



Luminant

Rafael Flores
Senior Vice President
& Chief Nuclear Officer
Rafael.Flores@Luminant.com

Luminant Power
P O Box 1002
6322 North FM 56
Glen Rose, TX 76043

T 254 897 5590
C 817 559 0403
F 254 897 6652

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Ref. # 10CFR50.90
10CFR50 Appendix E

June 30, 2015

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555

SUBJECT: COMANCHE PEAK NUCLEAR POWER PLANT
DOCKET NOS. 50-445 AND 50-446
LICENSE AMENDMENT REQUEST 15-003 FOR REVISION TO
UNIT 1 AND UNIT 2 EMERGENCY ACTION LEVELS

Dear Sir or Madam:

In accordance with the provisions of 10 CFR 50.90 and 10 CFR 50, Appendix E, "Emergency Planning and Preparedness for Production and Utilization Facilities," Section IV.B, Luminant Generation Company LLC (Luminant Power) is submitting a request for an amendment to the Emergency Plan for Comanche Peak Nuclear Power Plant (CPNPP) Units 1 and 2.

The proposed amendment involves upgrading selected CPNPP Emergency Action Levels (EALs) based on NEI 99-01, Revision 6, "Development of Emergency Action Levels for Non-Passive Reactors," using the guidance of NRC Regulatory Issue Summary 2003-18, Supplement 2, "Use of Nuclear Energy Institute (NEI) 99-01, Methodology for Development of Emergency Action Levels." CPNPP currently uses an emergency classification scheme based on Nuclear Energy Institute (NEI) 99-01, Revision 5, "Methodology for Development of Emergency Action Levels," February 2008, endorsed by the NRC in Letter from C. G. Miller (Nuclear Regulatory Commission) to Alan Nelson (Nuclear Energy Institute) dated February 22, 2008, "U.S. Nuclear Regulatory Commission Review and Endorsement of NEI-99-01, Revision 5, dated February 2008." The plan, as changed, would continue to meet the standards in 10 CFR 50.47(b) and the requirements in Appendix E to 10 CFR 50. Pursuant to 10 CFR 50, Appendix E, Section IV.B, Luminant Power requests NRC approval of this proposed change to the CPNPP Emergency Plan prior to implementation.

This License Amendment Request includes the following attachments:

- Attachment 1 - Evaluation of Proposed Change
- Attachment 2 - CPNPP NEI 99-01, Revision 6 EAL Comparison Matrix
- Attachment 3 - Emergency Action Level Technical Bases Document (Clean Version)
- Attachment 4 - Emergency Action Level Technical Bases (Redline and Strikeout Version)
- Attachment 5 - CPNPP Radiological Effluent EAL Values
- Attachment 6 - Emergency Action Level Wallcharts for CPNPP

Luminant Power requests approval of the proposed changes by June 30, 2016, with the amendment being implemented within 180 days of issuance.

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In accordance with 10 CFR 50.91, a copy of this application, with attachments, is being provided to the designated Texas State Official.

Luminant Power commits to review the new classification scheme with state and local emergency management officials following NRC approval and prior to implementation.

Should you have any questions, please contact Mr. Jack Hicks at (254) 897-6725 or jack.hicks@luminant.com.

I state under penalty of perjury that the foregoing is true and correct.

Sincerely,

Luminant Generation Company LLC

Rafael Flores

By: 

Tom P. McCool

Vice President, Nuclear Engineering & Support

Attachments -

1. Evaluation of Proposed Change
 2. CPNPP NEI 99-01, Revision 6 EAL Comparison Matrix
 3. Emergency Action Level Technical Bases Document (Clean Version)
 4. Emergency Action Level Technical Bases (Redline and Strikeout Version)
 5. CPNPP Radiological Effluent EAL Values
 6. Emergency Action Level Wallcharts for CPNPP
- c - William M. Dean, Office of Nuclear Reactor Regulation (cl & Attachment 1)
Marc L. Dapas, Region IV (cl & Attachment 1)
Balwant K. Singal, NRR (cl & Attachment 1)
Resident Inspectors, Comanche Peak (cl & Attachment 1)
Alice Hamilton Rogers, P.E., Texas Department of State Health Services (cl & Attachment 1)

EVALUATION OF PROPOSED CHANGE

1. SUMMARY DESCRIPTION

2. DETAILED DESCRIPTION

3. TECHNICAL EVALUATION

4. REGULATORY EVALUATION

4.1 Applicable Regulatory Requirements/Criteria

4.2 No Significant Hazards Consideration Determination

4.3 Conclusions

5. ENVIRONMENTAL CONSIDERATION

6. REFERENCES

1.0 SUMMARY DESCRIPTION

In accordance with the provisions of 10 CFR 50.90 and 10 CFR 50, Appendix E, "Emergency Planning and Preparedness for Production and Utilization Facilities," Section IV.B, Luminant Generation Company LLC (Luminant Power) is submitting a request for an amendment to the Emergency Plan for Comanche Peak Nuclear Power Plant (CPNPP) Units 1 and 2.

The proposed amendment involves upgrading selected CPNPP Emergency Action Levels (EALs) based on NEI 99-01, Revision 6, "Development of Emergency Action Levels for Non-Passive Reactors" (Reference 1) using the guidance of NRC Regulatory Issue Summary 2003-18, Supplement 2, "Use of Nuclear Energy Institute (NEI) 99-01, Methodology for Development of Emergency Action Levels" (Reference 2). CPNPP currently uses an emergency classification scheme based on Nuclear Energy Institute (NEI) 99-01, Revision 5, "Methodology for Development of Emergency Action Levels," February 2008 (Reference 3) endorsed by the NRC in Letter from C. G. Miller (Nuclear Regulatory Commission) to Alan Nelson (Nuclear Energy Institute) dated February 22, 2008, "U.S. Nuclear Regulatory Commission Review and Endorsement of NEI-99-01, Revision 5, dated February 2008," (Reference 4) and approved for CPNPP in Reference 5. The plan, as changed, would continue to meet the standards in 10 CFR 50.47(b) and the requirements in Appendix E to 10 CFR 50.

2.0 DETAILED DESCRIPTION

CPNPP currently uses an emergency classification scheme based on Nuclear Energy Institute (NEI) 99-01, Revision 5, "Methodology for Development of Emergency Action Levels," February 2008 (Reference 3) endorsed by the NRC in Letter from C. G. Miller (Nuclear Regulatory Commission) to Alan Nelson (Nuclear Energy Institute) dated February 22, 2008, "U.S. Nuclear Regulatory Commission Review and Endorsement of NEI-99-01, Revision 5, dated February 2008," (Reference 4) and approved for CPNPP in Reference 5. Luminant Power requests approval to change the CPNPP scheme basis to that described in NEI 99-01, Revision 6, "Development of Emergency Action Levels for Non-Passive Reactors."

3.0 TECHNICAL EVALUATION

The Initiating Conditions (ICs) and EALs that comprise the proposed scheme are presented in Attachment 2. This matrix provides a cross-reference between each generic IC and EAL contained in NEI 99-01, Revision 6 and the proposed CPNPP-specific IC and EAL. Differences and Deviations are identified in accordance with the guidance discussed in RIS 2003-18 and Supplements. The basis for each Difference is included in Attachment 2. There are no Deviations from NEI 99-01, Revision 6. The matrix follows the presentation order of NEI 99-01, Revision 6 -Abnormal Rad Levels/Radiological Effluent, Cold Shutdown/Refueling System Malfunction, Events Related to Independent Spent Fuel Storage Installation (ISFSI), Fission Product Barrier Degradation, Hazards and Other Conditions Affecting Plant Safety, and System Malfunction. The Defueled Station section is not used since CPNPP is an operating plant.

Differences and Deviations

As discussed in Regulatory Issue Summary (RIS) 2003-18, Supplement 1, dated July 13, 2004, differences and deviations are defined as follows:

- A difference is an EAL change where the basis scheme guidance differs in wording but agrees in meaning and intent, such that classification of an event would be the same, whether using the basis scheme guidance or the site-specific proposed EAL. Examples of differences include the use of site-specific terminology or administrative re-formatting of site-specific EALs.

- A deviation is an EAL change where the basis scheme guidance differs in wording and is altered in meaning or intent, such that classification of the event could be different between the basis scheme guidance and the site-specific proposed EAL. Examples of deviations include the use of altered mode applicability, altering key words or time limits, or changing words of physical reference (protected area, safety- related equipment, etc.).

Attachment 2 identifies each Difference between NEI 99-01 and the final products being evaluated in this LAR. These differences do not alter the meaning or intent of the ICs or EALs. There are no Deviations between NEI 99-01 and the final products being evaluated in this LAR.

Incorporation of Action Level Frequently Asked Questions

Where appropriate, information from Emergency Action Level Frequently Asked Questions (EALFAQs) has been incorporated into Attachment 2 and Attachment 3.

Related Documents

Attachment 3 includes the site-specific Technical Basis Document for each recognition category for the proposed scheme. A Redline and Strikeout version is provided as Attachment 4. These documents include appropriate information from the basis information contained in NEI 99-01, Revision 6. Attachment 5 provides the Supporting Calculation for CPNPP EAL Table R-1, "Effluent Monitor Classification Thresholds." Attachment 6 contains the proposed CPNPP EAL Wallcharts. Operational Modes and Applicability

Mode applicability of the proposed ICs and EALs is consistent with the NEI 99-01, Revision 6 basis scheme. The Operating Modes for CPNPP, as defined in the Technical Specifications, are listed below.

MODE	TITLE	REACTIVITY CONDITION (keff)	% RATED THERMAL POWER	AVERAGE REACTOR COOLANT TEMPERATURE (F)
1	Power Operation	≥ 0.99	> 5	NA
2	Startup	≥ 0.99	≤ 5	NA
3	Hot Standby	< 0.99	NA	≥ 350
4	Hot Shutdown	< 0.99	NA	$350 > T_{avg} > 200$
5	Cold Shutdown	< 0.99	NA	≤ 200
6	Refueling	NA	NA	NA

In addition to these operating modes, NEI 99-01, Revision 6 defines the "Defueled" mode as the condition present when all reactor fuel is removed from Reactor Vessel (full core off load during refueling or an extended outage). Station procedures recognize this condition as "No Mode."

State/Local Government Review of Proposed Changes

Luminant Power interacts periodically with the Texas and local emergency management agencies. The State and Local emergency management officials are advised of any EAL changes actually implemented. In the case of this EAL scheme revision, Luminant Power has committed to review the new classification scheme to State and Local emergency management officials following NRC approval and prior to implementation.

Implementation Description

Luminant Power plans to implement the proposed emergency classification scheme in the third quarter of 2016. When implemented, the changes to the EALs presented in Attachment 3 will become effective.

The EAL Technical Basis Document (Attachment 3) will be revised and maintained as a training and background reference resource. Any changes to the approved ICs and EALs will be made in accordance with 10 CFR 50.54(q).

4.0 REGULATORY EVALUATION

4.1 Applicable Regulatory Requirements/Criteria

The regulation in 10 CFR 50.47(b)(4) states, "A standard emergency classification and action level scheme, the bases of which include facility system and effluent parameters, is in use by the nuclear facility licensee, and State and Local response plans call for reliance on information provided by facility licensees for determinations of minimum initial offsite response measures."

10 CFR 50 Appendix E, Section IV, Content of Emergency Plans, item B, Assessment Actions states:

1. "The means to be used for determining the magnitude of, and for continually assessing the impact of, the release of radioactive materials shall be described, including emergency action levels that are to be used as criteria for determining the need for notification and participation of Local and State agencies, the Commission, and other Federal agencies, and the emergency action levels that are to be used for determining when and what type of protective measures should be considered within and outside the site boundary to protect health and safety. The emergency action levels shall be based on in-plant conditions and instrumentation in addition to onsite and offsite monitoring. By June 20, 2012, for nuclear power reactor licensees, these action levels must include hostile action that may adversely affect the nuclear power plant. The initial emergency action levels shall be discussed and agreed on by the applicant or licensee and state and local governmental authorities, and approved by the NRC. Thereafter, emergency action levels shall be reviewed with the State and Local governmental authorities on an annual basis."
2. A licensee desiring to change its entire emergency action level scheme shall submit an application for an amendment to its license and receive NRC approval before implementing the change. Licensees shall follow the change process in § 50.54(q) for all other emergency action level changes.

Regulatory Guide 1.101, Emergency Planning and Preparedness for Nuclear Power Reactors, Revision 4, Section C, Regulatory Position states:

"The guidance in NUMARC/NESP-007 (Revision 2, January 1992), "Methodology for Development of Emergency Action Levels," is acceptable to the NRC staff as an alternative method to that described in Appendix 1 to NUREG-0654/FEMA-REP-1 for developing EALs required in Section IV.B of Appendix E to 10 CFR Part 50 and 10 CFR 50.47(b)(4). In addition, the guidance contained in NEI 99-01 (Revision 4, January 2003), "Methodology for Development of Emergency Action Levels," is acceptable to the NRC staff as an alternative method to that described in Appendix 1 to NUREG-0654/FEMA-REP-1 and NUMARC/NESP-007 for developing EALs required in Section IV of Appendix E to 10 CFR Part 50 and 10 CFR 50.47(b)(4)."

4.2 No Significant Hazards Consideration Determination

Luminant Power has evaluated whether or not a significant hazards consideration (SHC) is warranted with the proposed changes by addressing the three criteria set forth in 10 CFR 50.92(c) as discussed below:

1. Does the proposed amendment involve a significant increase in the probability or consequences of an accident previously evaluated?

Response: No.

These changes affect the CPNPP Emergency Plan and do not alter any of the requirements of the Operating License or the Technical Specifications. The proposed changes do not modify any plant equipment and do not impact any failure modes that could lead to an accident. Additionally, the proposed changes do not impact the consequence of any analyzed accident since the changes do not affect any equipment related to accident mitigation. Based on this discussion, the proposed amendment does not increase the probability or consequences of an accident previously evaluated.

2. Does the proposed amendment create the possibility of a new or different kind of accident from any accident previously evaluated?

Response: No.

These changes affect the CPNPP Emergency Plan and do not alter any of the requirements of the Operating License or the Technical Specifications. They do not modify any plant equipment and there is no impact on the capability of the existing equipment to perform their intended functions. No system setpoints are being modified and no changes are being made to the method in which plant operations are conducted. No new failure modes are introduced by the proposed changes. The proposed amendment does not introduce accident initiators or malfunctions that would cause a new or different kind of accident. Therefore, the proposed amendment does not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. Does the proposed amendment involve a significant reduction in a margin of safety?

Response: No.

These changes affect the CPNPP Emergency Plan and do not alter any of the requirements of the Operating License or the Technical Specifications. The proposed changes do not affect any of the assumptions used in the accident analysis, nor do they affect any operability requirements for equipment important to plant safety. Therefore, the proposed changes will not result in a significant reduction in the margin of safety as defined in the bases for technical specifications covered in this license amendment request.

4.3 Conclusion

In conclusion, based on the considerations discussed above, (1) there is reasonable assurance that the health and safety of the public will not be endangered by the proposed change in the CPNPP EAL Scheme, (2) operation of CPNPP will continue to be conducted in compliance with the Commission regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

5.0 ENVIRONMENTAL CONSIDERATION

Luminant Power has determined that the proposed amendment would not change requirements with respect to use of a facility component located within the restricted area, as defined by 10 CFR 20, nor

would it change inspection or surveillance requirements. Luminant Power has evaluated the proposed change and has determined that the change does not involve:

- I. A Significant Hazards Consideration,
- II. A significant change in the types or significant increase in the amounts of any effluent that may be released off site, or
- III. A significant increase in individual or cumulative occupational radiation exposure. Accordingly, the proposed amendment meets the eligibility criterion for categorical exclusion set forth in 10 CFR 51.22(c)(9) and (10)(ii). Therefore, pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the proposed amendment.

6.0 REFERENCES

- 1) NEI 99-01, Revision 6, Development of Emergency Action Levels for Non-Passive Reactors, dated November 2012, (ADAMS Accession No. ML12326A805)
- 2) NRC Regulatory Issue Summary 2003-18, Supplement 2, Use of Nuclear Energy Institute (NEI) 99-01, Methodology for Development of Emergency Action Levels, dated December 12, 2005 (ADAMS Accession No. ML051450482)
- 3) Nuclear Energy Institute (NEI) 99-01, Revision 5, "Methodology for Development of Emergency Action Levels," February 2008 (ADAMS Accession No. ML080450149).
- 4) Letter from C. G. Miller (Nuclear Regulatory Commission) to Alan Nelson (Nuclear Energy Institute) dated February 22, 2008, "U.S. Nuclear Regulatory Commission Review and Endorsement of NEI-99-01, Revision 5, dated February 2008," (ADAMS Accession ML080430535)
- 5) Letter from Eric J. Leeds (Nuclear Regulatory Commission) to Mr. Rafael Flores (Luminant Generation Company LLC) dated May 17, 2010, "Comanche Peak Nuclear Power Plant, Units 1 and 2 – Change to Emergency Action Level Scheme (TAC NOS. ME1304 and ME1305)" (ADAMS Accession No. ML100850115)

ATTACHMENT 2 TO TXX-15101
CPNPP NEI 99-01, REVISION 6
EAL COMPARISON MATRIX
(116 PAGES)



Luminant

**Comanche Peak Nuclear Power Plant
NEI 99-01 Revision 6
EAL Comparison Matrix**

Revision 0

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Introduction

This document provides a line-by-line comparison of the Initiating Conditions (ICs), Mode Applicability and Emergency Action Levels (EALs) in NEI 99-01 Rev. 6 Final, Development of Emergency Action Levels for Non-Passive Reactors, ADAMS Accession Number ML12326A805, and the Comanche Peak Nuclear Power Plant (CPNPP) ICs, Mode Applicability and EALs. This document provides a means of assessing CPNPP differences and deviations from the NRC endorsed guidance given in NEI 99-01. Discussion of CPNPP EAL bases and lists of source document references are given in the EAL Technical Bases Document. It is, therefore, advisable to reference the EAL Technical Bases Document for background information while using this document.

Comparison Matrix Format

The ICs and EALs discussed in this document are grouped according to NEI 99-01 Recognition Categories. Within each Recognition Category, the ICs and EALs are listed in tabular format according to the order in which they are given in NEI 99-01. Generally, each row of the comparison matrix provides the following information:

- NEI EAL/IC identifier
- NEI EAL/IC wording
- CPNPP EAL/IC identifier
- CPNPP EAL/IC wording
- Description of any differences or deviations

EAL Emphasis Techniques

Due to the width of the table columns and table formatting constraints in this document, line breaks and indentation may differ slightly from the appearance of comparable wording in the source documents. NEI 99-01 is the source document for the NEI EALs; the CPNPP EAL Technical Bases Document for the CPNPP EALs.

The print and paragraph formatting conventions summarized below guide presentation of the CPNPP EALs in accordance with the EAL writing criteria. Space restrictions in the EAL table of this document sometimes override this

criteria in cases when following the criteria would introduce undesirable complications in the EAL layout.

- Upper case-bold print is used for the logic terms **AND**, **OR** and **EITHER**.
- Bold font is used for certain logic terms, negative terms (**not**, **cannot**, etc.), **any**, **all**.
- Upper case print is reserved for defined terms, acronyms, system abbreviations, logic terms (and, or, etc. when not used as a conjunction), annunciator window engravings.
- Three or more items in a list are normally introduced with "**Any** of the following..." or "**All** of the following..." Items of the list begin with bullets when a priority or sequence is not inferred.
- The use of **AND/OR** logic within the same EAL has been avoided when possible. When such logic cannot be avoided, indentation and separation of subordinate contingent phrases is employed.

