IPEC EMERGENCY PLAN DISTRIBUTION LIST

LOCATION	COPY HOLDER	ADDRESS	NUMBER OF COPIES
IP3 CONTROL ROOM	DELIVERED BY DOCUMENTS	IP3 53FT. CCR	**1 COPY** OF ALL EP'S
IP3 SHIFT MANAGER	DELIVERED BY DOCUMENTS	IP3 53FT. ELEVATION	**1 COPY** OF ALL EP'S
IP2 CONTROL ROOM	DELIVERED BY DOCUMENTS	IP2 53FT. CCR	**1 COPY** OF ALL EP'S
IPEC TSC	DELIVERED BY DOCUMENTS	IP2 53FT. ELEVATION	**1 COPY** OF ALL EP'S
IP2 SIMULATOR	DELIVERED BY DOCUMENTS	IP2 SIMULATOR BLDG.	**1 COPY** OF ALL EP'S
IP2 SIMULATOR - CLASSROOM 4	DELIVERED BY DOCUMENTS	IP2 SIMULATOR BLDG.	**1 COPY** OF ALL EP'S
IP2 SIMULATOR - CLASSROOM 5	DELIVERED BY DOCUMENTS	IP2 SIMULATOR BLDG.	**3 COPIES** OF ALL EP'S **EXCEPT E-PLAN**
NRC RESIDENT INSPECTOR	NRC	IP2 88FT. ELEVATION	**1 COPY** OF ALL EP'S
DOC CONTROL DESK	NRC - ROCKVILLE, MD ADDRESS	**OFFSITE**	**1 COPY** OF ALL EP'S AND GENERAL RECORDS **EXCEPT IP-EP-115**
NRC	JAMES DANNA	**OFFSITE**	**1 COPY** OF ALL EP'S AND GENERAL RECORDS **EXCEPT IP-EP-115**
NRC	DEPUTY DIRECTOR	**OFFSITE**	**1 COPY** OF ALL EP'S AND GENERAL RECORDS **EXCEPT IP-EP-115**
NEW YORK STATE OEM	TED FISCH	**LENORE TO UPDATE WEBSITE NO MAIL COPIES**	**1 COPY** OF THE FOLLOWING: E-PLAN , IP-EP-115, 120, 210, 220, 230, 250, 310, 320, 340, 360, 410, 420, 430, 620 & IP-1055
WESTCHESTER COUNTY OEM	DENNIS DELBORGO	**OFFSITE**	**1 COPY** OF E-PLAN, IP-EP-310 & 340
ROCKLAND COUNTY FIRE AND EMERGENCY SERVICES	NICHOLAS LONGO	**OFFSITE**	**1 COPY** OF E-PLAN, IP-EP-310 & 340
ORANGE COUNTY EMERGENCY SERVICES CENTER	SHANNON FISHER	**OFFSITE**	**1 COPY** OF E-PLAN, IP-EP-310 & 340
PUTNAM COUNTY BUREAU OF EMERGENCY SERVICES	KEN CLAIR	**OFFSITE**	**1 COPY** OF E-PLAN, IP-EP-310 & 340

EFFECTIVE
MAY 30 2018
DATE

THE FOLLOWING LOCATIONS ARE *ELECTRONIC DISTRIBUTIONS

A245
NRR

Entergy

Indian Point Energy Center
Document Control
450 Broadway
Buchanan, NY 10511

CONTROLLED DOCUMENT TRANSMITTAL

TO: DISTRIBUTION **DATE:** May 24, 2018

FROM: IPEC DOCUMENT CONTROL -- 3RD FLOOR ADMIN BLDG **PHONE #:** 914-254-6835

TRANSMITTAL #: EP-18-0016

The Document(s) identified below are forwarded for use. Please review to verify receipt, incorporate the document(s) into your controlled document file, properly disposition superseded, voided, or inactive document(s).

Sign and return the receipt acknowledgement below within ten (10) working days.

AFFECTED DOCUMENT: IPEC EMERGENCY PLAN PROCEDURES

DOC #	REV #	TITLE	INSTRUCTIONS

THE FOLLOWING PROCEDURE IS BEING "VOIDED", PLEASE REMOVE FROM YOUR BOOKS:

IP-EP-120 REV.12

EFFECTIVE
MAY 30 2018
DATE

RECEIPT OF THE ABOVE LISTED DOCUMENT(S) IS HEREBY ACKNOWLEDGED. I CERTIFY THAT ALL SUPERSEDED, VOID, OR INACTIVE COPIES OF THE ABOVE LISTED DOCUMENT(S) IN MY POSSESSION HAVE BEEN REMOVED FROM USE AND ALL UPDATES HAVE BEEN PERFORMED IN ACCORDANCE WITH EFFECTIVE DATE(S) (IF APPLICABLE) AS SHOWN ON THE DOCUMENT(S).

Doc Control Desk

NAME (PRINT)	SIGNATURE	DATE	COPY LOCATION

Procedure/Document Number: IP-EP-120	Revision: 12
Equipment/Facility/Other: Indian Point Energy Center (IPEC)	
Title: Emergency Classification	

Part I. Description of Activity Being Reviewed (This is generally changes to the emergency plan, EALs, EAL bases, etc. – refer to step 3.0[6]):

- Revised the URL address for the national earthquake center from http://earthquake.usgs.gov/eqcenter/ to http://earthquake.usgs.gov in Note 4 on pages 39, and 49.
- Replaced interface IP-EP-220, Technical Support Center with EN-EP-610, Technical Support Center (TSC) Operations.

Part II. Activity Previously Reviewed?
Is this activity fully bounded by an NRC approved 10 CFR 50.90 submittal or Alert and Notification System Design Report?

If YES, identify bounding source document number/approval reference and ensure the basis for concluding the source document fully bounds the proposed change is documented below:

Justification:

☐ Bounding document attached (optional)

☐ YES 50.54(q)(3) Evaluation is NOT required. Enter justification below and complete Part VI.

☒ NO Continue to next part

Part III. Applicability of Other Regulatory Change Control Processes

Check if any other regulatory change processes control the proposed activity.(Refer to EN-LI-100)

This procedure has been excluded from further EN-LI-100 reviews.

APPLICABILITY CONCLUSION

☒ If there are no other controlling change processes, continue the 50.54(q)(3) Screening.
☐ One or more controlling change processes are selected, however, some portion of the activity involves the emergency plan or affects the implementation of the emergency plan; continue the 50.54(q)(3) Screening for that portion of the activity. Identify the applicable controlling change processes below.
☐ One or more controlling change processes are selected and fully bounds all aspects of the activity. 50.54(q)(3) Evaluation is NOT required. Identify controlling change processes below and complete Part VI.

CONTROLLING CHANGE PROCESSES

10 CFR 50.54(q) ONLY

Part IV. Editorial Change

Is this activity an editorial or typographical change such as formatting, paragraph numbering, spelling, or punctuation that does not change intent?

Justification:

1. This change corrects an incorrect URL address for the National Earthquake Center and does not change the intent of the procedure.
2. This change replaces a voided procedure reference with the procedure number that replaced it.

☒ YES 50.54(q)(3) Evaluation is NOT required. Enter justification and continue to next part or complete Part VI as applicable.

