available within 12 hours of entering into the warning, classify the event using current track and wind speeds to project onsite conditions. For example, projected onsite wind speed would be less than maximum hurricane wind speed if the track is away from PSL.</p> </div>			
5.B. <u>HURRICANE</u>	<div> <p align="center">NOTE At FPL's request, NOAA will provide an accurate projection of wind speeds onsite 24 hours prior to the onset of hurricane force winds. If that projection is not available within 12 hours of entering into the warning, classify the event using current track and wind speeds to project onsite conditions. For example, projected onsite wind speed would be less than maximum hurricane wind speed if the track is away from PSL.</p> </div>			

AFTER CLASSIFYING, GO TO EPIP-02, DUTIES AND RESPONSIBILITIES OF THE EMERGENCY COORDINATOR

NOTE
Activation of the Emergency Response Facilities does not require declaration of an emergency or entry into a specific emergency classification.

EVENT/CLASS	UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
6.A. <u>INCREASED AWARENESS</u> <u>OR</u> <u>POTENTIAL CORE MELT</u> (Page 1 of 2)	<u>Emergency Coordinator's judgement that plant conditions exist which warrant increased awareness on the part of the operating staff and/or local authorities.</u> 1. The plant is shutdown under abnormal conditions (e.g., exceeding cooldown rates or primary system pipe cracks are found during operation). <u>OR</u> 2. Any plant shutdown required by Technical Specifications in which the required shutdown is not reached within action limits.	<u>§₂ Emergency Coordinator's judgement that plant conditions exist which have a potential to degrade the level of safety at the plant.</u>	<u>§₂ Emergency Coordinator's judgement that plant conditions exist which are significantly degrading in an uncontrollable manner.</u>	<u>§₂ Emergency Coordinator's judgement that plant conditions exist that make release or large amounts of radioactivity in a short period appear possible or likely. (Any core melt situation.)</u> 1. LOCA with failure of ECCS leading to severe core degradation or melt. <u>OR</u> 2. LOCA with initially successful ECCS and subsequent failure of containment heat removal systems for greater than 2 hours. <u>OR</u> 3. Total loss of feedwater followed by failure of once-through-cooling (ECCS) to adequately cool the core. <u>OR</u> 4. Failure of off-site and on-site power along with total loss of feedwater makeup capability for greater than 2 hours. <u>OR</u> 5. ATWS occurs which results in core damage or causes failure of core cooling and make-up systems. <u>OR</u> 6. Any major internal or external event (e.g., fire, earthquake or tornado substantially beyond design basis) which in the ECs opinion has or could cause massive damage to plant systems resulting in any of the above.
6.A. <u>INCREASED AWARENESS</u> <u>OR</u> <u>POTENTIAL CORE MELT</u>				

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GENERAL EMERGENCY

NOTES

1. Most likely containment failure mode is melt-through with release of gases only. Quicker releases are expected for failure of containment isolation system.
2. General Emergency must be declared for the above listed events. The likelihood of corrective action (repair of AFW pump, etc.) should not be considered.

SITE AREA EMERGENCY

ALERT

UNUSUAL EVENT

EVENT/CLASS

6.A. INCREASED
AWARENESS
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6.A. INCREASED
AWARENESS
OR POTENTIAL
CORE MELT

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EVENT/CLASS	UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY
7.A. <u>LOSS OF POWER</u>	<u>Loss of off-site power or loss of all on-site AC power capability.</u> 1. Loss of off-site AC power. <u>OR</u> 2. Loss of capability to power at least one vital 4.16 kv bus from <u>any</u> available emergency diesel generator.	<u>§2 Station Blackout (Total Loss of AC)</u> 1. Loss of off-site AC power. <u>AND</u> 2. Failure of both emergency diesel generators to start or load. <hr/> <u>Loss of all on-site DC power</u> 1. Drop in A and B DC bus voltages to less than 70 VDC.	<u>§2 Station Blackout (Total Loss of AC) for GREATER THAN 15 minutes</u> 1. Loss of offsite AC power. <u>AND</u> 2. Sustained failure of both emergency diesel generators to start or load. <u>AND</u> 3. Failure to restore AC power to at least one vital 4.16 kv bus within 15 minutes. <hr/> <u>Loss of all vital on-site DC for greater than 15 minutes</u> 1. Sustained drop in A and B DC bus voltages to 70 VDC for greater than 15 minutes.