Global Differences

The differences listed below generally apply throughout the set of EALs and are not repeated in the Justification sections of this document. The global differences do not decrease the effectiveness of the intent of NEI 99-01.

1. The NEI phrase "Notification of Unusual Event" has been changed to "Unusual Event" or abbreviated "UE" to reduce EAL-user reading burden.
2. In some instances NEI 99-01 IC Example EALs are implemented in separate plant EALs to improve clarity and readability. For example, NEI lists all IC HU3 Example EALs under one IC. The corresponding CPNPP EALs appear as unique EALs (e.g., HU3.1 through HU3.4).
3. Mode applicability identifiers (numbers/letter) modify the NEI 99-01 mode applicability names as follows: 1 - Power Operation, 2 - Startup, 3 - Hot Standby, 4 - Hot Shutdown, 5 - Cold Shutdown, 6 - Refueling, D - Defueled. NEI 99-01 defines Defueled as follows: "Reactor Vessel contains no irradiated fuel (full core off-load during refueling or extended outage)."
4. "min." is the standard abbreviation for "minutes" and is used to reduce EAL user reading burden.

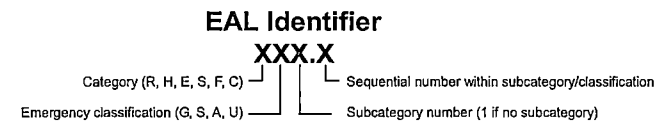
Attachment 2 to TXX-15101
EAL Comparison Matrix

5. The term "Emergency Director" has been replaced by "Emergency Coordinator" consistent with site-specific nomenclature.
 6. Wherever the generic bracketed PWR term "reactor vessel/RCS" is provided, CPNPP uses the term "RCS" as the site-specific nomenclature.
 7. IC/EAL identification:
 - NEI Recognition Category A "Abnormal Radiation Levels/ Radiological Effluents" has been changed to Category R "Abnormal Rad Levels / Rad Effluents." The designator "R" is more intuitively associated with radiation (rad) or radiological events. NEI IC designators beginning with "A" have likewise been changed to "R."
 - NEI 99-01 defines the thresholds requiring emergency classification (example EALs) and assigns them to ICs which, in turn, are grouped in "Recognition Categories." CPNPP endeavors to optimize the NEI EAL organization and identification scheme to enhance usability of the plant-specific EAL set. To this end, the CPNPP IC/EAL scheme includes the following features:
 - a. Division of the NEI EAL set into three groups:
 - EALs applicable under all plant operating modes – This group would be reviewed by the EAL-user any time emergency classification is considered.
 - EALs applicable only under hot operating modes – This group would only be reviewed by the EAL-user when the plant is in Hot Shutdown, Hot Standby, Startup or Power Operation mode.
 - EALs applicable only under cold operating modes – This group would only be reviewed by the EAL-user when the plant is in Cold Shutdown, Refueling or Defueled mode.
- The purpose of the groups is to avoid review of hot condition EALs when the plant is in a cold condition and avoid review of cold condition EALs when the plant is in a hot condition. This approach significantly minimizes the total number of EALs that must be reviewed by the EAL-

user for a given plant condition and, thereby, speeds identification of the EAL that applies to the emergency.

- b. Within each of the above three groups, assignment of EALs to categories/subcategories – Category and subcategory titles are selected to represent conditions that are operationally significant to the EAL-user. Subcategories are used as necessary to further divide the EALs of a category into logical sets of possible emergency classification thresholds. The CPNPP EAL categories/subcategories and their relationship to NEI Recognition Categories are listed in Table 1.
- c. Unique identification of each EAL – Four characters comprise the EAL identifier as illustrated in Figure 1.

Figure 1 – EAL Identifier



The first character is a letter associated with the category in which the EAL is located. The second character is a letter associated with the emergency classification level (G for General Emergency, S for Site Area Emergency, A for Alert, and U for Notification of Unusual Event). The third character is a number associated with one or more subcategories within a given category. Subcategories are sequentially numbered beginning with the number "1". If a category does not have a subcategory, this character is assigned the number "1". The fourth character is a number preceded by a period for each EAL within a subcategory. EALs are sequentially numbered within the emergency classification level of a subcategory beginning with the number "1".

The EAL identifier is designed to fulfill the following objectives:

- Uniqueness – The EAL identifier ensures that there can be no confusion over which EAL is driving the need for emergency classification.
- Speed in locating the EAL of concern – When the EALs are displayed in a matrix format, knowledge of the EAL identifier alone can lead the EAL-user to the location of the EAL within the classification matrix. The identifier conveys the category, subcategory and classification level. This assists ERO responders (who may not be in the same facility as the ED) to find the EAL of concern in a timely manner without the need for a word description of the classification threshold.
- Possible classification upgrade – The category/subcategory/identifier scheme helps the EAL-user find higher emergency classification EALs that may become active if plant conditions worsen.

Table 2 lists the CPNPP ICs and EALs that correspond to the NEI ICs/Example EALs when the above EAL/IC organization and identification scheme is implemented.

Differences and Deviations

In accordance NRC Regulatory Issue Summary (RIS) 2003-18 “Use of Nuclear Energy Institute (NEI) 99-01, Methodology for Development of Emergency Action Levels” Supplements 1 and 2, a difference is an EAL change in which the basis scheme guidance differs in wording but agrees in meaning and intent, such that classification of an event would be the same, whether using the basis scheme guidance or the CPNPP EAL. A deviation is an EAL change in which the basis scheme guidance differs in wording and is altered in meaning or intent, such that classification of the event could be different between the basis scheme guidance and the CPNPP proposed EAL.

Administrative changes that do not actually change the textual content are neither differences nor deviations. Likewise, any format change that does not alter the wording of the IC or EAL is considered neither a difference nor a deviation.

The following are examples of differences:

- Choosing the applicable EAL based upon plant type (i.e., BWR vs. PWR).
- Using a numbering scheme other than that provided in NEI 99-01 that does not change the intent of the overall scheme.
- Where the NEI 99-01 guidance specifically provides an option to not include an EAL if equipment for the EAL does not exist at CPNPP (e.g., automatic real-time dose assessment capability).
- Pulling information from the bases section up to the actual EAL that does not change the intent of the EAL.
- Choosing to state ALL Operating Modes are applicable instead of stating N/A, or listing each mode individually under the Abnormal Rad Level/Radiological Effluent and Hazard and Other Conditions Affecting Plant Safety sections.
- Using synonymous wording (e.g., greater than or equal to vs. at or above, less than or equal vs. at or below, greater than or less than vs. above or below, etc.)
- Adding CPNPP equipment/instrument identification and/or noun names to EALs.
- Combining like ICs that are exactly the same but have different operating modes as long as the intent of each IC is maintained and the overall progression of the EAL scheme is not affected.
- Any change to the IC and/or EAL, and/or basis wording, as stated in NEI 99-01, that does not alter the intent of the IC and/or EAL, i.e., the IC and/or EAL continues to:
 - Classify at the correct classification level.
 - Logically integrate with other EALs in the EAL scheme.
 - Ensure that the resulting EAL scheme is complete (i.e., classifies all potential emergency conditions).

The following are examples of deviations:

- Use of altered mode applicability.
- Altering key words or time limits.
- Changing words of physical reference (protected area, safety-related equipment, etc.).

Attachment 2 to TXX-15101
EAL Comparison Matrix

- Eliminating an IC. This includes the removal of an IC from the Fission Product Barrier Degradation category as this impacts the logic of Fission Product Barrier ICs.
- Changing a Fission Product Barrier from a Loss to a Potential Loss or vice-versa.
- Not using NEI 99-01 definitions as the intent is for all NEI 99-01 users to have a standard set of defined terms as defined in NEI 99-01. Differences due to plant types are permissible (BWR or PWR). Verbatim compliance to the wording in NEI 99-01 is not necessary as long as the intent of the defined word is maintained. Use of the wording provided in NEI 99-01 is encouraged since the intent is for all users to have a standard set of defined terms as defined in NEI 99-01.
- Any change to the IC and/or EAL, and/or basis wording as stated in NEI 99-01 that does alter the intent of the IC and/or EAL, i.e., the IC and/or EAL:
 - Does not classify at the classification level consistent with NEI 99-01.
 - Is not logically integrated with other EALs in the EAL scheme.
 - Results in an incomplete EAL scheme (i.e., does not classify all potential emergency conditions).

The "Difference/Deviation Justification" columns in the remaining sections of this document identify each difference between the NEI 99-01 IC/EAL wording and the CPNPP IC/EAL wording. An explanation that justifies the reason for each difference is then provided. If the difference is determined to be a deviation, a statement is made to that effect and explanation is given that states why classification may be different from the NEI 99-01 IC/EAL and the reason for its acceptability. In all cases, however, the differences and deviations do not decrease the effectiveness of the intent of NEI 99-01. A summary list of CPNPP EAL deviations from NEI 99-01 is given in Table 3.

Table 1 – CPNPP EAL Categories/Subcategories

CPNPP EALs		NEI Recognition Category
Category	Subcategory	
<u>Group: Any Operating Mode:</u>		
R – Abnormal Rad Levels/Rad Effluent	1 – Radiological Effluent 2 – Irradiated Fuel Event 3 – Area Radiation Levels	Abnormal Rad Levels/Radiological Effluent ICs/EALs
H – Hazards and Other Conditions Affecting Plant Safety	1 – Security 2 – Seismic Event 3 – Natural or Technological Hazard 4 – Fire 5 – Hazardous Gases 6 – Control Room Evacuation 7 – Emergency Coordinator Judgment	Hazards and Other Conditions Affecting Plant Safety ICs/EALs
E - ISFSI	1 – Confinement Boundary	ISFSI ICs/EALs
<u>Group: Hot Conditions:</u>		
S – System Malfunction	1 – Loss of Emergency AC Power 2 – Loss of Vital DC Power 3 – Loss of Control Room Indications 4 – RCS Activity 5 – RCS Leakage 6 – RPS Failure 7 – Loss of Communications 8 – Containment Failure 9 – Hazardous Event Affecting Safety Systems	System Malfunction ICs/EALs
F – Fission Product Barrier	None	Fission Product Barrier ICs/EALs
<u>Group: Cold Conditions:</u>		
C – Cold Shutdown/Refueling System Malfunction	1 – RCS Level 2 – Loss of Emergency AC Power 3 – RCS Temperature 4 – Loss of Vital DC Power 5 – Loss of Communications 6 - Hazardous Event Affecting Safety Systems	Cold Shutdown./ Refueling System Malfunction ICs/EALs

Table 2 – NEI / CPNPP EAL Identification Cross-Reference

NEI		CPNPP	
IC	Example EAL	Category and Subcategory	EAL
AU1	1	R – Abnormal Rad Levels / Rad Effluent, 1 – Radiological Effluent	RU1.1
AU1	2	R – Abnormal Rad Levels / Rad Effluent, 1 – Radiological Effluent	RU1.1
AU1	3	R – Abnormal Rad Levels / Rad Effluent, 1 – Radiological Effluent	RU1.2
AU2	1	R – Abnormal Rad Levels / Rad Effluent, 2 – Irradiated Fuel Event	RU2.1
AA1	1	R – Abnormal Rad Levels / Rad Effluent, 1 – Radiological Effluent	RA1.1
AA1	2	R – Abnormal Rad Levels / Rad Effluent, 1 – Radiological Effluent	RA1.2
AA1	3	R – Abnormal Rad Levels / Rad Effluent, 1 – Radiological Effluent	RA1.3
AA1	4	R – Abnormal Rad Levels / Rad Effluent, 1 – Radiological Effluent	RA1.4
AA2	1	R – Abnormal Rad Levels / Rad Effluent, 2 – Irradiated Fuel Event	RA2.1
AA2	2	R – Abnormal Rad Levels / Rad Effluent, 2 – Irradiated Fuel Event	RA2.2
AA2	3	R – Abnormal Rad Levels / Rad Effluent, 2 – Irradiated Fuel Event	RA2.3
AA3	1	R – Abnormal Rad Levels / Rad Effluent, 3 – Area Radiation Levels	RA3.1
AA3	2	R – Abnormal Rad Levels / Rad Effluent, 3 – Area Radiation Levels	RA3.2
AS1	1	R – Abnormal Rad Levels / Rad Effluent, 1 – Radiological Effluent	RS1.1
AS1	2	R – Abnormal Rad Levels / Rad Effluent, 1 – Radiological Effluent	RS1.2
AS1	3	R – Abnormal Rad Levels / Rad Effluent, 1 – Radiological Effluent	RS1.3

Attachment 2 to TXX-15101
EAL Comparison Matrix

NEI		CPNPP	
IC	Example EAL	Category and Subcategory	EAL
AS2	1	R – Abnormal Rad Levels / Rad Effluent, 2 – Irradiated Fuel Event	RS2.1
AG1	1	R – Abnormal Rad Levels / Rad Effluent, 1 – Radiological Effluent	RG1.1
AG1	2	R – Abnormal Rad Levels / Rad Effluent, 1 – Radiological Effluent	RG1.2
AG1	3	R – Abnormal Rad Levels / Rad Effluent, 1 – Radiological Effluent	RG1.3
AG2	1	R – Abnormal Rad Levels / Rad Effluent, 2 – Irradiated Fuel Event	RG2.1
CU1	1	C – Cold SD/ Refueling System Malfunction, 1 – RCS Level	CU1.1
CU1	2	C – Cold SD/ Refueling System Malfunction, 1 – RCS Level	CU1.2
CU2	1	C – Cold SD/ Refueling System Malfunction, 2 – Loss of ESF AC Power	CU2.1
CU3	1	C – Cold SD/ Refueling System Malfunction, 3 – RCS Temperature	CU3.1
CU3	2	C – Cold SD/ Refueling System Malfunction, 3 – RCS Temperature	CU3.2
CU4	1	C – Cold SD/ Refueling System Malfunction, 4 – Loss of Vital DC Power	CU4.1
CU5	1, 2, 3	C – Cold SD/ Refueling System Malfunction, 5 – Loss of Communications	CU5.1
CA1	1	C – Cold SD/ Refueling System Malfunction, 1 – RCS Level	CA1.1
CA1	2	C – Cold SD/ Refueling System Malfunction, 1 – RCS Level	CA1.2
CA2	1	C – Cold SD/ Refueling System Malfunction, 1 – Loss of ESF AC Power	CA2.1
CA3	1, 2	C – Cold SD/ Refueling System Malfunction, 3 – RCS Temperature	CA3.1
CA6	1	C – Cold SD/ Refueling System Malfunction, 6 – Hazardous Event Affecting Safety Systems	HA4.1
CS1	1	C – Cold SD/ Refueling System Malfunction, 1 – RCS Level	CS1.1

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EAL Comparison Matrix

NEI		CPNPP	
IC	Example EAL	Category and Subcategory	EAL
CS1	2	C – Cold SD/ Refueling System Malfunction, 1 – RCS Level	CS1.2
CS1	3	C – Cold SD/ Refueling System Malfunction, 1 – RCS Level	CS1.3
CG1	1	C – Cold SD/ Refueling System Malfunction, 1 – RCS Level	CG1.1
CG1	2	C – Cold SD/ Refueling System Malfunction, 1 – RCS Level	CG1.2
E-HU1	1	E – ISFSI – Confinement Boundary	EU1.1
FA1	1	F – Fission Product Barrier Degradation	FA1.1
FS1	1	F – Fission Product Barrier Degradation	FS1.1
FG1	1	F – Fission Product Barrier Degradation	FG1.1
HU1	1	H – Hazards and Other Conditions Affecting Plant Safety, 1 – Security	HU1.1
HU1	2	H – Hazards and Other Conditions Affecting Plant Safety, 1 – Security	HU1.2
HU1	3	H – Hazards and Other Conditions Affecting Plant Safety, 1 – Security	HU1.3
HU2	1	H – Hazards and Other Conditions Affecting Plant Safety, 2 – Seismic Event	HU2.1
HU3	1	H – Hazards and Other Conditions Affecting Plant Safety, 3 – Natural or Technological Hazard	HU3.1
HU3	2	H – Hazards and Other Conditions Affecting Plant Safety, 3 – Natural or Technological Hazard	HU3.2
HU3	3	H – Hazards and Other Conditions Affecting Plant Safety, 3 – Natural or Technological Hazard	HU3.3
HU3	4	H – Hazards and Other Conditions Affecting Plant Safety, 3 – Natural or Technological Hazard	HU3.4
HU3	5	N/A	N/A
HU4	1	H – Hazards and Other Conditions Affecting Plant Safety, 4 – Fire or Explosion	HU4.1

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EAL Comparison Matrix

NEI		CPNPP	
IC	Example EAL	Category and Subcategory	EAL
HU4	2	H – Hazards and Other Conditions Affecting Plant Safety, 4 – Fire or Explosion	HU4.2
HU4	3	H – Hazards and Other Conditions Affecting Plant Safety, 4 – Fire or Explosion	HU4.3
HU4	4	H – Hazards and Other Conditions Affecting Plant Safety, 4 – Fire or Explosion	HU4.4
HU7	1	H – Hazards and Other Conditions Affecting Plant Safety, 7 – Judgment	HU7.1
HA1	1	H – Hazards and Other Conditions Affecting Plant Safety, 1 – Security	HA1.1
HA1	2	H – Hazards and Other Conditions Affecting Plant Safety, 1 – Security	HA1.1
HA5	1	H – Hazards and Other Conditions Affecting Plant Safety, 5 – Hazardous Gases	HA5.1
HA6	1	H – Hazards and Other Conditions Affecting Plant Safety, 6 – Control Room Evacuation	HA6.1
HA7	1	H – Hazards and Other Conditions Affecting Plant Safety, 7 – Judgment	HA7.1
HS1	1	H – Hazards and Other Conditions Affecting Plant Safety, 1 – Security	HS1.1
HS6	1	H – Hazards and Other Conditions Affecting Plant Safety, 6 – Control Room Evacuation	HS6.1
HS7	1	H – Hazards and Other Conditions Affecting Plant Safety, 7 – Judgment	HS7.1
HG1	1	H – Hazards and Other Conditions Affecting Plant Safety, 1 – Security	HG1.1
HG7	2	H – Hazards and Other Conditions Affecting Plant Safety, 7 – Judgment	HG7.1
SU1	1	S – System Malfunction, 1 – Loss of Emergency AC Power	SU1.1
SU2	1	S – System Malfunction, 3 – Loss of Control Room Indications	SU3.1
SU3	1	S – System Malfunction, 4 – RCS Activity	SU4.1
SU3	2	S – System Malfunction, 4 – RCS Activity	SU4.2

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EAL Comparison Matrix

NEI		CPNPP	
IC	Example EAL	Category and Subcategory	EAL
SU4	1, 2, 3	S – System Malfunction, 5 – RCS Leakage	SU5.1
SU5	1	S – System Malfunction, 6 – RPS Failure	SU6.1
SU5	2	S – System Malfunction, 6 – RPS Failure	SU6.2
SU6	1, 2, 3	S – System Malfunction, 7 – Loss of Communications	SU7.1
SU7	1, 2	S – System Malfunction, 8 – Containment Failure	SU8.1
SA1	1	S – System Malfunction, 1 – Loss of Emergency AC Power	SA1.1
SA2	1	S – System Malfunction, 3 – Loss of Control Room Indications	SA3.1
SA5	1	S – System Malfunction, 6 – RPS Failure	SA6.1
SA9	1	S – Hazardous Event Affecting Safety Systems	SA9.1
SS1	1	S – System Malfunction, 1 – Loss of Emergency AC Power	SS1.1
SS5	1	S – System Malfunction, 6 – RPS Failure	SS6.1
SS8	1	S – System Malfunction, 2 – Loss of Vital DC Power	SS2.1
SG1	1	S – System Malfunction, 1 – Loss of Emergency AC Power	SG1.1
SG8	2	S – System Malfunction, 1 – Loss of Emergency AC Power	SG1.2

Table 3 – Summary of Deviations

NEI		CPNPP EAL	Description
IC	Example EAL		
N/A	N/A	N/A	N/A

Category A

Abnormal Rad Levels / Radiological Effluent

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EAL Comparison Matrix

NEI IC#	NEI IC Wording and Mode Applicability	CPNPP IC#(s)	CPNPP IC Wording and Mode Applicability	Difference/Deviation Justification
AU1	Release of gaseous or liquid radioactivity greater than 2 times the (site-specific effluent release controlling document) limits for 60 minutes or longer. MODE: All	RU1	Release of gaseous or liquid radioactivity greater than 2 times the ODCM limits for 60 minutes or longer MODE: All	The CPNPP ODCM is the site-specific effluent release controlling document.

