

NEI 99-01 Rev 6	Proposed EAL	Justification
<p style="text-align: right;">AG1</p> <p>Initiating Condition – GENERAL EMERGENCY</p> <p>Release of gaseous radioactivity resulting in offsite dose greater than 1,000 mrem TEDE or 5,000 mrem thyroid CDE.</p> <p>Operating Mode Applicability: All</p> <p>Example Emergency Action Levels: (1 or 2 or 3)</p> <p>Notes:</p> <ul style="list-style-type: none"> The Emergency Director should declare the General 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monitor is known to have stopped due to actions to isolate the release path, then the effluent monitor reading is no longer valid for classification purposes.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. <ol style="list-style-type: none"> 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) Dose assessment actual meteorology indicates doses greater than 1000 mrem TEDE or 5000 mrem thyroid CDE at or beyond (site specific dose receptor point) 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 1000 mR/hr expected to continue for 60 minutes or longer. Analysis of field survey samples indicate thyroid CDE greater than 5000 mrem for one hour of inhalation. 	<p style="text-align: right;">RG1</p> <p>Initiating Condition:</p> <p>Release of gaseous radioactivity resulting in offsite dose greater than 1,000 mRem TEDE or 5,000 mRem thyroid CDE.</p> <p>Operating Mode Applicability: 1,2,3,4,D</p> <p>Emergency Action Level (EAL):</p> <p>Notes:</p> <ul style="list-style-type: none"> The Emergency Director should declare the event promptly upon determining that the applicable time has been exceeded, or will likely be exceeded. <ol style="list-style-type: none"> Dose assessment using actual meteorology indicates doses at or beyond the site boundary of EITHER: <ol style="list-style-type: none"> > 1000 mRem TEDE <p style="text-align: center;">OR</p> <ol style="list-style-type: none"> > 5000 mRem CDE Thyroid <p style="text-align: center;">OR</p> Field survey results at or beyond the site boundary indicate EITHER: <ol style="list-style-type: none"> Gamma (closed window) dose rates > 1000 mR/hr are expected to continue for ≥ 60 minutes. <p style="text-align: center;">OR</p> <ol style="list-style-type: none"> Analyses of field survey samples indicate > 5000 mRem CDE Thyroid for 60 minutes of inhalation. 	<p style="text-align: center;"> <input type="checkbox"/> No Change <input checked="" type="checkbox"/> Difference <input type="checkbox"/> Deviation </p> <p>1) Listed site-specific monitors and Threshold values to ensure timely classification.</p> <p>2) EAL #1 is not used as computation EP-EAL-0633, Calculation of Nine Mile Point Unit 1 Table R-1 EAL Threshold Values, was performed, in accordance with (IAW) guidance provided in NEI 99-01 revision 6 EAL AG1, to determine the effluent monitor response for a radioactive gaseous release via the normal site release pathway. The release would contain activity equivalent to provide 1000mrem TEDE or 5000mrem thyroid CDE at the site boundary. The computation determined the effluent monitor responses would be >110% of the instruments maximum range and as such, IAW NEI 99-01 Rev 6 guidance, was not included in this EAL. Since no pre calculated threshold is used bullets 2, 3 and 4 are no longer applicable.</p>

NEI 99-01 Rev 6	Proposed EAL	Justification
<p style="text-align: right;">AS1</p> <p>Initiating Condition – SITE AREA EMERGENCY</p> <p>Release of gaseous radioactivity resulting in offsite dose greater than 100 mrem TEDE or 500 mrem thyroid CDE.</p> <p>Operating Mode Applicability: All</p> <p>Example Emergency Action Levels: (1 or 2 or 3)</p> <p>Notes:</p> <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. <ol style="list-style-type: none"> 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) Dose assessment actual meteorology indicates doses greater than 1000 mrem TEDE or 5000 mrem thyroid CDE at or beyond (site specific dose receptor point) 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. Analysis of field survey samples indicate thyroid CDE greater than 500 mrem for one hour of inhalation. 	<p style="text-align: right;">RS1</p> <p>Initiating Condition:</p> <p>Release of gaseous radioactivity resulting in offsite dose greater than 100 mRem TEDE or 500 mRem thyroid CDE.</p> <p>Operating Mode Applicability: 1,2,3,4,D</p> <p>Emergency Action Level (EAL):</p> <p>Notes:</p> <ul style="list-style-type: none"> The Emergency Director should declare the event promptly upon determining that the applicable time has been exceeded, or will likely be exceeded. <ol style="list-style-type: none"> Dose assessment using actual meteorology indicates doses at or beyond the site boundary of EITHER: <ol style="list-style-type: none"> > 100 mRem TEDE <p style="text-align: center;">OR</p> <ol style="list-style-type: none"> > 500 mRem CDE Thyroid <p style="text-align: center;">OR</p> Field survey results at or beyond the site boundary indicate EITHER: <ol style="list-style-type: none"> Gamma (closed window) dose rates > 100 mR/hr are expected to continue for ≥ 60 minutes. <p style="text-align: center;">OR</p> <ol style="list-style-type: none"> Analyses of field survey samples indicate > 500 mRem CDE Thyroid for 60 minutes of inhalation. 	<p style="text-align: center;"> <input type="checkbox"/> No Change <input checked="" type="checkbox"/> Difference <input type="checkbox"/> Deviation </p> <p>1) Listed site-specific monitors and Threshold values to ensure timely classification.</p> <p>2) EAL #1 is not used as computation EP-EAL-0633, Calculation of Nine Mile Point Unit 1 Table R-1 EAL Threshold Values, was performed, in accordance with (IAW) guidance provided in NEI 99-01 revision 6 EAL AS1, to determine the effluent monitor response for a radioactive gaseous release via the normal site release pathway. The release would contain activity equivalent to provide 100mrem TEDE or 500mrem thyroid CDE at the site boundary. The computation determined the effluent monitor responses would be >110% of the instruments maximum range and as such, IAW NEI 99-01 Rev 6 guidance, was not included in this EAL. Since no pre calculated threshold is used bullets 2, 3 and 4 are no longer applicable.</p>

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<p style="text-align: right;">AA1</p> <p>Initiating Condition – ALERT</p> <p>Release of gaseous or liquid radioactivity resulting in offsite dose greater than 10 mrem TEDE or 50 mrem thyroid CDE.</p> <p>Operating Mode Applicability: All</p> <p>Example Emergency Action Levels: (1 or 2 or 3)</p> <p>Note:</p> <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 EAL #1 should be used for emergency classification assessments until the results from a dose assessment using actual meteorology are available. <ol style="list-style-type: none"> 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) Dose assessment actual meteorology indicates doses greater than 10 mrem TEDE or 50 mrem thyroid CDE at or beyond (site specific dose receptor point) 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. 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 10 mR/hr expected to continue for 60 minutes or longer. Analysis of field survey samples indicate thyroid CDE greater than 50 mrem for one hour of inhalation. 	<p style="text-align: right;">RA1</p> <p>Initiating Condition:</p> <p>Release of gaseous or liquid radioactivity resulting in offsite dose greater than 10 mrem TEDE or 50 mrem thyroid CDE.</p> <p>Operating Mode Applicability:</p> <p>1, 2, 3, 4, D</p> <p>Emergency Action Level (EAL):</p> <p>Notes:</p> <ul style="list-style-type: none"> The Emergency Director should declare the event 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. Classification based on effluent monitor readings assumes that a release path to the environment is established. 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. <ol style="list-style-type: none"> Reading on Stack (RN 10 A/B) Effluent Monitor > 1.5 E+05 cps for ≥ 15 minutes. <p>OR</p> <ol style="list-style-type: none"> Dose assessment using actual meteorology indicates doses at or beyond the site boundary of EITHER: <ol style="list-style-type: none"> > 10 mRem TEDE <p>OR</p> <ol style="list-style-type: none"> > 50 mRem CDE Thyroid <p>OR</p> <ol style="list-style-type: none"> Analysis of a liquid effluent sample indicates a concentration or release rate that would result in doses greater than EITHER of the following at or beyond the site boundary <ol style="list-style-type: none"> 10 mRem TEDE for 60 minutes of exposure <p>OR</p> <ol style="list-style-type: none"> 50 mRem CDE Thyroid for 60 minutes of exposure <p>OR</p> <ol style="list-style-type: none"> Field survey results at or beyond the site boundary indicate EITHER: <ol style="list-style-type: none"> Gamma (closed window) dose rates > 10 mR/hr are expected to continue for ≥ 60 minutes. <p>OR</p> <ol style="list-style-type: none"> Analyses of field survey samples indicate > 50 mRem CDE Thyroid for 60 minutes of inhalation. 	<p style="text-align: center;"> <input type="checkbox"/> No Change <input checked="" type="checkbox"/> Difference <input type="checkbox"/> Deviation </p> <ol style="list-style-type: none"> Listed site-specific monitors and Threshold values to ensure timely classification. Added the following to bullet #3 " Classification based on effluent monitor readings assumes that a release path to the environment is established." In order to delete the following from the basis "Classification based on effluent monitor readings assumes that a release path to the environment is established. 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." This allows for more timely classification since all the basis information pertaining to Note bullet 3 will be contained in the IC and therefore readily available for use by the SM. EP-EAL-0630, Nine Mile Point Unit 1 Criteria for Choosing Radiological Liquid Effluent EAL Threshold Values, was performed, in accordance with (IAW) guidance provided in NEI 99-01 revision 6 EAL AA1, to determine the effluent monitor response for a radioactive liquid release via the normal site release pathway. The release would contain activity equivalent to provide 10mrem TEDE or 50mrem thyroid CDE at the site boundary. The computation determined the effluent monitor responses would be >110% of the instruments maximum range and as such, IAW NEI 99-01 Rev 6 guidance, was not included in this EAL Radiation monitors for SW effluent are not used in the EALs based on NEI 99-01 Rev 6 as they are not considered as typical effluent release points. They would require an RCS leak to provide activity release via these pathways, in the event of a leak the system effluent would be sampled and classified under EAL #3. Also this would be bound and classifiable under MU6 and the FPB EALs within the NEI 99-01 Rev 6 scheme.

NEI 99-01 Rev 6	Proposed EAL	Justification
<p style="text-align: right;">AU1</p> <p>Initiating Condition – UNUSUAL EVENT</p> <p>Release of gaseous or liquid radioactivity greater than 2 times the (site-specific effluent release controlling document) limits for 60 minutes or longer</p> <p>Operating Mode Applicability: All</p> <p>Example Emergency Action Levels: (1 or 2 or 3)</p> <p>Note:</p> <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, indicating that the release path is isolated, the effluent monitor reading is no longer valid for classification purposes. <ol style="list-style-type: none"> 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) 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. Sample analysis for a gaseous or liquid release indicates a concentration or release rate greater than 2 times (site-specific effluent release controlling document limits) for 60 minutes or longer. 	<p style="text-align: right;">RU1</p> <p>Initiating Condition:</p> <p>Release of gaseous or liquid radioactivity greater than 2 times the ODCM limits for 60 minutes or longer.</p> <p>Operating Mode Applicability:</p> <p>1, 2, 3, 4, D</p> <p>Emergency Action Level (EAL):</p> <p>Notes:</p> <ul style="list-style-type: none"> The Emergency Director should declare the event 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 60 minutes. Classification based on effluent monitor readings assumes that a release path to the environment is established. 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. <ol style="list-style-type: none"> Reading on the Rad Waste Discharge effluent monitor > 2x alarm setpoint established by a current radioactive release discharge permit for ≥ 60 minutes. <p>OR</p> <ol style="list-style-type: none"> Reading on Stack (RN 10 A/B) Effluent Monitor > 2.85 E+02 cps for ≥ 60 minutes <p>OR</p> <ol style="list-style-type: none"> Confirmed sample analyses for gaseous or liquid releases indicate concentrations or release rates > 2x ODCM Limit with a release duration of ≥ 60 minutes. 	<p style="text-align: center;"> <input type="checkbox"/> No Change <input checked="" type="checkbox"/> Difference <input type="checkbox"/> Deviation </p> <ol style="list-style-type: none"> Listed site-specific monitors and Threshold values to ensure timely classification. Added the following to bullet #3 " Classification based on effluent monitor readings assumes that a release path to the environment is established." In order to delete the following from the basis "Classification based on effluent monitor readings assumes that a release path to the environment is established. 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." This allows for more timely classification since all the basis information pertaining to Note bullet 3 will be contained in the IC and therefore readily available on the 11x17 procedure matrix used by the SM. Radiation monitors for SW effluent are not used in the EALs based on NEI 99-01 Rev 6 as they are not considered as typical effluent release points. They would require an RCS leak to provide activity release via these pathways, in the event of a leak the system effluent would be sampled and classified under EAL #3. Also this would be bound and classifiable under MU6 and the FPB EALs within the NEI 99-01 Rev 6 scheme.

NEI 99-01 Rev 6	Proposed EAL	Justification
<p style="text-align: right;">AG2</p> <p>Initiating Condition -- GENERAL EMERGENCY</p> <p>Spent fuel pool level cannot be restored to at least (site-specific Level 3 description) for 60 minutes or longer .</p> <p>Operating Mode Applicability: All</p> <p>Example Emergency Action Levels:</p> <p>NOTES: The Emergency Director should declare the General Emergency promptly upon determining that 60 minutes has been exceeded, or will likely be exceeded</p> <p>1. Spent fuel pool level cannot be restored to at least (site-specific Level 3 description) for 60 minutes or longer.</p>	<p style="text-align: right;">RG2</p> <p>Initiating Condition:</p> <p>Spent fuel pool level cannot be restored to at least 316 feet for 60 minutes or longer</p> <p>Operating Mode Applicability:</p> <p>1, 2, 3, 4, D</p> <p>Emergency Action Level (EAL):</p> <p>Note: The Emergency Director should declare the General Emergency promptly upon determining that the applicable time has been exceeded, or will likely be exceeded.</p> <p>Spent fuel pool level cannot be restored to at least 316 feet as indicated on LI-54-65A or LI-54-65B on SFP monitoring panel (PNL-54-65H) for ≥ 60 minutes.</p>	<p> <input checked="" type="checkbox"/> No Change <input type="checkbox"/> Difference <input type="checkbox"/> Deviation </p> <p>1) Listed site-specific monitors and Threshold value to ensure timely classification.</p>

NEI 99-01 Rev 6	Proposed EAL	Justification
<p style="text-align: right;">AS2</p> <p>Initiating Condition – SITE AREA EMERGENCY</p> <p>Spent fuel pool level cannot be restored to at least (site-specific Level 3 description)</p> <p>Operating Mode Applicability: All</p> <p>Example Emergency Action Levels:</p> <ol style="list-style-type: none"> Spent fuel pool level cannot be restored to at least (site-specific Level 3 description) 	<p style="text-align: right;">RS2</p> <p>Initiating Condition: Spent fuel pool level at 316 feet.</p> <p>Operating Mode Applicability: 1, 2, 3, 4, D</p> <p>Emergency Action Level (EAL): Lowering of spent fuel pool level to 316 feet as indicated on LI-54-65A or LI-54-65B on SFP monitoring panel (PNL-54-65H).</p>	<p> <input checked="" type="checkbox"/> No Change <input type="checkbox"/> Difference <input type="checkbox"/> Deviation </p> <p>1) Listed site-specific monitors and Threshold value to ensure timely classification.</p>

NEI 99-01 Rev 6	Proposed EAL	Justification
<p style="text-align: right;">AA2</p> <p>Initiating Condition – ALERT</p> <p>Significant lowering of water level above, or damage to, irradiated fuel.</p> <p>Operating Mode Applicability: All</p> <p>Example Emergency Action Levels: (1 or 2 or 3)</p> <ol style="list-style-type: none"> 1. Uncovery of irradiated fuel in the REFUELING PATHWAY. 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) 3. Lowering of spent fuel pool level to (site-specific Level 2 value). 	<p style="text-align: right;">RA2</p> <p>Initiating Condition:</p> <p>Significant lowering of water level above, or damage to, irradiated fuel.</p> <p>Operating Mode Applicability:</p> <p>1, 2, 3, 4, D</p> <p>Emergency Action Level (EAL):</p> <ol style="list-style-type: none"> 1. Uncovery of irradiated fuel in the REFUELING PATHWAY. <p style="text-align: center;">OR</p> <ol style="list-style-type: none"> 2. Damage to irradiated fuel resulting in a release of radioactivity from the fuel as indicated by ANY Table R1 Radiation Monitor Alarm. <p style="text-align: center;">OR</p> <ol style="list-style-type: none"> 3. Lowering of spent fuel pool level to 326 feet as indicated on LI-54-65A or LI-54-65B on SFP monitoring panel (PNL-54-65H). <div style="border: 1px solid black; padding: 10px; margin: 20px auto; width: fit-content;"> <p style="text-align: center;">Table R1 Refuel Floor ARM's</p> <ul style="list-style-type: none"> • ARM 18 (West end of shield wall) • ARM 25 (Reactor Building – east wall) • ARM 29 Refuel Bridge (Low Range) • Refuel Bridge (High Range) • Reactor Building Vent Radiation Monitor </div>	<p style="text-align: center;"> <input checked="" type="checkbox"/> No Change <input type="checkbox"/> Difference <input type="checkbox"/> Deviation </p> <p>1) Listed site-specific monitors and Threshold values to ensure timely classification.</p>