☐ NO Continue to next part

Procedure/Document Number: IP-EP-120	Revision: 12
Equipment/Facility/Other: Indian Point Energy Center (IPEC)	
Title: Emergency Classification	

Part V. Emergency Planning Element/Function Screen (Associated 10 CFR 50.47(b) planning standard function identified in brackets) Does this activity affect any of the following, including program elements from NUREG-0654/FEMA REP-1 Section II?	
1. Responsibility for emergency response is assigned. [1]	☐
2. The response organization has the staff to respond and to augment staff on a continuing basis (24/7 staffing) in accordance with the emergency plan. [1]	☐
3. The process ensures that on shift emergency response responsibilities are staffed and assigned. [2]	☐
4. The process for timely augmentation of onshift staff is established and maintained. [2]	☐
5. Arrangements for requesting and using off site assistance have been made. [3]	☐
6. State and local staff can be accommodated at the EOF in accordance with the emergency plan. [3]	☐
7. A standard scheme of emergency classification and action levels is in use. [4]	☐
8. Procedures for notification of State and local governmental agencies are capable of alerting them of the declared emergency within 15 minutes after declaration of an emergency and providing follow-up notifications. [5]	☐
9. Administrative and physical means have been established for alerting and providing prompt instructions to the public within the plume exposure pathway. [5]	☐
10. The public ANS meets the design requirements of FEMA-REP-10, Guide for Evaluation of Alert and Notification Systems for Nuclear Power Plants, or complies with the licensee's FEMA-approved ANS design report and supporting FEMA approval letter. [5]	☐
11. Systems are established for prompt communication among principal emergency response organizations. [6]	☐
12. Systems are established for prompt communication to emergency response personnel. [6]	☐
13. Emergency preparedness information is made available to the public on a periodic basis within the plume exposure pathway emergency planning zone (EPZ). [7]	☐
14. Coordinated dissemination of public information during emergencies is established. [7]	☐
15. Adequate facilities are maintained to support emergency response. [8]	☐
16. Adequate equipment is maintained to support emergency response. [8]	☐
17. Methods, systems, and equipment for assessment of radioactive releases are in use. [9]	☐
18. A range of public PARs is available for implementation during emergencies. [10]	☐
19. Evacuation time estimates for the population located in the plume exposure pathway EPZ are available to support the formulation of PARs and have been provided to State and local governmental authorities. [10]	☐
20. A range of protective actions is available for plant emergency workers during emergencies, including those for hostile action events.[10]	☐

Procedure/Document Number: IP-EP-120	Revision: 12
Equipment/Facility/Other: Indian Point Energy Center (IPEC)	
Title: Emergency Classification	

21. The resources for controlling radiological exposures for emergency workers are established. [11]	☐
22. Arrangements are made for medical services for contaminated, injured individuals. [12]	☐
23. Plans for recovery and reentry are developed. [13]	☐
24. A drill and exercise program (including radiological, medical, health physics and other program areas) is established. [14]	☐
25. Drills, exercises, and training evolutions that provide performance opportunities to develop, maintain, and demonstrate key skills are assessed via a formal critique process in order to identify weaknesses. [14]	☐
26. Identified weaknesses are corrected. [14]	☐
27. Training is provided to emergency responders. [15]	☐
28. Responsibility for emergency plan development and review is established. [16]	☐
29. Planners responsible for emergency plan development and maintenance are properly trained. [16]	☐

APPLICABILITY CONCLUSION

☒ If no Part V criteria are checked, a 50.54(q)(3) Evaluation is NOT required; document the basis for conclusion below and complete Part VI.

☐ If any Part V criteria are checked, complete Part VI and perform a 50.54(q)(3) Evaluation.

BASIS FOR CONCLUSION

The proposed change corrects an incorrect URL in the procedure for the National Earthquake Center and corrects a procedure reference. These changes do not change the meaning or intent of a description, does not change facilities or equipment, and does not change a process. No further evaluation is required for this change.

Part VI. Signatures:

Preparer Name (Print)	Preparer Signature	Date:
Casey Karsten Sr. Emergency Planner		5/29/18
(Optional) Reviewer Name (Print)	Reviewer Signature	Date:
Reviewer Name (Print)	Reviewer Signature	Date:
Timothy F. Garvey Nuclear EP Project Manager		5/29/18
Approver Name (Print)	Approver Signature	Date:
Frank J. Mitchell Manager, Emergency Planning or designee	Casey Karsten for Frank Mitchell per telcon	5/29/18

ATTACHMENT 10.2 IPEC PROCEDURE REVIEW AND APPROVAL

Procedure Title: Emergency Classification

Procedure No. IP-EP-120 Existing Rev: 11 New Rev: 12 DRN/EC No: DRN-18-00163

Procedure Activity (MARK Applicable)	☐ Converted To IPEC, Replaces:	Temporary Procedure Change (MARK Applicable)
☐ NEW PROCEDURE ☐ GENERAL REVISION ☐ PARTIAL REVISION ☒ EDITORIAL REVISION ☐ VOID PROCEDURE ☐ SUPERSEDED	Unit 1 Procedure No. Unit 2 Procedure No: Unit 3 Procedure No:	☐ EDITORIAL Temporary Procedure Change ☐ ADVANCE Temporary Procedure Change ☐ CONDITIONAL Temporary Procedure Change Terminating Condition:
☐ RAPID REVISION	Document in Microsoft Word: ☒ Yes ☐ No	☐ VOID DRN/TPC No(s):

Revision Summary Updated the URL in note four for the current web address of the National Earthquake Center.

Implementation Requirements

Implementation Plan? ☐ Yes ☒ No Formal Training? ☐ Yes ☒No Special Handling? ☐ Yes ☒No

RPO Dept: Emergency Planning Writer: (Print Name/Ext/Sign): Casey Karsten / 7789 /

Review and Approval (Per Attachment 10.1, IPEC Review And Approval Requirements)

1. ☐ Technical Reviewer: N/A
(Print Name/ Signature/ Date)

2. ☐ Cross-Disciplinary Reviewers:

Dept: _____ Reviewer: _____
Print Name/ Signature/ Date)

Dept: _____ Reviewer: _____
Print Name/ Signature/ Date)

3. ☒ RPO- Responsibilities/Checklist: Frank J Mitchell/ 5/31/18
(Print Name/ Signature/ Date)

☐ PAD required and is complete (PAD Approver and Reviewer qualifications have been verified)
☒ Previous exclusion from further LI-100 Review is still valid
☐ PAD not required due to type of change as defined in 4.6

4. ☐ Non-Intent Determination Complete: _____
(Print Name/ Signature/ Date)

NO change of purpose or scope
NO reduction in the level of nuclear safety
NO voiding or canceling of a procedure, unless requirements are incorporated into another procedure or the need for the procedure was eliminated
NO change to less restrictive acceptance criteria
NO change to steps previously identified as commitment steps
NO deviation from the Quality Assurance Program Manual
NO change that may result in deviations from Technical Specifications, FSAR, plant design requirements,

5. ☐ On-Shift Shift Manager/CRS: _____
(Print Name/ Signature/ Date)

6. ☐ User Validation: User: _____ Validator: _____

7. ☐ Special Handling Requirements Understood: _____
(Print Name/ Signature/ Date)

Attachment 9.1

Emergency Planning Document Change Checklist Form

(All sections must be completed, N/A or place a check on the line where applicable)

Section 1

Doc/Procedure Type:	Administrative ☐ Implementing ☒ EPLAN ☐ N/A ☐
Doc/Procedure No:	IP-EP-120
Doc/Procedure Title:	Emergency Classification
Corrective Action:	Yes ☒ No ☐ N/A ☐ CR#: IP3-2018-00483 CA-2

Section 2

Change Description

1. Ensure the following are completed, or are not applicable and are so marked:
   a. 50.54q ☒ N/A ☐
   b. EN-FAP-OM-023 ☐ N/A ☒
   c. IP-SMM- AD-102 ☒ N/A ☐
   d. OSRC ☐ N/A ☒

2. Transmittals are completed: ☐ N/A ☐ Date:_____

3. Ensure the proper revision is active in Merlin: ☐ N/A ☐

4. Approved doc/procedure delivered to Doc. Control for distribution: ☐ N/A ☐ Date: _____

5. Position Binders updated: ☐ N/A ☐ Date: _____

6. Copy of EPDCC placed in EP file: ☐ N/A ☐ Date: _____

7. Supporting documentation is submitted as a general record in MERLIN: ☐ N/A ☐ Date: _____

8. Word files are moved from working drafts folder to current revision folder in the EP drive: ☐ N/A ☐ Date: _____

Revision Matrix
IP-EP-420
"Use of Potassium Iodide by Indian Point Personnel During an Emergency" Revision 6