NEI Ex. EAL #	NEI Example EAL Wording	CPNPP EAL #	CPNPP EAL Wording	Difference/Deviation Justification
1	Reading on ANY effluent radiation monitor greater than 2 times the (site-specific effluent release controlling document) limits for 60 minutes or longer: (site-specific monitor list and threshold values corresponding to 2 times the controlling document limits)	RU1.1	Reading on any Table R-1 effluent radiation monitor greater than column "UE" for greater than or equal to 60 min. (Notes 1, 2, 3)	<p>Example EALs #1 and #2 have been combined into a single EAL to simplify presentation.</p> <p>The NEI phrase "...effluent radiation monitor greater than 2 times the (site-specific effluent release controlling document)" and "effluent radiation monitor greater than 2 times the alarm setpoint established by a current radioactivity discharge permit " have been replaced with "...any Table R-1 effluent radiation monitor greater than column "UE".</p> <p>UE thresholds for all CPNPP continuously monitored gaseous release pathways are listed in Table R-1 to consolidate the information in a single location and, thereby, simplify identification of the thresholds by the EAL user. The values shown in Table R-1 column "UE", consistent with the NEI bases, represent two times the ODCM release limits for both liquid and gaseous release.</p>
2	Reading on ANY effluent radiation monitor greater than 2 times the alarm setpoint established by a current radioactivity discharge permit for 60 minutes or longer.			
3	Sample analysis for a gaseous or liquid release indicates a concentration or release rate greater than 2 times the (site-specific effluent release controlling document) limits for	RU1.2	Sample analysis for a gaseous or liquid release indicates a concentration or release rate > 2 x ODCM limits for greater than or equal to 60 min. (Notes 1, 2)	The CPNPP ODCM is the site-specific effluent release controlling document.

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NEI Ex. EAL #	NEI Example EAL Wording	CPNPP EAL #	CPNPP EAL Wording	Difference/Deviation Justification
	60 minutes or longer.			
Notes	<ul style="list-style-type: none"> The Emergency Director should declare the Unusual Event promptly upon determining that 60 minutes has been exceeded, or will likely be exceeded. If an ongoing release is detected and the release start time is unknown, assume that the release duration has exceeded 60 minutes. If the effluent flow past an effluent monitor is known to have stopped due to actions to isolate the release path, then the effluent monitor reading is no longer valid for classification purposes. 	N/A	<p>Note 1: The Emergency Coordinator should declare the event promptly upon determining that time limit has been exceeded, or will likely be exceeded.</p> <p>Note 2: If an ongoing release is detected and the release start time is unknown, assume that the release duration has exceeded the specified time limit.</p> <p>Note 3: If the effluent flow past an effluent monitor is known to have stopped, indicating that the release path is isolated, the effluent monitor reading is no longer VALID for classification purposes.</p>	<p>The classification timeliness note has been standardized across the CPNPP EAL scheme by referencing the "time limit" specified within the EAL wording.</p> <p>The classification timeliness note has been standardized across the CPNPP EAL scheme by referencing the "time limit" specified within the EAL wording.</p> <p>None</p>

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EAL Comparison Matrix

Table R-1 Effluent Monitor Classification Thresholds						
Release Point		Monitor	GE	SAE	Alert	UE
Gaseous	Plant Vent PVG384 + PVG385	X-RE-5567 A + B	----	----	----	6.52E-4 $\mu\text{Ci/ml}$
	Plant Vent (WRGM) PVF684 + PVF685	X-RE-5570 A + B	4.0E+7 $\mu\text{Ci/sec}$	4.0E+6 $\mu\text{Ci/sec}$	4.0E+5 $\mu\text{Ci/sec}$	4.0E+4 $\mu\text{Ci/sec}$
	Main Steam MSLu78 MSLu79 MSLu80 MSLu81	u-RE-2325 u-RE-2326 u-RE-2327 u-RE-2328	90 $\mu\text{Ci/ml}^*$	9.0 $\mu\text{Ci/ml}^*$	0.9 $\mu\text{Ci/ml}^*$	2 x high alarm setpoint*
Liquid	Liquid Waste LWE-076	X-RE-5253	----	----	----	2 x high alarm setpoint
	Service Water SSWu65 SSWu66	u-RE-4269 u-RE-4270	----	----	----	2 x high alarm setpoint

* with reactor shutdown

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NEI IC#	NEI IC Wording and Mode Applicability	CPNPP IC#(s)	CPNPP IC Wording and Mode Applicability	Difference/Deviation Justification
AU2	UNPLANNED loss of water level above irradiated fuel. MODE: All	RU2	Unplanned loss of water level above irradiated fuel MODE: All	None

NEI Ex. EAL #	NEI Example EAL Wording	CPNPP EAL #	CPNPP EAL Wording	Difference/Deviation Justification
1	a. UNPLANNED water level drop in the REFUELING PATHWAY as indicated by ANY of the following: (site-specific level indications). AND b. UNPLANNED rise in area radiation levels as indicated by ANY of the following radiation monitors. (site-specific list of area radiation monitors)	RU2.1	UNPLANNED water level drop in the REFUELING PATHWAY as indicated by low water level alarm or indication AND UNPLANNED rise in corresponding area radiation levels as indicated by any Table R-2 area radiation monitors	Site-specific area radiation monitors are listed in Table R-2.

Table R-2 SFP & Refueling Cavity Area Radiation Monitors
SFP: <ul style="list-style-type: none"> SFP001, LRAM SFP 2 E WALL (X-RE-6272) SFP002, LRAM SFP 2 N WALL (X-RE-6273) SFP003, LRAM SFP 1 E WALL (X-RE-6274) SFP004, LRAM SFP 1 S WALL (X-RE-6275) Refueling Cavity: <ul style="list-style-type: none"> RFCu10, LRAM W REFUEL CAV860 (<u>U</u>-RE-6251) RFCu12, LRAM E REFUEL CAV 860 (<u>U</u>-RE-6253)

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NEI IC#	NEI IC Wording	CPNPP IC#(s)	CPNPP IC Wording	Difference/Deviation Justification
AA1	Release of gaseous or liquid radioactivity resulting in offsite dose greater than 10 mrem TEDE or 50 mrem thyroid CDE. MODE: All	RA1	Release of gaseous or liquid radioactivity resulting in offsite dose greater than 10 mrem TEDE or 50 mrem thyroid CDE MODE: All	None

NEI Ex. EAL #	NEI Example EAL Wording	CPNPP EAL #	CPNPP EAL Wording	Difference/Deviation Justification
1	Reading on ANY of the following radiation monitors greater than the reading shown for 15 minutes or longer: (site-specific monitor list and threshold values)	RA1.1	Reading on any Table R-1 effluent radiation monitor greater than column "ALERT" for greater than or equal to 15 min. (Notes 1, 2, 3, 4)	The CPNPP radiation monitors that detect radioactivity effluent release to the environment are listed in Table R-1. UE, Alert, SAE and GE thresholds for all CPNPP continuously monitored gaseous and liquid release pathways are listed in Table R-1 to consolidate the information in a single location and, thereby, simplify identification of the thresholds by the EAL-user.
2	Dose assessment using actual meteorology indicates doses greater than 10 mrem TEDE or 50 mrem thyroid CDE at or beyond (site-specific dose receptor point).	RA1.2	Dose assessment using actual meteorology indicates doses greater than 10 mrem TEDE or 50 mrem thyroid CDE at or beyond the the EXCLUSION AREA BOUNDARY (Notes 3, 4)	The exclusion area boundary is the site-specific receptor point.
3	Analysis of a liquid effluent sample indicates a concentration or release rate that would result in doses greater than 10 mrem TEDE or 50 mrem thyroid CDE at or beyond (site-specific dose receptor point) for one hour of exposure.	RA1.3	Analysis of a liquid effluent sample indicates a concentration or release rate that would result in doses greater than 10 mrem TEDE or 50 mrem thyroid CDE at or beyond the the EXCLUSION AREA BOUNDARY for 60 min. of exposure (Notes 1, 2)	The exclusion area boundary is the site-specific receptor point.

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4	<p>Field survey results indicate EITHER of the following at or beyond (site-specific dose receptor point):</p> <ul style="list-style-type: none"> ● Closed window dose rates greater than 10 mR/hr expected to continue for 60 minutes or longer. ● Analyses of field survey samples indicate thyroid CDE greater than 50 mrem for one hour of inhalation. 	RA1.4	<p>Field survey results indicate EITHER of the following at or beyond the EXCLUSION AREA BOUNDARY:</p> <ul style="list-style-type: none"> ● Closed window dose rates greater than 10 mR/hr expected to continue for greater than or equal to 60 min. ● Analyses of field survey samples indicate thyroid CDE greater than 50 mrem for 60 min. of inhalation. <p>(Notes 1, 2)</p>	<p>The exclusion area boundary is the site-specific receptor point.</p>
Notes	<ul style="list-style-type: none"> ● The Emergency Director should declare the Alert promptly upon determining that the applicable time has been exceeded, or will likely be exceeded. ● If an ongoing release is detected and the release start time is unknown, assume that the release duration has exceeded 15 minutes. ● If the effluent flow past an effluent monitor is known to have stopped due to actions to isolate the release path, then the effluent monitor reading is no longer valid for classification purposes. ● The pre-calculated effluent monitor values presented in 	N/A	<p>Note 1: The Emergency Coordinator should declare the event promptly upon determining that time limit has been exceeded, or will likely be exceeded.</p> <p>Note 2: If an ongoing release is detected and the release start time is unknown, assume that the release duration has exceeded the specified time limit.</p> <p>Note 3: If the effluent flow past an effluent monitor is known to have stopped, indicating that the release path is isolated, the effluent monitor reading is no longer VALID for classification purposes.</p> <p>Note 4 The pre-calculated effluent monitor values presented in EALs RA1.1, RS1.1 and</p>	<p>The classification timeliness note has been standardized across the CPNPP EAL scheme by referencing the "time limit" specified within the EAL wording.</p> <p>The classification timeliness note has been standardized across the CPNPP EAL scheme by referencing the "time limit" specified within the EAL wording.</p> <p>None</p> <p>Incorporated site-specific EAL numbers associated with generic EAL#1.</p>

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	EAL #1 should be used for emergency classification assessments until the results from a dose assessment using actual meteorology are available.		RG1.1 should be used for emergency classification assessments until the results from a dose assessment using actual meteorology are available.	
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EAL Comparison Matrix

NEI IC#	NEI IC Wording	CPNPP IC#(s)	CPNPP IC Wording	Difference/Deviation Justification
AA2	Significant lowering of water level above, or damage to, irradiated fuel. MODE: All	RA2	Significant lowering of water level above, or damage to, irradiated fuel MODE: All	None

NEI Ex. EAL #	NEI Example EAL Wording	CPNPP EAL #	CPNPP EAL Wording	Difference/Deviation Justification
1	Uncovery of irradiated fuel in the REFUELING PATHWAY.	RA2.1	Uncovery of irradiated fuel in the REFUELING PATHWAY	None
2	Damage to irradiated fuel resulting in a release of radioactivity from the fuel as indicated by ANY of the following radiation monitors: (site-specific listing of radiation monitors, and the associated readings, setpoints and/or alarms)	RA2.2	Damage to irradiated fuel resulting in a release of radioactivity AND High alarm on any of the following: <ul style="list-style-type: none"> • Any Table R-2 area radiation monitors • CAGu97, CNTMT AIR PIG GAS (<u>U</u>-RE-5503) • CAPu98, CNTMT AIR PIG PART (<u>U</u>-RE-5502) • CAIu99, CNTMT AIR PIG IODINE (<u>U</u>-RE-5566) • FBV088, FB VENT EXH (X-RE-5700) 	Site-specific list of radiation monitors bulletized.
3	Lowering of spent fuel pool level to (site-specific Level 2 value). [See Developer Notes]	RA2.3	Lowering of spent fuel pool level to El. 844.3' (Level 2)	Post-Fukushima order EA-12-051 required the installation of reliable SFP level indication capable of identifying normal level (Level 1), SFP level 10 ft. above the top of the fuel racks (Level 2) and SFP level at the top of the fuel racks (Level 3). Comanche Peak designated as Level 2 the water level 10 feet (\pm 1.0 foot) above the top of the fuel racks (El 844' – 2.75" rounded to 844.3' indicated)

Table R-2 SFP & Refueling Cavity Area Radiation Monitors
SFP: <ul style="list-style-type: none">• SFP001, LRAM SFP 2 E WALL (X-RE-6272)• SFP002, LRAM SFP 2 N WALL (X-RE-6273)• SFP003, LRAM SFP 1 E WALL (X-RE-6274)• SFP004, LRAM SFP 1 S WALL (X-RE-6275) Refueling Cavity: <ul style="list-style-type: none">• RFCu10, LRAM W REFUEL CAV860 (<u>u</u>-RE-6251)• RFCu12, LRAM E REFUEL CAV 860 (<u>u</u>-RE-6253)

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NEI IC#	NEI IC Wording	CPNPP IC#(s)	CPNPP IC Wording	Difference/Deviation Justification
AA3	Radiation levels that impede access to equipment necessary for normal plant operations, cooldown or shutdown MODE: All	RA3	Radiation levels that IMPEDE access to equipment necessary for normal plant operations, cooldown or shutdown MODE: All	None

NEI Ex. EAL #	NEI Example EAL Wording	CPNPP EAL #	CPNPP EAL Wording	Difference/Deviation Justification
1	Dose rate greater than 15 mR/hr in ANY of the following areas: <ul style="list-style-type: none"> Control Room Central Alarm Station (other site-specific areas/rooms) 	RA3.1	Dose rates greater than 15 mR/hr in EITHER of the following areas: Control Room CRM048 (X-RE-6281) or CRM049 (X-RE-6282) OR Central Alarm Station (by survey)	No other site-specific areas requiring continuous occupancy exist at CPNPP. CRM048 (X-RE-6281) and CRM049 (X-RE-6282) are the installed CR ARMs. The CAS does not have installed area radiation monitoring and thus must be determined by survey.
2	An UNPLANNED event results in radiation levels that prohibit or impede access to any of the following plant rooms or areas: (site-specific list of plant rooms or areas with entry-related mode applicability identified)	RA3.2	An UNPLANNED event results in radiation levels that prohibit or IMPEDE access to any Table R-3 rooms or areas (Note 5)	The list of plant rooms or areas with entry-related mode applicability identified specify those rooms or areas that contain equipment which require a manual/local action as specified in operating procedures used for normal plant operation, cooldown and shutdown.
Note	If the equipment in the listed room or area was already inoperable or out-of-service before the event occurred, then no emergency classification is warranted.	N/A	Note 5: If the equipment in the listed room or area was already inoperable or out-of-service before the event occurred, then no emergency classification is warranted.	None

Table R-3 Safe Operation & Shutdown Rooms/Areas	
Room/Area	Mode Applicability
Charging Pump Rooms	1, 2, 3, 4, 5, 6
CVCS Valve Rooms	1, 2, 3, 4, 5, 6
1E Switchgear Rooms	All
RHR Pump Rooms	4, 5, 6

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NEI IC#	NEI IC Wording	CPNPP IC#(s)	CPNPP IC Wording	Difference/Deviation Justification
AS1	Release of gaseous radioactivity resulting in offsite dose greater than 100 mrem TEDE or 500 mrem thyroid CDE MODE: All MODE: All	RS1	Release of gaseous radioactivity resulting in offsite dose greater than 100 mrem TEDE or 500 mrem thyroid CDE MODE: All	None

NEI Ex. EAL #	NEI Example EAL Wording	CPNPP EAL #	CPNPP EAL Wording	Difference/Deviation Justification
1	Reading on ANY of the following radiation monitors greater than the reading shown for 15 minutes or longer: (site-specific monitor list and threshold values)	RS1.1	Reading on any Table R-1 effluent radiation monitor greater than column "SAE" for greater than or equal to 15 min. (Notes 1, 2, 3, 4)	The CPNPP radiation monitors that detect radioactivity effluent release to the environment are listed in Table R-1. UE, Alert, SAE and GE thresholds for all CPNPP continuously monitored gaseous and liquid release pathways are listed in Table R-1 to consolidate the information in a single location and, thereby, simplify identification of the thresholds by the EAL-user.
2	Dose assessment using actual meteorology indicates doses greater than 100 mrem TEDE or 500 mrem thyroid CDE at or beyond (site-specific dose receptor point)	RS1.2	Dose assessment using actual meteorology indicates doses greater than 100 mrem TEDE or 500 mrem thyroid CDE at or beyond the EXCLUSION AREA BOUNDARY (Notes 3, 4)	The exclusion area boundary is the site-specific receptor point.
3	Field survey results indicate EITHER of the following at or beyond (site-specific dose receptor point): <ul style="list-style-type: none"> Closed window dose rates greater than 100 mR/hr expected to continue for 60 minutes or longer. Analyses of field survey samples indicate thyroid 	RS1.3	Field survey results indicate EITHER of the following at or beyond the EXCLUSION AREA BOUNDARY: <ul style="list-style-type: none"> Closed window dose rates greater than 100 mR/hr expected to continue for greater than or equal to 60 min. Analyses of field survey samples indicate thyroid CDE 	The exclusion area boundary is the site-specific receptor point.

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	CDE greater than 500 mrem for one hour of inhalation.		greater than 500 mrem for 60 min. of inhalation. (Notes 1, 2)	
Notes	<ul style="list-style-type: none"> The Emergency Director should declare the Site Area Emergency promptly upon determining that the applicable time has been exceeded, or will likely be exceeded. If an ongoing release is detected and the release start time is unknown, assume that the release duration has exceeded 15 minutes. If the effluent flow past an effluent monitor is known to have stopped due to actions to isolate the release path, then the effluent monitor reading is no longer valid for classification purposes. The pre-calculated effluent monitor values presented in EAL #1 should be used for emergency classification assessments until the results from a dose assessment using actual meteorology are available. 		<p>Note 1: The Emergency Coordinator should declare the event promptly upon determining that time limit has been exceeded, or will likely be exceeded.</p> <p>Note 2: If an ongoing release is detected and the release start time is unknown, assume that the release duration has exceeded the specified time limit.</p> <p>Note 3: If the effluent flow past an effluent monitor is known to have stopped, indicating that the release path is isolated, the effluent monitor reading is no longer VALID for classification purposes.</p> <p>Note 5: The pre-calculated effluent monitor values presented in EALs RA1.1, RS1.1 and RG1.1 should be used for emergency classification assessments until the results from a dose assessment using actual meteorology are available.</p>	<p>The classification timeliness note has been standardized across the CPNPP EAL scheme by referencing the "time limit" specified within the EAL wording.</p> <p>The classification timeliness note has been standardized across the CPNPP EAL scheme by referencing the "time limit" specified within the EAL wording.</p> <p>None</p> <p>Incorporated site-specific EAL numbers associated with generic EAL#1.</p>

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EAL Comparison Matrix

NEI IC#	NEI IC Wording	CPNPP IC#(s)	CPNPP IC Wording	Difference/Deviation Justification
AS2	Spent fuel pool level at (site-specific Level 3 description) MODE: All	RS2	Spent fuel pool level at the top of the fuel racks	Top of the fuel racks is the site-specific Level 3 description.