NEI 99-01 Rev 6	Proposed EAL	Justification
<p style="text-align: right;">AU2</p> <p>Initiating Condition: UNUSUAL EVENT UNPLANNED loss of water level above irradiated fuel</p> <p>Operating Mode Applicability: All</p> <p>Example Emergency Action Levels:</p> <p>1. a. UNPLANNED water level drop in the REFUELING PATHWAY as indicated by ANY of the following:</p> <p style="padding-left: 40px;">(site-specific level indications).</p> <p>AND</p> <p>b. UNPLANNED rise in area radiation levels as indicated by ANY of the following radiation monitors.</p> <p style="padding-left: 40px;">(site-specific list of area radiation monitors)</p>	<p style="text-align: right;">RU2</p> <p>Initiating Condition: UNPLANNED loss of water level above irradiated fuel</p> <p>Operating Mode Applicability: 1, 2, 3, 4, D</p> <p>Emergency Action Level (EAL):</p> <p>1. UNPLANNED water level drop in the REFUELING PATHWAY as indicated by;</p> <ul style="list-style-type: none"> • SFP water level < low water level alarm. <p style="text-align: center;">OR</p> <ul style="list-style-type: none"> • Indication or report of a drop in water level in the REFUELING PATHWAY. <p>AND</p> <p>2. UNPLANNED Area Radiation Monitor reading rise on ANY radiation monitor in Table R1.</p> <div style="border: 1px solid black; padding: 10px; margin: 10px auto; width: fit-content;"> <p style="text-align: center;">Table R1 Refuel Floor ARM's</p> <ul style="list-style-type: none"> • ARM 18 (West end of shield wall) • ARM 25 (Reactor Building – east wall) • ARM 29 Refuel Bridge (Low Range) • Refuel Bridge (High Range) • Reactor Building Vent Radiation Monitor </div>	<p style="text-align: center;"> <input checked="" type="checkbox"/> No Change <input type="checkbox"/> Difference <input type="checkbox"/> Deviation </p> <p>1) Listed site specific level indication and monitors to ensure timely classification.</p> <p>2) The low water level alarm was chosen as the threshold for EAL #1 first bullet as it is easily recognizable by the CR staff and actuates at ~338' elevation allowing for proper escalation between the unusual event and alert thresholds.</p>

AA3

RA3

Initiating Condition – ALERT

Radiation levels that impede access to equipment necessary for normal plant operations, cooldown or shutdown.

Operating Mode Applicability: All

Example Emergency Action Levels: (1 or 2)

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

1. Dose rate greater than 15 mR/hr in **ANY** of the following areas:
 - Control Room
 - Central Alarm Station
 - (other site-specific areas/rooms)

2. An UNPLANNED event results in radiation levels that prevent or significantly 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)

Initiating Condition:

Radiation levels that impede access to equipment necessary for normal plant operations, cooldown or shutdown.

Operating Mode Applicability:

1, 2, 3, 4,D

Emergency Action Level (EAL):

Note: If the equipment in the room or area listed in Table R3 was already inoperable, or not available, before the event occurred, then no emergency classification is warranted.

1. Dose rate > **15 mR/hr** in **ANY** of the areas in Table R2.

Table R2 Areas Requiring Continuous Occupancy	
<ul style="list-style-type: none"> • Main Control Room • Central Alarm Station – (by survey) 	

OR

2. UNPLANNED event results in radiation levels that prohibit or significantly impede access to **ANY** of the areas in Table R3.

Table R3 Areas with Entry Related Mode Applicability	
Area	Entry Related Mode Applicability
Reactor Building	Modes 2, 3 and 4
198' Northeast corner	
261' North and Shutdown Cooling Room	
281' North	
Turbine Building	
291' North	

No Change Difference Deviation

1) Listed site specific plant rooms and areas with identified mode applicability to ensure timely classification.

2) Additional discussion added to the basis section describing Table R3 as follows:

“This IC addresses elevated radiation levels in certain plant rooms/areas sufficient to preclude or impede personnel from performing actions necessary to transition the plant from normal plant operation to cooldown and shutdown as specified in normal plant procedures. As such, it represents an actual or potential substantial degradation of the level of safety of the plant. The Emergency Director should consider the cause of the increased radiation levels and determine if another IC may be applicable.

Assuming all plant equipment is operating as designed, normal operation is capable from the Main Control Room (MCR). The plant is also able to transition into a hot shutdown condition from the MCR, therefore Table R3 is a list of plant rooms or areas with entry-related mode applicability that contain equipment which require a manual/local action necessary to transition the plant from normal plant operation to cooldown and shutdown as specified in normal operating procedures (establish shutdown cooling), where if this action is not completed the plant would not be able to attain and maintain cold shutdown. This Table does not include rooms or areas for which entry is required solely to perform actions of an administrative or record keeping nature (e.g., normal rounds or routine inspections).

Rooms and areas listed in EAL #1 do not need to be included in EAL #2, including the Control Room.”

3) Changed “out of service” to “not available” to align with plant specific terminology.

NEI 99-01 Rev 6	Proposed EAL	Justification
<p style="text-align: right;">SU3</p> <p>Initiating Condition: UNUSUAL EVENT Reactor coolant activity greater than Technical Specification allowable limits.</p> <p>Operating Mode Applicability: Power Operation, Startup, Hot Standby, Hot Shutdown</p> <p>Example Emergency Action Levels:</p> <ol style="list-style-type: none"> (Site-specific radiation monitor) reading greater than (site-specific value). <p>OR</p> <ol style="list-style-type: none"> Sample analysis indicates that a reactor coolant activity value is greater than an allowable limit specified in Technical Specifications. 	<p style="text-align: right;">RU3</p> <p>Initiating Condition: Reactor coolant activity greater than Technical Specification allowable limits.</p> <p>Operating Mode Applicability: 1, 2</p> <p>Emergency Action Level (EAL):</p> <ol style="list-style-type: none"> Offgas radiation monitor RN-12A or RN-12B \geq hi-hi alarm. <p>OR</p> <ol style="list-style-type: none"> Specific coolant activity $>$ 4.0 uCi/gm I-131 equivalent. 	<p style="text-align: center;"> <input type="checkbox"/> No Change <input checked="" type="checkbox"/> Difference <input type="checkbox"/> Deviation </p> <p>1) Listed site-specific monitor and Threshold value to ensure timely classification.</p> <p>2) Listed this system category EAL in the radiological category EAL section to maintain consistency with current and previous revisions of Exelon EALs. This will ensure a timely classification since the threshold values are more aligned with the radiological category vice system category.</p>

GENERAL EMERGENCY			SITE AREA EMERGENCY			ALERT		
FG1 Loss of any two barriers AND Loss or Potential Loss of third barrier. 1,2			FS1 Loss or Potential Loss of ANY two barriers. 1,2			FA1 ANY Loss or ANY Potential Loss of either Fuel Clad or RCS 1,2		
Sub-Category	FC – Fuel Clad		RC – Reactor Coolant System		CT - Containment			
	Loss	Potential Loss	Loss	Potential Loss	Loss	Potential Loss		
1. RCS Activity / Primary Containment Pressure / Primary Containment Conditions	A. (Site specific indications that reactor coolant activity is greater than 300 uCi/gm dose equivalent I-131)	None	A. Primary containment pressure greater than (site-specific value) due to RCS leakage.	None	A. UNPLANNED rapid drop in primary containment pressure following primary containment pressure rise OR B. Primary containment pressure response not consistent with LOCA conditions.	A. Primary containment pressure greater than (site-specific value) OR B. (site-specific explosive mixture) exists inside primary containment OR C. HCTL exceeded.		
2. RPV Water Level	A. Primary containment flooding required.	A. RPV water level cannot be restored and maintained above (site-specific RPV water level corresponding to top of active fuel) or cannot be determined.	A. RPV water level cannot be restored and maintained above (site-specific RPV level corresponding to the top of active fuel) or cannot be determined.	None	None	A. Primary containment flooding required.		
3. RCS Leak Rate/ Primary Containment Isolation Failure	None	None	A. UNISOLABLE break in any of the following: (site-specific systems with potential for high-energy line breas) OR B. Emergency RPV Depressurization	A. UNISOLABLE primary system leakage that results in exceeding EITHER of the following: 1. Max Normal Operating Temperature OR 2. Max Normal Operating Area Radiation Level.	A. UNISOLABLE direct downstream pathway to the environment exists after primary containment isolation signal OR B. Intentional primary containment venting per EOPs OR C. UNISOLABLE primary system leakage that results in exceeding EITHER of the following: 1. Max Safe Operating Temperature. OR 2. Max Safe Operating Area Radiation Level.	None		
4. Primary Containment Radiation	A. Primary Containment Radiation Monitor reading greater than (site-specific value).	None	A. Primary Containment Radiation Monitor reading greater than (site-specific value).	None	None	A. Primary Containment Radiation Monitor reading greater than (site-specific value).		
5. Emergency Director Judgment	A. Any Condition in the opinion of the Emergency Director that indicates Loss of the Fuel Clad Barrier.	A. Any Condition in the opinion of the Emergency Director that indicates Potential Loss of the Fuel Clad Barrier.	A. Any Condition in the opinion of the Emergency Director that indicates Loss of the RCS Barrier.	A. Any Condition in the opinion of the Emergency Director that indicates Potential Loss of the RCS Barrier.	A. Any Condition in the opinion of the Emergency Director that indicates Loss of the Containment Barrier.	A. Any Condition in the opinion of the Emergency Director that indicates Potential Loss of the Containment Barrier.		

Fission Product Barrier Matrix

Hot Matrix

GENERAL EMERGENCY			SITE AREA EMERGENCY			ALERT		
FG1 Loss of any two barriers AND Loss or Potential Loss of third barrier. 1 2			FS1 Loss or Potential Loss of ANY two barriers. 1 2			FA1 ANY Loss or ANY Potential Loss of either Fuel Clad or RCS 1 2		
Sub-Category	FC – Fuel Clad		RC – Reactor Coolant System		CT - Containment			
	Loss	Potential Loss	Loss		Loss	Potential Loss		
1. RCS Activity	Coolant activity > 300 uCi/gm I-131 equivalent.	None	None	None	None	None		
2. RPV Water Level	1.SAP entry required	2. RPV water level cannot be restored and maintained > -84 inches. OR 3. RPV water level cannot be determined.	1. RPV water level cannot be restored and maintained > -84 inches. OR 2. RPV water level cannot be determined.	None	None	SAP entry required		
3. Primary Containment Pressure/Conditions	None	None	1. a. Primary Containment pressure > 3.5 psig. AND b. Primary Containment pressure rise is due to RCS leakage	None	1. UNPLANNED rapid drop in Primary Containment pressure following Primary Containment pressure rise. OR 2. Primary Containment pressure response not consistent with LOCA conditions.	3. Torus pressure > 35 psig and rising. OR 4. a. Primary Containment hydrogen concentration ≥ 6%. AND b. Primary Containment oxygen concentration ≥ 5%. OR 5. Heat Capacity Temperature Limit (N1-EOP-4 Figure M) exceeded.		
4. RCS Leak Rate	None	None	1. UNISOLABLE Main Steam line, EC steam line, Feedwater, or RWCU line break. OR 2. RPV Blowdown is required.	3. UNISOLABLE primary system leakage that results in EITHER of the following: a. ANY area temperature > N1-EOP-5 Detail T alarm set point. OR b. ANY area radiation level > N1-EOP-5 Detail R alarm set point.	None	None		
5. Primary Containment Radiation	Drywell radiation reading > 1.8 E+03 R/hr.	None	Drywell radiation reading > 100 R/hr.	None	None	Drywell radiation reading > 1.8 E+04 R/hr		
6 .Primary Containment Isolation Failure	None	None	None	None	1. UNISOLABLE direct downstream pathway to the environment exists after primary containment isolation signal. OR 2. Intentional Primary Containment venting/purging per EOPs or SAPs due to accident conditions. OR 3. UNISOLABLE primary system leakage that results in EITHER of the following: a. Maximum safe general area temperature > 135°F. OR b. Maximum safe area radiation level > 8 R/hr.	None		
7. Emergency Director Judgment	1. Any Condition in the opinion of the Emergency Director that indicates Loss of the Fuel Clad Barrier.	2. Any Condition in the opinion of the Emergency Director that indicates Potential Loss of the Fuel Clad Barrier.	1. Any Condition in the opinion of the Emergency Director that indicates Loss of the RCS Barrier.	2. Any Condition in the opinion of the Emergency Director that indicates Potential Loss of the RCS Barrier.	1. Any Condition in the opinion of the Emergency Director that indicates Loss of the Fuel Clad Barrier.	2. Any Condition in the opinion of the Emergency Director that indicates Potential Loss of the Fuel Clad Barrier.		

NEI 99-01 Rev 6	Proposed EAL	Justification
<p style="text-align: right;">FC1</p> <p>Category: Fuel Clad Barrier RCS Activity</p> <p>Operating Mode Applicability: Power Operation, Startup, Hot Standby, Hot Shutdown</p> <p>Fission Product Barrier Threshold: Loss A. (Site specific indications that reactor coolant activity is greater than 300 uCi/gm dose equivalent I-131)</p>	<p style="text-align: right;">FC1</p> <p>Category: Fuel Clad Barrier RCS Activity</p> <p>Operating Mode Applicability: 1, 2</p> <p>Fission Product Barrier (FPB) Threshold: <u>Loss</u> Coolant activity > 300 uCi/gm I-131 equivalent.</p>	<p> <input checked="" type="checkbox"/> No Change <input type="checkbox"/> Difference <input type="checkbox"/> Deviation </p> <p>1) Listed site-specific threshold value to ensure timely classification.</p>

NEI 99-01 Rev 6	Proposed EAL	Justification
<p style="text-align: right;">FC2</p> <p>Category: Fuel Clad Barrier RPV Water Level Operating Mode Applicability: Power Operation, Startup, Hot Standby, Hot Shutdown Fission Product Barrier Threshold: Loss A. Primary containment flooding required. Potential Loss A. RPV water level cannot be restored and maintained above (site-specific RPV water level corresponding to top of active fuel) or cannot be determined.</p>	<p style="text-align: right;">FC2</p> <p>Category: Fuel Clad Barrier RPV Water Level Operating Mode Applicability: 1, 2 Fission Product Barrier (FPB) Threshold: <u>Loss</u> 1.SAP entry required <u>Potential Loss</u> 2. RPV water level cannot be restored and maintained > -84 inches. OR 3. RPV water level cannot be determined.</p>	<p style="text-align: center;"> <input type="checkbox"/> No Change <input checked="" type="checkbox"/> Difference <input type="checkbox"/> Deviation </p> <p>1) Listed site-specific threshold value to ensure timely classification.</p> <p>2) Used "SAP entry required" vice "Primary containment flooding required". Entry into the SAP indicates adequate core cooling cannot be restored and maintained assured and that core damage is possible. BWR EPGs/SAPs specify the conditions that require primary containment flooding. Entry into SAPs is in response to the inability to restore and maintain adequate core cooling.</p>

NEI 99-01 Rev 6	Proposed EAL	Justification
<p style="text-align: right;">FC4</p> <p>Category: Fuel Clad Barrier Primary Containment Radiation</p> <p>Operating Mode Applicability: Power Operation, Startup, Hot Standby, Hot Shutdown</p> <p>Fission Product Barrier Threshold: Loss</p> <p>A. Primary Containment Radiation Monitor reading greater than (site-specific value).</p>	<p style="text-align: right;">FC5</p> <p>Category: Fuel Clad Barrier Primary Containment Radiation</p> <p>Operating Mode Applicability: 1, 2</p> <p>Fission Product Barrier (FPB) Threshold: <u>Loss</u> Drywell radiation reading > 1.8 E+03 R/hr.</p>	<p> <input type="checkbox"/> No Change <input checked="" type="checkbox"/> Difference <input type="checkbox"/> Deviation </p> <p>1) Listed site-specific monitor and threshold value to ensure timely classification.</p> <p>2) In accordance with NEI 99-01 Revision 6, reactor coolant activity above 300 µCi/gm is greater than that expected for iodine spikes and corresponds to an approximate range of 2% to 5% fuel clad damage. The radiation level in EAL #1 is based on 2% fuel clad damage</p>