Number	Location	Existing Condition	Proposed Condition
1.	Page 4 of 4 Section 5.6.1	The Assembly Area Coordinators SHALL issue KI to personnel in the GSB and EEC.	The Assembly Area Coordinators SHALL issue KI to personnel in the GSB/EEC.
2.	Attachment 9.3 Sheet 1 of 2 Opening statement	This fact sheet is about a new policy for people, especially those who live within ten miles of a nuclear power plant, who may be exposed to radiation from a nuclear plant emergency.	This fact sheet is about the NYS policy for people, especially those who live within ten miles of a nuclear power plant, who may be exposed to radiation from a nuclear plant emergency.
3.	Attachment 9.3 Sheet 1 of 2 Question # 2	How does potassium iodide work?	How does KI work?
4.	Attachment 9.3 Sheet 1 of 2 Question # 10	The table below shows the smallest KI dose that different age groups can take which will protect the thyroid. At the moment, the pill only comes in a 130 mg tablet. Since it is hard to cut many pills the State Health Commissioner says that, in an emergency, it is safe for children at school or day care centers to take the whole pill. For children or babies who cannot take pills, parents and caregivers can cut or crush the pill to make lower doses. For example, if 130 mg pill were dissolved in 8 ounces of juice or other liquid, on ounce would contain 16 mg of KI.	The table on the next page shows the smallest KI dose that different age groups can take which will protect the thyroid. KI comes in liquid, 65-mg tablets and 130-mg tablets. Since it is hard to cut many pills, the State Health Commissioner says that, in an emergency, it is safe for children at school or day care centers to take the whole pill. It's better for children under 12 years old to take the 65-mg pill, but it is safe to take the 130-mg pill if that is the only one you have. For children or babies who cannot take pills, parents and caregivers can cut or crush the pill to make lower doses, or give the liquid form of KI.
5.	Attachment 9.3 Sheet 2 of 2 Question # 10	Old Table	Deleted the old table and inserted a new table consistent with the NYS Fact Sheet
6.	Attachment 9.3 Sheet 2 of 2 Question # 11	KI is helpful for about 24 hours. You should keep taking it until the health department says to stop or you are out of the emergency area.	KI is helpful for about 24 hours. You should keep taking it once a day until the health department says to stop, or you are out of the emergency area.
7.	Attachment 9.3 Sheet 2 of 2 Question # 12	KI can come as a pill or a liquid, but right now it is only available as a pill. It may also be available as a liquid soon.	KI can come as a pill or a liquid. Pills are available in 65-mg or 130-mg doses. KI is also available as a liquid.

8.	Attachment 9.3 Sheet 2 of 2 Question # 13	The manufacturers say KI stays 'fresh' for 3 – 5 years. If you keep it in a dry dark and cool place, it should last for many years.	The manufacturers say KI stays "fresh" for 5-7 years. If you keep it in a dry, dark and cool place, it should last for many years.
9.	Attachment 9.3 Sheet 2 of 2 Question # 15	It is not widely available in drugstores yet, but since it is not a prescription drug, you can buy it over the internet. We hope to give a supply of KI to people who live within 10 miles of a nuclear power plant in New York State.	Yes, though it may not widely available in drugstores near you. Since it is not a prescription drug, you can buy it over the Internet. As with other drugs, make sure the KI you buy has been approved by the FDA. A supply of KI has been made available to people who live within 10 miles of a nuclear power plant in New York State. If you live within 10 miles of a nuclear power plant and did not receive KI, contact your local Office of Emergency Management.
10.		**For additional information contact:** New York State Department of Health info line 1-800-458-1158, extension 2-7550 or BERP@health.state.ny.us **Other sources of information:** www.1da.gov/oder/guidance/4825fnl.htm www./int/environmental_information_information_resources.documents/iodine/guide.pgf www.health.state.us/nysdoh/consumer/environ/homeenvi.htm	**For additional information contact:** **New York State Department of Health Infoline at 1-800-458-1158, extension 2-7550** **or e-mail** BERP@health.ny.gov **Other sources of information:** https://www.fda.gov/downloads/drugs/guidancecomplianceregulatoryinformation/guidances/ucm080542.pdf https://www.fda.gov/drugs/emergencypreparedness/bioterrorismanddrugpreparedness/ucm072265.htm https://www.fda.gov/drugs/emergencypreparedness/bioterrorismanddrugpreparedness/ucm072261.htm https://emergency.cdc.gov/radiation/ki.asp http://www.who.int/ionizing_radiation/pub_meet/tech_briefings/potassium_iodide/en/ http://www.health.ny.gov/environmental/radiological/potassium_iodide/

ATTACHMENT 10.2 — IPEC PROCEDURE REVIEW AND APPROVAL

Procedure Title: Use of Potassium Iodide by Indian Point Personnel During an Emergency

Procedure No. IP-EP-420 Existing Rev: 5 New Rev: 6 DRN/EC No: DRN-18-00630

Procedure Activity (MARK Applicable)	☐ Converted To IPEC, Replaces:	Temporary Procedure Change (MARK Applicable)
☐ NEW PROCEDURE ☒ GENERAL REVISION ☐ PARTIAL REVISION ☐ EDITORIAL REVISION ☐ VOID PROCEDURE ☐ SUPERSEDED	Unit 1 Procedure No. Unit 2 Procedure No: Unit 3 Procedure No:	☐ EDITORIAL Temporary Procedure Change ☐ ADVANCE Temporary Procedure Change ☐ CONDITIONAL Temporary Procedure Change Terminating Condition:
☐ RAPID REVISION	Document in Microsoft Word: ☒ Yes ☐ No	☐ VOID DRN/TPC No(s):

Revision Summary: See 50.54q revision matrix.

Implementation Requirements

Implementation Plan? ☒ Yes ☐ No Formal Training? ☐ Yes ☒No Special Handling? ☐ Yes ☒No

RPO Dept: Emergency Planning Writer: (Print Name/Ext/Sign): Casey Karsten / 7789 /

Review and Approval (Per Attachment 10.1, IPEC Review And Approval Requirements)

1. ☒ Technical Reviewer: Michael York/ 5/23/18
   (Print Name/ Signature/ Date)
2. ☐ Cross-Disciplinary Reviewers:
   Dept: _____ Reviewer: _____
   Print Name/ Signature/ Date)
   Dept: _____ Reviewer: _____
   Print Name/ Signature/ Date)
3. ☒ RPO- Responsibilities/Checklist: Frank Mitchell / 5/23/18
   (Print Name/ Signature/ Date)
   - ☐ PAD required and is complete (PAD Approver and Reviewer qualifications have been verified)
   - ☒ Previous exclusion from further LI-100 Review is still valid
   - ☐ PAD not required due to type of change as defined in 4.6
4. ☐ Non-Intent Determination Complete: _____
   (Print Name/ Signature/ Date)

   NO change of purpose or scope
   NO reduction in the level of nuclear safety
   NO voiding or canceling of a procedure, unless requirements are incorporated into another procedure or the need for the procedure was eliminated
   NO change to less restrictive acceptance criteria
   NO change to steps previously identified as commitment steps
   NO deviation from the Quality Assurance Program Manual
   NO change that may result in deviations from Technical Specifications, FSAR, plant design requirements,
5. ☐ On-Shift Shift Manager/CRS: _____
   (Print Name/ Signature/ Date)
6. ☐ User Validation: User: _____ Validator: _____
7. ☐ Special Handling Requirements Understood: _____
   (Print Name/ Signature/ Date)