NEI Ex. EAL #	NEI Example EAL Wording	CPNPP EAL #	CPNPP EAL Wording	Difference/Deviation Justification
1	Lowering of spent fuel pool level to (site-specific Level 3 value)	RS2.1	Lowering of spent fuel pool level to El. 835.3' (Level 3)	<p>Post-Fukushima order EA-12-051 required the installation of reliable SFP level indication capable of identifying normal level (Level 1), SFP level 10 ft. above the top of the fuel racks (Level 2) and SFP level at the top of the fuel racks (Level 3).</p> <p>Comanche Peak designated as Level 3 the water level greater than 1 foot above the top of the fuel storage racks plus the accuracy of the SFP level instrument channel (El. 835' – 2.75" rounded to 835.3' indicated).</p>

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EAL Comparison Matrix

NEI IC#	NEI IC Wording	CPNPP IC#(s)	CPNPP IC Wording	Difference/Deviation Justification
AG1	Release of gaseous radioactivity resulting in offsite dose greater than 1,000 mrem TEDE or 5,000 mrem thyroid CDE. MODE: All	RG1	Release of gaseous radioactivity resulting in offsite dose greater than 1,000 mrem TEDE or 5,000 mrem thyroid CDE MODE: All	None

NEI Ex. EAL #	NEI Example EAL Wording	CPNPP EAL #	CPNPP EAL Wording	Difference/Deviation Justification
1	Reading on ANY of the following radiation monitors greater than the reading shown for 15 minutes or longer: (site-specific monitor list and threshold values)	RG1.1	Reading on any Table R-1 effluent radiation monitor greater than column "GE" for greater than or equal to 15 min. (Notes 1, 2, 3, 4)	The CPNPP radiation monitors that detect radioactivity effluent release to the environment are listed in Table R-1. UE, Alert, SAE and GE thresholds for all CPNPP continuously monitored gaseous or liquid release pathways are listed in Table R-1 to consolidate the information in a single location and, thereby, simplify identification of the thresholds by the EAL-user.
2	Dose assessment using actual meteorology indicates doses greater than 1,000 mrem TEDE or 5,000 mrem thyroid CDE at or beyond (site-specific dose receptor point).	RG1.2	Dose assessment using actual meteorology indicates doses greater than 1000 mrem TEDE or 5000 mrem thyroid CDE at or beyond the EXCLUSION AREA BOUNDARY (Notes 3, 4)	The exclusion area boundary is the site-specific receptor point.
3	Field survey results indicate EITHER of the following at or beyond (site-specific dose receptor point): <ul style="list-style-type: none"> ● Closed window dose rates greater than 1,000 mR/hr expected to continue for 60 minutes or longer. ● Analyses of field survey samples indicate thyroid CDE greater than 5,000 mrem for 	RG1.3	Field survey results indicate EITHER of the following at or beyond the EXCLUSION AREA BOUNDARY: <ul style="list-style-type: none"> ● Closed window dose rates greater than 1000 mR/hr expected to continue for greater than or equal to 60 min. ● Analyses of field survey 	The exclusion area boundary is the site-specific receptor point.

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EAL Comparison Matrix

	one hour of inhalation.		samples indicate thyroid CDE greater than 5000 mrem for 60 min. of inhalation. (Notes 1, 2)	
Notes	<ul style="list-style-type: none"> ● The Emergency Director should declare the Site Area Emergency promptly upon determining that the applicable time has been exceeded, or will likely be exceeded. ● If an ongoing release is detected and the release start time is unknown, assume that the release duration has exceeded 15 minutes. ● If the effluent flow past an effluent monitor is known to have stopped due to actions to isolate the release path, then the effluent monitor reading is no longer valid for classification purposes. ● The pre-calculated effluent monitor values presented in EAL #1 should be used for emergency classification assessments until the results from a dose assessment using actual meteorology are available. 		<p>Note 1: The Emergency Coordinator should declare the event promptly upon determining that time limit has been exceeded, or will likely be exceeded.</p> <p>Note 2: If an ongoing release is detected and the release start time is unknown, assume that the release duration has exceeded the specified time limit.</p> <p>Note 3: If the effluent flow past an effluent monitor is known to have stopped, indicating that the release path is isolated, the effluent monitor reading is no longer VALID for classification purposes.</p> <p>Note 5 The pre-calculated effluent monitor values presented in EALs RA1.1, RS1.1 and RG1.1 should be used for emergency classification assessments until the results from a dose</p>	<p>The classification timeliness note has been standardized across the CPNPP EAL scheme by referencing the "time limit" specified within the EAL wording.</p> <p>The classification timeliness note has been standardized across the CPNPP EAL scheme by referencing the "time limit" specified within the EAL wording.</p> <p>None</p> <p>Incorporated site-specific EAL numbers associated with generic EAL#1.</p>

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EAL Comparison Matrix

			assessment using actual meteorology are available.	
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NEI IC#	NEI IC Wording	CPNPP IC#(s)	CPNPP IC Wording	Difference/Deviation Justification
AG2	Spent fuel pool level cannot be restored to at least (site-specific Level 3 description) for 60 minutes or longer MODE: All	RG2	Spent fuel pool level cannot be restored to at least the top of the fuel racks for 60 minutes or longer MODE: All	Top of the fuel racks is the site-specific Level 3 description.

NEI Ex. EAL #	NEI Example EAL Wording	CPNPP EAL #	CPNPP EAL Wording	Difference/Deviation Justification
1	Spent fuel pool level cannot be restored to at least (site-specific Level 3 value) for 60 minutes or longer	RG2.1	Spent fuel pool level cannot be restored to at least El. 835.3' (Level 3) for greater than or equal to 60 min. (Note 1)	Post-Fukushima order EA-12-051 required the installation of reliable SFP level indication capable of identifying normal level (Level 1), SFP level 10 ft. above the top of the fuel racks (Level 2) and SFP level at the top of the fuel racks (Level 1). Comanche Peak designated as Level 3 the water level greater than 1 foot above the top of the fuel storage racks plus the accuracy of the SFP level instrument channel (El. 835' – 2.75" rounded to 835.3' indicated).
Note	The Emergency Director should declare the General Emergency promptly upon determining that 60 minutes has been exceeded, or will likely be exceeded.	N/A	Note 1: The Emergency Coordinator should declare the event promptly upon determining that time limit has been exceeded, or will likely be exceeded.	The classification timeliness note has been standardized across the CPNPP EAL scheme by referencing the "time limit" specified within the EAL wording.

Category C

Cold Shutdown / Refueling System Malfunction

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EAL Comparison Matrix

NEI IC#	NEI IC Wording	CPNPP IC#(s)	CPNPP IC Wording	Difference/Deviation Justification
CU1	UNPLANNED loss of (reactor vessel/RCS [PWR] or RCP [BWR]) inventory for 15 minutes or longer. MODE: Cold Shutdown, Refueling	CU1	UNPLANNED loss of RCS inventory for 15 minutes or longer MODE: 5 - Cold Shutdown, Refueling	None

NEI Ex. EAL #	NEI Example EAL Wording	CPNPP EAL #	CPNPP EAL Wording	Difference/Deviation Justification
1	UNPLANNED loss of reactor coolant results in (reactor vessel/RCS [PWR] or RCP [BWR]) level less than a required lower limit for 15 minutes or longer.	CU1.1	UNPLANNED loss of reactor coolant results in RCS water level less than a required lower limit for greater than or equal to 15 min. (Note 1)	None
2	a. (Reactor vessel/RCS [PWR] or RCP [BWR]) level cannot be monitored. AND b. UNPLANNED increase in (site-specific sump and/or tank) levels.	CU1.2	RCS water level cannot be monitored AND EITHER <ul style="list-style-type: none"> • UNPLANNED increase in any Table C-1 sump/tank level due to loss of RCS inventory • Visual observation of UNISOLABLE RCS leakage 	Table C-1 provides a tabularized list of site-specific applicable sumps and tanks. Added bulleted criteria "Visual observation of UNISOLABLE RCS leakage" to include direct observation of RCS leakage.
Note	The Emergency Director should declare the Unusual Event promptly upon determining that 15 minutes has been exceeded, or will likely be exceeded.	N/A	Note 1: The Emergency Coordinator should declare the event promptly upon determining that time limit has been exceeded, or will likely	The classification timeliness note has been standardized across the CPNPP EAL scheme by referencing the "time limit" specified within the EAL wording.

			be exceeded.	
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Table C-1 Sumps / Tanks
<ul style="list-style-type: none">• Containment Sump 1• Containment Sump 2• Reactor Cavity Sump• CCW Surge Tank A• CCW Surge Tank B• PRT• RCDT

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EAL Comparison Matrix

NEI IC#	NEI IC Wording	CPNPP IC#(s)	CPNPP IC Wording	Difference/Deviation Justification
CU2	Loss of all but one AC power source to emergency buses for 15 minutes or longer. MODE: Cold Shutdown, Refueling, Defueled	CU2	Loss of all but one AC power source to safeguard buses for 15 minutes or longer. MODE: 6 - Cold Shutdown, Refueling, Defueled	"Safeguard" is the site-specific term for emergency buses.

NEI Ex. EAL #	NEI Example EAL Wording	CPNPP EAL #	CPNPP EAL Wording	Difference/Deviation Justification
1	a. AC power capability to (site-specific emergency buses) is reduced to a single power source for 15 minutes or longer. AND b. Any additional single power source failure will result in loss of all AC power to SAFETY SYSTEMS.	CU2.1	AC power capability, Table C-3, to 6.9 KV safeguard buses <u>u</u> EA1 and <u>u</u> EA2 reduced to a single power source for greater than or equal to 15 min. (Note 1) <u>AND</u> Any additional single Table C-3 power source failure will result in loss of all AC power to SAFETY SYSTEMS	6.9KV safeguard buses <u>u</u> EA1 and <u>u</u> EA2 are the emergency buses. Site-specific AC power sources are tabularized in Table C-3.
Note	The Emergency Director should declare the Unusual Event promptly upon determining that 15 minutes has been exceeded, or will likely be exceeded.	N/A	Note 1: The Emergency Coordinator should declare the event promptly upon determining that time limit has been exceeded, or will likely be exceeded.	The classification timeliness note has been standardized across the CPNPP EAL scheme by referencing the "time limit" specified within the EAL wording.

Table C-3 AC Power Sources
Offsite: <ul style="list-style-type: none">• 138 KV switchyard circuit• 345 KV switchyard circuit
Onsite: <ul style="list-style-type: none">• <u>u</u>EG1• <u>u</u>EG2

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EAL Comparison Matrix

NEI IC#	NEI IC Wording	CPNPP IC#(s)	CPNPP IC Wording	Difference/Deviation Justification
CU3	UNPLANNED increase in RCS temperature MODE: Cold Shutdown, Refueling	CU3	UNPLANNED increase in RCS temperature MODE: Cold Shutdown, Refueling	None

NEI Ex. EAL #	NEI Example EAL Wording	CPNPP EAL #	CPNPP EAL Wording	Difference/Deviation Justification
1	UNPLANNED increase in RCS temperature to greater than (site-specific Technical Specification cold shutdown temperature limit)	CU3.1	UNPLANNED increase in RCS temperature to greater than 200°F due to loss of decay heat removal capability (Note 9)	200°F is the site-specific Tech. Spec. cold shutdown temperature limit. Added "due to loss of decay heat removal capability" to reinforce the generic bases that states "EAL #1 involves a loss of decay heat removal capability"
2	Loss of ALL RCS temperature and (reactor vessel/RCS [PWR] or RCP [BWR]) level indication for 15 minutes or longer.	CU3.2	Loss of all RCS temperature and RCS level indication for greater than or equal to 15 min. (Note 1)	None
Note	The Emergency Director should declare the Unusual Event promptly upon determining that 15 minutes has been exceeded, or will likely be exceeded	N/A	Note 1: The Emergency Coordinator should declare the event promptly upon determining that time limit has been exceeded, or will likely be exceeded.	The classification timeliness note has been standardized across the CPNPP EAL scheme by referencing the "time limit" specified within the EAL wording.
N/A	N/A	N/A	Note 9: Begin monitoring hot condition EALs concurrently.	Added note to remind end-user that the hot condition EALs become applicable once operating mode changes to hot conditions.

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EAL Comparison Matrix

NEI IC#	NEI IC Wording	CPNPP IC#(s)	CPNPP IC Wording	Difference/Deviation Justification
CU4	Loss of Vital DC power for 15 minutes or longer. MODE: Cold Shutdown, Refueling	CU4	Loss of vital DC power for 15 minutes or longer. MODE: 5 - Cold Shutdown, 6 - Refueling	None

NEI Ex. EAL #	NEI Example EAL Wording	CPNPP EAL #	CPNPP EAL Wording	Difference/Deviation Justification
1	Indicated voltage is less than (site-specific bus voltage value) on required Vital DC buses for 15 minutes or longer.	CU4.1	Less than 105 VDC bus voltage indications on Technical Specification required 125 VDC buses (<u>u</u> ED1, <u>u</u> ED2, <u>u</u> ED3, <u>u</u> ED4) for greater than or equal to 15 min. (Note 1)	105 VDC is the site-specific minimum vital DC bus voltage. DC operability requirements are specified in Technical Specifications.
Note	The Emergency Director should declare the Unusual Event promptly upon determining that 15 minutes has been exceeded, or will likely be exceeded.	N/A	Note 1: The Emergency Coordinator should declare the event promptly upon determining that time limit has been exceeded, or will likely be exceeded.	The classification timeliness note has been standardized across the CPNPP EAL scheme by referencing the "time limit" specified within the EAL wording.

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NEI IC#	NEI IC Wording	CPNPP IC#(s)	CPNPP IC Wording	Difference/Deviation Justification
CU5	Loss of all onsite or offsite communications capabilities. MODE: Cold Shutdown, Refueling, Defueled	CU5	Loss of all onsite or offsite communications capabilities. MODE: Cold Shutdown, Refueling, Defueled	None

NEI Ex. EAL #	NEI Example EAL Wording	CPNPP EAL #	CPNPP EAL Wording	Difference/Deviation Justification
1	Loss of ALL of the following onsite communication methods: (site specific list of communications methods)	CU5.1	Loss of all Table C-5 onsite communication methods OR Loss of all Table C-5 offsite communication methods OR Loss of all Table C-5 NRC communication methods	Example EALs #1, 2 and 3 have been combined into a single EAL for simplification of presentation. Table C-5 provides a site-specific list of onsite, offsite (ORO) and NRC communications methods.
2	Loss of ALL of the following ORO communications methods: (site specific list of communications methods)			
3	Loss of ALL of the following NRC communications methods: (site specific list of communications methods)			

Table C-5 Communication Methods			
System	Onsite	Offsite	NRC
Gai-tronics Page/Party (PA)	X		
Plant Radios	X		
PABX	X	X	X
Public Telephone	X	X	X
Federal Telephone System (FTS)		X	X

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EAL Comparison Matrix

NEI IC#	NEI IC Wording	CPNPP IC#(s)	CPNPP IC Wording	Difference/Deviation Justification
CA1	Loss of (reactor vessel/RCS [PWR] or RCP [BWR]) inventory MODE: Cold Shutdown, Refueling	CA1	Loss of RCS inventory MODE: Cold Shutdown, Refueling	None

NEI Ex. EAL #	NEI Example EAL Wording	CPNPP EAL #	CPNPP EAL Wording	Difference/Deviation Justification
1	Loss of (reactor vessel/RCS [PWR] or RCP [BWR]) inventory as indicated by level less than (site-specific level).	CA1.1	Loss of RCS inventory as indicated by RCS level less than 48 in. above upper core plate (top)	RCS level less than 48 in. above upper core plate (top) is the site-specific reactor vessel level corresponding to potential RHR pump cavitation in the shutdown cooling mode..
2	a. (Reactor vessel/RCS [PWR] or RCP [BWR]) level cannot be monitored for 15 minutes or longer AND b. UNPLANNED increase in (site-specific sump and/or tank) levels due to a loss of (reactor vessel/RCS [PWR] or RCP [BWR]) inventory.	CA1.2	RCS water level cannot be monitored for greater than or equal to 15 min. (Note 1) AND EITHER <ul style="list-style-type: none"> • UNPLANNED increase in any Table C-1 sump/tank level due to a loss of RCS inventory • Visual observation of UNISOLABLE RCS leakage 	Table C-1 provides a tabularized list of site-specific applicable sumps and tanks. Added bulleted criteria "Visual observation of UNISOLABLE RCS leakage" to include direct observation of RCS leakage.
Note	The Emergency Director should declare the Alert promptly upon determining that 15 minutes has been exceeded, or will likely be exceeded	N/A	Note 1: The Emergency Coordinator should declare the event promptly upon determining that time limit has been exceeded, or will likely be exceeded.	The classification timeliness note has been standardized across the CPNPP EAL scheme by referencing the "time limit" specified within the EAL wording.

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NEI IC#	NEI IC Wording	CPNPP IC#(s)	CPNPP IC Wording	Difference/Deviation Justification
CA2	Loss of all offsite and all onsite AC power to emergency buses for 15 minutes or longer MODE: Cold Shutdown, Refueling, Defueled	CA2	Loss of all offsite and all onsite AC power to safeguard buses for 15 minutes or longer. MODE: Cold Shutdown, Refueling, Defueled	"Safeguard" is the site-specific term for emergency buses.

NEI Ex. EAL #	NEI Example EAL Wording	CPNPP EAL #	CPNPP EAL Wording	Difference/Deviation Justification
1	Loss of ALL offsite and ALL onsite AC Power to (site-specific emergency buses) for 15 minutes or longer.	CA2.1	Loss of all offsite and all onsite AC power capability, Table C-3, to 6.9 KV safeguard buses <u>EA</u> 1 and <u>EA</u> 2 for greater than or equal to 15 min. (Note 1)	6.9KV safeguard buses <u>EA</u> 1 and <u>EA</u> 2 are the site-specific emergency buses. Site-specific AC power sources are tabularized in Table C-3.
Note	The Emergency Director should declare the Unusual Event promptly upon determining that 15 minutes has been exceeded, or will likely be exceeded.	N/A	Note 1: The Emergency Coordinator should declare the event promptly upon determining that time limit has been exceeded, or will likely be exceeded.	The classification timeliness note has been standardized across the CPNPP EAL scheme by referencing the "time limit" specified within the EAL wording.