NOTE

Refer to Potential Core Melt Event/Class 6.A.

7.A. LOSS OF POWER

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GENERAL EMERGENCY

NOTE
Refer to Potential Core
Melt Event/Class 6.A.

SITE AREA EMERGENCY

Critical Loss of Plant Control Functions

1. Loss of any function or system which, in the opinion of the Emergency Coordinator, precludes placing the plant in Hot Shutdown.
OR
2. Failure of the RPS to trip the reactor when needed and operator actions fail to bring the reactor subcritical.
OR
3. Control Room is evacuated (for other than drill purposes) and control cannot be established locally at the Hot Shutdown Control Panel within 15 minutes.

ALERT

Loss of Plant Control Functions

1. Complete loss of any function needed for plant cold shutdown.
OR
2. Failure of the Reactor Protection System to bring the reactor subcritical when needed.
OR
3. Control Room is evacuated (for other than drill purposes) with control established locally at the Hot Shutdown Control Panel.

Loss of Shutdown Cooling

1. Complete loss of functions needed to maintain cold shutdown.

A. Failure of shutdown cooling systems, resulting in loss of cold shutdown conditions.
AND
- B. RCS subcooling can NOT be maintained greater than 0°F.

UNUSUAL EVENT

EVENT/CLASS

8.A. LOSS OF PLANT CONTROL FUNCTIONS

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8.A. LOSS OF PLANT CONTROL FUNCTIONS

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EVENT/CLASS	UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
9.A. <u>AIRCRAFT / MISSILE</u>	<u>Unusual aircraft activity</u> 1. Aircraft crash in the Owner Controlled Area or unusual aircraft activity over facility that in the opinion of the NPS/EC, could threaten the safety of the plant or personnel.	<u>§₂ Aircraft/missile impact</u> 1. Aircraft crash into the Power Block. <u>OR</u> 2. Visual or audible indication of missile impact on the Power Block.	<u>§₂ Damage to vital systems from aircraft/missiles</u> 1. Aircraft crash into the Power Block damaging vital plant systems. <u>OR</u> 2. Damage resulting in loss of safe shutdown equipment from any missile.	
9.B. <u>TURBINE FAILURE</u>	<u>Turbine rotating component failure causing rapid plant shutdown.</u>	<u>Visual indication that the turbine casing has been penetrated by blading.</u>		
9.C. <u>TOXIC OR FLAMMABLE GAS</u>	<u>Unplanned/uncontrolled toxic or flammable gas release in the Owner Controlled Area that could affect plant/personnel safety.</u>	<u>Entry of toxic or flammable gas into areas potentially affecting plant operation.</u>	<u>§₂ Toxic or flammable gas has diffused into vital areas compromising the function of safety related equipment (e.g., both trains rendered inoperable).</u>	
9.A. <u>AIRCRAFT / MISSILE</u>				
9.B. <u>TURBINE FAILURE</u>				
9.C. <u>TOXIC OR FLAMMABLE GAS</u>				

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EVENT/CLASS	UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
10. <u>SECURITY THREAT</u>	<p>A SECURITY ALERT has been called by the Security Force in response to one or more of the items listed below.</p> <ol style="list-style-type: none"> Bomb threat Attack threat Civil disturbance Protected area intrusion Sabotage attempt Internal disturbance Vital area intrusion Security force strike 	<p>A SECURITY EMERGENCY has been called by the Security Force as defined in the Safeguards Contingency Plan.</p>	<p>A SECURITY EMERGENCY involving imminent occupancy of the control room or other area(s) vital to the operation of the reactor as defined in the Safeguards Contingency Plan.</p>	<p>A successful takeover of the plant including the Control Room or any other area(s) vital to the operation of the reactor (as per the Security Plan).</p>

10. SECURITY THREAT

AFTER CLASSIFYING, GO TO EPIP-02, DUTIES AND RESPONSIBILITIES OF THE EMERGENCY COORDINATOR