NEI 99-01 Rev 6	Proposed EAL	Justification
<p style="text-align: right;">FC6</p> <p>Category: Fuel Clad Barrier Emergency Director Judgment</p> <p>Operating Mode Applicability: Power Operation, Startup, Hot Standby, Hot Shutdown</p> <p>Fission Product Barrier Threshold: Loss A. Any Condition in the opinion of the Emergency Director that indicates Loss of the Fuel Clad Barrier.</p> <p>Potential Loss A. Any Condition in the opinion of the Emergency Director that indicates Potential Loss of the Fuel Clad Barrier.</p>	<p style="text-align: right;">FC7</p> <p>Category: Fuel Clad Barrier Emergency Director Judgment</p> <p>Operating Mode Applicability: 1, 2</p> <p>Fission Product Barrier (FPB) Threshold: <u>Loss</u> 1. Any Condition in the opinion of the Emergency Director that indicates Loss of the Fuel Clad Barrier.</p> <p><u>Potential Loss</u> 2. Any Condition in the opinion of the Emergency Director that indicates Potential Loss of the Fuel Clad Barrier.</p>	<p><input checked="" type="checkbox"/> No Change <input type="checkbox"/> Difference <input type="checkbox"/> Deviation</p>

NEI 99-01 Rev 6	Proposed EAL	Justification
<p style="text-align: right;">RC1</p> <p>Category: Reactor Coolant System Barrier Primary Containment Pressure/Conditions Operating Mode Applicability: Power Operation, Startup, Hot Standby, Hot Shutdown Fission Product Barrier Threshold: Loss A. Primary containment pressure greater than (site-specific value) due to RCS leakage.</p>	<p style="text-align: right;">RC3</p> <p>Category: Reactor Coolant System Barrier Primary Containment Pressure/Conditions Operating Mode Applicability: 1, 2 Fission Product Barrier (FPB) Threshold: <u>Loss</u> 1. a. Primary Containment pressure > 3.5 psig. AND b. Primary Containment pressure rise is due to RCS leakage.</p>	<p> <input checked="" type="checkbox"/> No Change <input type="checkbox"/> Difference <input type="checkbox"/> Deviation 1) Listed site-specific threshold value to ensure timely classification. </p>

NEI 99-01 Rev 6	Proposed EAL	Justification
<p style="text-align: right;">RC2</p> <p>Category: Reactor Coolant System Barrier RPV Water Level Operating Mode Applicability: Power Operation, Startup, Hot Standby, Hot Shutdown Fission Product Barrier Threshold: Loss A. RPV water level cannot be restored and maintained above (site-specific RPV level corresponding to the top of active fuel) or cannot be determined.</p>	<p style="text-align: right;">RC2</p> <p>Category: Reactor Coolant System Barrier RPV Water Level Operating Mode Applicability: 1, 2 Fission Product Barrier (FPB) Threshold: <u>Loss</u> 1. RPV water level cannot be restored and maintained > -84 inches. OR 2. RPV water level cannot be determined.</p>	<p style="text-align: center;"> <input checked="" type="checkbox"/> No Change <input type="checkbox"/> Difference <input type="checkbox"/> Deviation </p> <p>1) Listed site-specific threshold value to ensure timely classification.</p>

NEI 99-01 Rev 6	Proposed EAL	Justification
<p style="text-align: right;">RC3</p> <p>Category: Reactor Coolant System Barrier RCS Leak Rate</p> <p>Operating Mode Applicability: Power Operation, Startup, Hot Standby, Hot Shutdown</p> <p>Fission Product Barrier Threshold: Loss</p> <p>A. UNISOLABLE break in any of the following: (site-specific systems with potential for high-energy line break)</p> <p style="padding-left: 20px;">OR</p> <p>B. Emergency RPV Depressurization</p> <p>Potential Loss</p> <p>A. UNISOLABLE primary system leakage that results in exceeding EITHER of the following:</p> <p style="padding-left: 20px;">1. Max Normal Operating Temperature</p> <p style="padding-left: 20px;">OR</p> <p style="padding-left: 20px;">2. Max Normal Operating Area Radiation Level.</p>	<p style="text-align: right;">RC4</p> <p>Category: Reactor Coolant System Barrier RCS Leak Rate</p> <p>Operating Mode Applicability: 1, 2</p> <p>Fission Product Barrier (FPB) Threshold: <u>Loss</u></p> <p>1. UNISOLABLE Main Steam line, EC steam line, Feedwater, or RWCU line break.</p> <p style="padding-left: 20px;">OR</p> <p>2. RPV Blowdown is required.</p> <p><u>Potential Loss</u></p> <p>3. UNISOLABLE primary system leakage that results in EITHER of the following:</p> <p style="padding-left: 20px;">a. ANY area temperature > N1-EOP-5 Detail T alarm set point.</p> <p style="padding-left: 20px;">OR</p> <p style="padding-left: 20px;">b. ANY area radiation level > N1-EOP-5 Detail R alarm set point.</p>	<p style="text-align: center;"> <input type="checkbox"/> No Change <input checked="" type="checkbox"/> Difference <input type="checkbox"/> Deviation </p> <p>1) Listed site-specific systems and threshold values to ensure timely classification.</p> <p>2) Added the following paragraph to RC4 Basis section to ensure operator understanding:</p> <p style="padding-left: 40px;"><i>“Even though RWCU and Feedwater systems do not contain steam, they are included in the list because an UNISOLABLE break could result in the high-pressure discharge of fluid that is flashed to steam from relatively large volume systems directly connected to the RCS.”</i></p> <p>3) In RC4 Basis section changed (after containment isolation) to (following automatic or manual isolation) to ensure operator understanding since not all primary systems receive a containment isolation signal.</p>

NEI 99-01 Rev 6	Proposed EAL	Justification
<p style="text-align: right;">RC4</p> <p>Category: Reactor Coolant System Barrier Primary Containment Radiation Operating Mode Applicability: Power Operation, Startup, Hot Standby, Hot Shutdown Fission Product Barrier Threshold: Loss A. Primary Containment Radiation Monitor reading greater than (site-specific value).</p>	<p style="text-align: right;">RC5</p> <p>Category: Reactor Coolant System Barrier Primary Containment Radiation Operating Mode Applicability: 1, 2 Fission Product Barrier (FPB) Threshold: <u>Loss</u> Drywell radiation reading > 100 R/hr.</p>	<p> <input checked="" type="checkbox"/> No Change <input type="checkbox"/> Difference <input type="checkbox"/> Deviation </p> <p>1) Listed site-specific monitor and threshold value to ensure timely classification.</p>

NEI 99-01 Rev 6	Proposed EAL	Justification
<p style="text-align: right;">RC6</p> <p>Category: Reactor Coolant System Barrier Emergency Director Judgment</p> <p>Operating Mode Applicability: Power Operation, Startup, Hot Standby, Hot Shutdown</p> <p>Fission Product Barrier Threshold: Loss A. Any Condition in the opinion of the Emergency Director that indicates Loss of the RCS Barrier.</p> <p>Potential Loss A. Any Condition in the opinion of the Emergency Director that indicates Potential Loss of the RCS Barrier.</p>	<p style="text-align: right;">RC7</p> <p>Category: Reactor Coolant System Barrier Emergency Director Judgment</p> <p>Operating Mode Applicability: 1, 2</p> <p>Fission Product Barrier (FPB) Threshold: <u>Loss</u> 1. ANY Condition in the opinion of the Emergency Director that indicates Loss of the RCS Barrier.</p> <p><u>Potential Loss</u> 2. Any Condition in the opinion of the Emergency Director that indicates Potential Loss of the RCS Barrier.</p>	<p><input checked="" type="checkbox"/> No Change <input type="checkbox"/> Difference <input type="checkbox"/> Deviation</p>

NEI 99-01 Rev 6	Proposed EAL	Justification
<p style="text-align: right;">CT1</p> <p>Category: Containment Barrier Primary Containment Pressure/Conditions</p> <p>Operating Mode Applicability: Power Operation, Startup, Hot Standby, Hot Shutdown</p> <p>Fission Product Barrier Threshold: Loss</p> <p>A. UNPLANNED rapid drop in primary containment pressure following primary containment pressure rise OR</p> <p>B. Primary containment pressure response not consistent with LOCA conditions.</p> <p>Potential Loss</p> <p>A. Primary containment pressure greater than (site-specific value) OR</p> <p>B. (site-specific explosive mixture) exists inside primary containment OR</p> <p>3. HCTL exceeded.</p>	<p style="text-align: right;">CT3</p> <p>Category: Containment Barrier Primary Containment Pressure/Conditions</p> <p>Operating Mode Applicability: 1, 2</p> <p>Fission Product Barrier (FPB) Threshold: Loss</p> <p>1. UNPLANNED rapid drop in Primary Containment pressure following Primary Containment pressure rise. OR</p> <p>2. Primary Containment pressure response not consistent with LOCA conditions.</p> <p><u>Potential Loss</u></p> <p>3. Torus pressure > 35 psig and rising. OR</p> <p>4. a. Primary Containment hydrogen concentration $\geq 6\%$. AND b. Primary Containment oxygen concentration $\geq 5\%$. OR</p> <p>5. Heat Capacity Temperature Limit (N1-EOP-4 Figure M) exceeded.</p>	<p style="text-align: center;"> <input type="checkbox"/> No Change <input checked="" type="checkbox"/> Difference <input type="checkbox"/> Deviation </p> <p>1) Listed site-specific threshold values to ensure timely classification.</p> <p>2) The words “and rising” were added to account for the momentary spike in pressure where pressure is now lowering, the risk of a potential loss of containment is no longer present, this wording is also consistent with present Exelon fleet wording.</p>

NEI 99-01 Rev 6	Proposed EAL	Justification
<p style="text-align: right;">CT2</p> <p>Category: Containment Barrier RPV Water Level Operating Mode Applicability: Power Operation, Startup, Hot Standby, Hot Shutdown Fission Product Barrier Threshold: Potential Loss A. Primary containment flooding required.</p>	<p style="text-align: right;">CT2</p> <p>Category: Containment Barrier RPV Water Level Operating Mode Applicability: 1, 2 Fission Product Barrier (FPB) Threshold: <u>Potential Loss</u> SAP entry required.</p>	<p> <input type="checkbox"/> No Change <input checked="" type="checkbox"/> Difference <input type="checkbox"/> Deviation </p> <p>1) Used "SAP entry required" vice "Primary containment flooding required". Entry into the SAP indicates adequate core cooling cannot be restored and maintained and that core damage is possible. BWR EPGs/SAPs specify the conditions that require primary containment flooding. Entry into SAPs is in response to the inability to restore and maintain adequate core cooling.</p>

NEI 99-01 Rev 6	Proposed EAL	Justification
<p style="text-align: right;">CT3</p> <p>Category: Containment Barrier Primary Containment Isolation Failure</p> <p>Operating Mode Applicability: Power Operation, Startup, Hot Standby, Hot Shutdown</p> <p>Fission Product Barrier Threshold: Loss</p> <p>A. UNISOLABLE direct downstream pathway to the environment exists after primary containment isolation signal</p> <p>OR</p> <p>B. Intentional primary containment venting per EOPs</p> <p>OR</p> <p>C. UNISOLABLE primary system leakage that results in exceeding EITHER of the following:</p> <ol style="list-style-type: none"> 1. Max Safe Operating Temperature. <p>OR</p> <ol style="list-style-type: none"> 2. Max Safe Operating Area Radiation Level. 	<p style="text-align: right;">CT6</p> <p>Category: Containment Barrier Primary Containment Isolation Failure</p> <p>Operating Mode Applicability: 1, 2</p> <p>Fission Product Barrier (FPB) Threshold: <u>Loss</u></p> <ol style="list-style-type: none"> 1. UNISOLABLE direct downstream pathway to the environment exists following automatic or manual isolation signal. <p>OR</p> <ol style="list-style-type: none"> 2. Intentional Primary Containment venting/purging per EOPs or SAPs due to accident conditions. <p>OR</p> <ol style="list-style-type: none"> 3. UNISOLABLE primary system leakage that results in EITHER of the following: <ol style="list-style-type: none"> a. Maximum safe general area temperature > 135°F. <p>OR</p> <ol style="list-style-type: none"> b. Maximum safe area radiation level > 8 R/hr. 	<p style="text-align: center;"> <input checked="" type="checkbox"/> No Change <input type="checkbox"/> Difference <input type="checkbox"/> Deviation </p> <p>1) Listed site-specific threshold values to ensure timely classification.</p>

NEI 99-01 Rev 6	Proposed EAL	Justification
<p style="text-align: right;">CT4</p> <p>Category: Containment Barrier Primary Containment Radiation Operating Mode Applicability: Power Operation, Startup, Hot Standby, Hot Shutdown Fission Product Barrier Threshold: Potential Loss A. Primary Containment Radiation Monitor reading greater than (site-specific value).</p>	<p style="text-align: right;">CT5</p> <p>Category: Containment Barrier Primary Containment Radiation Operating Mode Applicability: 1, 2 Fission Product Barrier (FPB) Threshold: <u>Potential Loss</u> Drywell radiation reading > 1.8 E+04 R/hr.</p>	<p> <input checked="" type="checkbox"/> No Change <input type="checkbox"/> Difference <input type="checkbox"/> Deviation </p> <p>1) Listed site-specific monitor and threshold value to ensure timely classification.</p>

NEI 99-01 Rev 6	Proposed EAL	Justification
<p style="text-align: right;">CT6</p> <p>Category: Containment Barrier Emergency Director Judgment</p> <p>Operating Mode Applicability: Power Operation, Startup, Hot Standby, Hot Shutdown</p> <p>Fission Product Barrier Threshold: Loss</p> <p>A. Any Condition in the opinion of the Emergency Director that indicates Loss of the Containment Barrier.</p> <p>Potential Loss</p> <p>A. Any Condition in the opinion of the Emergency Director that indicates Potential Loss of the Containment Barrier.</p>	<p style="text-align: right;">CT7</p> <p>Category: Containment Barrier Emergency Director Judgment</p> <p>Operating Mode Applicability: 1, 2</p> <p>Fission Product Barrier (FPB) Threshold: <u>Loss</u></p> <p>1. Any Condition in the opinion of the Emergency Director that indicates Loss of the Containment Barrier.</p> <p><u>Potential Loss</u></p> <p>2. Any Condition in the opinion of the Emergency Director that indicates Potential Loss of the Containment Barrier.</p>	<p><input checked="" type="checkbox"/> No Change <input type="checkbox"/> Difference <input type="checkbox"/> Deviation</p>

NEI 99-01 Rev 6	Proposed EAL	Justification
<p style="text-align: right;">SG1</p> <p>Initiating Condition: GENERAL EMERGENCY</p> <p>Prolonged loss of all offsite and all onsite AC power to emergency buses.</p> <p>Operating Mode Applicability:</p> <p>Power Operation, Startup, Hot Standby, Hot Shutdown</p> <p>Example Emergency Action Levels:</p> <p>Note: The Emergency Director should declare the General Emergency promptly upon determining that (site-specific hours) has been exceeded, or will likely be exceeded.</p> <p>1. a. Loss of ALL offsite and ALL onsite AC power to (site-specific emergency buses).</p> <p style="padding-left: 40px;">AND</p> <p>b. EITHER of the following:</p> <ul style="list-style-type: none"> • Restoration of at least one emergency bus in less than (site-specific hours) is not likely. • (Site-specific indication of an inability to adequately remove heat from the core) 	<p style="text-align: right;">MG1</p> <p>Initiating Condition:</p> <p>Prolonged loss of all offsite and all onsite AC power to emergency buses.</p> <p>Operating Mode Applicability:</p> <p>1, 2</p> <p>Emergency Action Level (EAL):</p> <p>Note: The Emergency Director should declare the event promptly upon determining that the applicable time has been exceeded, or will likely be exceeded.</p> <p>1. Loss of ALL offsite and onsite AC power to 4.16 kV Emergency Buses.</p> <p style="padding-left: 40px;">AND</p> <p>2. EITHER of the following:</p> <ul style="list-style-type: none"> a. Restoration of at least one 4.16 kV Emergency Bus in < 4 hours is <u>not</u> likely. <li style="padding-left: 20px;">OR b. RPV water level cannot be restored and maintained > -109 inches. 	<p><input checked="" type="checkbox"/> No Change <input type="checkbox"/> Difference <input type="checkbox"/> Deviation</p> <p>1) Listed site specific equipment, site specific time based on station blackout coping analysis, and site specific indication to ensure timely classification.</p>