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EAL Comparison Matrix

NEI IC#	NEI IC Wording	CPNPP IC#(s)	CPNPP IC Wording	Difference/Deviation Justification
CA3	Inability to maintain the plant in cold shutdown. MODE: Cold Shutdown, Refueling	CA3	Inability to maintain the plant in cold shutdown. MODE: Cold Shutdown, Refueling	None

NEI Ex. EAL #	NEI Example EAL Wording	CPNPP EAL #	CPNPP EAL Wording	Difference/Deviation Justification
1	UNPLANNED increase in RCS temperature to greater than (site-specific Technical Specification cold shutdown temperature limit) for greater than the duration specified in the following table.	CA3.1	UNPLANNED increase in RCS temperature to greater than 200°F for greater than Table C-4 duration (Note 1, 9) OR UNPLANNED RCS pressure increase greater than 10 psig due to a loss of RCS cooling (This EAL does not apply during water-solid plant conditions)	Example EALs #1 and #2 have been combined into a single EAL as EAL # is the alternative threshold based on a loss of RCS temperature indication. 200°F is the site-specific Tech. Spec. cold shutdown temperature limit. Table C-4 is the site-specific implementation of the generic RCS Heat-up Duration Threshold table. 10 psig is the site-specific pressure increase readable by Control Room indications.
2	UNPLANNED RCS pressure increase greater than (site-specific pressure reading). (This EAL does not apply during water-solid plant conditions. [PWR])			
Note	The Emergency Director should declare the Unusual Event promptly upon determining that 15 minutes has been exceeded, or will likely be exceeded.	N/A	Note 1: The Emergency Coordinator should declare the event promptly upon determining that time limit has been exceeded, or will likely be exceeded.	The classification timeliness note has been standardized across the CPNPP EAL scheme by referencing the "time limit" specified within the EAL wording.

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N/A	N/A	N/A	Note 9: Begin monitoring hot condition EALs concurrently.	Added note to remind end-user that the hot condition EALs become applicable once operating mode changes to hot conditions.
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Table: RCS Heat-up Duration Thresholds		
RCS Status	Containment Closure Status	Heat-up Duration
Intact (but not at reduced inventory [PWR])	Not applicable	60 minutes*
Not intact (or at reduced inventory [PWR])	Established	20 minutes*
	Not Established	0 minutes
* If an RCS heat removal system is in operation within this time frame and RCS temperature is being reduced, the EAL is not applicable.		

Table C-4: RCS Heat-up Duration Thresholds		
RCS Status	CONTAINMENT CLOSURE Status	Heat-up Duration
Intact (but not REDUCED INVENTORY)	N/A	60 min.*
Not intact OR REDUCED INVENTORY	Established	20 min.*
	Not established	0 min.
* If an RCS heat removal system is in operation within this time frame and RCS temperature is being reduced, the EAL is not applicable.		

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NEI IC#	NEI IC Wording	CPNPP IC#(s)	CPNPP IC Wording	Difference/Deviation Justification
CA6	Hazardous event affecting a SAFETY SYSTEM needed for the current operating mode. MODE: Cold Shutdown, Refueling	CA6	Hazardous event affecting a SAFETY SYSTEM needed for the current operating mode. MODE: Cold Shutdown, Refueling	None

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NEI Ex. EAL #	NEI Example EAL Wording	CPNPP EAL #	CPNPP EAL Wording	Difference/Deviation Justification
1	<p>a. The occurrence of ANY of the following hazardous events:</p> <ul style="list-style-type: none"> ● Seismic event (earthquake) ● Internal or external flooding event ● High winds or tornado strike ● FIRE ● EXPLOSION ● (site-specific hazards) ● Other events with similar hazard characteristics as determined by the Shift Manager <p>AND</p> <p>b. EITHER of the following:</p> <ol style="list-style-type: none"> 1. Event damage has caused indications of degraded performance in at least one train of a SAFETY SYSTEM needed for the current operating mode. <p>OR</p> <ol style="list-style-type: none"> 2. The event has caused VISIBLE DAMAGE to a SAFETY SYSTEM component or structure needed for the current operating mode. 	CA6.1	<p>The occurrence of any Table C-6 hazardous event</p> <p>AND EITHER:</p> <ul style="list-style-type: none"> ● Event damage has caused indications of degraded performance in at least one train of a SAFETY SYSTEM needed for the current operating mode ● The event has caused VISIBLE DAMAGE to a SAFETY SYSTEM component or structure needed for the current operating mode 	<p>The hazardous events have been tabularized in Table C-6.</p> <p>Replaced "Shift Manager" with "Emergency Coordinator" as the EC can be either the SM or augmented ERO EC.</p>

Table C-6	Hazardous Events
<ul style="list-style-type: none">● Seismic event (earthquake)● Internal or external FLOODING event● High winds or tornado strike● FIRE● EXPLOSION● Other events with similar hazard characteristics as determined by the Emergency Coordinator	

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NEI IC#	NEI IC Wording	CPNPP IC#(s)	CPNPP IC Wording	Difference/Deviation Justification
CS1	Loss of (reactor vessel/RCS [PWR] or RCP [BWR]) inventory affecting core decay heat removal capability. MODE: Cold Shutdown, Refueling	CS1	Loss of RCS inventory affecting core decay heat removal capability MODE: Cold Shutdown, Refueling	None

NEI Ex. EAL #	NEI Example EAL Wording	CPNPP EAL #	CPNPP EAL Wording	Difference/Deviation Justification
1	a. CONTAINMENT CLOSURE not established. AND b. (Reactor vessel/RCS [PWR] or RCP [BWR]) level less than (site-specific level).	CS1.1	With CONTAINMENT CLOSURE not established, RCS level less than 27.3 in. above upper core plate (top)	When RCS level less than 27.25 in. (rounded to 27.3 for instrument readability) above upper core plate (top), water level is six inches below the elevation of the bottom of the RCS hot leg penetration.
2	a. CONTAINMENT CLOSURE established. AND b. (Reactor vessel/RCS [PWR] or RCP [BWR]) level less than (site-specific level).	CS1.2	With CONTAINMENT CLOSURE established, RCS level less than or equal to 0 in. above upper core plate (top)	When Reactor Vessel water level drops to or below 0 in. above upper core plate (top) 823'-0" elevation, core uncover is about to occur.
3	a. (Reactor vessel/RCS [PWR] or RCP [BWR]) level cannot be monitored for 30 minutes or longer. AND b. Core uncover is indicated by ANY of the following:	CS1.3	RCS water level cannot be monitored for greater than or equal to 30 min. (Note 1) AND Core uncover is indicated by any of the following: • UNPLANNED increase in any Table C-1 sump/tank	Table C-1 provides a tabularized list of site-specific applicable sumps and tanks. Containment HRRM greater than 20,000 mR/hr would be indicative of possible core uncover in the Refueling mode.

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	<ul style="list-style-type: none"> • (Site-specific radiation monitor) reading greater than (site-specific value) • Erratic source range monitor indication [<i>PWR</i>] • UNPLANNED increase in (site-specific sump and/or tank) levels of sufficient magnitude to indicate core uncover • (Other site-specific indications) 		<p>level of sufficient magnitude to indicate core uncover</p> <ul style="list-style-type: none"> • Erratic Source Range Monitor indication • greater than 20,000 R/hr on any of the following: <ul style="list-style-type: none"> - CTEu16, Containment HRRM (<u>u</u>-RE-6290A) - CTWu17, Containment HRRM (<u>u</u>-RE-6290B) 	
Note	The Emergency Director should declare the Site Area Emergency promptly upon determining that 30 minutes has been exceeded, or will likely be exceeded	N/A	Note 1: The Emergency Coordinator should declare the event promptly upon determining that time limit has been exceeded, or will likely be exceeded.	The classification timeliness note has been standardized across the CPNPP EAL scheme by referencing the "time limit" specified within the EAL wording.

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NEI IC#	NEI IC Wording	CPNPP IC#(s)	CPNPP IC Wording	Difference/Deviation Justification
CG1	Loss of (reactor vessel/RCS [PWR] or RCP [BWR]) inventory affecting fuel clad integrity with containment challenged MODE: Cold Shutdown, Refueling	CG1	Loss of RCS inventory affecting fuel clad integrity with containment challenged MODE: Cold Shutdown, Refueling	None

NEI Ex. EAL #	NEI Example EAL Wording	CPNPP EAL #	CPNPP EAL Wording	Difference/Deviation Justification
1	a. (Reactor vessel/RCS [PWR] or RCP [BWR]) level less than (site-specific level) for 30 minutes or longer. AND b. ANY indication from the Containment Challenge Table (see below).	CG1.1	RCS level less than or equal to 0 in. above upper core plate (top) for greater than or equal to 30 min. (Note 1) AND Any Containment Challenge indication, Table C-2	When Reactor Vessel water level drops to or below 0 in. above upper core plate (top) 823'-0" elevation, core uncover is about to occur. Table C-2 provides a tabularized list of containment challenge indications.
2	a. (Reactor vessel/RCS [PWR] or RCP [BWR]) level cannot be monitored for 30 minutes or longer. AND b. Core uncover is indicated by ANY of the following: <ul style="list-style-type: none"> (Site-specific radiation monitor) reading greater than (site-specific value) Erratic source range monitor indication [PWR] UNPLANNED increase in 	CG1.2	RCS water level cannot be monitored for greater than or equal to 30 min. (Note 1) AND Core uncover is indicated by any of the following: <ul style="list-style-type: none"> UNPLANNED increase in any Table C-1 sump/tank level of sufficient magnitude to indicate core uncover Erratic Source Range Monitor indication Greater than 20,000 R/hr 	Table C-1 provides a tabularized list of site-specific applicable sumps and tanks. Containment HRRM greater than 20,000 mR/hr would be indicative of possible core uncover in the Refueling mode. Table C-2 provides a tabularized list of containment challenge indications. 4% hydrogen concentration in the presence of oxygen represents an explosive mixture in containment. Specified a 1 psig pressure rise as minimum observable containment pressure increase.

Attachment 2 to TXX-15101
EAL Comparison Matrix

	(site-specific sump and/or tank) levels of sufficient magnitude to indicate core uncover • (Other site-specific indications) AND c. ANY indication from the Containment Challenge Table (see below).		on any of the following: - CTEu16, Containment HRRM (<u>U</u> -RE-6290A) - CTWu17, Containment HRRM (<u>U</u> -RE-6290B) AND Any Containment Challenge indication, Table C-2	
Note	The Emergency Director should declare the General Emergency promptly upon determining that 30 minutes has been exceeded, or will likely be exceeded. N/A	N/A	Note 1: The Emergency Coordinator should declare the event promptly upon determining that time limit has been exceeded, or will likely be exceeded. Note 6: If CONTAINMENT CLOSURE is re-established prior to exceeding the 30-minute time limit, declaration of a General Emergency is not required.	The classification timeliness note has been standardized across the CPNPP EAL scheme by referencing the "time limit" specified within the EAL wording. Note 6 implements the asterisked note associated with the generic Containment Challenge table.

Containment Challenge Table
<ul style="list-style-type: none"> ■ CONTAINMENT CLOSURE not established* ■ (Explosive mixture) exists inside containment ■ UNPLANNED increase in containment pressure ■ Secondary containment radiation monitor reading above (site-specific value) [BWR]

* If CONTAINMENT CLOSURE is re-established prior to exceeding the 30-minute time limit, then declaration of a General Emergency is not required.

Table C-2 Containment Challenge Indications
<ul style="list-style-type: none">• CONTAINMENT CLOSURE not established (Note 6)• Containment hydrogen concentration greater than 4%• Unplanned rise greater than 1 psig in Containment pressure

Category D

Permanently Defueled Station Malfunction

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EAL Comparison Matrix

NEI IC#	NEI IC Wording	CPNPP IC#(s)	CPNPP IC Wording	Difference/Deviation Justification
PD-AU1 PD-AU2 PD-SU1 PD-HU1 PD-HU2 PD-HU3 PD-AA1 PD-AA2 PD-HA1 PD-HA3	Recognition Category D Permanently Defueled Station	N/A	N/A	NEI Recognition Category PD ICs and EALs are applicable only to permanently defueled stations. CPNPP is not a defueled station.

Category E

Independent Spent Fuel Storage Installation

Attachment 2 to TXX-15101
EAL Comparison Matrix

NEI IC#	NEI IC Wording	CPNPP IC#(s)	CPNPP IC Wording	Difference/Deviation Justification
E-HU1	Damage to a loaded cask CONFINEMENT BOUNDARY MODE: All	EU1	Damage to a loaded cask CONFINEMENT BOUNDARY MODE: All	None

NEI Ex. EAL #	NEI Example EAL Wording	CPNPP EAL #	CPNPP EAL Wording	Difference/Deviation Justification
1	Damage to a loaded cask CONFINEMENT BOUNDARY as indicated by an on-contact radiation reading greater than (2 times the site-specific cask specific technical specification allowable radiation level) on the surface of the spent fuel cask.	EU1.1	Damage to a loaded cask CONFINEMENT BOUNDARY as indicated by an on-contact radiation reading greater than EITHER: <ul style="list-style-type: none"> • 60 mrem/hr ($\bar{x} + \eta$) on the top of the overpack • 600 mrem/hr ($\bar{x} + \eta$) on the side of the overpack (excluding inlet and outlet ducts) 	The specified dose rate represents 2 times the cask technical specification allowable levels per the ISFSI Technical Specifications (CoC).

Category F

Fission Product Barrier Degradation

Attachment 2 to TXX-15101
EAL Comparison Matrix

NEI IC#	NEI IC Wording	CPNPP IC#(s)	CPNPP IC Wording	Difference/Deviation Justification
FA1	Any Loss or any Potential Loss of either the Fuel Clad or RCS barrier. MODE: Power Operation, Hot Standby, Startup, Hot Shutdown	FA1	Any loss or any potential loss of either Fuel Clad or RCS MODE: 1 - Power Operation, 2 - Startup, 3 - Hot Standby, 4 - Hot Shutdown	None

NEI Ex. EAL #	NEI Example EAL Wording	CPNPP EAL #	CPNPP EAL Wording	Difference/Deviation Justification
1	Any Loss or any Potential Loss of either the Fuel Clad or RCS barrier.	FA1.1	Any loss or any potential loss of either Fuel Clad or RCS (Table F-1)	Table F-1 provides the fission product barrier loss and potential loss thresholds.

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EAL Comparison Matrix

NEI IC#	NEI IC Wording	CPNPP IC#(s)	CPNPP IC Wording	Difference/Deviation Justification
FS1	Loss or Potential Loss of any two barriers MODE: Power Operation, Hot Standby, Startup, Hot Shutdown	FS1	Loss or potential loss of any two barriers MODE: 1 - Power Operation, 2 - Startup, 3 - Hot Standby, 4 - Hot Shutdown	None

NEI Ex. EAL #	NEI Example EAL Wording	CPNPP EAL #	CPNPP EAL Wording	Difference/Deviation Justification
1	Loss or Potential Loss of any two barriers	FS1.1	Loss or potential loss of any two barriers	Table F-1 provides the fission product barrier loss and potential loss thresholds.

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EAL Comparison Matrix

NEI IC#	NEI IC Wording	CPNPP IC#(s)	CPNPP IC Wording	Difference/Deviation Justification
FG1	Loss of any two barriers and Loss or Potential Loss of third barrier MODE: Power Operation, Hot Standby, Startup, Hot Shutdown	FG1	Loss of any two barriers and loss or potential loss of the third barrier MODE: 1 - Power Operation, 2 - Startup, 3 - Hot Standby, 4 - Hot Shutdown	None

NEI Ex. EAL #	NEI Example EAL Wording	CPNPP EAL #	CPNPP EAL Wording	Difference/Deviation Justification
1	Loss of any two barriers and Loss or Potential Loss of third barrier	FG1.1	Loss of any two barriers AND Loss or potential loss of the third barrier (Table F-1)	Table F-1 provides the fission product barrier loss and potential loss thresholds.

PWR Fuel Clad Fission Product Barrier Degradation Thresholds

NEI FPB#	NEI Threshold Wording	CPNPP FPB #(s)	CPNPP FPB Wording	Difference/Deviation Justification
FC Loss 1	RCS or SG Tube Leakage Not Applicable	N/A	N/A	N/A
FC Loss 2	Inadequate Heat Removal A. Core exit thermocouple readings greater than (site-specific temperature value).	FC Loss B.1	CSFST Core Cooling-RED Path conditions met	Consistent with the generic developers note options CSFST Core Cooling Red Path is used in lieu of CET temperatures.
FC Loss 3	RCS Activity/CMNT Rad A. Containment radiation monitor reading greater than (site-specific value) OR B. (Site-specific indications that reactor coolant activity is greater than 300 $\mu\text{Ci/gm}$ dose equivalent I-131)	FC Loss C.1	Containment radiation greater than 85 R/hr CTE ₁₆ Containment HRRM (<u>u</u> -RE-6290A), or CTW ₁₇ Containment HRRM (<u>u</u> -RE-6290B)	CTE ₁₆ Containment HRRM (<u>u</u> -RE-6290A) or CTW ₁₇ Containment HRRM (<u>u</u> -RE-6290B) are the site-specific containment high range radiation monitors. The specified monitors and values are containment radiation monitor readings corresponding to 2% clad failures.
		FC Loss C.2	Dose equivalent I-131 coolant activity greater than 300 $\mu\text{Ci/cc}$	Site-specific units for DEI is $\mu\text{Ci/cc}$.
FC Loss 4	CNMT Integrity or Bypass Not Applicable	N/A	N/A	N/A
FC Loss 5	Other Indications A. (site-specific as applicable)	FC Loss C.3	Gross Failed Fuel Monitor, FFL ₆₀ (<u>u</u> -RE-0406), radiation greater than 1.0E04 $\mu\text{Ci/ml}$	The Gross Failed Fuel Monitor threshold of 1.0E04 $\mu\text{Ci/ml}$ represents approximately 2% fuel clad failure.

Attachment 2 to TXX-15101
EAL Comparison Matrix

NEI FPB#	NEI Threshold Wording	CPNPP FPB #(s)	CPNPP FPB Wording	Difference/Deviation Justification
FC Loss 6	ED Judgment A. ANY condition in the opinion of the Emergency Director that indicates Loss of the Fuel Clad Barrier.	FC Loss E.1	Any condition in the opinion of the Emergency Coordinator that indicates loss of the fuel clad barrier	None
FC P-Loss 1	RCS or SG Tube Leakage A. RCS/reactor vessel level less than (site-specific level)	N/A	N/A	See FC P-Loss B.1. The RCS level threshold is implemented as CSFST Core Cooling Orange Path conditions met.
FC P-Loss 2	Inadequate Heat Removal A. Core exit thermocouple readings greater than (site-specific temperature value) OR B. Inadequate RCS heat removal capability via steam generators as indicated by (site-specific indications).	FC P-Loss B.1	CSFST Core Cooling-ORANGE Path conditions met	Consistent with the generic developers note options CSFST Core Cooling Orange Path is used in lieu of CET temperatures.
		FC P-Loss B.2	CSFST Heat Sink-RED Path conditions met AND Heat sink is required	Consistent with the generic developers note options CSFST Heat Sink Red Path is used. The phrase "and heat sink required" was added to preclude the need for classification for conditions in which RCS pressure is less than SG pressure or Heat Sink-RED path entry was created through operator action directed by an EOP.
FC P-Loss 3	RCS Activity/CMNT Rad Not Applicable	N/A	N/A	N/A
FC P-Loss 4	CNMT Integrity or Bypass Not Applicable	N/A	N/A	N/A
FC P-Loss 5	Other Indications A. (site-specific as applicable)	N/A	N/A	No other site-specific Fuel Clad Potential Loss indication has been identified for CPNPP.