Attachment 9.1

Emergency Planning Document Change Checklist Form

(All sections must be completed, N/A or place a check on the line where applicable)

Section 1

Doc/Procedure Type:	Administrative ☐ Implementing ☒ EPLAN ☐ N/A ☐
Doc/Procedure No:	IP-EP-420
Doc/Procedure Title:	Use of Potassium Iodide by Indian Point Personnel During an Emergency
Corrective Action:	Yes ☒ No ☐ N/A ☐ CR#:CR-IP2-2018-02682 CA-2

Section 2

Change Description

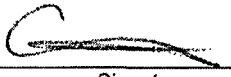
1. Ensure the following are completed, or are not applicable and are so marked:
   a. 50.54q ☒ N/A ☐
   b. EN-FAP-OM-023 ☒ N/A ☐
   c. IP-SMM- AD-102 ☒ N/A ☐
   d. OSRC ☐ N/A ☒

2. Transmittals are completed: ☐ N/A ☐ Date:_____
3. Ensure the proper revision is active in Merlin: ☐ N/A ☐
4. Approved doc/procedure delivered to Doc. Control for distribution: ☐ N/A ☐ Date: _____
5. Position Binders updated: ☐ N/A ☐ Date: _____
6. Copy of EPDCC placed in EP file: ☐ N/A ☐ Date: _____
7. Supporting documentation is submitted as a general record in MERLIN: ☐ N/A ☐ Date: _____
8. Word files are moved from working drafts folder to current revision folder in the EP drive: ☐ N/A ☐ Date: _____

CONTROLLED

Entergy	ENN IPEC EMERGENCY PLAN IMPLEMENTING PROCEDURES	NON-QUALITY RELATED PROCEDURE REFERENCE USE	IP-EP-120 Revision 12 Page 1 of 49

Emergency Classification

Prepared by:	Casey N. Karsten Print Name	 Signature	5/19/19 Date
Approval:	Frank J. Mitchell Print Name	 Signature	5/21/18 Date

Effective Date: May 30, 2018

Table of Contents

Section Page

1.0 PURPOSE 3
2.0 REFERENCES 3
3.0 DEFINITIONS 3
4.0 RESPONSIBILITIES 3
5.0 DETAILS 5
5.1 Recognizing an Emergency 5
5.2 Initial Emergency Declaration from the Control Room 6
5.3 While In a Classified Emergency 6
5.4 Transitory Events, Spikes and Spurious Indications 6
5.5 Compensatory Measures of Out-of-Service EAL Instruments 7
6.0 INTERFACES 7
7.0 RECORDS 7
8.0 REQUIREMENTS AND COMMITMENTS 7
9.0 ATTACHMENTS 7
9.1:Emergency Action Levels 8

Emergency Classification

1.0 PURPOSE

To describe the method for classification of emergencies at IPEC as a Notification of Unusual Event (NUE), Alert, Site Area Emergency (SAE) or General Emergency (GE). It also described actions to take regarding Out-of-Service instruments that are used to evaluate EAL's.

2.0 REFERENCES

2.1 Indian Point Energy Center Emergency Plan

2.2 NEI 99-01 Rev 5, Methodology for Development of Emergency Action Levels

2.3 IP-EP-AD13 IPEC Emergency Action Level Technical Bases

2.4 IP-EP-AD40 Equipment Important to Emergency Response

2.5 Hot Conditions EAL Chart

2.6 Cold Conditions EAL Chart

3.0 DEFINITIONS

Refer to Reference 2.3

4.0 RESPONSIBILITIES

4.1 The Shift Manager (Control Room Supervisor if the Shift Manager is unavailable or incapacitated) of the **affected unit** shall implement this procedure for the initial emergency classification. For classifiable events that potentially impact both units (security, natural or man-made events), the Shift Managers for each unit shall confer about the need to classify the event. If it is determined that emergency classification is warranted, the **Unit 2** Shift Manager shall declare the event in accordance with this procedure. Once an initial emergency classification has been made, the unit Shift Manager making the initial declaration shall be responsible for any subsequent emergency classifications, regardless of which unit is affected, until such time as relieved by the on-call Emergency Director.

4.2 The Shift Manager, upon initial emergency classification, shall assume the role of Emergency Director and shall act as the Emergency Director until relieved by the On-Call Emergency Director or other qualified Emergency Director (Plant Operations Manager).

4.3 The Emergency Director is responsible for overall command and control of the emergency response, including classifications; notifications, PARs and ensuring all resources are available to mitigate emergency conditions. The Emergency Director is the final authority for determining the emergency classification level (initial classification, upgrading, or terminating to recovery). This authority may not be delegated.

4.4 Initial and subsequent emergency classification shall be made within 15 minutes following the identification of a classifiable event to ensure that prompt notification, mobilization, protective and corrective actions are taken.

4.5 Upon becoming aware of any condition or event that they believe may warrant an upgrade in emergency classification, Emergency Response Organization members shall promptly inform the Emergency Director via their chain of command.

4.6 A broad spectrum of discretion in classifying events is provided under "Hazards" Sub-Category 6.0 "Judgement". In using the Sub-Category "Judgement" and in classifying emergencies under circumstances which are not a straight-forward use of the EALs, ERO members should be mindful than an approach is needed which is conservative with respect to public, plant, and personnel safety and with respect to ensuring the adequacy of personnel and technical support. Conservative decisions must be made if the Emergency Director has any doubt regarding the health and safety of the public.

5.0 DETAILS

5.1 Recognizing an Emergency

NOTE

All classifications are to be based upon VALID indications, reports or conditions. Indications, reports or conditions are considered VALID when they are verified by (1) an instrument channel check, or (2) indications on related or redundant indicators, or (3) by direct observation by plant personnel, such that doubt related to the indicator's operability, the condition's existence, or the report's accuracy is removed. Implicit in this definition is the need for timely assessment.

5.1.1 When indications of abnormal conditions or events are received, personnel will verify the symptoms/indications and then compare with the Emergency Action Levels (Attachment 9.1).

5.1.2 Identify the highest applicable emergency classification level (if multiple EALs are exceeded) for which an EAL has been met or exceeded considering the following:

(a) The plant condition existing at the time the abnormal condition exists:

- All Operating Modes 1, 2, 3, 4, 5,6, DEF
- Hot Condition Modes 1, 2, 3, 4
- Cold Condition Modes 5, 6, DEF

(b) **IF** conditions warrant the issuance of offsite Protective Action Recommendations (PARs), **THEN** the classification of General Emergency is required.

(c) **IF** plant conditions indicate a possible radiological release or a release is in progress or suspected, **THEN** evaluate the applicability of offsite dose-based EALs (IP-EP-310, Dose Assessment).

(d) **IF** a classification level was met or exceeded but the classifiable condition no longer exists (a lesser classification level may or may not still be appropriate), **THEN** refer to Section 5.4, Transitory Events, Spikes and Spurious Indications.

5.2 Initial Emergency Declaration from the Control Room

NOTE

IF the condition or event requiring initial classification potentially affects both units (security, natural or man-made events), **THEN** the Unit Shift Managers shall contact each other and confer on the need to declare. Upon concurrence, the **Unit 2** Shift Manager shall make the appropriate emergency classification and assume the role of Emergency Director.

5.2.1 The Shift Manager (Control Room Supervisor if the Shift Manager is unavailable or incapacitated) shall announce to the Control Room operating staff:

(a) That an emergency has been declared.

(b) The emergency classification level.

(c) That the (Unit 2 or Unit 3) Shift Manager (Control Room Supervisor if the Shift Manager is unavailable or incapacitated) has assumed the role of Emergency Director.

5.2.2 Implement procedure **IP-EP-210 "Central Control Room"**

5.3 While in a Classified Emergency

5.3.1 Emergency response personnel shall continuously review the Emergency Action Levels (Attachment 1).

5.3.2 If an Emergency Action Level threshold is exceeded for an emergency classification higher than currently declared, the Emergency Director shall re-classify the event to the appropriate level and initiate all required notifications.