NEI 99-01 Rev 6	Proposed EAL	Justification
<p style="text-align: right;">SS1</p> <p>Initiating Condition: SITE AREA EMERGENCY</p> <p>Loss of all offsite and all onsite AC power to emergency buses for 15 minutes or longer.</p> <p>Operating Mode Applicability:</p> <p>Power Operation, Startup, Hot Standby, Hot Shutdown</p> <p>Example Emergency Action Levels:</p> <p>Note: The Emergency Director should declare the Site Area Emergency promptly upon determining that 15 minutes time has been exceeded, or will likely be exceeded.</p> <p>Loss of ALL offsite and ALL onsite AC Power to (site-specific emergency buses) for 15 minutes or longer.</p>	<p style="text-align: right;">MS1</p> <p>Initiating Condition:</p> <p>Loss of all offsite and all onsite AC power to emergency buses for 15 minutes or longer.</p> <p>Operating Mode Applicability:</p> <p>1, 2</p> <p>Emergency Action Level (EAL):</p> <p>Note: The Emergency Director should declare the event promptly upon determining that the applicable time has been exceeded, or will likely be exceeded.</p> <p>1. Loss of ALL offsite and onsite AC power to 4.16 kV Emergency Buses. AND 2. Failure to restore power to at least one 4.16 kV Emergency Bus from the time of loss of both offsite and onsite AC power in < 15 minutes.</p>	<p> <input type="checkbox"/> No Change <input checked="" type="checkbox"/> Difference <input type="checkbox"/> Deviation </p> <p>1) Listed site specific equipment to ensure timely classification.</p> <p>2) Changed formatting to be 1 AND 2.</p>

NEI 99-01 Rev 6	Proposed EAL	Justification
<p style="text-align: right;">SA1</p> <p>Initiating Condition: ALERT</p> <p>Loss of all but one AC power source to emergency buses for 15 minutes or longer.</p> <p>Operating Mode Applicability:</p> <p>Power Operation, Startup, Hot Standby, Hot Shutdown</p> <p>Example Emergency Action Levels:</p> <p>Note: The Emergency Director should declare the Alert promptly upon determining that 15 minutes time has been exceeded, or will likely be exceeded.</p> <p>1. a. AC power capability to (site-specific emergency buses) is reduced to a single power source for 15 minutes or longer.</p> <p>AND</p> <p>b. Any additional single power source failure will result in loss of all AC power to SAFETY SYSTEMS.</p>	<p style="text-align: right;">MA1</p> <p>Initiating Condition:</p> <p>Loss of all but one AC power source to emergency buses for 15 minutes or longer.</p> <p>Operating Mode Applicability:</p> <p>1, 2</p> <p>Emergency Action Level (EAL):</p> <p>Note: The Emergency Director should declare the event promptly upon determining that the applicable time has been exceeded, or will likely be exceeded.</p> <p>1. AC power capability to 4.16 kV Emergency Buses reduced to only one of the following power sources for ≥ 15 minutes.</p> <ul style="list-style-type: none"> • T-101 N • T-101 S • DG-102 Emergency Diesel Generator • DG-103 Emergency Diesel Generator <p>AND</p> <p>2. ANY additional single power source failure will result in a loss of all AC power to SAFETY SYSTEMS.</p>	<p> <input checked="" type="checkbox"/> No Change <input type="checkbox"/> Difference <input type="checkbox"/> Deviation </p> <p>1) Listed site specific equipment to ensure timely classification.</p>

NEI 99-01 Rev 6	Proposed EAL	Justification
<p style="text-align: right;">SU1</p> <p>Initiating Condition: UNUSUAL EVENT</p> <p>Loss of all offsite AC power capability to emergency buses for 15 minutes or longer.</p> <p>Operating Mode Applicability:</p> <p>Power Operation, Startup, Hot Standby, Hot Shutdown</p> <p>Example Emergency Action Levels:</p> <p>Note: The Emergency Director should declare the Unusual Event promptly upon determining that 15 minutes has been exceeded, or will likely be exceeded.</p> <p>Loss of ALL offsite AC power capability to (site-specific emergency buses) for 15 minutes or longer</p>	<p style="text-align: right;">MU1</p> <p>Initiating Condition:</p> <p>Loss of all offsite AC power capability to emergency buses for 15 minutes or longer.</p> <p>Operating Mode Applicability:</p> <p>1, 2</p> <p>Emergency Action Level (EAL):</p> <p>Note: The Emergency Director should declare the event promptly upon determining that the applicable time has been exceeded, or will likely be exceeded.</p> <p>Loss of ALL offsite AC power capability to 4.16 kV Emergency Buses for ≥ 15 minutes.</p> <ul style="list-style-type: none"> • T-101 N • T-101 S 	<p> <input checked="" type="checkbox"/> No Change <input type="checkbox"/> Difference <input type="checkbox"/> Deviation </p> <p>1) Listed site specific equipment to ensure timely classification.</p>

NEI 99-01 Rev 6	Proposed EAL	Justification
<p style="text-align: right;">SG8</p> <p>Initiating Condition: GENERAL EMERGENCY</p> <p>Loss of all AC and Vital DC power sources for 15 minutes or longer.</p> <p>Operating Mode Applicability:</p> <p>Power Operation, Startup, Hot Standby, Hot Shutdown</p> <p>Example Emergency Action Levels:</p> <p>Note: The Emergency Director should declare the General Emergency promptly upon determining that 15 minutes has been exceeded, or will likely be exceeded.</p> <p>1. Loss of ALL offsite and ALL onsite AC power to (site-specific emergency buses) for 15 minutes or longer.</p> <p>AND</p> <p>Indicated voltage is less than (site-specific bus voltage value) on ALL (site-specific vital DC buses) for 15 minutes or longer.</p>	<p style="text-align: right;">MG2</p> <p>Initiating Condition:</p> <p>Loss of all AC and Vital DC power sources for 15 minutes or longer.</p> <p>Operating Mode Applicability:</p> <p>1, 2</p> <p>Emergency Action Level (EAL):</p> <p>Note: The Emergency Director should declare the event promptly upon determining that the applicable time has been exceeded, or will likely be exceeded.</p> <p>1. Loss of ALL offsite and onsite AC power to 4.16 kV Emergency Buses.</p> <p>AND</p> <p>2. Voltage is < 106 VDC on 125 VDC Battery Boards 11 and 12.</p> <p>AND</p> <p>3. ALL AC and Vital DC power sources have been lost for ≥ 15 minutes.</p>	<p><input type="checkbox"/> No Change <input checked="" type="checkbox"/> Difference <input type="checkbox"/> Deviation</p> <p>1) Listed site specific equipment to ensure timely classification.</p> <p>2) Removed the word "indicated" this will allow for an indication problem to not cause confusion on the need to declare.</p> <p>3) Changed formatting to be 1 AND 2 AND 3.</p>

NEI 99-01 Rev 6	Proposed EAL	Justification
<p style="text-align: right;">SS8</p> <p>Initiating Condition: SITE AREA EMERGENCY</p> <p>Loss of all Vital DC power for 15 minutes or longer.</p> <p>Operating Mode Applicability:</p> <p>Power Operation, Startup, Hot Standby, Hot Shutdown</p> <p>Example Emergency Action Levels:</p> <p>Note: The Emergency Director should declare the Site Area Emergency promptly upon determining that 15 minutes time has been exceeded, or will likely be exceeded.</p> <p>Indicated voltage is less than (site-specific bus voltage value) on ALL Vital DC buses for 15 minutes or longer.</p>	<p style="text-align: right;">MS2</p> <p>Initiating Condition:</p> <p>Loss of all Vital DC power for 15 minutes or longer.</p> <p>Operating Mode Applicability:</p> <p>1, 2</p> <p>Emergency Action Level (EAL):</p> <p>Note: The Emergency Director should declare the event promptly upon determining that the applicable time has been exceeded, or will likely be exceeded.</p> <p>Voltage is < 106 VDC on 125 VDC Battery Boards 11 and 12 for ≥ 15 minutes.</p>	<p> <input type="checkbox"/> No Change <input checked="" type="checkbox"/> Difference <input type="checkbox"/> Deviation </p> <p>1) Listed site specific equipment and site specific value to ensure timely classification.</p> <p>2) Removed the word "indicated" this will allow for an indication problem to not cause confusion on the need to declare.</p>

NEI 99-01 Rev 6	Proposed EAL	Justification
<p style="text-align: right;">SS5</p> <p>Initiating Condition: SITE AREA EMERGENCY</p> <p>Inability to shutdown the reactor causing a challenge to (core cooling [PWR] / RPV water level [BWR]) or RCS heat removal.</p> <p>Operating Mode Applicability:</p> <p>Power Operation</p> <p>Example Emergency Action Levels:</p> <p>1. a. An automatic (trip [PWR] / scram [BWR]) did not shutdown the reactor.</p> <p style="padding-left: 40px;">AND</p> <p>b. All manual actions to shutdown the reactor have been unsuccessful.</p> <p style="padding-left: 40px;">AND</p> <p>c. EITHER of the following conditions exist:</p> <p style="padding-left: 80px;">1. (Site-specific indication of an inability to adequately remove heat from the core)</p> <p style="padding-left: 80px;">OR</p> <p style="padding-left: 80px;">2. (Site-specific indication of an inability to adequately remove heat from the RCS)</p>	<p style="text-align: right;">MS3</p> <p>Initiating Condition:</p> <p>Inability to shutdown the reactor causing a challenge to RPV water level or RCS heat removal.</p> <p>Operating Mode Applicability:</p> <p>1</p> <p>Emergency Action Level (EAL):</p> <p>1. Automatic scram did not shutdown the reactor as indicated by Reactor Power > 6%.</p> <p style="padding-left: 40px;">AND</p> <p>2. ALL manual / ARI actions to shutdown the reactor have been unsuccessful as indicated by Reactor Power > 6%.</p> <p style="padding-left: 40px;">AND</p> <p>3. EITHER of the following conditions exist:</p> <ul style="list-style-type: none"> • RPV water level cannot be restored and maintained > -109 inches. <p style="padding-left: 40px;">OR</p> <ul style="list-style-type: none"> • Heat Capacity Temperature Limit (N1-EOP-4 Figure M) exceeded. 	<p style="text-align: center;"> <input type="checkbox"/> No Change <input checked="" type="checkbox"/> Difference <input type="checkbox"/> Deviation </p> <p>1) Listed site specific indications to ensure timely classification.</p> <p>2) Added ARI as an equivalent scram</p> <p>3) Removed the following sentence "A reactor shutdown is determined in accordance with applicable Emergency Operating Procedure criteria" from the basis section since the reactor shutdown criteria is now listed within the EAL.</p>

NEI 99-01 Rev 6	Proposed EAL	Justification
<p style="text-align: right;">SA5</p> <p>Initiating Condition: ALERT</p> <p>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.</p> <p>Operating Mode Applicability:</p> <p>Power Operation</p> <p>Example Emergency Action Levels:</p> <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> <p>1. a. An automatic (trip [PWR] / scram [BWR]) did not shutdown the reactor.</p> <p style="text-align: center;">AND</p> <p>b. Manual action taken at the reactor control consoles are not successful in shutting down the reactor.</p>	<p style="text-align: right;">MA3</p> <p>Initiating Condition:</p> <p>Automatic or manual scram fails to shutdown the reactor, and subsequent manual actions taken at the Reactor Control Console are not successful in shutting down the reactor.</p> <p>Operating Mode Applicability:</p> <p>1</p> <p>Emergency Action Level (EAL):</p> <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> <p>1. Automatic or manual scram did not shutdown the reactor as indicated by Reactor Power > 6%.</p> <p style="text-align: center;">AND</p> <p>2. Manual / ARI actions taken at the Reactor Control Console are not successful in shutting down the reactor as indicated by Reactor Power > 6%.</p>	<p> <input type="checkbox"/> No Change <input checked="" type="checkbox"/> Difference <input type="checkbox"/> Deviation </p> <p>1) Listed site specific indications to ensure timely classification.</p> <p>2) Added ARI as an equivalent scram</p> <p>3) Removed the following sentence "A reactor shutdown is determined in accordance with applicable Emergency Operating Procedure criteria" from the basis section since the reactor shutdown criteria is now listed within the EAL.</p>

NEI 99-01 Rev 6	Proposed EAL	Justification
<p style="text-align: right;">SU5</p> <p>Initiating Condition: UNUSUAL EVENT</p> <p>Automatic or manual (trip [PWR] / scram [BWR]) fails to shutdown the reactor.</p> <p>Operating Mode Applicability:</p> <p>Power Operation</p> <p>Example Emergency Action Levels: (1 or 2)</p> <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> <ol style="list-style-type: none"> 1. a. An automatic (trip [PWR] / scram [BWR]) did not shutdown the reactor. <p style="text-align: center;">AND</p> <ol style="list-style-type: none"> b. A subsequent manual action taken at the reactor control consoles is successful in shutting down the reactor. <ol style="list-style-type: none"> 2. a. A manual scram ([PWR] / scram [BWR]) did not shutdown the reactor. <p style="text-align: center;">AND</p> <ol style="list-style-type: none"> b. EITHER of the following: <ol style="list-style-type: none"> 1. A subsequent manual action taken at the reactor control consoles is successful in shutting down the reactor. <p style="text-align: center;">OR</p> <ol style="list-style-type: none"> 2. A subsequent automatic (trip [PWR] / scram [BWR]) is successful in shutting down the reactor. 	<p style="text-align: right;">MU3</p> <p>Initiating Condition:</p> <p>Automatic or manual scram fails to shutdown the reactor.</p> <p>Operating Mode Applicability:</p> <p>1</p> <p>Emergency Action Level (EAL):</p> <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> <ol style="list-style-type: none"> 1. a. Automatic scram did not shutdown the reactor as indicated by Reactor Power > 6%. <p style="text-align: center;">AND</p> <ol style="list-style-type: none"> b. Subsequent manual / ARI action taken at the Reactor Control Console is successful in shutting down the reactor as indicated by Reactor Power ≤ 6%. <p style="text-align: center;">OR</p> <ol style="list-style-type: none"> 2. a. Manual scram did not shutdown the reactor as indicated by Reactor Power > 6%. <p style="text-align: center;">AND</p> <ol style="list-style-type: none"> b. EITHER of the following: <ol style="list-style-type: none"> 1. Subsequent manual / ARI action taken at the Reactor Control Console is successful in shutting down the reactor as indicated by Reactor Power ≤ 6%. <p style="text-align: center;">OR</p> <ol style="list-style-type: none"> 2. Subsequent automatic scram / ARI is successful in shutting down the reactor as indicated by Reactor Power ≤ 6%. 	<p style="text-align: center;"> <input type="checkbox"/> No Change <input checked="" type="checkbox"/> Difference <input type="checkbox"/> Deviation </p> <p>1) Listed site specific indications to ensure timely classification.</p> <p>2) Added ARI as an equivalent scram</p> <p>3) Removed the following sentence "A reactor shutdown is determined in accordance with applicable Emergency Operating Procedure criteria" from the basis section since the reactor shutdown criteria is now listed within the EAL.</p>

SA2

Initiating Condition: ALERT

UNPLANNED loss of Control Room indications for 15 minutes or longer with a significant transient in progress.

Operating Mode Applicability:

Power Operation, Startup, Hot Standby, Hot Shutdown

Example Emergency Action Levels:

Note: The Emergency Director should declare the Alert promptly upon determining that 15 minutes has been exceeded, or will likely be exceeded.

1. a. 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. [see table below]

[BWR parameter list]	[PWR parameter list]
Reactor Power	Reactor Power
RPV Level	RCS Level
RPV 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

AND

b. Any of the following transient events in progress.

- 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]

MA4

Initiating Condition:

UNPLANNED loss of Control Room indications for 15 minutes or longer with a significant transient in progress.

Operating Mode Applicability:

1, 2

Emergency Action Level (EAL):

Note: The Emergency Director should declare the event promptly upon determining that the applicable time has been exceeded, or will likely be exceeded.