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NEI FPB#	NEI Threshold Wording	CPNPP FPB #(s)	CPNPP FPB Wording	Difference/Deviation Justification
FC P-Loss 6	Emergency Director Judgment A. Any condition in the opinion of the Emergency Director that indicates Potential Loss of the Fuel Clad Barrier.	FC P-Loss E.1	Any condition in the opinion of the Emergency Coordinator that indicates potential loss of the fuel clad barrier	None

PWR RCS Fission Product Barrier Degradation Thresholds

NEI FPB#	NEI IC Wording	CPNPP FPB #(s)	CPNPP FPB Wording	Difference/Deviation Justification
RCS Loss 1	RCS or SG Tube Leakage A. An automatic or manual ECCS (SI) actuation is required by EITHER of the following: 1. UNISOLABLE RCS leakage OR 2. SG tube RUPTURE.	RCS Loss A.1	An automatic or manual ECCS (SI) actuation required by EITHER : <ul style="list-style-type: none"> UNISOLABLE RCS leakage SG tube RUPTURE 	None
RCS Loss 2	Inadequate Heat Removal Not Applicable	N/A	N/A	N/A
RCS Loss 3	RCS Activity/CMNT Rad A. Containment radiation monitor reading greater than (site-specific value).	RCS Loss C.1	Containment radiation greater than 5 R/hr CTE <u>16</u> Containment HRRM (<u>RE</u> -6290A), or CTW <u>17</u> Containment HRRM (<u>RE</u> -6290B)	CTE <u>16</u> Containment HRRM (<u>RE</u> -6290A) or CTW <u>17</u> Containment HRRM (<u>RE</u> -6290B) are the site-specific containment high range radiation monitors. The specified monitors and values are containment radiation monitor readings corresponding to TS limit coolant activity.
RCS Loss 4	CNMT Integrity or Bypass Not Applicable	N/A	N/A	N/A
RCS Loss 5	Other Indications A. (site-specific as applicable)	N/A	N/A	No other site-specific RCS Loss indication has been identified for CPNPP.

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EAL Comparison Matrix

NEI FPB#	NEI IC Wording	CPNPP FPB #(s)	CPNPP FPB Wording	Difference/Deviation Justification
RCS Loss 6	Emergency Director Judgment A. ANY condition in the opinion of the Emergency Director that indicates Loss of the RCS Barrier.	RCS Loss E.1	Any condition in the opinion of the Emergency Coordinator that indicates loss of the RCS barrier	None
RCS P-Loss 1	RCS or SG Tube Leakage A. Operation of a standby charging (makeup) pump is required by EITHER of the following: 1. UNISOLABLE RCS leakage OR 2. SG tube leakage. OR B. RCS cooldown rate greater than (site-specific pressurized thermal shock criteria/limits defined by site-specific indications).	RCS P-Loss A.1	Operation of a standby charging pump is required by EITHER : • UNISOLABLE RCS leakage • SG tube leakage	None
		RCS P-Loss A.2	CSFST Integrity-RED Path conditions met	Consistent with the generic developers note options CSFST Integrity Red Path is used.
RCS P-Loss 2	Inadequate Heat Removal A. Inadequate RCS heat removal capability via steam generators as indicated by (site-specific indications).	RCS P-Loss B.1	CSFST Heat Sink-RED Path conditions met AND Heat sink is required	Consistent with the generic developers note options CSFST Heat Sink Red Path is used. The phrase "and heat sink required" was added to preclude the need for classification for conditions in which RCS pressure is less than SG pressure or Heat Sink-RED path entry was created through operator action directed by an EOP.
RCS P-Loss 3	CS Activity/CMNT Rad Not Applicable	N/A	N/A	N/A

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NEI FPB#	NEI IC Wording	CPNPP FPB #(s)	CPNPP FPB Wording	Difference/Deviation Justification
RCS P-Loss 4	CNMT Integrity or Bypass Not Applicable	N/A	N/A	N/A
RCS P-Loss 5	Other Indications A. (site-specific as applicable)	N/A	N/A	No other site-specific RCS Potential Loss indication has been identified for CPNPP.
RCS P-Loss 6	Emergency Director Judgment A. ANY condition in the opinion of the Emergency Director that indicates Potential Loss of the RCS Barrier.	RCS P-Loss E.1	Any condition in the opinion of the Emergency Coordinator that indicates potential loss of the RCS barrier	None

PWR Containment Fission Product Barrier Degradation Thresholds

NEI FPB#	NEI IC Wording	CPNPP FPB #(s)	CPNPP FPB Wording	Difference/Deviation Justification
CNMT Loss 1	RCS or SG Tube Leakage A. A leaking or RUPTURED SG is FAULTED outside of containment.	CNMT Loss A.1	A leaking or RUPTURED SG is FAULTED outside of containment	None
CNMT Loss 2	Inadequate Heat Removal Not Applicable	N/A	N/A	N/A
CNMT Loss 3	RCS Activity/CMNT Rad Not applicable	N/A	N/A	N/A
CNMT Loss 4	CNMT Integrity or Bypass A. Containment isolation is required AND EITHER of the following: 1. Containment integrity has been lost based on Emergency Director judgment. OR 2. UNISOLABLE pathway from the containment to the environment exists. OR B. Indications of RCS leakage outside of containment.	CNMT Loss D.1	Containment isolation is required AND EITHER: • Containment integrity has been lost based on Emergency Coordinator judgment • UNISOLABLE pathway from Containment to the environment exists	None
		CNMT Loss D.2	Indications of RCS leakage outside of containment	None

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EAL Comparison Matrix

NEI FPB#	NEI IC Wording	CPNPP FPB #(s)	CPNPP FPB Wording	Difference/Deviation Justification
CNMT Loss 5	Other Indications A. (site-specific as applicable)	N/A	N/A	No other site-specific Containment Loss indication has been identified for CPNPP.
CNMT Loss 6	Emergency Director Judgment ANY condition in the opinion of the Emergency Director that indicates Loss of the Containment Barrier.	CNMT Loss E.1	Any condition in the opinion of the Emergency Coordinator that indicates loss of the containment barrier	None
CNMT P-Loss 1	RCS or SG Tube Leakage Not Applicable	N/A	N/A	N/A
CNMT P-Loss 2	Inadequate Heat Removal A. 1. (Site-specific criteria for entry into core cooling restoration procedure) AND 2. Restoration procedure not effective within 15 minutes.	CNMT P-Loss B.1	CSFST Core Cooling-RED Path conditions met AND Restoration procedures not effective within 15 min. (Note 1)	Consistent with the generic developers note options CSFST Core Cooling Red Path is used in lieu of CET temperatures and RCS levels. Added Note 1 consistent with other thresholds with a timing component.
CNMT P-Loss 3	RCS Activity/CMNT Rad A. Containment radiation monitor reading greater than (site-specific value).	CNMT P-Loss C.1	Containment radiation greater than 1,110 R/hr CTE <u>16</u> Containment HRRM (<u>RE</u> -6290A), or CTW <u>17</u> Containment HRRM (<u>RE</u> -6290B)	CTE <u>16</u> Containment HRRM (<u>RE</u> -6290A) or CTW <u>17</u> Containment HRRM (<u>RE</u> -6290B) are the site-specific containment high range radiation monitors. The specified monitors and values are containment radiation monitor readings corresponding to 20% clad damage.
CNMT P-Loss 4	CNMT Integrity or Bypass A. Containment pressure greater than (site-specific value)	CNMT P-Loss D.1	CSFST Containment-RED Path conditions met	Consistent with the generic developers note options CSFST Containment Red Path is used in lieu of containment pressure.

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NEI FPB#	NEI IC Wording	CPNPP FPB #(s)	CPNPP FPB Wording	Difference/Deviation Justification
	OR B. Explosive mixture exists inside containment OR C. 1. Containment pressure greater than (site-specific pressure setpoint) AND 2. Less than one full train of (site-specific system or equipment) is operating per design for 15 minutes or longer.	CNTMT P-Loss D.2	Containment hydrogen concentration greater than 4%	4% hydrogen concentration in the presence of oxygen represents an explosive mixture in containment.
		CNTMT P-Loss D.3	Containment pressure greater than 18 psig with neither Containment Spray system train operating per design for greater than or equal to 15 min. (Note 1)	The Containment pressure setpoint (18 psig) is the pressure at which the Containment Spray System should actuate and begin performing its function. Added Note 1 consistent with other thresholds with a timing component.
CNMT P-Loss 5	Other Indications A. (site-specific as applicable)	N/A	N/A	No other site-specific Containment Potential Loss indication has been identified for CPNPP.
CNMT P-Loss 6	Emergency Director Judgment A. ANY condition in the opinion of the Emergency Director that indicates Potential Loss of the Containment Barrier.	CNTMT P-Loss E.1	Any condition in the opinion of the Emergency Coordinator that indicates potential loss of the containment barrier	None

Category H

Hazards and Other Conditions Affecting Plant Safety

Attachment 2 to TXX-15101
EAL Comparison Matrix

NEI IC#	NEI IC Wording	CPNPP IC#(s)	CPNPP IC Wording	Difference/Deviation Justification
HU1	Confirmed SECURITY CONDITION or threat MODE: All	HU1	Confirmed SECURITY CONDITION or threat. MODE: All	None

NEI Ex. EAL #	NEI Example EAL Wording	CPNPP EAL #	CPNPP EAL Wording	Difference/Deviation Justification
1	A SECURITY CONDITION that does not involve a HOSTILE ACTION as reported by the (site-specific security shift supervision).	HU1.1	A SECURITY CONDITION that does not involve a HOSTILE ACTION as reported by the Security Shift Supervisor	The security shift supervision is defined as the Security Shift Supervisor
2	Notification of a credible security threat directed at the site.	HU1.2	Notification of a credible security threat directed at the site	None
3	A validated notification from the NRC providing information of an aircraft threat.	HU1.3	A validated notification from the NRC providing information of an aircraft threat	None

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NEI IC#	NEI IC Wording	CPNPP IC#(s)	CPNPP IC Wording	Difference/Deviation Justification
HU2	Seismic event greater than OBE level MODE: All	HU2	Seismic event greater than OBE level MODE: All	None

NEI Ex. EAL #	NEI Example EAL Wording	CPNPP EAL #	CPNPP EAL Wording	Difference/Deviation Justification
1	Seismic event greater than Operating Basis Earthquake (OBE) as indicated by: (site-specific indication that a seismic event met or exceeded OBE limits)	HU2.1	Seismic event greater than OBE as indicated by annunciator 2A-3.1, OBE EXCEEDED, or yellow OBE light on Seismic Monitoring system panel	The CPNPP OBE indicators are either annunciator 2A-3.1, OBE EXCEEDED, or yellow OBE light on Seismic Monitoring system panel

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EAL Comparison Matrix

NEI IC#	NEI IC Wording	CPNPP IC#(s)	CPNPP IC Wording	Difference/Deviation Justification
HU3	Hazardous event. MODE: All	HU3	Hazardous event MODE: All	None

NEI Ex. EAL #	NEI Example EAL Wording	CPNPP EAL #	CPNPP EAL Wording	Difference/Deviation Justification
1	A tornado strike within the PROTECTED AREA.	HU3.1	A tornado strike within the PROTECTED AREA	None
2	Internal room or area flooding of a magnitude sufficient to require manual or automatic electrical isolation of a SAFETY SYSTEM component needed for the current operating mode.	HU3.2	Internal room or area FLOODING of a magnitude sufficient to require manual or automatic electrical isolation of a SAFETY SYSTEM component needed for the current operating mode	None
3	Movement of personnel within the PROTECTED AREA is impeded due to an offsite event involving hazardous materials (e.g., an offsite chemical spill or toxic gas release).	HU3.3	Movement of personnel within the PROTECTED AREA is IMPEDED due to an offsite event involving hazardous materials (e.g., an <u>offsite</u> chemical spill or toxic gas release)	None
4	A hazardous event that results in on-site conditions sufficient to prohibit the plant staff from accessing the site via personal vehicles.	HU3.4	A hazardous event that results in on-site conditions sufficient to prohibit the plant staff from accessing the site via personal vehicles (Note 7)	Added reference to Note 7.
5	(Site-specific list of natural or technological hazard events)	N/A	N/A	No other site-specific hazard has been identified for CPNPP.
Note	EAL #3 does not apply to routine traffic impediments such as fog,	N/A	Note 7: This EAL does not apply to routine traffic	This note, designated Note #7, is intended to apply to generic example EAL #4, not #3 as specified in the generic guidance.

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EAL Comparison Matrix

	snow, ice, or vehicle breakdowns or accidents.		impediments such as fog, snow, ice, or vehicle breakdowns or accidents.	
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EAL Comparison Matrix

NEI IC#	NEI IC Wording	CPNPP IC#(s)	CPNPP IC Wording	Difference/Deviation Justification
HU4	FIRE potentially degrading the level of safety of the plant. MODE: All	HU4	FIRE potentially degrading the level of safety of the plant MODE: All	None

NEI Ex. EAL #	NEI Example EAL Wording	CPNPP EAL #	CPNPP EAL Wording	Difference/Deviation Justification
1	<p>a. A FIRE is NOT extinguished within 15-minutes of ANY of the following FIRE detection indications:</p> <ul style="list-style-type: none"> ● Report from the field (i.e., visual observation) ● Receipt of multiple (more than 1) fire alarms or indications ● Field verification of a single fire alarm <p>AND</p> <p>b. The FIRE is located within ANY of the following plant rooms or areas: (site-specific list of plant rooms or areas)</p>	HU4.1	<p>A FIRE is not extinguished within 15 min. of any of the following FIRE detection indications (Note 1):</p> <ul style="list-style-type: none"> ● Report from the field (i.e., visual observation) ● Receipt of multiple (more than 1) fire alarms or indications ● Field verification of a single fire alarm <p>AND</p> <p>The FIRE is located within any Table H-1 area</p>	Table H-1 provides a tabularized list of site-specific fire areas.
2	<p>a. Receipt of a single fire alarm (i.e., no other indications of a FIRE).</p> <p>AND</p> <p>b. The FIRE is located within</p>	HU4.2	<p>Receipt of a single fire alarm (i.e., no other indications of a FIRE)</p> <p>AND</p> <p>The fire alarm is indicating a</p>	Table H-1 provides a tabularized list of site-specific fire areas.

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	<p>ANY of the following plant rooms or areas:</p> <p>(site-specific list of plant rooms or areas)</p> <p>AND</p> <p>c. The existence of a FIRE is not verified within 30-minutes of alarm receipt.</p>		<p>FIRE within any Table H-1 area</p> <p>AND</p> <p>The existence of a FIRE is not verified within 30 min. of alarm receipt (Note 1)</p>	
3	<p>A FIRE within the plant or <i>ISFSI</i> [for plants with an <i>ISFSI</i> outside the plant Protected Area] PROTECTED AREA not extinguished within 60-minutes of the initial report, alarm or indication.</p>	HU4.3	<p>A FIRE within the ISFSI or plant PROTECTED AREA not extinguished within 60 min. of the initial report, alarm or indication (Note 1)</p>	CPNPP has an ISFSI located outside the plant Protected Area.
4	<p>A FIRE within the plant or <i>ISFSI</i> [for plants with an <i>ISFSI</i> outside the plant Protected Area] PROTECTED AREA that requires firefighting support by an offsite fire response agency to extinguish.</p>	HU4.4	<p>A FIRE within the ISFSI or plant PROTECTED AREA that requires firefighting support by an offsite fire response agency to extinguish</p>	CPNPP has an ISFSI located outside the plant Protected Area.
Note	<p>Note: The Emergency Director should declare the Unusual Event promptly upon determining that the applicable time has been exceeded, or will likely be exceeded.</p>	N/A	<p>Note 1: The Emergency Coordinator should declare the event promptly upon determining that time limit has been exceeded, or will likely be exceeded.</p>	The classification timeliness note has been standardized across the CPNPP EAL scheme by referencing the "time limit" specified within the EAL wording.

Table H-1 Fire Areas
<ul style="list-style-type: none">• <u>u</u>-Containment• <u>u</u>-Safeguards Building• X-Auxiliary Building• X-Electrical & Control Building• X-Fuel Building• X-Service Water Intake Structure• <u>u</u>-Diesel Generator Building• <u>u</u>-Normal Switchgear Rooms• <u>u</u>-CST• <u>u</u>-RWST

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NEI IC#	NEI IC Wording	CPNPP IC#(s)	CPNPP IC Wording	Difference/Deviation Justification
HU7	Other conditions exist which in the judgment of the Emergency Director warrant declaration of a (NO)UE MODE: All	HU7	Other conditions existing that in the judgment of the Emergency Coordinator warrant declaration of a UE MODE: All	None

NEI Ex. EAL #	NEI Example EAL Wording	CPNPP EAL #	CPNPP EAL Wording	Difference/Deviation Justification
1	Other conditions exist which in the judgment of the Emergency Director indicate that events are in progress or have occurred which indicate a potential degradation of the level of safety of the plant or indicate a security threat to facility protection has been initiated. No releases of radioactive material requiring offsite response or monitoring are expected unless further degradation of safety systems occurs.	HU7.1	Other conditions exist which in the judgment of the Emergency Coordinator indicate that events are in progress or have occurred which indicate a potential degradation of the level of safety of the plant or indicate a security threat to facility protection has been initiated. No releases of radioactive material requiring offsite response or monitoring are expected unless further degradation of SAFETY SYSTEMS occurs.	None

Attachment 2 to TXX-15101
EAL Comparison Matrix

NEI IC#	NEI IC Wording	CPNPP IC#(s)	CPNPP IC Wording	Difference/Deviation Justification
HA1	HOSTILE ACTION within the OWNER CONTROLLED AREA or airborne attack threat within 30 minutes. MODE: All	HA1	HOSTILE ACTION within the OWNER CONTROLLED AREA or airborne attack threat within 30 minutes MODE: All	None

NEI Ex. EAL #	NEI Example EAL Wording	CPNPP EAL #	CPNPP EAL Wording	Difference/Deviation Justification
1	A HOSTILE ACTION is occurring or has occurred within the OWNER CONTROLLED AREA as reported by the (site-specific security shift supervision).	HA1.1	A HOSTILE ACTION is occurring or has occurred within the OWNER CONTROLLED AREA as reported by the Security Shift Supervisor	The security shift supervision is defined as the Security Shift Supervisor
2	A validated notification from NRC of an aircraft attack threat within 30 minutes of the site.	HA1.2	A validated notification from NRC of an aircraft attack threat within 30 min. of the site	None

Attachment 2 to TXX-15101
EAL Comparison Matrix

NEI IC#	NEI IC Wording	CPNPP IC#(s)	CPNPP IC Wording	Difference/Deviation Justification
HA5	Gaseous release impeding access to equipment necessary for normal plant operations, cooldown or shutdown. MODE: All	HA5	Gaseous release IMPEDING access to equipment necessary for normal plant operations, cooldown or shutdown MODE: All	None

NEI Ex. EAL #	NEI Example EAL Wording	CPNPP EAL #	CPNPP EAL Wording	Difference/Deviation Justification
1	a. Release of a toxic, corrosive, asphyxiant or flammable gas into any of the following plant rooms or areas: (site-specific list of plant rooms or areas with entry-related mode applicability identified) AND b.Entry into the room or area is prohibited or impeded.	HA5.1	Release of a toxic, corrosive, asphyxiant or flammable gas into any Table H-2 rooms or areas AND Entry into the room or area is prohibited or IMPEDED (Note 5)	The list of plant rooms or areas with entry-related mode applicability identified specify those rooms or areas that contain equipment which require a manual/local action as specified in operating procedures used for normal plant operation, cooldown and shutdown. The control room has adequate protection from hazardous gases.
Note	Note: If the equipment in the listed room or area was already inoperable or out-of-service before the event occurred, then no emergency classification is warranted.	N/A	Note 5:If the equipment in the listed room or area was already inoperable or out-of-service before the event occurred, then no emergency classification is warranted.	None

Table H-2 Safe Operation & Shutdown Rooms/Areas	
Room/Area	Mode Applicability
Charging Pump Rooms	1, 2, 3, 4, 5, 6
CVCS Valve Rooms	1, 2, 3, 4, 5, 6
1E Switchgear Rooms	All
RHR Pump Rooms	4, 5, 6

Attachment 2 to TXX-15101
EAL Comparison Matrix

NEI IC#	NEI IC Wording	CPNPP IC#(s)	CPNPP IC Wording	Difference/Deviation Justification
HA6	Control Room evacuation resulting in transfer of plant control to alternate locations. MODE: All	HA6	Control Room evacuation resulting in transfer of plant control to alternate locations MODE: All	None

NEI Ex. EAL #	NEI Example EAL Wording	CPNPP EAL #	CPNPP EAL Wording	Difference/Deviation Justification
1	An event has resulted in plant control being transferred from the Control Room to (site-specific remote shutdown panels and local control stations).	HA6.1	An event has resulted in plant control being transferred from the Control Room to the Remote Shutdown Panel (RSP)	Remote Shutdown Panel (RSP) is the site-specific remote shutdown panels/local control stations.