5.4 Transitory Events, Spikes and Spurious Indications

5.4.1 Transitory events that result in exceeding the Emergency Action Level criteria for event declaration, but which are terminated before they are declared, should still be identified, documented and reported (10CFR50.72), but not declared to implement the Emergency Plan.

5.4.2 In the case of a "spike" in a plant indication or event which rapidly exceeds and then decreases below an Emergency Action Level threshold, entry into the Emergency Plan or escalation to a higher classification "in retrospect" is not appropriate unless the "spike" is indicative of continuing degrading conditions which will lead to an escalated emergency classification level. Examples include momentary steam generator level shrink following reactor trip or brief wind gusts in excess of classifiable levels.

5.4.3 Spurious alarms or parameters, which are known to be invalid indicators of actual plant conditions or of the emergency classification, should not be used to declare emergency classifications.

5.5 Compensatory Measures for Out-of-Service EAL Instruments.

5.5.1 IP-EP-AD40 provides guidance when planning to take an instrument OOS (Out of Service) that is used to determine an EAL condition or following an unplanned loss of the instrument.

6.0 INTERFACES

6.1 IP-EP-210, Central Control Room

6.2 EN-EP-610, Technical Support Center (TSC) Operations

6.3 IP-EP-310, Dose Assessment

6.4 IP-EP-410, Protective Action Recommendations

6.5 IP-EP-510, Meteorological, Radiological & Plant Data Acquisition System

6.6 IP-EP-340, Meteorological Information & Data Acquisition System (MIDAS)

6.7 IP-EP-AD40, Equipment Important to Emergency Response

7.0 RECORDS

Any logs or forms completed by members of the ERO during an actual declared emergency are permanent quality records.

8.0 REQUIREMENTS AND COMMITMENTS

NONE

9.0 ATTACHMENTS

9.1 Emergency Action Levels

9.1 - Emergency Action Levels

CATEGORY "A" Abnormal Rad Release / Rad Effluent

Sub-Category	General	Site Area	Alert	
1. Offsite Rad Conditions	**AG 1.1** 1 2 3 4 5 6 DEF Any valid radiation monitor reading > Table A-1 column "GE" for ≥ 15 min. (Note 1) **AG 1.2** 1 2 3 4 5 6 DEF Dose assessment using actual meteorology indicates doses > 1000 mRem TEDE or > 5000 mRem thyroid CDE at or beyond the site boundary. **AG 1.3** 1 2 3 4 5 6 DEF Field survey results indicate closed window dose rates > 1000 mRem/hr. expected to continue for ≥ 1 hr at or beyond the site boundary **OR** Anakyses of field survey samples indicate thyroid CDE of > 5000 mRem for 1 hr of inhalation at or beyond the site boundary	**AS 1.1** 1 2 3 4 5 6 DEF Any valid radiation monitor reading > Table A-1 column "SAE" for ≥ 15 min. (Note 1) **AS 1.2** 1 2 3 4 5 6 DEF Dose assessment using actual meteorology indicates doses > 100 mRem TEDE or > 500 mRem thyroid CDE at or beyond the site boundary **AS 1.3** 1 2 3 4 5 6 DEF Field survey indicates closed window dose rate > 100 mRem/hr. that is expected to continue for ≥ 1 hr at or beyond the site boundary **OR** Field survey sample analysis indicates thyroid CDE of > 500 mRem for 1 hr of inhalation at or beyond the site boundary	**AA 1.1** 1 2 3 4 5 6 DEF Any valid gaseous monitor reading > Table A-1 column "Alert" for ≥ 15 min. (Note 2) **AA 1.2** 1 2 3 4 5 6 DEF Any valid liquid monitor reading > Table A-1 column "Alert" for ≥ 15 min. (Note 2) **AA 1.3** 1 2 3 4 5 6 DEF Confirmed sample analyses for gaseous or liquid releases indicate concentrations or release rates > 200 x Technical Specification (ODCM) limits for ≥ 15 min. (NOTE 2)	**AU** 1 Any A-1 **AU** 1 Any colu **AU** 1 Cor liqu rele (OD

9.1 - Emergency Action Levels

CATEGORY "A" Abnormal Rad Release / Rad Effluent

Sub-Category	General	Site Area	Alert	AU
2. **Onsite Rad Conditions & Irradiated Fuel Events**			**AA 2.1** 1 | 2 | 3 | 4 | 5 | 6 | DEF Damage to irradiated fuel or loss of water level (uncovering irradiated fuel outside the Reactor Vessel) that causes a valid high alarm on **any** of the following radiation monitors: - R-2/R7 Vapor Containment Area Monitors - R-5 Fuel Storage Bldg. Area Monitors -R-42 [R-12] VC Gas Activity -R-25/R-26 Vapor Containment High Radiation Area Monitors **AA 2.2** 1 | 2 | 3 | 4 | 5 | 6 | DEF A water level drop in the reactor cavity, SFP or fuel transfer canal that will result in irradiated fuel becoming uncovered	**AU** 1 Unp indi in th can **ANI** Vali **any** - R - R- - R **AU** 1 Unp rea fact * N high exc

9.1 - Emergency Action Levels
CATEGORY "A" Abnormal Rad Release / Rad Effluent

Sub-Category	General	Site Area	Alert
3 **CR/CAS Radiation**			**AA 3.1** **1** | **2** | **3** | **4** | **5** | **6** | **DEF** Dose rates > 15 mRem/hr in areas requiring continuous occupancy to maintain plant safety functions: Control Room [R-1] **OR** CAS

9.1 - Emergency Action Levels

TABLE A-1 EFFLUENT MONITOR CLASSIFICATION THRESHOLDS

Monitor		General Emergency	Site Area Emergency	ALERT
Gaseous	R-27	7.5 E+07 µCi/sec (2.3 E+00 µCi/cc)	7.5 E+06 µCi/sec (2.3 E-01 µCi/cc)	1.4 E+06 µCi/sec (4.2 E-02 µCi/cc)
	R-44 [14]	N/A	N/A	4.2 E-02 µCi/cc
Liquid	R-54 [18]	N/A	N/A	4.0E-02 µCi/cc
	R-49 [19]	N/A	N/A	5.8E-02 µCi/cc

9.1 - Emergency Action Levels

CATEGORY "H" HAZARDS

Sub-Category	General	Site Area	Alert	
1 **Natural & Destructive Phenomena**			**HA 1.1** 1 | 2 | 3 | 4 | 5 | 6 | DEF Two or more annunciators are lit on the Peak Shock Annunciator panel, one of which is red **AND** Strong Motion Event Indicator is lit **AND** Earthquake confirmed by **any** of the following: - Earthquake felt in plant by a consensus of Control Room Operators - National Earthquake Information Center (Note 4) - Control Room indication of degraded performance of systems required for the safe shutdown of the plant **HA 1.2** 1 | 2 | 3 | 4 | 5 | 6 | DEF Tornado striking or sustained high winds > 90 mph (40 m/sec) resulting in **EITHER:** Visible damage to **any** Table H-1 plant structures containing safety systems or components **OR**	**HU 1.1** 1 | 2 Seismic e following: - Earthqu Control R - Unit 3 "S (Panel Annunc - National (Note 4 **HU 1.2** 1 | 2 Tornado s boundary **OR** Sustained

9.1 - Emergency Action Levels

CATEGORY "H" HAZARDS

Sub-Category	General	Site Area	Alert
1 **Natural & Destructive Phenomena (continued)**			**HA 1.2 (cont.)** Control Room indication of degraded performance of safety systems **HA 1.3** 1 | 2 | 3 | 4 | 5 | 6 | DEF Vehicle crash resulting in **Either:** Visible damage to **any** Table H-1 plant structures containing safety systems or components **OR** Control Room indication of degraded performance of safety systems **HA 1.4** 1 | 2 | 3 | 4 | 5 | 6 | DEF Turbine failure-generated projectiles resulting in **Either:** Visible damage to or penetration of **any** Table H-1 area containing safety systems or components **OR** Control Room indication of degraded performance of safety systems