1. UNPLANNED event results in the inability to monitor **ANY** Table M1 parameter from within the Control Room for **≥ 15 minutes**.

Table M1 Control Room Parameters
<ul style="list-style-type: none"> • Reactor Power • RPV Water Level • RPV Pressure • Primary Containment Pressure • Torus Water Level • Torus Water Temperature

AND

2. **ANY** Table M2 transient in progress.

Table M2 Significant Transients
<ul style="list-style-type: none"> • Turbine runback > 25% thermal reactor power • Reactor scram • ADS or Core Spray actuation • Thermal power oscillations > 10%

No Change
 Difference
 Deviation

1) Electrical Load Rejection of >25% removed from the Significant Transient Table M2 since at NMP U1 the generator voltage will respond to the event and very little if any change to the reactor plant will occur.

2) Replaced "ECCS" with "ADS or Core Spray" to conform to site terminology used for the applicable ECCS systems.

NEI 99-01 Rev 6	Proposed EAL	Justification																
<p style="text-align: right;">SU2</p> <p>Initiating Condition: UNUSUAL EVENT</p> <p>UNPLANNED loss of Control Room indications for 15 minutes or longer.</p> <p>Operating Mode Applicability:</p> <p>Power Operation, Startup, Hot Standby, Hot Shutdown</p> <p>Example Emergency Action Levels:</p> <p>Note: The Emergency Director should declare the Unusual Event promptly upon determining that 15 minutes has been exceeded, or will likely be exceeded.</p> <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. [see table below]</p> <table border="1" data-bbox="149 741 1019 1239"> <thead> <tr> <th>[BWR parameter list]</th> <th>[PWR parameter list]</th> </tr> </thead> <tbody> <tr> <td>Reactor Power</td> <td>Reactor Power</td> </tr> <tr> <td>RPV Level</td> <td>RCS Level</td> </tr> <tr> <td>RPV Pressure</td> <td>RCS Pressure</td> </tr> <tr> <td>Primary Containment Pressure</td> <td>In Core/Core Exit Temperature</td> </tr> <tr> <td>Suppression Pool Level</td> <td>Levels in at least (site specific number) steam generators</td> </tr> <tr> <td>Suppression Pool Temperature</td> <td>Steam Generator Auxiliary or Emergency Feed Water Flow</td> </tr> </tbody> </table>	[BWR parameter list]	[PWR parameter list]	Reactor Power	Reactor Power	RPV Level	RCS Level	RPV 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	<p style="text-align: right;">MU4</p> <p>Initiating Condition:</p> <p>UNPLANNED loss of Control Room indications for 15 minutes or longer.</p> <p>Operating Mode Applicability:</p> <p>1, 2</p> <p>Emergency Action Level (EAL):</p> <p>Note: The Emergency Director should declare the event promptly upon determining that the applicable time has been exceeded, or will likely be exceeded.</p> <p>UNPLANNED event results in the inability to monitor ANY Table M1 parameter from within the Control Room for ≥ 15 minutes.</p> <table border="1" data-bbox="1258 727 1849 1090"> <thead> <tr> <th>Table M1 Control Room Parameters</th> </tr> </thead> <tbody> <tr> <td> <ul style="list-style-type: none"> • Reactor Power • RPV Water Level • RPV Pressure • Primary Containment Pressure • Torus Water Level • Torus Water Temperature </td> </tr> </tbody> </table>	Table M1 Control Room Parameters	<ul style="list-style-type: none"> • Reactor Power • RPV Water Level • RPV Pressure • Primary Containment Pressure • Torus Water Level • Torus Water Temperature 	<p style="text-align: center;"> <input checked="" type="checkbox"/> No Change <input type="checkbox"/> Difference <input type="checkbox"/> Deviation </p>
[BWR parameter list]	[PWR parameter list]																	
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NEI 99-01 Rev 6	Proposed EAL	Justification
<p style="text-align: right;">SA9</p> <p>Initiating Condition: ALERT</p> <p>Hazardous event affecting a SAFETY SYSTEM needed for the current operating mode.</p> <p>Operating Mode Applicability:</p> <p>Power Operation, Startup, Hot Standby, Hot Shutdown</p> <p>Example Emergency Action Levels:</p> <p>1. 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 style="text-align: center;">AND</p> <p>b. EITHER of the following:</p> <p>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> <p style="text-align: center;">OR</p> <p>2. The event has caused VISIBLE DAMAGE to a SAFETY SYSTEM component or structure needed for the current operating mode.</p>	<p style="text-align: right;">MA5</p> <p>Initiating Condition:</p> <p>Hazardous event affecting a SAFETY SYSTEM required for the current operating mode.</p> <p>Operating Mode Applicability:</p> <p>1, 2</p> <p>Emergency Action Level (EAL):</p> <p>Note: If it is determined that the conditions of MA5 are not met then assess the event via HU3, HU4, or HU6.</p> <p>1. 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 • Other events with similar hazard characteristics as determined by the Shift Manager <p style="text-align: center;">AND</p> <p>2. EITHER of the following:</p> <p>a. Event damage has caused indications of degraded performance in at least one train of a SAFETY SYSTEM required by Technical Specifications for the current operating mode.</p> <p style="text-align: center;">OR</p> <p>b. The event has caused VISIBLE DAMAGE to a SAFETY SYSTEM component or structure required by Technical Specifications for the current operating mode.</p>	<p style="text-align: center;"> <input type="checkbox"/> No Change <input checked="" type="checkbox"/> Difference <input type="checkbox"/> Deviation </p> <p>1) No additional site specific hazard noted</p> <p>2) Changed the word "needed" to "required" in the IC and to "required by Technical Specification" in the EAL, to be consistent with terminology used by operators and minimize confusion.</p> <p>3) Added note to easily direct the operator to potential lesser ICs.</p>

NEI 99-01 Rev 6	Proposed EAL	Justification
<p style="text-align: right;">SU4</p> <p>Initiating Condition: UNUSUAL EVENT</p> <p>RCS leakage for 15 minutes or longer.</p> <p>Operating Mode Applicability:</p> <p>Power Operation, Startup, Hot Standby, Hot Shutdown</p> <p>Example Emergency Action Levels: (1 or 2 or 3)</p> <p>Note: The Emergency Director should declare the Unusual Event promptly upon determining that 15 minutes has been exceeded, or will likely be exceeded.</p> <ol style="list-style-type: none"> 1. RCS unidentified or pressure boundary leakage greater than (site-specific value) for 15 minutes or longer. 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 	<p style="text-align: right;">MU6</p> <p>Initiating Condition:</p> <p>RCS leakage for 15 minutes or longer.</p> <p>Operating Mode Applicability:</p> <p>1, 2</p> <p>Emergency Action Level (EAL):</p> <p>Note: The Emergency Director should declare the event promptly upon determining that the applicable time has been exceeded, or will likely be exceeded.</p> <ol style="list-style-type: none"> 1. RCS unidentified or pressure boundary leakage in the Drywell > 10 gpm for ≥ 15 minutes. OR 2. RCS identified leakage in the Drywell > 25 gpm for ≥ 15 minutes. OR 3. Leakage from the RCS to a location outside the Primary Containment > 25 gpm for ≥ 15 minutes. 	<p> <input type="checkbox"/> No Change <input checked="" type="checkbox"/> Difference <input type="checkbox"/> Deviation </p> <p>1) Listed site specific values to ensure timely classification.</p> <p>2) in EAL #3 Changed wording from containment to Primary Containment for clarity to better define the containment structure.</p> <p>3) In EAL #1 and 2 added into the Drywell to differentiate between EAL #1/2 and #3. Without this wording would have been in EAL #1 or #2 concurrent with #3. With the added wording each EAL can be called separately.</p>

NEI 99-01 Rev 6	Proposed EAL	Justification																																
<p style="text-align: right;">SU6</p> <p>Initiating Condition: UNUSUAL EVENT</p> <p>Loss of all onsite or offsite communications capabilities</p> <p>Operating Mode Applicability:</p> <p>Power Operation, Startup, Hot Standby, Hot Shutdown</p> <p>Example Emergency Action Levels: (1 or 2 or 3)</p> <ol style="list-style-type: none"> 1. Loss of ALL of the following onsite communication methods: (site-specific list of communications methods) 2. Loss of ALL of the following ORO communication methods: (site-specific list of communications methods) 3. Loss of ALL of the following NRC communication methods: (site-specific list of communications methods) 	<p style="text-align: right;">MU7</p> <p>Initiating Condition:</p> <p>Loss of all onsite or offsite communication capabilities.</p> <p>Operating Mode Applicability:</p> <p>1, 2</p> <p>Emergency Action Level (EAL):</p> <ol style="list-style-type: none"> 1. Loss of all Table M3 onsite communication capabilities affecting the ability to perform routine operations. <p style="text-align: center;">OR</p> <ol style="list-style-type: none"> 2. Loss of all Table M3 offsite communication capabilities affecting the ability to perform offsite notifications. <p style="text-align: center;">OR</p> <ol style="list-style-type: none"> 3. Loss of all Table M3 NRC communication capabilities affecting the ability to perform NRC notifications. <table border="1" data-bbox="1112 883 1995 1221" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th colspan="4" style="text-align: center;">Table M3 Communication Capabilities</th> </tr> <tr> <th style="text-align: center;">System</th> <th style="text-align: center;">Onsite</th> <th style="text-align: center;">Offsite</th> <th style="text-align: center;">NRC</th> </tr> </thead> <tbody> <tr> <td>Gaitronics</td> <td style="text-align: center;">X</td> <td></td> <td></td> </tr> <tr> <td>Hand Held Portable Radio (Station Radio)</td> <td style="text-align: center;">X</td> <td></td> <td></td> </tr> <tr> <td>PBX (Conventional Telephone lines)</td> <td style="text-align: center;">X</td> <td style="text-align: center;">X</td> <td style="text-align: center;">X</td> </tr> <tr> <td>Control Room installed satellite phone (non portable)</td> <td style="text-align: center;">X</td> <td style="text-align: center;">X</td> <td style="text-align: center;">X</td> </tr> <tr> <td>ENS</td> <td></td> <td style="text-align: center;">X</td> <td style="text-align: center;">X</td> </tr> <tr> <td>RECS</td> <td></td> <td style="text-align: center;">X</td> <td></td> </tr> </tbody> </table>	Table M3 Communication Capabilities				System	Onsite	Offsite	NRC	Gaitronics	X			Hand Held Portable Radio (Station Radio)	X			PBX (Conventional Telephone lines)	X	X	X	Control Room installed satellite phone (non portable)	X	X	X	ENS		X	X	RECS		X		<p style="text-align: center;"> <input checked="" type="checkbox"/> No Change <input type="checkbox"/> Difference <input type="checkbox"/> Deviation </p> <p>1) Listed site specific communication methods to ensure timely classification.</p> <p>2) Added a descriptor sentence as to the capability being affected for each EAL.</p>
Table M3 Communication Capabilities																																		
System	Onsite	Offsite	NRC																															
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RECS		X																																

NEI 99-01 Rev 6	Proposed EAL	Justification
<p style="text-align: right;">CA2</p> <p>Initiating Condition: ALERT Loss of all offsite and all onsite AC power to emergency buses for 15 minutes or longer.</p> <p>Operating Mode Applicability: Cold Shutdown, Refueling, Defueled</p> <p>Example Emergency Action Levels:</p> <p>Note: The Emergency Director should declare the Alert promptly upon determining that 15 minutes time has been exceeded, or will likely be exceeded.</p> <p>Loss of ALL offsite and ALL onsite AC Power to (site-specific emergency buses) for 15 minutes or longer.</p>	<p style="text-align: right;">CA1</p> <p>Initiating Condition: Loss of all offsite and onsite AC power to emergency buses for 15 minutes or longer.</p> <p>Operating Mode Applicability: 3, 4, D</p> <p>Emergency Action Level (EAL):</p> <p>Note: The Emergency Director should declare the event promptly upon determining that the applicable time has been exceeded, or will likely be exceeded.</p> <ol style="list-style-type: none"> 1. Loss of all offsite and onsite AC power to 4.16 kV Emergency Buses. <p style="text-align: center;">AND</p> <ol style="list-style-type: none"> 2. Failure to restore power to at least one 4.16 kV Emergency Bus from the time of loss of both offsite and onsite AC power in < 15 minutes. 	<p> <input type="checkbox"/> No Change <input checked="" type="checkbox"/> Difference <input type="checkbox"/> Deviation </p> <p>1) Listed site specific equipment to ensure timely classification.</p> <p>2) Changed formatting to be 1 and 2 to conform with Exelon Fleet formatting.</p>

NEI 99-01 Rev 6	Proposed EAL	Justification
<p style="text-align: right;">CU2</p> <p>Initiating Condition: UNUSUAL EVENT Loss of all but one AC power source to emergency buses for 15 minutes or longer.</p> <p>Operating Mode Applicability: Cold Shutdown, Refueling, Defueled</p> <p>Example Emergency Action Levels:</p> <p>Note: The Emergency Director should declare the Unusual Event promptly upon determining that 15 minutes time has been exceeded, or will likely be exceeded.</p> <p>1. a. AC power capability to (site-specific emergency buses) is reduced to a single power source for 15 minutes or longer.</p> <p>AND</p> <p>b. Any additional single power source failure will result in loss of all AC power to SAFETY SYSTEMS.</p>	<p style="text-align: right;">CU1</p> <p>Initiating Condition: Loss of all but one AC power source to emergency buses for 15 minutes or longer.</p> <p>Operating Mode Applicability: 3, 4, D</p> <p>Emergency Action Level (EAL):</p> <p>Note: The Emergency Director should declare the event promptly upon determining that the applicable time has been exceeded, or will likely be exceeded.</p> <p>1. AC power capability to 4.16 kV Emergency Buses reduced to only one of the following power sources for ≥ 15 minutes.</p> <ul style="list-style-type: none"> • T-101 N • T-101 S • DG-102 Emergency Diesel Generator • DG-103 Emergency Diesel Generator <p>AND</p> <p>2. ANY additional single power source failure will result in a loss of all AC power to SAFETY SYSTEMS.</p>	<p><input checked="" type="checkbox"/> No Change <input type="checkbox"/> Difference <input type="checkbox"/> Deviation</p> <p>1) Listed site specific equipment to ensure timely classification.</p>

NEI 99-01 Rev 6	Proposed EAL	Justification
<p style="text-align: right;">CA6</p> <p>Initiating Condition – ALERT Hazardous event affecting SAFETY SYSTEM needed for the current operating mode.</p> <p>Operating Mode Applicability: Cold Shutdown, Refueling</p> <p>Example Emergency Action Levels:</p> <p>1. 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> <p>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> <p>OR</p> <p>2. The event has caused VISIBLE DAMAGE to a SAFETY SYSTEM component or structure needed for the current operating mode.</p>	<p style="text-align: right;">CA2</p> <p>Initiating Condition: Hazardous event affecting SAFETY SYSTEM required for the current operating mode.</p> <p>Operating Mode Applicability: 3, 4</p> <p>Emergency Action Level (EAL):</p> <p>Note: If it is determined that the conditions of CA2 are not met then assess the event via HU3, HU4, or HU6.</p> <p>1. 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 • Other events with similar hazard characteristics as determined by the Shift Manager <p>AND</p> <p>2. EITHER of the following:</p> <p>a. Event damage has caused indications of degraded performance in at least one train of a SAFETY SYSTEM required by Technical Specifications for the current operating mode.</p> <p>OR</p> <p>b. The event has caused VISIBLE DAMAGE to a SAFETY SYSTEM component or structure required by Technical Specifications for the current operating mode.</p>	<p style="text-align: center;"> <input type="checkbox"/> No Change <input checked="" type="checkbox"/> Difference <input type="checkbox"/> Deviation </p> <p>1) No additional site specific hazards noted</p> <p>2) Changed the word "needed" to "required" in the IC and "required by Technical Specification" in the EAL to be consistent with terminology used by operators and minimize confusion.</p> <p>3) Added note to easily direct the operator to potential lesser ICs.</p>

NEI 99-01 Rev 6	Proposed EAL	Justification
<p style="text-align: right;">CU4</p> <p>Initiating Condition: UNUSUAL EVENT Loss of Vital DC power for 15 minutes or longer.</p> <p>Operating Mode Applicability: Cold Shutdown, Refueling</p> <p>Example Emergency Action Levels:</p> <p>Note: The Emergency Director should declare the Unusual Event promptly upon determining that 15 minutes time has been exceeded, or will likely be exceeded.</p> <p>Indicated voltage is less than (site-specific bus voltage value) on required Vital DC buses for 15 minutes or longer.</p>	<p style="text-align: right;">CU3</p> <p>Initiating Condition: Loss of Vital DC power for 15 minutes or longer.</p> <p>Operating Mode Applicability: 3, 4</p> <p>Emergency Action Level (EAL):</p> <p>Note: The Emergency Director should declare the event promptly upon determining that the applicable time has been exceeded, or will likely be exceeded.</p> <p>Voltage is < 106 VDC on required 125 VDC Battery Boards 11 and 12 for ≥ 15 minutes.</p>	<p> <input type="checkbox"/> No Change <input checked="" type="checkbox"/> Difference <input type="checkbox"/> Deviation </p> <p>1) Listed site specific voltage and equipment to ensure timely classification.</p> <p>2) Removed the word "indicated" this will allow for an indication problem to not cause confusion on the need to declare.</p>

CU5

Initiating Condition: UNUSUAL EVENT

Loss of all onsite or offsite communications capabilities

Operating Mode Applicability:

Cold Shutdown, Refueling, Defueled

Example Emergency Action Levels: (1 or 2 or 3)

1. Loss of **ALL** of the following onsite communication methods:
(site-specific list of communications method)
2. Loss of **ALL** of the following ORO communications s) methods:
(site-specific list of communications methods)
3. Loss of **ALL** of the following NRC communications methods:
(site-specific list of communications methods)

CU4

Initiating Condition:

Loss of all onsite or offsite communication capabilities.