Attachment 2 to TXX-15101
EAL Comparison Matrix

NEI IC#	NEI IC Wording	CPNPP IC#(s)	CPNPP IC Wording	Difference/Deviation Justification
HA7	Other conditions exist which in the judgment of the Emergency Director warrant declaration of an Alert. MODE: All	HA7	Other conditions exist that in the judgment of the Emergency Coordinator warrant declaration of an Alert MODE: All	None

NEI Ex. EAL #	NEI Example EAL Wording	CPNPP EAL #	CPNPP EAL Wording	Difference/Deviation Justification
1	Other conditions exist which, in the judgment of the Emergency Director, indicate that events are in progress or have occurred which involve 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.	HA7.1	Other conditions exist which, in the judgment of the Emergency Coordinator, indicate that events are in progress or have occurred which involve 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.	None

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EAL Comparison Matrix

NEI IC#	NEI IC Wording	CPNPP IC#(s)	CPNPP IC Wording	Difference/Deviation Justification
HS1	HOSTILE ACTION within the PROTECTED AREA MODE: All	HS1	HOSTILE ACTION within the PROTECTED AREA MODE: All	None

NEI Ex. EAL #	NEI Example EAL Wording	CPNPP EAL #	CPNPP EAL Wording	Difference/Deviation Justification
1	A HOSTILE ACTION is occurring or has occurred within the PROTECTED AREA as reported by the (site-specific security shift supervision).	HS1.1	A HOSTILE ACTION is occurring or has occurred within the PROTECTED AREA as reported by the Security Shift Supervisor	The security shift supervision is defined as the Security Shift Supervisor

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EAL Comparison Matrix

NEI IC#	NEI IC Wording	CPNPP IC#(s)	CPNPP IC Wording	Difference/Deviation Justification
HS6	Inability to control a key safety function from outside the Control Room. MODE: All	HS6	Inability to control a key safety function from outside the Control Room MODE: All	None

NEI Ex. EAL #	NEI Example EAL Wording	CPNPP EAL #	CPNPP EAL Wording	Difference/Deviation Justification
1	<p>a. An event has resulted in plant control being transferred from the Control Room to (site-specific remote shutdown panels and local control stations).</p> <p>AND</p> <p>b. Control of ANY of the following key safety functions is not reestablished within (site-specific number of minutes).</p> <ul style="list-style-type: none"> ● Reactivity control ● Core cooling [<i>PWR</i>] / RCP water level [<i>BWR</i>] ● RCS heat removal 	HS6.1	<p>An event has resulted in plant control being transferred from the Control Room to the Auxiliary Shutdown Panel (RSP)</p> <p>AND</p> <p>Control of any of the following key safety functions is not reestablished within 15 min. (Note 1):</p> <ul style="list-style-type: none"> ● Reactivity ● Core cooling ● RCS heat removal 	Remote Shutdown Panel (RSP) is the site-specific remote shutdown panels/local control stations.

Attachment 2 to TXX-15101
EAL Comparison Matrix

NEI IC#	NEI IC Wording	CPNPP IC#(s)	CPNPP IC Wording	Difference/Deviation Justification
HS7	Other conditions exist which in the judgment of the Emergency Director warrant declaration of a Site Area Emergency. MODE: All	HS7	Other conditions existing that in the judgment of the Emergency Coordinator warrant declaration of a Site Area Emergency MODE: All	None

NEI Ex. EAL #	NEI Example EAL Wording	CPNPP EAL #	CPNPP EAL Wording	Difference/Deviation Justification
1	Other conditions exist which in the judgment of the Emergency Director indicate that events are in progress or have occurred which involve 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 Guideline exposure levels beyond the site boundary.	HS7.1	Other conditions exist which in the judgment of the Emergency Coordinator indicate that events are in progress or have occurred which involve 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 Guideline exposure levels beyond the EXCLUSION AREA BOUNDARY.	Replaced "site boundary" with "EXCLUSION AREA BOUNDARY". EXCLUSION AREA BOUNDARY is a synonymous term for site boundary. CPNPP FSAR Section 2.1.1.3 and Figure 2.1-2 define the Exclusion Area Boundary. This boundary is used for establishing effluent release limits with respect to the requirements of 10CFR20. See also CPNPP Emergency Plan Appendix E, Complex and Owner Controlled Area and CCNPP ODCM Section 5.0 Design Features.

Attachment 2 to TXX-15101
EAL Comparison Matrix

NEI IC#	NEI IC Wording	CPNPP IC#(s)	CPNPP IC Wording	Difference/Deviation Justification
HG1	HOSTILE ACTION resulting in loss of physical control of the facility. MODE: All	HG1	HOSTILE ACTION resulting in loss of physical control of the facility MODE: All	None

NEI Ex. EAL #	NEI Example EAL Wording	CPNPP EAL #	CPNPP EAL Wording	Difference/Deviation Justification
1	<p>a. A HOSTILE ACTION is occurring or has occurred within the PROTECTED AREA as reported by the (site-specific security shift supervision).</p> <p>AND</p> <p>b. EITHER of the following has occurred:</p> <ol style="list-style-type: none"> ANY of the following safety functions cannot be controlled or maintained. <ul style="list-style-type: none"> ● Reactivity control ● Core cooling [PWR]/RCP water level [BWR] ● RCS heat removal <p>OR</p> <ol style="list-style-type: none"> Damage to spent fuel has occurred or is IMMINENT. 	HG1.1	<p>A HOSTILE ACTION is occurring or has occurred within the PROTECTED AREA as reported by the Security Shift Supervisor</p> <p>AND EITHER of the following has occurred:</p> <p>One or more of the following safety functions cannot be controlled or maintained</p> <ul style="list-style-type: none"> ● Reactivity control ● Core cooling ● RCS heat removal <p>OR</p> <p>Damage to spent fuel has occurred or is IMMINENT</p>	The security shift supervision is defined as the Security Shift Supervisor

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EAL Comparison Matrix

NEI IC#	NEI IC Wording	CPNPP IC#(s)	CPNPP IC Wording	Difference/Deviation Justification
HG7	Other conditions exist which in the judgment of the Emergency Director warrant declaration of a General Emergency MODE: All	HG7	Other conditions exist which in the judgment of the Emergency Coordinator warrant declaration of a General Emergency MODE: All	None

NEI Ex. EAL #	NEI Example EAL Wording	CPNPP EAL #	CPNPP EAL Wording	Difference/Deviation Justification
1	Other conditions exist which in the judgment of the Emergency Director indicate that events are in progress or have occurred which involve 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 offsite for more than the immediate site area.	HG7.1	Other conditions exist which in the judgment of the Emergency Coordinator indicate that events are in progress or have occurred which involve 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 offsite for more than the immediate site area.	None

Category S

System Malfunction

Attachment 2 to TXX-15101
EAL Comparison Matrix

NEI IC#	NEI IC Wording	CPNPP IC#(s)	CPNPP IC Wording	Difference/Deviation Justification
SU1	Loss of all offsite AC power capability to emergency buses for 15 minutes or longer. MODE: Power Operation, Startup, Hot Standby, Hot Shutdown	SU1	Loss of all offsite AC power capability to safeguard buses for 15 minutes or longer MODE: 1 - Power Operation, 2 - Startup, 3 - Hot Standby, 4 - Hot Shutdown	"Safeguard" is the site-specific term for emergency buses.

NEI Ex. EAL #	NEI Example EAL Wording	CPNPP EAL #	CPNPP EAL Wording	Difference/Deviation Justification
1	Loss of ALL offsite AC power capability to (site-specific emergency buses) for 15 minutes or longer.	SU1.1	Loss of all offsite AC power capability, Table S-1, to 6.9 KV safeguard buses <u>EA</u> 1 and <u>EA</u> 2 for greater than or equal to 15 min. (Note 1)	6.9KV safeguard buses <u>EA</u> 1 and <u>EA</u> 2 are the site-specific emergency buses. Site-specific AC power sources are tabularized in Table S-1.
Note	The Emergency Director should declare the Unusual Event promptly upon determining that 15 minutes has been exceeded, or will likely be exceeded.	N/A	Note 1: The Emergency Coordinator should declare the event promptly upon determining that time limit has been exceeded, or will likely be exceeded.	The classification timeliness note has been standardized across the CPNPP EAL scheme by referencing the "time limit" specified within the EAL wording.

Table S-1 AC Power Sources
Offsite: <ul style="list-style-type: none"> • 138 KV switchyard circuit • 345 KV switchyard circuit Onsite: <ul style="list-style-type: none"> • <u>EG</u>1 • <u>EG</u>2

Attachment 2 to TXX-15101
EAL Comparison Matrix

NEI IC#	NEI IC Wording	CPNPP IC#(s)	CPNPP IC Wording	Difference/Deviation Justification
SU2	UNPLANNED loss of Control Room indications for 15 minutes or longer. MODE: Power Operation, Startup, Hot Standby, Hot Shutdown	SU3	UNPLANNED loss of Control Room indications for 15 minutes or longer. MODE: 1 - Power Operation, 2 - Startup, 3 - Hot Standby, 4 - Hot Shutdown	None

NEI Ex. EAL #	NEI Example EAL Wording	CPNPP EAL #	CPNPP EAL Wording	Difference/Deviation Justification
1	An UNPLANNED event results in the inability to monitor one or more of the following parameters from within the Control Room for 15 minutes or longer.	SU3.1	An UNPLANNED event results in the inability to monitor one or more Table S-2 parameters from within the Control Room for greater than or equal to 15 min. (Note 1)	The site-specific Safety System Parameter list is tabulated in Table S-2. Added the words "to at least one S/G" to Auxiliary or emergency feedwater flow. This is consistent with Level in at least one S/G.
Note	The Emergency Director should declare the Unusual Event promptly upon determining that 15 minutes has been exceeded, or will likely be exceeded.	N/A	Note 1: The Emergency Coordinator should declare the event promptly upon determining that time limit has been exceeded, or will likely be exceeded.	The classification timeliness note has been standardized across the CPNPP EAL scheme by referencing the "time limit" specified within the EAL wording.

[BWR parameter list]	[PWR parameter list]
Reactor Power	Reactor Power
RCP Water Level	RCS Level
RCP Pressure	RCS Pressure
Primary Containment Pressure	In-Core/Core Exit Temperature
Suppression Pool Level	Levels in at least (site-specific number) steam generators
Suppression Pool Temperature	Steam Generator Auxiliary or Emergency Feed Water Flow

Table S-2 Safety System Parameters
<ul style="list-style-type: none">• Reactor power• RCS level• RCS pressure• Core Exit T/C temperature• Level in at least one SG• Auxiliary or emergency feed flow in at least one SG

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EAL Comparison Matrix

NEI IC#	NEI IC Wording	CPNPP IC#(s)	CPNPP IC Wording	Difference/Deviation Justification
SU3	Reactor coolant activity greater than Technical Specification allowable limits. MODE: Power Operation, Startup, Hot Standby, Hot Shutdown	SU4	Reactor coolant activity greater than Technical Specification allowable limits MODE: 1 - Power Operation, 2 - Startup, 3 - Hot Standby, 4 - Hot Shutdown	None

NEI Ex. EAL #	NEI Example EAL Wording	CPNPP EAL #	CPNPP EAL Wording	Difference/Deviation Justification
1	(Site-specific radiation monitor) reading greater than (site-specific value).	SU4.2	Gross Failed Fuel Monitor, FFL _u 60 (<u>u</u> -RE-0406), High Alarm (RED)	The High Alarm (RED) setpoint is based on the Technical Specifications maximum allowable concentration of radioactivity in the reactor coolant, 87 μ Ci/gm.
2	Sample analysis indicates that a reactor coolant activity value is greater than an allowable limit specified in Technical Specifications.	SU4.1	Reactor coolant Dose Equivalent I-131 specific activity greater than 60 μ Ci/gm OR Reactor coolant Dose Equivalent XE-133 specific activity greater than 500 μ Ci/gm	CPNPP T.S. Section 3.4.16 provides the TS allowable coolant activity limits.

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EAL Comparison Matrix

NEI IC#	NEI IC Wording	CPNPP IC#(s)	CPNPP IC Wording	Difference/Deviation Justification
SU4	RCS leakage for 15 minutes or longer. MODE: Power Operation, Startup, Hot Standby, Hot Shutdown	SU5	RCS leakage for 15 minutes or longer MODE: 1 - Power Operation, 2 - Startup, 3 - Hot Standby, 4 - Hot Shutdown	None

NEI Ex. EAL #	NEI Example EAL Wording	CPNPP EAL #	CPNPP EAL Wording	Difference/Deviation Justification
1	RCS unidentified or pressure boundary leakage greater than (site-specific value) for 15 minutes or longer.	SU5.1	RCS unidentified or pressure boundary leakage greater than 10 gpm for greater than or equal to 15 min. OR RCS identified leakage greater than 25 gpm for greater than or equal to 15 min. OR UNISOLABLE leakage from the RCS to a location outside containment greater than 25 gpm for greater than or equal to 15 min. (Note 1)	Example EALs #1, 2 and 3 have been combined into a single EAL for usability. Added the defined term "UNISOLABLE" to the third condition to emphasize the generic bases "In this case, RCS leakage has been detected and operators, following applicable procedures, have been unable to promptly isolate the leak."
2	RCS identified leakage greater than (site-specific value) for 15 minutes or longer.			
3	Leakage from the RCS to a location outside containment greater than 25 gpm for 15 minutes or longer.			
Note	The Emergency Director should declare the Unusual Event promptly upon determining that 15 minutes has been exceeded, or will likely be exceeded.	N/A	Note 1: The Emergency Coordinator should declare the event promptly upon determining that time limit has been exceeded, or will likely	The classification timeliness note has been standardized across the CPNPP EAL scheme by referencing the "time limit" specified within the EAL wording.

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EAL Comparison Matrix

			be exceeded.	
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EAL Comparison Matrix

NEI IC#	NEI IC Wording	CPNPP IC#(s)	CPNPP IC Wording	Difference/Deviation Justification
SU5	Automatic or manual (trip [PWR] / scram [BWR]) fails to shutdown the reactor. MODE: Power Operation	SU6	Automatic or manual trip fails to shut down the reactor MODE: 1 - Power Operation	None

NEI Ex. EAL #	NEI Example EAL Wording	CPNPP EAL #	CPNPP EAL Wording	Difference/Deviation Justification
1	a. An automatic (trip [PWR] / scram [BWR]) did not shutdown the reactor. AND b. A subsequent manual action taken at the reactor control consoles is successful in shutting down the reactor.	SU6.1	An automatic trip did not shut down the reactor as indicated by reactor power greater than 5% after any RPS setpoint is exceeded AND A subsequent automatic trip or manual trip action taken at the reactor control consoles (MCB reactor trip switches or deenergizing <u>u</u> B3 and <u>u</u> B4) is successful in shutting down the reactor as indicated by reactor power less than or equal to 5% (Note 8)	As specified in the generic developers guidance "Developers may include site-specific EOP criteria indicative of a successful reactor shutdown in an EAL statement, the Basis or both (e.g., a reactor power level)." Reactor power less than or equal to 5% is the site-specific indication of a successful reactor trip. Added the words "... as indicated by reactor power greater than 5% after any RPS setpoint is exceeded" to clarify that it is a failure of the automatic trip when a valid trip signal has been exceed. MCB reactor trip switches or deenergizing <u>u</u> B3 and <u>u</u> B4 are the site-specific reactor control console trip switches credited for a successful manual trip.
2	a. A manual trip ([PWR] / scram [BWR]) did not shutdown the reactor. AND b. EITHER of the following: 1. A subsequent manual action taken at the reactor control consoles is	SU6.2	A manual trip did not shut down the reactor as indicated by reactor power greater than 5% after any manual trip action was initiated AND A subsequent automatic trip or manual trip action taken at the	As specified in the generic developers guidance "Developers may include site-specific EOP criteria indicative of a successful reactor shutdown in an EAL statement, the Basis or both (e.g., a reactor power level)." Reactor power less than or equal to 5% is the site-specific indication of a successful reactor trip. Added the words "... as indicated by reactor power greater than 5% after any manual trip action was initiated" to clarify that it is a failure of any manual trip when an actual manual trip signal has been

Attachment 2 to TXX-15101
EAL Comparison Matrix

	<p>successful in shutting down the reactor.</p> <p>OR</p> <p>2 A subsequent automatic (trip [PWR] / scram [BWR]) is successful in shutting down the reactor.</p>		<p>reactor control console (MCB reactor trip switches or deenergizing <u>u</u>B3 and <u>u</u>B4) is successful in shutting down the reactor as indicated by reactor power less than or equal to 5% (Note 8)</p>	<p>inserted.</p> <p>Combined conditions b.1 and b.2 into a single statement to simplify the presentation.</p> <p>MCB reactor trip switches or deenergizing <u>u</u>B3 and <u>u</u>B4 are the site-specific reactor control console trip switches credited for a successful manual trip.</p>
Notes	<p>Note: A manual action is any operator action, or set of actions, which causes the control rods to be rapidly inserted into the core, and does not include manually driving in control rods or implementation of boron injection strategies.</p>	N/A	<p>Note 8: A manual action is any operator action, or set of actions, which causes the control rods to be rapidly inserted into the core, and does not include manually driving in control rods or implementation of boron injection strategies.</p>	None

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EAL Comparison Matrix

NEI IC#	NEI IC Wording	CPNPP IC#(s)	CPNPP IC Wording	Difference/Deviation Justification
SU6	Loss of all onsite or offsite communications capabilities. MODE: Power Operation, Startup, Hot Standby, Hot Shutdown	SU7	Loss of all onsite or offsite communications capabilities. MODE: 1 - Power Operation, 2 - Startup, 3 - Hot Standby, 4 - Hot Shutdown	None

NEI Ex. EAL #	NEI Example EAL Wording	CPNPP EAL #	CPNPP EAL Wording	Difference/Deviation Justification
1	Loss of ALL of the following onsite communication methods: (site-specific list of communications methods)	SU7.1	Loss of all Table S-4 onsite communication methods OR Loss of all Table S-4 offsite communication methods OR Loss of all Table S-4 NRC communication methods	Example EALs #1, 2 and 3 have been combined into a single EAL for simplification of presentation. Table S-4 provides a site-specific list of onsite, offsite (ORO) and NRC communications methods.
2	Loss of ALL of the following ORO communications methods: (site-specific list of communications methods)			
3	Loss of ALL of the following NRC communications methods: (site-specific list of communications methods)			

Table S-4 Communication Methods			
System	Onsite	Offsite	NRC
Gai-tronics Page/Party (PA)	X		
Plant Radios	X		
PABX	X	X	X
Public Telephone	X	X	X
Federal Telephone System (FTS)		X	X

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EAL Comparison Matrix

NEI IC#	NEI IC Wording	CPNPP IC#(s)	CPNPP IC Wording	Difference/Deviation Justification
SU7	Failure to isolate containment or loss of containment pressure control. [PWR] MODE: Power Operation, Startup, Hot Standby, Hot Shutdown	SU8	Failure to isolate containment or loss of containment pressure control MODE: 1 - Power Operation, 2 - Startup, 3 - Hot Standby, 4 - Hot Shutdown	None

NEI Ex. EAL #	NEI Example EAL Wording	CPNPP EAL #	CPNPP EAL Wording	Difference/Deviation Justification
1	a. Failure of containment to isolate when required by an actuation signal. AND b. ALL required penetrations are not closed within 15 minutes of the actuation signal.	SU8.1	Any penetration is not isolated within 15 min. of a VALID containment isolation signal OR Containment pressure greater than 18 psig with neither Containment Spray system operating per design for greater than or equal to 15 min. (Note 1)	Reworded EAL to better describe the intent. Penetrations cannot close, but they can be isolated by closure of one or more isolation valves associated with that penetration. The revised wording maintains the generic example EAL intent while more clearly describing failure to isolate threshold. The containment pressure setpoint (18 psig) is the pressure at which the containment depressurization equipment should actuate and begin performing its function. One train of containment depressurization equipment is defined as a Containment Spray system.
2	a. Containment pressure greater than (site-specific pressure). AND b. Less than one full train of (site-specific system or equipment) is operating per design for 15 minutes or longer.			
N/A	N/A	N/A	Note 1: The Emergency Coordinator should declare the event	Added Note 1 to be consistent in its use for EAL thresholds with a timing component.