9.1 - Emergency Action Levels

CATEGORY "H" HAZARDS

Sub-Category	General	Site Area	Alert
1 **Natural & Destructive Phenomena**			**HA 1.5** 1 2 3 4 5 6 DEF Flooding in **any** Table H-1 area resulting in **Either:** An electrical shock hazard that precludes necessary access to operate or monitor safety equipment **OR** Control room indication of degraded performance of safety systems **HA 1.6** 1 2 3 4 5 6 DEF River Water Level > 15 ft. (ØMSL) **OR** Low Service Water Bay (Intake Structure) level resulting in a loss of service water flow

9.1 - Emergency Action Levels

Table H-1 Safe Shutdown Areas

TABLE H-1 SAFE SHUTDOWN AREAS
- Control Building and associated Electrical Tunnels and Battery Rooms - Service Water Pump Structure and Valve Pits - Fuel Storage Building - Primary Auxiliary Building / Fan House - Vapor Containment Building - EDG Buildings - Auxiliary Feed Pump Building - Condensate Storage Tank - Refueling Water Storage Tank

9.1 - Emergency Action Levels
CATEGORY "H" HAZARDS

Sub-Category	General	Site Area	Alert
2 Fire or Explosion			**HA 2.1** **1 2 3 4 5 6 DEF** Fire or explosion resulting in **EITHER:** Visible damage to any Table H-1 area containing safety systems or components **OR** Control Room Indication of degraded performance of safety systems
3 Hazardous Gas			**HA 3.1** **1 2 3 4 5 6 DEF** Access to **any** Table H-2 area is prohibited due to toxic, corrosive, asphyxiant or flammable gases which jeopardize operation of systems required to maintain safe operations or safety shut down the reactor

9.1 - Emergency Action Levels

Table H-2 Safe Shutdown Access Areas

TABLE H-2 SAFE SHUTDOWN ACCESS AREAS
- Control Building and associated Electrical Tunnels and Battery Rooms - Service Water Pump Structure and Valve Pits - Vapor Containment Building - Primary Auxiliary Building / Fan House - Auxiliary Feed Pump Building

9.1 - Emergency Action Levels

CATEGORY "H" HAZARDS

Sub-Category	General	Site Area	Alert
4 **Security**	**HG 4.1** 1 2 3 4 5 6 DEF A hostile action has occurred such that plant personnel are unable to operate equipment required to maintain safety functions **OR** A hostile action has caused failure of Spent Fuel Cooling Systems and imminent damage is likely	**HS 4.1** 1 2 3 4 5 6 DEF A hostile action is occurring or has occurred within the Protected Area as reported by the Security Shift Supervisor	**HA 4.1** 1 2 3 4 5 6 DEF A hostile action is occurring or has occurred within the Owner Controlled Area as reported by the Security Shift Supervisor **OR** A validated notification from NRC of an airliner attach threat within 30 minutes of the site
5 **Control Room Evacuation**		**HS 5.1** 1 2 3 4 5 6 DEF Control Room evacuation has been initiated **AND** Control of the plant cannot be established within 15 minutes	**HA 5.1** 1 2 3 4 5 6 DEF Control Room evacuation initiated

9.1 - Emergency Action Levels

CATEGORY "H" HAZARDS

Sub-Category	General	Site Area	Alert	
6 **Judgment**	**HG 6.1** 1 2 3 4 5 6 DEF Other conditions exist that in the judgment of the Emergency Director indicate that events are in progress or have occurred which involve **EITHER:** Actual or imminent substantial core degradation or melting with potential for loss of containment integrity **OR** Hostile action that results in an actual loss of physical control of the facility Releases can be reasonably expected to exceed EPA Protective Action Guideline exposure levels (1 Rem TEDE and 5 Rem thyroid CDE) beyond the site boundary	**HS 6.1** 1 2 3 4 5 6 DEF Other conditions exist that in the judgment of the Emergency Director indicate that events are in progress or have occurred which involve **EITHER:** An actual or likely major failures of plant functions needed for protection of the public **OR** Hostile action that results in intentional damage or malicious acts; 1) toward site personnel or equipment that could lead to the likely failure of or; 2) that prevent effective access to equipment needed for the protection of the public **ANY** releases are not expected to result in exposure levels which exceed EPA Protective Action Guidelines exposure levels (1Rem TEDE and 5 Rem thyroid CDE) beyond the site boundary	**HA 6.1** 1 2 3 4 5 6 DEF Other conditions exist that in the judgment of the Emergency Director indicate that events are in progress or have occurred which involve **EITHER:** An actual or potential substantial degradation of the level of safety of the plant **OR** A security event that involves probable life threatening risk to site personnel or damage to site equipment because of hostile action **Any** releases are expected to be limited to small fractions of the EPA Protective Action Guideline exposure levels beyond the site boundary	H C ju ir o p s s h r r u s

9.1 Emergency Action Levels

CATEGORY "E" ISFSI

Sub-Category	General	Site Area	Alert	
1 ISFSI				EU 1. 1 Dama bound

9.1 - Emergency Action Levels

CATEGORY "S" SYSTEM MALFUNCTION

Sub-Category	General	Site Area	Alert
1 **Loss of AC Power**	**SG 1.1** 1 2 3 4 Loss of **all** offsite and **all** onsite AC power (Table S-1) to 480 V safeguards buses (5A, 2A/3A,6A) **AND EITHER:** Restoration of at least one safeguards bus within 4 hours is **not** likely **OR** Actual or imminent conditions requiring entry into ORANGE **or** RED path on F-0.2, **"CORE COOLING"**	**SS 1.1** 1 2 3 4 Loss of **all** offsite and **all** onsite AC power (Table S-1) to 480 V safeguards buses (5A, 2A/3A, 6A) for ≥ 15 minutes (Note 3)	**SA 1.1** 1 2 3 4 AC power capability to 480 V safeguards buses (5A, 2A/3A, 6A) reduced to a single power source (Table S-1) for ≥ 15 minutes (Note 3) such that **any** additional single failure would result in loss of **all** AC power t safeguard buses

9.1 - Emergency Action Levels

CATEGORY "S" SYSTEM MALFUNCTION

Sub-Category	General	Site Area	Alert
2 **ATWS Criticality**	**SG 2.1** 1 2 Failure of automatic and **all** manual trip signals to reduce power range < 5% **AND** Actual or imminent conditions requiring entry into **EITHER:** RED path in F-0.2, CORE COOLING **OR** RED path in F-0.3, HEAT SINK	**SS 2.1** 1 2 Failure of an automatic trip signal to reduce power range < 5% **AND** Manual trip actions taken at the reactor control console are not successful	**SA 2.1** 1 2 Failure of an automatic trip signal to reduce power range < 5% **AND** Manual trip actions taken at the reactor control console are successful
3 **Inability to Reach Shutdown Conditions**			

9.1 - Emergency Action Levels

CATEGORY "S" SYSTEM MALFUNCTION

Sub-Category	General	Site Area	Alert
4 **Inst. / Comm.**		**SS 4.1** 1 2 3 4 Loss of > approximately 75% of Control Room Overhead annunciators or Control Room indicators Table S-3 associated with safety systems **AND** **Any** significant transient is in progress, (Table S-2) **AND** Compensatory indications are unavailable	**SA 4.1** 1 2 3 4 Unplanned loss of > approximately 75% of Control Room Overhead annunciators or Control Room indicators Table S-3 associated with safety systems for ≥ 15 minutes (Note 3) **AND EITHER** **Any** significant transient is in progress, (Table S-2) **OR** Compensatory indications are unavailable