Operating Mode Applicability:

3, 4, D

Emergency Action Level (EAL):

1. Loss of all Table C1 onsite communication capabilities affecting the ability to perform routine operations.
OR
2. Loss of all Table C1 offsite communication capabilities affecting the ability to perform offsite notifications.
OR
3. Loss of all Table C1 NRC communication capabilities affecting the ability to perform NRC notifications.

Table C1 Communication Capabilities			
System	Onsite	Offsite	NRC
Gaitronics	X		
Hand Held Portable Radio (Station Radio)	X		
PBX (Conventional Telephone lines)	X	X	X
Control Room installed satellite phone (non portable)	X	X	X
ENS		X	X
RECS		X	

No Change Difference Deviation

- 1) Listed site specific communications methods to ensure timely classification
- 2) Added a descriptor sentence as to the capability being affected for each EAL.

CA3

Initiating Condition: ALERT

Inability to maintain the plant in cold shutdown.

Operating Mode Applicability:

Cold Shutdown, Refueling

Example Emergency Action Levels: (1 or 2)

Note: The Emergency Director should declare the Alert promptly upon determining that the applicable has been exceeded, or will likely be exceeded.

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.
2. UNPLANNED RCS pressure increase greater than (site-specific pressure reading). (This EAL does not apply during water-solid plant conditions. [PWR])

Table: RCS Heat-up Duration Thresholds

RCS Status	Containment Closure Status	Heat-up Duration
Intact (but not RCS 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.

CA5

Initiating Condition:

Inability to maintain plant in cold shutdown.

Operating Mode Applicability:

3, 4

Emergency Action Level (EAL):

Note:

- The Emergency Director should declare the event promptly upon determining that the applicable time has been exceeded, or will likely be exceeded.
- A momentary UNPLANNED excursion above the Technical Specification cold shutdown temperature limit when heat removal function is available does not warrant classification.

1. UNPLANNED rise in RCS temperature to > 212°F for > Table C2 duration.

Table C2 RCS Heat-up Duration Thresholds

RCS Status	Containment Closure Status	Heat-up Duration
Intact	Not Applicable	60 minutes*
Not Intact	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, then EAL #1 is **not** applicable.

OR

2. UNPLANNED RPV pressure rise > 10 psig as a result of temperature rise.

No Change Difference Deviation

1) Listed site specific Technical Specification cold shutdown temperature limit and site-specific pressure reading to ensure timely classification.

2) Listed site specific pressure reading to enhance timely classification.

3) Added the following note, taken from the basis section of the EAL, to bring it to the attention of the SM/ED when using the reference control room document. "A momentary UNPLANNED excursion above the Technical Specification cold shutdown temperature limit when heat removal function is available does not warrant classification."

4) Changed the word increase to rise in the EALs to be consistent with operations language and training.

NEI 99-01 Rev 6	Proposed EAL	Justification
<p style="text-align: right;">CU3</p> <p>Initiating Condition: UNUSUAL EVENT UNPLANNED increase in RCS temperature.</p> <p>Operating Mode Applicability: Cold Shutdown, Refueling</p> <p>Example Emergency Action Levels: (1 or 2)</p> <p>Note: The Emergency Director should declare the Unusual Event promptly upon determining that 15 minutes time has been exceeded, or will likely be exceeded.</p> <ol style="list-style-type: none"> UNPLANNED increase in RCS temperature to greater than (site-specific Technical Specification cold shutdown temperature limit). Loss of ALL RCS temperature and (reactor vessel/RCS [<i>PWR</i>] or RPV [<i>BWR</i>]) level indication for 15 minutes or longer. 	<p style="text-align: right;">CU5</p> <p>Initiating Condition: UNPLANNED rise in RCS temperature.</p> <p>Operating Mode Applicability: 3, 4</p> <p>Emergency Action Level (EAL):</p> <p>Note:</p> <ul style="list-style-type: none"> The Emergency Director should declare the event promptly upon determining that the applicable time has been exceeded, or will likely be exceeded. A momentary UNPLANNED excursion above the Technical Specification cold shutdown temperature limit when heat removal function is available does not warrant classification. <ol style="list-style-type: none"> UNPLANNED rise in RCS temperature to > 212°F. <p style="text-align: center;">OR</p> <ol style="list-style-type: none"> Loss of the following for ≥ 15 minutes: <ul style="list-style-type: none"> ALL RCS temperature indications <p style="text-align: center;">AND</p> <ul style="list-style-type: none"> ALL RPV level indications 	<p style="text-align: center;"> <input type="checkbox"/> No Change <input checked="" type="checkbox"/> Difference <input type="checkbox"/> Deviation </p> <p>1) Listed site specific Technical Specification cold shutdown temperature limit to ensure timely classification.</p> <p>2) Changed the word increase to rise in the initiating condition to be consistent with operations language and training.</p> <p>3) Added the following note, taken from the basis section of the EAL, to bring it to the attention of the SM/ED when using the reference control room document. "A momentary UNPLANNED excursion above the Technical Specification cold shutdown temperature limit when heat removal function is available does not warrant classification."</p>

CG1

Initiating Condition: GENERAL EMERGENCY

Loss of (reactor vessel/RCS [PWR] or RPV [BWR]) inventory affecting fuel clad integrity with containment challenged.

Operating Mode Applicability:

Cold Shutdown, Refueling

Example Emergency Action Levels: (1 or 2)

Note: The Emergency Director should declare the General Emergency promptly upon determining that 30 minutes time has been exceeded, or will likely be exceeded.

1. a. (Reactor vessel/RCS [PWR] or RPV [BWR]) vessel level less than (site-specific level) for 30 minutes or longer.

AND

- b. **ANY** indication from the Containment Challenge Table

2. a.. (Reactor vessel/RCS [PWR] or RPV [BWR]) vessel level cannot be monitored for 30 minutes or longer.

AND

- b. Core uncover is indicated by **ANY** of the following:

- (Site-specific radiation monitor) reading greater than (site-specific value)
- Erratic source range monitor indication [PWR]
- UNPLANNED increase in (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.

Table: Containment Challenge Table

- 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 core uncover time limit, then escalation to a General Emergency is not required.

CG6

Initiating Condition:

Loss of RPV inventory affecting fuel clad integrity with containment challenged.

Operating Mode Applicability:

3, 4

Emergency Action Level (EAL):

Note: The Emergency Director should declare the event promptly upon determining that the applicable time has been exceeded, or will likely be exceeded.

- 1 a. RPV water level < - 84 inches for ≥ 30 minutes.

AND

- b. **ANY** Table C4 Containment Challenge Indication.

OR

2. a. RPV water level cannot be monitored for ≥ 30 minutes.

AND

- b. Core uncover is indicated by **ANY** of the following:

- Table C3 indication of a sufficient magnitude to indicate core uncover.

OR

- Refuel Bridge High Range Radiation Monitor reading ≥ 3 R/hr.

AND

- c. **ANY** Table C4 Containment Challenge Indication.

Table C3 Indications of RCS Leakage

- UNPLANNED Drywell equipment drain tank level rise*
- UNPLANNED Drywell floor drain tank level rise*
- UNPLANNED Reactor Building equipment sump level rise*
- UNPLANNED Reactor Building floor drain sump level rise*
- UNPLANNED Torus water level rise*
- UNPLANNED RPV make up rate rise*
- Observation of leakage or inventory loss

*Rise in level is attributed to a loss of RPV inventory

Table C4 Containment Challenge Indications

- Primary Containment Hydrogen Concentration ≥ 6% and Oxygen Concentration ≥ 5%
- UNPLANNED rise in containment pressure
- CONTAINMENT CLOSURE not established*
- Reactor Building area radiation > 8 R/hr.

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

No Change Difference Deviation

1) Listed site specific levels, radiation monitors, and sumps and tanks to ensure timely classification.

2) Listed Explosive mixture in the Containment Challenge Table to ensure timely classification.

3) Changed the word increase to rise in 2.b 3rd bullet to be consistent with operations language and training.

NEI 99-01 Rev 6	Proposed EAL	Justification			
<p style="text-align: right;">CS1</p> <p>Initiating Condition: SITE AREA EMERGENCY Loss of (reactor vessel/RCS [PWR] or RPV [BWR]) inventory affecting core decay heat removal capability.</p> <p>Operating Mode Applicability: Cold Shutdown, Refueling</p> <p>Example Emergency Action Levels: (1 or 2 or 3)</p> <p>Note: The Emergency Director should declare the Site Area Emergency promptly upon determining that 30 minutes time has been exceeded, or will likely be exceeded.</p> <p>1. a. CONTAINMENT CLOSURE not established.</p> <p>AND</p> <p>b. (Reactor vessel/RCS [PWR] or RPV [BWR]) level less than (site-specific level).</p> <p>2. a. CONTAINMENT CLOSURE established.</p> <p>AND</p> <p>b. (Reactor vessel/RCS [PWR] or RPV [BWR]) level less than (site-specific level).</p> <p>3. a. (Reactor vessel/RCS [PWR] or RPV [BWR]) level cannot be monitored for 30 minutes or longer.</p> <p>AND</p> <p>b. Core uncover is indicated by ANY of the following:</p> <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 (site-specific sump and/or tank levels) of sufficient magnitude to indicate core uncover • (Other site-specific indications) 	<p style="text-align: right;">CS6</p> <p>Initiating Condition: Loss of RPV inventory affecting core decay heat removal capabilities.</p> <p>Operating Mode Applicability: 3, 4</p> <p>Emergency Action Level (EAL):</p> <p>Note: The Emergency Director should declare the event promptly upon determining that the applicable time has been exceeded, or will likely be exceeded.</p> <p>1. With CONTAINMENT CLOSURE not established, RPV water level < - 10 inches.</p> <p>OR</p> <p>2. With CONTAINMENT CLOSURE established, RPV water level < - 84 inches.</p> <p>OR</p> <p>3. a. RPV water level cannot be monitored for ≥ 30 minutes</p> <p>AND</p> <p>b. Core uncover is indicated by ANY of the following:</p> <ul style="list-style-type: none"> • Table C3 indication of a sufficient magnitude to indicate core uncover. <p>OR</p> <ul style="list-style-type: none"> • Refuel Bridge High Range Radiation Monitor reading ≥ 3 R/hr. <table border="1" data-bbox="1215 1080 1898 1507" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th style="text-align: center;">Table C3 Indications of RCS Leakage</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;"> <ul style="list-style-type: none"> • UNPLANNED Drywell equipment drain tank level rise* • UNPLANNED Drywell floor drain tank level rise* • UNPLANNED Reactor Building equipment sump level rise* • UNPLANNED Reactor Building floor drain sump level rise* • UNPLANNED Torus water level rise* • UNPLANNED RPV make up rate rise* • Observation of leakage or inventory loss </td> </tr> <tr> <td style="text-align: center;">*Rise in level is attributed to a loss of RPV inventory</td> </tr> </tbody> </table>	Table C3 Indications of RCS Leakage	<ul style="list-style-type: none"> • UNPLANNED Drywell equipment drain tank level rise* • UNPLANNED Drywell floor drain tank level rise* • UNPLANNED Reactor Building equipment sump level rise* • UNPLANNED Reactor Building floor drain sump level rise* • UNPLANNED Torus water level rise* • UNPLANNED RPV make up rate rise* • Observation of leakage or inventory loss 	*Rise in level is attributed to a loss of RPV inventory	<p style="text-align: center;"> <input type="checkbox"/> No Change <input checked="" type="checkbox"/> Difference <input type="checkbox"/> Deviation </p> <p>1) Listed site specific values for level, radiation monitors, and sumps and tanks to ensure timely classification.</p> <p>2) Changed the word increase to rise in 3.b 3rd bullet to be consistent with operations language and training.</p>
Table C3 Indications of RCS Leakage					
<ul style="list-style-type: none"> • UNPLANNED Drywell equipment drain tank level rise* • UNPLANNED Drywell floor drain tank level rise* • UNPLANNED Reactor Building equipment sump level rise* • UNPLANNED Reactor Building floor drain sump level rise* • UNPLANNED Torus water level rise* • UNPLANNED RPV make up rate rise* • Observation of leakage or inventory loss 					
*Rise in level is attributed to a loss of RPV inventory					

NEI 99-01 Rev 6	Proposed EAL	Justification
<p style="text-align: right;">CA1</p> <p>Initiating Condition: ALERT Loss of (reactor vessel/RCS [PWR] or RPV [BWR]) inventory</p> <p>Operating Mode Applicability: Cold Shutdown, Refueling</p> <p>Example Emergency Action Levels: (1 or 2)</p> <p>Note: The Emergency Director should declare the Alert promptly upon determining that 15 minutes time has been exceeded, or will likely be exceeded.</p> <ol style="list-style-type: none"> 1. Loss of (reactor vessel/RCS [PWR] or RPV [BWR]) inventory as indicated by level less than (site-specific level). 2. <ol style="list-style-type: none"> a. (Reactor vessel/RCS [PWR] or RPV [BWR]) level cannot be monitored for 15 minutes or longer <p>AND</p> <ol style="list-style-type: none"> b. UNPLANNED increase in (site-specific sump and/or tank) levels due to a loss of (reactor vessel/RCS [PWR] or RPV [BWR]) inventory. 	<p style="text-align: right;">CA6</p> <p>Initiating Condition: Loss of RPV inventory</p> <p>Operating Mode Applicability: 3, 4</p> <p>Emergency Action Level (EAL):</p> <p>Note: The Emergency Director should declare the event promptly upon determining that the applicable time has been exceeded, or will likely be exceeded.</p> <ol style="list-style-type: none"> 1. Loss of RPV inventory as indicated by level < + 5 inches. <p>OR</p> <ol style="list-style-type: none"> 2. <ol style="list-style-type: none"> a. RPV water level cannot be monitored for ≥ 15 minutes. <p>AND</p> <ol style="list-style-type: none"> b. Loss of RPV inventory per Table C3 indications <div style="border: 1px solid black; padding: 5px; margin: 10px auto; width: fit-content;"> <p style="text-align: center;">Table C3 Indications of RCS Leakage</p> <ul style="list-style-type: none"> • UNPLANNED Drywell equipment drain tank level rise* • UNPLANNED Drywell floor drain tank level rise* • UNPLANNED Reactor Building equipment sump level rise* • UNPLANNED Reactor Building floor drain sump level rise* • UNPLANNED Torus water level rise* • UNPLANNED RPV make up rate rise* • Observation of leakage or inventory loss <p style="text-align: center;">*Rise in level is attributed to a loss of RPV inventory</p> </div>	<p style="text-align: center;"> <input type="checkbox"/> No Change <input checked="" type="checkbox"/> Difference <input type="checkbox"/> Deviation </p> <p>1) Listed site specific levels, and sumps and tanks to ensure timely classification.</p> <p>2) Changed the word increase to rise in 2.b to be consistent with operations language and training.</p>