Attachment 2 to TXX-15101
EAL Comparison Matrix

			promptly upon determining that time limit has been exceeded, or will likely be exceeded.	
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EAL Comparison Matrix

NEI IC#	NEI IC Wording	CPNPP IC#(s)	CPNPP IC Wording	Difference/Deviation Justification
SA1	Loss of all but one AC power source to emergency buses for 15 minutes or longer. MODE: Power Operation, Startup, Hot Standby, Hot Shutdown	SA1	Loss of all but one AC power source to safeguard buses for 15 minutes or longer. MODE: 1 - Power Operation, 2 - Startup, 3 - Hot Standby, 4 - Hot Shutdown	"Safeguard" is the site-specific term for emergency buses.

NEI Ex. EAL #	NEI Example EAL Wording	CPNPP EAL #	CPNPP EAL Wording	Difference/Deviation Justification
1	a. AC power capability to (site-specific emergency buses) is reduced to a single power source for 15 minutes or longer. AND b. Any additional single power source failure will result in a loss of all AC power to SAFETY SYSTEMS.	SA1.1	AC power capability, Table S-1, to 6.9 KV safeguard buses <u>EA</u> 1 and <u>EA</u> 2 reduced to a single power source for greater than or equal to 15 min. (Note 1) AND Any additional single power source failure will result in loss of all AC power to SAFETY SYSTEMS	6.9KV safeguard buses <u>EA</u> 1 and <u>EA</u> 2 are the site-specific emergency buses. Site-specific AC power sources are tabularized in Table S-1.
Note	The Emergency Director should declare the Alert promptly upon determining that 15 minutes has been exceeded, or will likely be exceeded.	N/A	Note 1: The Emergency Coordinator should declare the event promptly upon determining that time limit has been exceeded, or will likely be exceeded.	The classification timeliness note has been standardized across the CPNPP EAL scheme by referencing the "time limit" specified within the EAL wording.

Table S-1 AC Power Sources
Offsite: <ul style="list-style-type: none">• 138 KV switchyard circuit• 345 KV switchyard circuit
Onsite: <ul style="list-style-type: none">• <u>u</u>EG1• <u>u</u>EG2

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NEI IC#	NEI IC Wording	CPNPP IC#(s)	CPNPP IC Wording	Difference/Deviation Justification
SA2	<p>UNPLANNED loss of Control Room indications for 15 minutes or longer with a significant transient in progress.</p> <p>MODE: Power Operation, Startup, Hot Standby, Hot Shutdown</p>	SA3	<p>UNPLANNED loss of Control Room indications for 15 minutes or longer with a significant transient in progress.</p> <p>MODE: 1 - Power Operation, 2 - Startup, 3 - Hot Standby, 4 - Hot Shutdown</p>	None

NEI Ex. EAL #	NEI Example EAL Wording	CPNPP EAL #	CPNPP EAL Wording	Difference/Deviation Justification
1	<p>An UNPLANNED event results in the inability to monitor one or more of the following parameters from within the Control Room for 15 minutes or longer.</p> <p>AND</p> <p>ANY of the following transient events in progress.</p> <ul style="list-style-type: none"> Automatic or manual runback greater than 25% thermal reactor power Electrical load rejection greater than 25% full electrical load Reactor scram [BWR] / trip [PWR] ECCS (SI) actuation Thermal power oscillations greater than 10% [BWR] 	SA3.1	<p>An UNPLANNED event results in the inability to monitor one or more Table S-2 parameters from within the Control Room for greater than or equal to 15 min. (Note 1)</p> <p>AND</p> <p>Any significant transient is in progress, Table S-3</p>	<p>The site-specific Safety System Parameter list is tabulated in Table S-2.</p> <p>The site-specific significant transients list to tabulated in Table S-3.</p> <p>CPNPP is a PWR and thus does not include thermal power oscillations greater than 10%.</p>

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Note	The Emergency Director should declare the Unusual Event promptly upon determining that 15 minutes has been exceeded, or will likely be exceeded.	N/A	Note 1: The Emergency Coordinator should declare the event promptly upon determining that time limit has been exceeded, or will likely be exceeded.	The classification timeliness note has been standardized across the CPNPP EAL scheme by referencing the "time limit" specified within the EAL wording.
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<i>[BWR parameter list]</i>	<i>[PWR parameter list]</i>
Reactor Power	Reactor Power
RCP Water Level	RCS Level
RCP Pressure	RCS Pressure
Primary Containment Pressure	In-Core/Core Exit Temperature
Suppression Pool Level	Levels in at least (site-specific number) steam generators
Suppression Pool Temperature	Steam Generator Auxiliary or Emergency Feed Water Flow

Table S-2 Safety System Parameters

- Reactor power
- RCS level
- RCS pressure
- Core Exit T/C temperature
- Level in at least one SG
- Auxiliary or emergency feed flow in at least one SG

Table S-3 Significant Transients

- Reactor trip
- Runback greater than or equal to 25% thermal power
- Electrical load rejection greater than 25% electrical load

- ECCS actuation

NEI IC#	NEI IC Wording	CPNPP IC#(s)	CPNPP IC Wording	Difference/Deviation Justification
SA5	Automatic or manual (trip [PWR] / scram [BWR]) fails to shutdown the reactor, and subsequent manual actions taken at the reactor control consoles are not successful in shutting down the reactor. MODE: Power Operation	SA6	Automatic or manual trip fails to shut down the reactor and subsequent manual actions taken at the reactor control consoles are not successful in shutting down the reactor MODE: 1 - Power Operation	None

NEI Ex. EAL #	NEI Example EAL Wording	CPNPP EAL #	CPNPP EAL Wording	Difference/Deviation Justification
1	a. An automatic or manual (trip [PWR] / scram [BWR]) did not shutdown the reactor. AND b. Manual actions taken at the reactor control consoles are not successful in shutting down the reactor.	SA6.1	An automatic or manual trip fails to shut down the reactor as indicated by reactor power greater than 5% AND Manual trip actions taken at the reactor control console (MCB reactor trip switches or deenergizing <u>u</u> B3 and <u>u</u> B4) are not successful in shutting down the reactor as indicated by reactor power greater than 5% (Note 8)	As specified in the generic developers guidance "Developers may include site-specific EOP criteria indicative of a successful reactor shutdown in an EAL statement, the Basis or both (e.g., a reactor power level)." Reactor power less than or equal to 5% is the site-specific indication of a successful reactor trip. MCB reactor trip switches or deenergizing <u>u</u> B3 and <u>u</u> B4 are the site-specific reactor control console trip switches credited for a successful manual trip.
Notes	Note: A manual action is any operator action, or set of actions, which causes the control rods to be rapidly inserted into the core, and does not include manually	N/A	Note 8: A manual action is any operator action, or set of actions, which causes the control rods to be	None

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	driving in control rods or implementation of boron injection strategies.		rapidly inserted into the core, and does not include manually driving in control rods or implementation of boron injection strategies.	
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NEI IC#	NEI IC Wording	CPNPP IC#(s)	CPNPP IC Wording	Difference/Deviation Justification
SA9	Hazardous event affecting a SAFETY SYSTEM needed for the current operating mode. MODE: Power Operation, Startup, Hot Standby, Hot Shutdown	SA9	Hazardous event affecting a SAFETY SYSTEM needed for the current operating mode MODE: 1 - Power Operation, 2 - Startup, 3 - Hot Standby, 4 - Hot Shutdown	None

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NEI Ex. EAL #	NEI Example EAL Wording	CPNPP EAL #	CPNPP EAL Wording	Difference/Deviation Justification
1	<p>a. The occurrence of ANY of the following hazardous events:</p> <ul style="list-style-type: none"> ● Seismic event (earthquake) ● Internal or external flooding event ● High winds or tornado strike ● FIRE ● EXPLOSION ● (site-specific hazards) ● Other events with similar hazard characteristics as determined by the Shift Manager <p>AND</p> <p>b. EITHER of the following:</p> <ol style="list-style-type: none"> 1. Event damage has caused indications of degraded performance in at least one train of a SAFETY SYSTEM needed for the current operating mode. <p>OR</p> <ol style="list-style-type: none"> 2. The event has caused VISIBLE DAMAGE to a SAFETY SYSTEM component or structure needed for the current operating mode. 	SA9.1	<p>The occurrence of any Table S-5 hazardous event</p> <p>AND EITHER:</p> <ul style="list-style-type: none"> ● Event damage has caused indications of degraded performance in at least one train of a SAFETY SYSTEM needed for the current operating mode ● The event has caused VISIBLE DAMAGE to a SAFETY SYSTEM component or structure needed for the current operating mode 	<p>The hazardous events have been tabularized in Table S-5.</p> <p>Replaced "Shift Manager" with "Emergency Coordinator" as the EC can be either the SM or augmented ERO EC.</p>

Table S-5 Hazardous Events
<ul style="list-style-type: none">● Seismic event (earthquake)● Internal or external FLOODING event● High winds or tornado strike● FIRE● EXPLOSION● Other events with similar hazard characteristics as determined by the Emergency Coordinator

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NEI IC#	NEI IC Wording	CPNPP IC#(s)	CPNPP IC Wording	Difference/Deviation Justification
SS1	Loss of all offsite and all onsite AC power to emergency buses for 15 minutes or longer. MODE: Power Operation, Startup, Hot Standby, Hot Shutdown	SS1	Loss of all offsite and all onsite AC power to safeguard buses for 15 minutes or longer MODE: 1 - Power Operation, 2 - Startup, 3 - Hot Standby, 4 - Hot Shutdown	"Safeguard" is the site-specific term for emergency buses.

NEI Ex. EAL #	NEI Example EAL Wording	CPNPP EAL #	CPNPP EAL Wording	Difference/Deviation Justification
1	Loss of ALL offsite and ALL onsite AC power to (site-specific emergency buses) for 15 minutes or longer.	SS1.1	Loss of all offsite and all onsite AC power capability, Table S-1, to 6.9 KV safeguard buses <u>EA</u> 1 and <u>EA</u> 2 for greater than or equal to 15 min. (Note 1)	6.9KV safeguard buses <u>EA</u> 1 and <u>EA</u> 2 are the site-specific emergency buses. Site-specific AC power sources are tabularized in Table S-1.
Note	The Emergency Director should declare the Unusual Event promptly upon determining that 15 minutes has been exceeded, or will likely be exceeded.	N/A	Note 1: The Emergency Coordinator should declare the event promptly upon determining that time limit has been exceeded, or will likely be exceeded.	The classification timeliness note has been standardized across the CPNPP EAL scheme by referencing the "time limit" specified within the EAL wording.

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NEI IC#	NEI IC Wording	CPNPP IC#(s)	CPNPP IC Wording	Difference/Deviation Justification
SS5	Inability to shutdown the reactor causing a challenge to (core cooling [PWR] / RCP water level [BWR]) or RCS heat removal. MODE: Power Operation	SS6	Inability to shut down the reactor causing a challenge to core cooling or RCS heat removal MODE: 1 - Power Operation	None

NEI Ex. EAL #	NEI Example EAL Wording	CPNPP EAL #	CPNPP EAL Wording	Difference/Deviation Justification
1	<p>a. An automatic or manual (trip [PWR] / scram [BWR]) did not shutdown the reactor.</p> <p>AND</p> <p>b. All manual actions to shutdown the reactor have been unsuccessful.</p> <p>AND</p> <p>c. EITHER of the following conditions exist:</p> <ul style="list-style-type: none"> • (Site-specific indication of an inability to adequately remove heat from the core) • (Site-specific indication of an inability to adequately remove heat from the RCS) 	SS6.1	<p>An automatic or manual trip fails to shut down the reactor as indicated by reactor power greater than 5%</p> <p>AND</p> <p>All actions to shut down the reactor are not successful as indicated by reactor power greater than 5%</p> <p>AND EITHER:</p> <ul style="list-style-type: none"> • CSFST Core Cooling RED Path conditions met • CSFST Heat Sink RED Path conditions met 	<p>As specified in the generic developers guidance "Developers may include site-specific EOP criteria indicative of a successful reactor shutdown in an EAL statement, the Basis or both (e.g., a reactor power level)." Reactor power less than or equal to 5% is the site-specific indication of a successful reactor trip.</p> <p>Indication that core cooling is extremely challenged is manifested by CSFST Core Cooling RED Path conditions met.</p> <p>Indication that heat removal is extremely challenged is manifested by CSFST Heat Sink RED Path conditions met.</p>

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NEI IC#	NEI IC Wording	CPNPP IC#(s)	CPNPP IC Wording	Difference/Deviation Justification
SS8	Loss of all Vital DC power for 15 minutes or longer. MODE: Power Operation, Startup, Hot Standby, Hot Shutdown	SS2	Loss of all vital DC power for 15 minutes or longer. MODE: 1 - Power Operation, 2 - Startup, 3 - Hot Standby, 4 - Hot Shutdown	None

NEI Ex. EAL #	NEI Example EAL Wording	CPNPP EAL #	CPNPP EAL Wording	Difference/Deviation Justification
1	Indicated voltage is less than (site-specific bus voltage value) on ALL (site-specific Vital DC busses) for 15 minutes or longer.	SS2.1	Less than 105 VDC on all 125 VDC safeguard buses <u>u</u> ED1, <u>u</u> ED2, <u>u</u> ED3 and <u>u</u> ED4 for greater than or equal to 15 min. (Note 1)	105 VDC is the site-specific minimum vital DC bus voltage. DC buses <u>u</u> ED1, <u>u</u> ED2, <u>u</u> ED3 and <u>u</u> ED4 are the site-specific vital DC buses.
Note	The Emergency Director should declare the Unusual Event promptly upon determining that 15 minutes has been exceeded, or will likely be exceeded.	N/A	Note 1: The Emergency Coordinator should declare the event promptly upon determining that time limit has been exceeded, or will likely be exceeded.	The classification timeliness note has been standardized across the CPNPP EAL scheme by referencing the "time limit" specified within the EAL wording.

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NEI IC#	NEI IC Wording	CPNPP IC#(s)	CPNPP IC Wording	Difference/Deviation Justification
SG1	Prolonged loss of all offsite and all onsite AC power to emergency buses. MODE: Power Operation, Startup, Hot Standby, Hot Shutdown	SG1a	Prolonged loss of all offsite and all onsite AC power to safeguard buses MODE: 1 - Power Operation, 2 - Startup, 3 - Hot Standby, 4 - Hot Shutdown	"Safeguard" is the site-specific term for emergency buses.

NEI Ex. EAL #	NEI Example EAL Wording	CPNPP EAL #	CPNPP EAL Wording	Difference/Deviation Justification
1	a. Loss of ALL offsite and ALL onsite AC power to (site-specific emergency buses). AND b. EITHER of the following: <ul style="list-style-type: none"> Restoration of at least one AC emergency bus in less than (site-specific hours) is not likely. (Site-specific indication of an inability to adequately remove heat from the core) 	SG1.1	Loss of all offsite and all onsite AC power capability, Table S-1, to 6.9 KV safeguard buses <u>EA</u> 1 and <u>EA</u> 2 AND EITHER: <ul style="list-style-type: none"> Restoration of at least one emergency bus from a Table S-1 source or APDG in less than 4 hours is not likely (Note 1) CSFST Core Cooling RED Path conditions met 	6.9KV safeguard buses <u>EA</u> 1 and <u>EA</u> 2 are the site-specific emergency buses. Credit is given to APDGs as alternate AC power sources capable of powering a train of decay heat removal. 4 hours is the site-specific SBO coping analysis time. CSFST Core Cooling RED Path conditions met indicates significant core exit superheating and core uncover.
Note	The Emergency Director should declare the General Emergency promptly upon determining that (site-specific hours) has been exceeded, or will likely be exceeded.	N/A	Note 1: The Emergency Coordinator should declare the event promptly upon determining that time limit has been exceeded, or will likely be exceeded.	The classification timeliness note has been standardized across the CPNPP EAL scheme by referencing the "time limit" specified within the EAL wording.

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NEI IC#	NEI IC Wording	CPNPP IC#(s)	CPNPP IC Wording	Difference/Deviation Justification
SG8	Loss of all AC and Vital DC power sources for 15 minutes or longer. MODE: Power Operation, Startup, Hot Standby, Hot Shutdown	SG1b	Loss of all AC and vital DC power sources for 15 minutes or longer MODE: 1 - Power Operation, 2 - Startup, 3 - Hot Standby, 4 - Hot Shutdown	None

NEI Ex. EAL #	NEI Example EAL Wording	CPNPP EAL #	CPNPP EAL Wording	Difference/Deviation Justification
1	a. Loss of ALL offsite and ALL onsite AC power to (site-specific emergency buses) for 15 minutes or longer. AND b. Indicated voltage is less than (site-specific bus voltage value) on ALL (site-specific Vital DC busses) for 15 minutes or longer.	SG1.2	Loss of all offsite and all onsite AC power capability, Table S-1, to 6.9 KV safeguard buses <u>u</u> EA1 and <u>u</u> EA2 for greater than or equal to 15 min. AND Less than 105 VDC on all 125 VDC safeguard buses <u>u</u> ED1, <u>u</u> ED2, <u>u</u> ED3 and <u>u</u> ED4 for greater than or equal to 15 min. (Note 1)	6.9KV safeguard buses <u>u</u> EA1 and <u>u</u> EA2 are the site-specific emergency buses. Site-specific AC power sources are tabularized in Table S-1. 105 VDC is the site-specific minimum vital DC bus voltage. buses <u>u</u> ED1, <u>u</u> ED2, <u>u</u> ED3 and <u>u</u> ED4 are the site-specific vital DC buses.
Note	The Emergency Director should declare the Unusual Event promptly upon determining that 15 minutes has been exceeded, or will likely be exceeded.	N/A	Note 1: The Emergency Coordinator should declare the event promptly upon determining that time limit has been exceeded, or will likely be exceeded.	The classification timeliness note has been standardized across the CPNPP EAL scheme by referencing the "time limit" specified within the EAL wording.