9.1 - Emergency Action Levels

CATEGORY "S" SYSTEM MALFUNCTION

Sub-Category	General	Site Area	Alert	
5 **Fuel Clad Degradation**				**SU 5.1** 1 2 [Unit 3]: 1 Fuel Detec **SU 5.2** 1 2 **Coolant S** > 60 µCi/g
6 **CS Leakage**				**SU 6.1** Unidentifie leakage > **OR** Identified l

9.1 - Emergency Action Levels

CATEGORY "S" SYSTEM MALFUNCTION

Sub-Category	General	Site Area	Alert	
7 **Loss of DC Power**		**SS 7.1** 1 2 3 4 ~~5~~ ~~6~~ ~~7~~ < 105 VDC bus voltage indications on **all** safety-related DC buses for ≥ 15 minutes (Note 3)		

9.1 - Emergency Action Levels
HOT CONDITIONS

Table S – 1 Safeguards Bus AC Power Sources

UNIT	ONSITE	OFFS
2	- 480 V EDG 21 - 480 V EDG 22 - 480 V EDG 23 - Appendix "R" Diesel	- Unit Auxiliary transforr - Station Auxiliary transf - 13.8 KV gas turbine au
3	- 480 V EDG 31 - 480 V EDG 32 - 480 V EDG 33 - Appendix "R" Diesel	- Unit Auxiliary transforr - Station Auxiliary transf - 13W92 feeder - 13W93 feeder

* With86P or 86BU tripped all offsite power supplies must be considered as one pow

9.1 - Emergency Action Levels
HOT CONDITIONS

Table S – 2 Significant Transients

- Automatic turbine runback > 25% thermal reactor power
- Electrical load rejection > 25% full electrical load
- Reactor Trip
- Safety injection activation
- Thermal power oscillations of > 10%

9.1 - Emergency Action Levels
HOT CONDITIONS

Table S – 3 Safety System Indicators

- Reactivity Control
- RCS Inventory
- Reactor Trip
- Decay Heat Removal
- Fission Product Barriers

9.1 - Emergency Action Levels
HOT CONDITIONS

Table S – 4 Communications Systems

System	Onsite (internal)	Offs (exte
Plant Telephone System	X	X
Plant Radio System	X	
Page / Party System	X	
Emergency Notification System		X

9.1 - Emergency Action Levels
HOT CONDITIONS

CATEGORY "F" FISSION PRODUCT BARRIERS

	General	Site Area	Alert
1 **Fission Product Barrier**	**FG 1.1** 1 2 3 4 Loss of **any** two barriers **AND** Loss or potential loss of third barrier (Table F-1)	**FS 1.1** 1 2 3 4 Loss or potential loss of **any** two barriers (Table F-1)	**FA 1.1** 1 2 3 4 **Any** loss or **any** potential loss of either **Fuel Clad** or **RCS** (Table F-1)

9.1 Emergency Action Levels

HOT CONDITIONS

TABLE "F-1" FISSION PRODUCT BARRIER MATRIX

	FUEL CLADDING BARRIER (FC)		REACTOR COLLANT SYSTEM BARRIER (RCS)		CO
	☐LOSS	☐POTENTIAL LOSS	☐LOSS	☐POTENTIAL LOSS	☐LOS
A. CSFST	☐ 1. Core –Cooling RED entry conditions met	☐ 1. Core Cooling ORANGE entry conditions met **OR** Heat Sink – RED entry conditions met and heat sink is required	☐	☐ 1. Integrity – RED entry conditions met **OR** Heat Sink – RED entry conditions met and heat sink is required	☐

9.1 Emergency Action Levels

HOT CONDITIONS

TABLE "F-1" FISSION PRODUCT BARRIER MATRIX

	Fuel Cladding Barrier (FC)		Reactor Coolant System (RCS)		Contain
	☐LOSS	☐POTENTIAL LOSS	☐LOSS	☐POTENTIAL LOSS	☐LOSS
B. Core Exit TCs	☐ 2. Core exit TCs > 1,200° F	☐ 2. Core exit TCs [Unit 2] > 700° F [Unit 3] > 715° F	☐	☐	☐

9.1 Emergency Action Levels

HOT CONDITIONS

TABLE "F-1" FISSION PRODUCT BARRIER MATRIX

	Fuel Cladding Barrier (FC)		Reactor Coolant System (RCS)		
	☐LOSS	☐POTENTIAL LOSS	☐LOSS	☐POTENTIAL LOSS	☐LOS
C. Radiation	☐ 3. Containment radiation monitor R-25 or R-26 > 17 R/hr		☐ 1. [Unit 2] R-41 > 1.2E-5 µCi/cc **or** R-42 > 1.02 E-2 µCi/cc [Unit 3] R-11 > 1.2E-5 µCi/cc **or** R-12 > 5.0E-2 µCi/cc		

9.1 - Emergency Action Levels
HOT CONDITIONS
TABLE "F-1" FISSION PRODUCT BARRIER MATRIX

	Fuel Cladding Barrier (FC)		Reactor Coolant System (RCS)		Cont
	☐LOSS	☐POTENTIAL LOSS	☐LOSS	☐POTENTIAL LOSS	☐LOSS
D. Inventory	☐	☐ 3. RVLIS [Unit 2] < 41% [Unit 3] < 33% With no RCPs running	☐ 2. RCS leak rate resulting in a loss of RCS sub-cooling (<Table F-2) ☐ 3. Ruptured SG results in an ECCS (SI) actuation	☐ 2. RCS leak rate indicated greater than 87 gpm	☐ 1. A Containm pressure rise follc by a rapid unexpl drop in Containm pressure ☐ 2. Containmer pressure or sump response not con with LOCA condit ☐ 3. Ruptured S faulted outside of Containment

9.1 - Emergency Action Levels

HOT CONDITIONS

TABLE "F-1" FISSION PRODUCT BARRIER MATRIX

	Fuel Cladding Barrier (FC)		Reactor Coolant System (RCS)		Con
	☐LOSS	☐POTENTIAL LOSS	☐LOSS	☐POTENTIAL LOSS	☐LOSS
D. Inventory (continued)					☐ 4. Primary-to-secondary leak rate > 10 gpm **AND** Un-isolable steam release from affected SG to the environment

9.1 - Emergency Action Levels

HOT CONDITIONS

TABLE "F-1" FISSION PRODUCT BARRIER MATRIX

	Fuel Cladding Barrier (FC)		Reactor Coolant System (RCS)		Conta
	☐**LOSS**	☐**POTENTIAL LOSS**	☐**LOSS**	☐**POTENTIAL LOSS**	☐**LOSS**
E. Other	☐ 4. Primary coolant activity > 300 µCi/gm I-131 dose equivalent				☐ 5. Inability to iso all valves in any one **AND** Direct downstream pathway to the environment exists Containment isolati signal
F. Judgment	☐ 5. **ANY** condition in the opinion of the Emergency Director that indicates loss of the Fuel Clad barrier	☐ 4. **ANY** condition in the opinion of the Emergency Director that indicates potential loss of the Fuel Clad barrier	☐ 4. **ANY** condition in the opinion of the Emergency Director that indicates loss of the RCS barrier	☐ 3. **ANY** condition in the opinion of the Emergency Director that indicates potential loss of the RCS barrier	☐ 6. **ANY** conditio the opinion of the Emergency Directo indicates loss of the Containment barrie

9.1 – Emergency Action Levels
HOT CONDITIONS
Table "F-2" RCS Sub-cooling

UNIT	RCS Pressure (PSIG)	Sub-cooling (°F) Non-Adverse Containment	A
2	0 – 400	52	
	401 – 800	36	
	801 – 1200	23	
	1201 - 2500	19	
3	< 1000	40	
	1000 – 1900	40	
	> 1900	40	

9.1 - Emergency Action Levels
HOT CONDITIONS

Table "F-3" Minimum Containment Cooling Systems

FCUs	Spray Pum
< 3	2
3	1
5	0

9.1 - Emergency Action Levels

NOTES HOT CONDITIONS:

NOTE 1: The Emergency Director should not wait until the applicable time has elapsed, but should declare the event as soon as it is determined that the condition will likely exceed the applicable time. **IF** dose assessment results are available, **THEN** declaration should be based on dose assessment instead of radiation monitor values. (See EAL AS1.2/AG1.2) Do not delay declaration awaiting dose assessment results.