NEI 99-01 Rev 6	Proposed EAL	Justification
<p style="text-align: right;">CU1</p> <p>Initiating Condition: UNUSUAL EVENT</p> <p>UNPLANNED loss of (reactor vessel/RCS [PWR] or RPV [BWR]) inventory for 15 minutes or longer.</p> <p>Operating Mode Applicability:</p> <p>Cold Shutdown, Refueling</p> <p>Example Emergency Action Levels: (1 or 2)</p> <p>Note: The Emergency Director should declare the Unusual Event promptly upon determining that 15 minutes has been exceeded, or will likely be exceeded.</p> <ol style="list-style-type: none"> 1. UNPLANNED loss of reactor coolant results in (reactor vessel/RCS [PWR] or RPV [BWR]) level less than a required lower limit for 15 minutes or longer. 2. a. (Reactor vessel/RCS [PWR] or RPV [BWR]) level cannot be monitored. <p style="text-align: center;">AND</p> <ol style="list-style-type: none"> b. UNPLANNED increase in (site-specific sump and/or tank) levels. 	<p style="text-align: right;">CU6</p> <p>Initiating Condition:</p> <p>UNPLANNED loss of RPV inventory for 15 minutes or longer.</p> <p>Operating Mode Applicability:</p> <p>3, 4</p> <p>Emergency Action Level (EAL):</p> <p>Note: The Emergency Director should declare the event promptly upon determining that the applicable time has been exceeded, or will likely be exceeded.</p> <ol style="list-style-type: none"> 1. UNPLANNED loss of reactor coolant results in the inability to restore and maintain RPV level to above the procedurally established lower limit for ≥ 15 minutes. <p style="text-align: center;">OR</p> <ol style="list-style-type: none"> 2. a. RPV level <u>cannot</u> be monitored <p style="text-align: center;">AND</p> <ol style="list-style-type: none"> b. Loss of RPV inventory per Table C3 indication. <div style="border: 1px solid black; padding: 5px; margin: 10px auto; width: fit-content;"> <p style="text-align: center;">Table C3 Indications of RCS Leakage</p> <ul style="list-style-type: none"> • UNPLANNED Drywell equipment drain tank level rise* • UNPLANNED Drywell floor drain tank level rise* • UNPLANNED Reactor Building equipment sump level rise* • UNPLANNED Reactor Building floor drain sump level rise* • UNPLANNED Torus water level rise* • UNPLANNED RPV make up rate rise* • Observation of leakage or inventory loss <p style="text-align: center; font-size: small;">*Rise in level is attributed to a loss of RPV inventory</p> </div>	<p style="text-align: center;"> <input type="checkbox"/> No Change <input checked="" type="checkbox"/> Difference <input type="checkbox"/> Deviation </p> <p>1) Described “a required lower limit” as a procedurally established lower limit, and listed site specific sumps and tanks to ensure timely classification.</p> <p>2) Changed the word increase to rise in 2.b to be consistent with operations language and training.</p>

NEI 99-01 Rev 6	Proposed EAL	Justification
<p style="text-align: right;">HG1</p> <p>Initiating Condition: GENERAL EMERGENCY</p> <p>HOSTILE ACTION resulting in loss of physical control of the facility.</p> <p>Operating Mode Applicability:</p> <p>All</p> <p>Example Emergency Action Levels:</p> <p>1. a. A HOSTILE ACTION is occurring or has occurred within the PROTECTED AREA as reported by the (site-specific security shift supervision).</p> <p style="padding-left: 40px;">AND</p> <p>b. EITHER of the following:</p> <p style="padding-left: 80px;">1. ANY of the following safety functions cannot be controlled or maintained.</p> <ul style="list-style-type: none"> ▪ Reactivity control ▪ Core cooling [<i>PWR</i>] / RPV water level [<i>BWR</i>] ▪ RCS heat removal <p style="padding-left: 80px;">OR</p> <p style="padding-left: 80px;">2. Damage to spent fuel has occurred or is IMMINENT</p>	<p>Not used</p>	<p style="text-align: center;"> <input type="checkbox"/> No Change <input type="checkbox"/> Difference <input checked="" type="checkbox"/> Deviation </p> <p>EAL HG1 has two distinct parts, they will be addressed separately as follows:</p> <p>1. Hostile Action in the Protected Area is bounded by EALs HS1 and HS7. Hostile Action resulting in a loss of physical control is bounded by EAL HG7, as well as any event that may lead to radiological releases to the public in excess of Environmental Protection Agency (EPA) Protective Action Guides (EPA PAGs).</p> <p style="padding-left: 40px;">a. If, for whatever reason, the Control Room (CR) must be evacuated, and control of safety functions (reactivity control, core cooling (PWR) cannot be reestablished, then EAL HS6 would apply, as well as EAL HS7 if desired by the EAL decision-maker.</p> <p style="padding-left: 40px;">b. Also, as stated above, any event (including Hostile Action) that could reasonably be expected to have a release exceeding EPA PAGs would be bounded by EAL HG7.</p> <p style="padding-left: 40px;">c. From a Hostile Action perspective, EALs HS1, HS7, and HG7 are appropriate and therefore makes this part of HG1 redundant and unnecessary.</p> <p style="padding-left: 40px;">d. From a loss of physical control perspective, EALs HS6, HS7, and HG7 are appropriate and therefore makes this part of EAL HG1 redundant and unnecessary.</p> <p>2. Any event which causes a loss of spent fuel pool level will be bounded by EALs AA2, AS2, and AG2 (Exelon RG2, RS2 and RA2) regardless of whether it was based upon a Hostile Action or not, thus making this part of HG1 redundant and unnecessary.</p> <p style="padding-left: 40px;">a. An event that leads to a radiological release will be bounded by EALs AU1, AA1, AS1, and AG1 (Exelon RG1, RS1, RA1 and RU1). Events that lead to radiological releases in excess of EPA PAGs will be bounded by EALs AG1 (Exelon RG1) and HG7, thus making this part of EAL HG1 redundant and unnecessary.</p>

NEI 99-01 Rev 6	Proposed EAL	Justification
<p style="text-align: right;">HS1</p> <p>Initiating Condition: SITE AREA EMERGENCY</p> <p>HOSTILE ACTION within the Protected Area.</p> <p>Operating Mode Applicability:</p> <p>All</p> <p>Example Emergency Action Levels:</p> <p>A HOSTILE ACTION is occurring or has occurred within the PROTECTED AREA as reported by the (site-security shift supervision).</p>	<p style="text-align: right;">HS1</p> <p>Initiating Condition:</p> <p>HOSTILE ACTION within the Protected Area.</p> <p>Operating Mode Applicability:</p> <p>1, 2, 3, 4, D</p> <p>Emergency Action Level (EAL):</p> <p>A notification from the Security Force that a HOSTILE ACTION is occurring or has occurred within the PROTECTED AREA.</p>	<p> <input checked="" type="checkbox"/> No Change <input type="checkbox"/> Difference <input type="checkbox"/> Deviation </p> <p>1) List site security shift supervision as Security Force.</p>

NEI 99-01 Rev 6	Proposed EAL	Justification
<p style="text-align: right;">HA1</p> <p>Initiating Condition: ALERT</p> <p>HOSTILE ACTION within the OWNER CONTROLLED AREA or airborne attack threat within 30 minutes.</p> <p>Operating Mode Applicability:</p> <p>All</p> <p>Example Emergency Action Levels: (1 or 2)</p> <ol style="list-style-type: none"> A HOSTILE ACTION is occurring or has occurred within the OWNER CONTROLLED AREA as reported by the (site-specific security shift supervision). A validated notification from NRC of an aircraft attack threat within 30 minutes of the site. 	<p style="text-align: right;">HA1</p> <p>Initiating Condition:</p> <p>HOSTILE ACTION within the OWNER CONTROLLED AREA or airborne attack threat within 30 minutes.</p> <p>Operating Mode Applicability:</p> <p>1, 2, 3, 4, D</p> <p>Emergency Action Level (EAL):</p> <ol style="list-style-type: none"> A validated notification from NRC of an aircraft attack threat < 30 minutes from the site. <p style="text-align: center;">OR</p> <ol style="list-style-type: none"> Notification by the Security Force that a HOSTILE ACTION is occurring or has occurred within the OWNER CONTROLLED AREA. 	<p> <input type="checkbox"/> No Change <input checked="" type="checkbox"/> Difference <input type="checkbox"/> Deviation </p> <p>1) List site security shift supervision as Security Force.</p> <p>2) Changed EAL numbering to conform with previous Exelon numbering scheme.</p>

NEI 99-01 Rev 6	Proposed EAL	Justification
<p style="text-align: right;">HU1</p> <p>Initiating Condition: UNUSUAL EVENT</p> <p>Confirmed SECURITY CONDITION or threat.</p> <p>Operating Mode Applicability:</p> <p>All</p> <p>Example Emergency Action Levels: (1 or 2 or 3)</p> <ol style="list-style-type: none"> 1. A SECURITY CONDITION that does not involve a HOSTILE ACTION as reported by the (site-specific security shift supervision). 2. Notification of a credible security threat directed at the site. 3. A validated notification from the NRC providing information of an aircraft threat. 	<p style="text-align: right;">HU1</p> <p>Initiating Condition:</p> <p>Confirmed SECURITY CONDITION or threat.</p> <p>Operating Mode Applicability:</p> <p>1, 2, 3, 4, D</p> <p>Emergency Action Level (EAL):</p> <ol style="list-style-type: none"> 1. Notification of a credible security threat directed at the site as determined per SY-AA-101-132, Security Assessment and Response to Unusual Activities. <p style="text-align: center;">OR</p> <ol style="list-style-type: none"> 2. A validated notification from the NRC providing information of an aircraft threat. <p style="text-align: center;">OR</p> <ol style="list-style-type: none"> 3. Notification by the Security Force of a SECURITY CONDITION that does not involve a HOSTILE ACTION. 	<p> <input type="checkbox"/> No Change <input checked="" type="checkbox"/> Difference <input type="checkbox"/> Deviation </p> <ol style="list-style-type: none"> 1) List site security shift supervision as Security Force. 2) Further described credible security threat through listing a site specific procedure. 3) Changed EAL numbering to conform with previous Exelon numbering scheme.

NEI 99-01 Rev 6	Proposed EAL	Justification		
<p style="text-align: right;">HS6</p> <p>Initiating Condition: SITE AREA EMERGENCY</p> <p>Inability to control a key safety function from outside the Control Room.</p> <p>Operating Mode Applicability:</p> <p>All</p> <p>Example Emergency Action Levels: (1 and 2)</p> <p>Note: The Emergency Director should declare the Site Area Emergency promptly upon determining that (site-specific number of minutes) has been exceeded, or will likely be exceeded.</p> <ol style="list-style-type: none"> An event has resulted in plant control being transferred from the Control Room to (site-specific remote shutdown panels and local control stations). Control of ANY of the following key safety functions is not reestablished within (site-specific number of minutes). <ul style="list-style-type: none"> Reactivity control Core cooling [<i>PWR</i>] / RPV water level [<i>BWR</i>] RCS heat removal 	<p style="text-align: right;">HS2</p> <p>Initiating Condition:</p> <p>Inability to control a key safety function from outside the Control Room.</p> <p>Operating Mode Applicability:</p> <p>1, 2, 3, 4, D</p> <p>Emergency Action Level (EAL):</p> <p>Note: The Emergency Director should declare the event promptly upon determining that the applicable time has been exceeded, or will likely be exceeded.</p> <ol style="list-style-type: none"> A Control Room evacuation has resulted in plant control being transferred from the Control Room to alternate locations per N1-SOP-21.2, Control Room Evacuation. <p>AND</p> <ol style="list-style-type: none"> Control of ANY Table H1 key safety function is not reestablished in < 15 minutes. <table border="1" data-bbox="1196 776 1933 1064" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th style="text-align: center;">Table H1 Safety Functions</th> </tr> </thead> <tbody> <tr> <td> <ul style="list-style-type: none"> Reactivity Control (ability to shutdown the reactor and keep it shutdown) RPV Water Level (ability to cool the core) RCS Heat Removal (ability to maintain a heat sink) </td> </tr> </tbody> </table>	Table H1 Safety Functions	<ul style="list-style-type: none"> Reactivity Control (ability to shutdown the reactor and keep it shutdown) RPV Water Level (ability to cool the core) RCS Heat Removal (ability to maintain a heat sink) 	<p style="text-align: center;"> <input type="checkbox"/> No Change <input checked="" type="checkbox"/> Difference <input type="checkbox"/> Deviation </p> <p>1) EAL uses the site specific Control Room evacuation procedures to effectively list all of the alternate locations, panels, and stations requested by the developer notes. This would be the procedures the Control Room would enter should such an event occur, this allows for greater clarity as to when this EAL would apply than if each panel and station used in alternate shutdown were to be listed,</p> <p>2) Added descriptors to better explain each safety function and allow for a timely classification.</p> <p>3) Changed "An event" to "A Control Room evacuation" to remove confusion if partial plant control was transferred to outside the control room with the control room still staffed, due to testing or equipment failure.</p>
Table H1 Safety Functions				
<ul style="list-style-type: none"> Reactivity Control (ability to shutdown the reactor and keep it shutdown) RPV Water Level (ability to cool the core) RCS Heat Removal (ability to maintain a heat sink) 				

NEI 99-01 Rev 6	Proposed EAL	Justification
<p style="text-align: right;">HA6</p> <p>Initiating Condition: ALERT</p> <p>Control Room evacuation resulting in transfer of plant control to alternate locations.</p> <p>Operating Mode Applicability:</p> <p>All</p> <p>Example Emergency Action Levels:</p> <p>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 style="text-align: right;">HA2</p> <p>Initiating Condition:</p> <p>Control Room evacuation resulting in transfer of plant control to alternate locations.</p> <p>Operating Mode Applicability:</p> <p>1, 2, 3, 4, D</p> <p>Emergency Action Level (EAL):</p> <p>A Control Room evacuation has resulted in plant control being transferred from the Control Room to alternate locations per N1-SOP-21.2, Control Room Evacuation.</p>	<p> <input type="checkbox"/> No Change <input checked="" type="checkbox"/> Difference <input type="checkbox"/> Deviation </p> <p>1) EAL uses the site specific Control Room evacuation procedures to effectively list all of the alternate locations, panels, and stations requested by the developer notes. This would be the procedures the Control Room would enter should such an event occur, this allows for greater clarity as to when this EAL would apply than if each panel and station used in alternate shutdown were to be listed,</p> <p>2) Changed "An event" to "A Control Room evacuation" to remove confusion if partial plant control was transferred to outside the control room with the control room still staffed, due to testing or equipment failure.</p>