NOTE 2: The Emergency Director should not wait until the applicable time has elapsed, but should declare the event as soon as it is determined the release duration has exceeded, or will likely exceed, the applicable time. In the absence of data to the contrary, assume that the release duration has exceeded the applicable time if an ongoing release is detected and the release start time is unknown.

NOTE 3: The Emergency Director should not wait until the applicable time has elapsed, but should declare the event as soon as it is determined that the condition will likely exceed the applicable time.

NOTE 4: The National Earthquake Information Center (NEIC) can be contacted by calling (303) 273- 8500 to confirm recent seismic activity in the vicinity of IPEC. Provide the analyst with the following IPEC coordinates: **41° 15' 55" north latitude, 73° 57' 08" west longitude.**
Alternatively go to the USGS NEIC website: http://earthquake.usgs.gov

NOTE 5: Not applicable to this chart.

9.1 - Emergency Action Levels

CATEGORY "C" COLD SHUT DOWN/REFUEL SYSTEM MALFUNCTION

Sub-Category	General	Site Area	Alert
1 **Loss of AC Power**			**CA 1.1** 5 | 6 | DEF Loss of **all** offsite and **all** onsite AC power (Table C-4) to 480V safeguards buses (5A, 2A/3A, 6A) for ≥ 15 minutes. (Note 3)

9.1 - Emergency Action Levels
CATEGORY "C" COLD SHUT DOWN/REFUEL SYSTEM MALFUNCTION

Sub-Category	General	Site Area	Alert
2 **RPV Level**	**CG 2.1** 5 6 Reactor vessel level < top of active fuel (57' 9.6" elev.- 56% on RVLIS) for ≥ 30 minutes (Note 3) **AND** **Any** Containment Challenge indication, (Table C-5) **CG 2.2** 5 6 Reactor vessel level cannot be monitored for ≥ 30 minutes with core uncovery indicated by **ANY** of the following (Note 3) - Containment High Range Radiation Monitor reading upscale - Unexplained rise in **any** Table C-1 sump/tank level - Erratic Source Range Monitor indication **AND** Any Containment Challenge indication, Table C-5	**CS 2.1** 5 6 With Containment Closure (Note 5) **not** established, reactor vessel level < 6" below the bottom of the RCS hot leg (59' 10.8" elev. - RVLIS 60.8%) **CS 2.2** 5 6 With Containment Closure (Note 5) established, reactor vessel level < top of active fuel (57' 9.6" elev. 56 % on RVLIS) **CS 2.3** 5 6 Reactor vessel level **cannot** be monitored for ≥ 30 minutes (Note 3) with a loss of inventory as indicated by **any** of the following: - Containment High Range Radiation Monitor reading upscale - Unexplained rise in **any** Table C1 sump/tank level - Erratic Source Range Monitor indication	**CA 2.1** 5 6 Reactor vessel level < bottom of the RCS hot leg (60' 4.8" elev. - RVLIS 62%) **OR** Reactor vessel level **cannot** be monitored for ≥ 15 minutes (Note 3) with unexplained rise in **any** Table C-1 sump/tank level

9.1 - Emergency Action Levels

CATEGORY "C" COLD SHUT DOWN/ REFUEL SYSEMT MALFUNCTION

Sub-Category	General	Site Area	Alert
3 **RCS** **Temperature**			**CA 3.1** 5 6 **ANY** unplanned event resulting in RCS temperature > 200° F for > Table C-3 duration **OR** RCS pressure increase > 10 psig due to a loss of RCS cooling (not applicable to solid plant operations)
4 **Communications**			

9.1 - Emergency Action Levels

CATEGORY "C" COLD SHUT DOWN/REFUEL SYSTEM MALFUNCTION

Sub-Category	General	Site Area	Alert	
5 **Inadvertent Criticality**				**CU 5.1** Unplan rate ob instrum
6 **Loss of DC Power**				**CU 6.1** < 105 **all** Te 125 V (Note

9.1 - Emergency Action Levels
COLD CONDITIONS

Table C-1 Sumps/Tanks
• Containment sumps • CCW surge tank • PRT • RCDT

9.1 - Emergency Action Levels
COLD CONDITIONS

Table C-2 Communications Systems

System	Onsite (Internal)	Offsite (External
Plant Telephone System	X	
Plant Radio System	X	
Page/Party System	X	
Emergency Notification System		X

9.1 - Emergency Action Levels
COLD CONDITIONS

Table C-3 RCS Reheat Duration Thresholds

RCS	Containment Closure	Dura
Intact and not Reduced Inventory	N/A	60 Mi
Not intact **OR** Reduced Inventory	Established	20 Mi
	Not Established	0 Mi

* If an RCS heat removal system is in operation within this time frame and RCS temperature is being reduc applicable

9.1 - Emergency Action Levels
COLD CONDITIONS

Table C-4 Safeguards Bus AC Power Sources		
UNIT	**Onsite**	**Offsite**
2	• 480 V EDG 21 • 480 V EDG 22 • 480 V EDG 23 • Appendix "R" Diesel	• Unit Auxiliary Transformer* • Station Auxiliary Transformer* • 13.8 KV Gas Turbine Auto Trans
3	• 480 V EDG 31 • 480 V EDG 32 • 480 V EDG 33 • Appendix "R" Diesel	• Unit Auxiliary Transformer • Station Auxiliary Transformer • 13W92 Feeder • 13W93 Feeder

* With 86P or 86BU tripped, all offsite power supplies must be considered as one power supply.

9.1 - Emergency Action Levels
COLD CONDITIONS

Table C-5 Containment Challenge Indications
• Containment Closure (Note 4) not established • Containment hydrogen concentration ≥ 4% • Unplanned rise in containment pressure

9.1 - Emergency Action Levels
NOTES COLD CONDITIONS:

Note 1: The Emergency Director should not wait until the applicable time has elapsed, but should declare the event as soon as it is determined that the condition will likely exceed the applicable time. **IF** dose assessment results are available, **THEN** declaration should be based on dose assessment instead of radiation monitor values. (See EAL AS1.2/AG1.2) Do not delay declaration awaiting dose assessment results.

Note 2: The Emergency Director should not wait until the applicable time has elapsed, but should declare the event as soon as it is determined that the release duration has exceeded, or will likely exceed, the applicable time, in the absence of data to the contrary, assume that the release duration has exceeded the applicable time if an ongoing release is detected and the release start time is unknown.

Note 3: The Emergency Director should not wait until the applicable time has elapsed, but should declare the event as soon as it is determined that the condition will likely exceed the applicable time.

Note 4: The National Earthquake Information Center (NEIC) can be contacted by calling (303) 273-8500 to confirm recent seismic activity in the vicinity of IPEC. Provide the analyst with the following IPEC coordinates: 41° 15' 55" north latitude, 73° 57' 08" west longitude. Alternatively go to the USGS NEIC website: http://earthquake.usgs.gov

Note 5: The site specific procedurally defined actions taken to secure containment and its associated structures, systems, and components as a functional barrier to fission product release under existing plant conditions. As applied to IPEC, Containment Closure exists when the requirements of Section 3.9.3 of Technical Specifications are met (all un-isolated flow paths are promptly closes and at least one door in each air lock is closed following an evacuation of containment).