NEI 99-01 Rev 6	Proposed EAL	Justification		
<p style="text-align: right;">HU4</p> <p>Initiating Condition: UNUSUAL EVENT</p> <p>FIRE potentially degrading the level of safety of the plant.</p> <p>Operating Mode Applicability:</p> <p>All</p> <p>Example Emergency Action Levels: (1 or 2 or 3 or 4)</p> <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> <ol style="list-style-type: none"> 1. a. A FIRE is NOT extinguished within 15-minutes of ANY of the following FIRE detection indications: <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 style="text-align: center;">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> 2. a. Receipt of a single fire alarm (i.e., no other indications of a FIRE). AND b. The FIRE is located within ANY of the following plant rooms or areas: (site-specific list of plant rooms or areas) AND c. The existence of a FIRE is not verified within 30-minutes of alarm receipt. 3. A FIRE within the plant or ISFSI [for plants with an ISFSI outside the plant Protected Area] PROTECTED AREA not extinguished within 60-minutes of the initial report, alarm or indication. 4. A FIRE within the plant or ISFSI [for plants with an ISFSI outside the plant Protected Area] PROTECTED AREA that requires firefighting support by an offsite fire response agency to extinguish. 	<p style="text-align: right;">HU3</p> <p>Initiating Condition:</p> <p>FIRE potentially degrading the level of safety of the plant.</p> <p>Operating Mode Applicability:</p> <p>1, 2, 3, 4, D</p> <p>Emergency Action Level (EAL):</p> <p>Note:</p> <ul style="list-style-type: none"> • The Emergency Director should declare the event promptly upon determining that the applicable time has been exceeded, or will likely be exceeded. • Escalation of the emergency classification level would be via IC CA2 or MA5 <ol style="list-style-type: none"> 1. A FIRE in ANY Table H2 area is not extinguished in < 15 minutes of ANY of the following FIRE detection indications: <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 <table border="1" style="margin-left: 40px; width: 60%;"> <thead> <tr> <th style="text-align: center;">Table H2 Areas</th> </tr> </thead> <tbody> <tr> <td> <ul style="list-style-type: none"> • Reactor Building (when inerted the Drywell is exempt) • Control Room • Screenhouse • Turbine Building <ul style="list-style-type: none"> • 11 and 12 Battery Rooms • 11 and 12 Battery Board Rooms • Cable Spreading Room • 291' North • Diesel Generator Engine and Board Rooms </td> </tr> </tbody> </table> <p style="text-align: center;">OR</p> <ol style="list-style-type: none"> 2. a. Receipt of a single fire alarm in ANY Table H2 area (i.e., no other indications of a FIRE). AND b. The existence of a FIRE is not verified in < 30 minutes of alarm receipt. OR 3. A FIRE within the plant PROTECTED AREA not extinguished in < 60 minutes of the initial report, alarm or indication. OR 4. A FIRE within the plant PROTECTED AREA that requires firefighting support by an offsite fire response agency to extinguish. 	Table H2 Areas	<ul style="list-style-type: none"> • Reactor Building (when inerted the Drywell is exempt) • Control Room • Screenhouse • Turbine Building <ul style="list-style-type: none"> • 11 and 12 Battery Rooms • 11 and 12 Battery Board Rooms • Cable Spreading Room • 291' North • Diesel Generator Engine and Board Rooms 	<p style="text-align: center;"> <input type="checkbox"/> No Change <input checked="" type="checkbox"/> Difference <input type="checkbox"/> Deviation </p> <ol style="list-style-type: none"> 1) Listed site specific list of plant rooms or areas that contain SAFETY SYSTEM equipment to ensure timely classification. 2) Incorporated 1.b into 1.a, and 2.b into 2.a 3) The site ISFSI is located within the plant protected area as such it is not specifically addressed in EAL #3 and #4. This is in accordance with the developer notes. 4) Added note to easily direct the SM/ED to the potential escalation ICs. 5) Removed reference to Appendix R from the basis and added applicable Basis-Related Requirements from NFPA 805.
Table H2 Areas				
<ul style="list-style-type: none"> • Reactor Building (when inerted the Drywell is exempt) • Control Room • Screenhouse • Turbine Building <ul style="list-style-type: none"> • 11 and 12 Battery Rooms • 11 and 12 Battery Board Rooms • Cable Spreading Room • 291' North • Diesel Generator Engine and Board Rooms 				

NEI 99-01 Rev 6	Proposed EAL	Justification
<p style="text-align: right;">HU2</p> <p>Initiating Condition: UNUSUAL EVENT</p> <p>Seismic event greater than OBE levels.</p> <p>Operating Mode Applicability:</p> <p>All</p> <p>Example Emergency Action Levels:</p> <p>Seismic event greater than Operating Basis Earthquake (OBE) as indicated by: a. (site-specific indication that a seismic event met or exceeded OBE limits)</p>	<p style="text-align: right;">HU4</p> <p>Initiating Condition:</p> <p>Seismic event greater than OBE levels.</p> <p>Operating Mode Applicability:</p> <p>1, 2, 3, 4, D</p> <p>Emergency Action Level (EAL):</p> <p>Note:</p> <ul style="list-style-type: none"> • For emergency classification if EAL 2 is not able to be confirmed, then the occurrence of a seismic event is confirmed in manner deemed appropriate by the Shift Manager or Emergency Director in ≤ 15 minutes of the event. • Escalation of the emergency classification level would be via IC CA2 or MA5 <p>Seismic event as indicated by:</p> <ol style="list-style-type: none"> 1. Control Room personnel feel an actual or potential seismic event. <p style="text-align: center;">AND</p> <ol style="list-style-type: none"> 2. ANY one of the following confirmed in ≤ 15 minutes of the event: <ul style="list-style-type: none"> • The earthquake resulted in Modified Mercalli Intensity (MMI) ≥ VI and occurred ≤ 3.5 miles of the plant. • The earthquake was magnitude ≥ 6.0 • The earthquake was magnitude ≥ 5.0 and occurred ≤ 125 miles from the plant. • NMP-2 seismic instrumentation indicates > 0.075g 	<p style="text-align: center;"> <input type="checkbox"/> No Change <input checked="" type="checkbox"/> Difference <input type="checkbox"/> Deviation </p> <p>1) Used Alternate developer notes allowed wording since specific Control Room indication of a seismic event > OBE is not available.</p> <p>2) A difference to HU4.2 has been taken to make use of guidance contained in Reg Guide 1.166, Pre-earthquake Planning and Immediate Nuclear Power Plant Operator Post-earthquake Actions, Appendix A that provides guidance to plants without OBE seismic detection on applicable OBE determination. The revised HU4 EAL ensures that the SM/ED will make a timely determination by placing a 15 min clock on the ability to gain additional information through the addition of a note.</p> <p>3) Added note to easily direct the SM/ED to the potential escalation ICs.</p> <p>4) Added additional bullet in EAL #2 for NMP-2 seismic instrumentation indicates >0.075g. The NMP1 design basis operating earthquake is 0.11g. However, due to the seismic instrumentation available at NMP1, determination of seismic activity levels beyond the Seismic Event value of 0.01 g will require evaluation of data recorded by the Seismic Monitoring Recorders. Since this could cause unnecessary delay in classification, action is taken at the lower NMP2 level which is indicated in real time by the NMP2 seismic instrumentation.</p>

NEI 99-01 Rev 6	Proposed EAL	Justification									
<p style="text-align: right;">HA5</p> <p>Initiating Condition: ALERT</p> <p>Gaseous release impeding access to equipment necessary for normal plant operations, cooldown or shutdown.</p> <p>Operating Mode Applicability:</p> <p>All</p> <p>Example Emergency Action Levels:</p> <p>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.</p> <ol style="list-style-type: none"> 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) <p style="text-align: center;">AND</p> <ol style="list-style-type: none"> b. Entry into the room or area is prohibited or impeded. 	<p style="text-align: right;">HA5</p> <p>Initiating Condition:</p> <p>Gaseous release impeding access to equipment necessary for normal plant operations, cooldown or shutdown.</p> <p>Operating Mode Applicability:</p> <p>2, 3, 4</p> <p>Emergency Action Level (EAL):</p> <p>Note: If the equipment in the listed room or area was already inoperable, or not available, before the event occurred, then no emergency classification is warranted.</p> <ol style="list-style-type: none"> 1. Release of a toxic, corrosive, asphyxiant or flammable gas in ANY Table H3 area. <table border="1" data-bbox="1227 796 1880 1266" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th colspan="2" style="text-align: center;">Table H3 Areas with Entry Related Mode Applicability</th> </tr> <tr> <th style="text-align: center;">Area</th> <th style="text-align: center;">Entry Related Mode Applicability</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">Reactor Building</td> <td rowspan="4" style="text-align: center; vertical-align: middle;">Modes 2, 3, and 4</td> </tr> <tr> <td>198' Northeast corner 261' North and Shutdown Cooling Room 281' North</td> </tr> <tr> <td style="text-align: center;">Turbine Building</td> </tr> <tr> <td>291' North</td> </tr> </tbody> </table> <p style="text-align: center;">AND</p> <ol style="list-style-type: none"> 2. Entry into the room or area is prohibited or impeded 	Table H3 Areas with Entry Related Mode Applicability		Area	Entry Related Mode Applicability	Reactor Building	Modes 2, 3, and 4	198' Northeast corner 261' North and Shutdown Cooling Room 281' North	Turbine Building	291' North	<p style="text-align: center;"> <input type="checkbox"/> No Change <input checked="" type="checkbox"/> Difference <input type="checkbox"/> Deviation </p> <ol style="list-style-type: none"> 1) Listed plant specific rooms and areas with entry related mode applicability to ensure timely classification. 2) Restricted Mode applicability to the modes applicable to Table H3. 3) Additional discussion added to the basis section describing Table R4 as follows: <p style="margin-left: 40px;"><i>“This IC addresses an event involving a release of a hazardous gas that precludes or impedes access to equipment necessary to transition the plant from normal plant operation to cooldown and shutdown as specified in normal plant procedures. This condition represents an actual or potential substantial degradation of the level of safety of the plant.</i></p> <p style="margin-left: 40px;"><i>Assuming all plant equipment is operating as designed, normal operation is capable from the Main Control Room (MCR). The plant is also able to transition into a hot shutdown condition from the MCR, therefore Table H3 is a list of plant rooms or areas with entry-related mode applicability that contain equipment which require a manual/local action necessary to transition the plant from normal plant operation to cooldown and shutdown as specified in normal operating procedures (establish shutdown cooling), where if this action is not completed the plant would not be able to attain and maintain cold shutdown.</i></p> <p style="margin-left: 40px;"><i>This Table does not include rooms or areas for which entry is required solely to perform actions of an administrative or record keeping nature (e.g., normal rounds or routine inspections).</i></p> <p style="margin-left: 40px;"><i>This Table does not include the Control Room since adequate engineered safety/design features are in place to preclude a Control Room evacuation due to the release of a hazardous gas.”</i></p> 4) Changed “out of service” to “not available” to align with plant specific terminology.
Table H3 Areas with Entry Related Mode Applicability											
Area	Entry Related Mode Applicability										
Reactor Building	Modes 2, 3, and 4										
198' Northeast corner 261' North and Shutdown Cooling Room 281' North											
Turbine Building											
291' North											

NEI 99-01 Rev 6	Proposed EAL	Justification
<p style="text-align: right;">HU3</p> <p>Initiating Condition: UNUSUAL EVENT</p> <p>Hazardous Event</p> <p>Operating Mode Applicability:</p> <p>All</p> <p>Example Emergency Action Levels: (1 or 2 or 3 or 4)</p> <p>Note: EAL #4 does not apply to routine traffic impediments such as fog, snow, ice, or vehicle breakdowns or accidents.</p> <ol style="list-style-type: none"> 1. A tornado strike within the PROTECTED AREA. 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. 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). 4. A hazardous event that results in on-site conditions sufficient to prohibit the plant staff from accessing the site via personal vehicles. 5. (Site-specific list of natural or technological hazard events) 	<p style="text-align: right;">HU6</p> <p>Initiating Condition:</p> <p>Hazardous Event</p> <p>Operating Mode Applicability:</p> <p>1, 2, 3, 4, D</p> <p>Emergency Action Level (EAL):</p> <p>Note:</p> <ul style="list-style-type: none"> • EAL #4 does not apply to routine traffic impediments such as fog, snow, ice, or vehicle breakdowns or accidents. • Escalation of the emergency classification level would be via IC CA2 or MA5. <ol style="list-style-type: none"> 1. Tornado strike within the PROTECTED AREA. <p>OR</p> <ol style="list-style-type: none"> 2. Internal room or area flooding of a magnitude sufficient to require manual or automatic electrical isolation of a SAFETY SYSTEM component required by Technical Specifications for the current operating mode. <p>OR</p> <ol style="list-style-type: 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). <p>OR</p> <ol style="list-style-type: none"> 4. A hazardous event that results in onsite conditions sufficient to prohibit the plant staff from accessing the site via personal vehicles. <p>OR</p> <ol style="list-style-type: none"> 5. Intake water level < 238.8 feet. 	<p><input type="checkbox"/> No Change <input checked="" type="checkbox"/> Difference <input type="checkbox"/> Deviation</p> <p>1) Included low intake water level as part of the site specific list of natural or technological hazard events. The EAL value selected are the current Approved UE EAL value, and is based on intake forebay level and corresponds to the minimum intake water level for operability of Emergency Service Water, Emergency Diesel Generator cooling water, Containment Spray Raw Water and Diesel and Electric FIRE Pump.</p> <p>2) Changed the word "needed" to "required by Technical Specifications" in the EAL to be consistent with terminology used by operators and minimize confusion.</p> <p>3) Added note to easily direct the SM/ED to the potential escalation ICs.</p>

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<p style="text-align: right;">HG8</p> <p>Initiating Condition: GENERAL EMERGENCY</p> <p>Other conditions exist which in the judgment of the Emergency Director warrant declaration of a General Emergency.</p> <p>Operating Mode Applicability:</p> <p>All</p> <p>Example Emergency Action Levels: 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 off-site for more than the immediate site area.</p>	<p style="text-align: right;">HG7</p> <p>Initiating Condition:</p> <p>Other conditions exist which in the judgment of the Emergency Director warrant declaration of a General Emergency.</p> <p>Operating Mode Applicability:</p> <p>1, 2, 3, 4, D</p> <p>Emergency Action Level (EAL): 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 off-site for more than the immediate site area..</p>	<p> <input checked="" type="checkbox"/> No Change <input type="checkbox"/> Difference <input type="checkbox"/> Deviation </p>

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<p style="text-align: right;">HS8</p> <p>Initiating Condition: SITE AREA EMERGENCY</p> <p>Other conditions exist which in the judgment of the Emergency Director warrant declaration of a Site Area Emergency.</p> <p>Operating Mode Applicability:</p> <p>All</p> <p>Example Emergency Action Levels:</p> <p>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.</p>	<p style="text-align: right;">HS7</p> <p>Initiating Condition:</p> <p>Other conditions exist which in the judgment of the Emergency Director warrant declaration of a Site Area Emergency.</p> <p>Operating Mode Applicability:</p> <p>1, 2, 3, 4, D</p> <p>Emergency Action Level (EAL):</p> <p>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.</p>	<p> <input checked="" type="checkbox"/> No Change <input type="checkbox"/> Difference <input type="checkbox"/> Deviation </p>

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<p style="text-align: right;">HA6</p> <p>Initiating Condition: ALERT</p> <p>Other conditions exist which in the judgment of the Emergency Director warrant declaration of an Alert.</p> <p>Operating Mode Applicability:</p> <p>All</p> <p>Example Emergency Action Levels:</p> <p>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.</p>	<p style="text-align: right;">HA7</p> <p>Initiating Condition:</p> <p>Other conditions exist which in the judgment of the Emergency Director warrant declaration of an Alert.</p> <p>Operating Mode Applicability:</p> <p>1, 2, 3, 4, D</p> <p>Emergency Action Level (EAL):</p> <p>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.</p>	<p> <input checked="" type="checkbox"/> No Change <input type="checkbox"/> Difference <input type="checkbox"/> Deviation </p>

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<p style="text-align: right;">HU7</p> <p>Initiating Condition: UNUSUAL EVENT</p> <p>Other conditions existing which in the judgment of the Emergency director warrant declaration of an UNUSUAL EVENT.</p> <p>Operating Mode Applicability:</p> <p>All</p> <p>Example Emergency Action Levels:</p> <p>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.</p>	<p style="text-align: right;">HU7</p> <p>Initiating Condition:</p> <p>Other conditions existing which in the judgment of the Emergency director warrant declaration of an UNUSUAL EVENT.</p> <p>Operating Mode Applicability:</p> <p>1, 2, 3, 4, D</p> <p>Emergency Action Level (EAL):</p> <p>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.</p>	<p> <input checked="" type="checkbox"/> No Change <input type="checkbox"/> Difference <input type="checkbox"/> Deviation </p>

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<p style="text-align: right;">E-HU1</p> <p>Initiating Condition: UNUSUAL EVENT</p> <p>Damage to a loaded cask CONFINEMENT BOUNDARY.</p> <p>Operating Mode Applicability:</p> <p>All</p> <p>Example Emergency Action Levels:</p> <p>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.</p>	<p style="text-align: right;">E-HU1</p> <p>Initiating Condition:</p> <p>Damage to a loaded cask CONFINEMENT BOUNDARY.</p> <p>Operating Mode Applicability:</p> <p>1, 2, 3, 4, D</p> <p>Emergency Action Level (EAL):</p> <p>Damage to a loaded cask CONFINEMENT BOUNDARY as indicated by a radiation reading:</p> <p>For 61BT DSC:</p> <ul style="list-style-type: none"> • > 800 mrem/hr 3 feet from the HSM surface <li style="text-align: center;">OR • > 200 mrem/hr outside the HSM door on centerline of DSC <li style="text-align: center;">OR • > 40 mrem/hr end of shield wall exterior <p>For 61BTH DSC:</p> <ul style="list-style-type: none"> • > 1400 mrem/hr on the HSM or HSM-H front surface <li style="text-align: center;">OR • > 200 mrem/hr on the HSM or HSM-H door centerline <li style="text-align: center;">OR • > 40 mrem/hr on the end shield wall exterior 	<p> <input type="checkbox"/> No Change <input checked="" type="checkbox"/> Difference <input type="checkbox"/> Deviation </p> <p>1) Listed 2x the site specific cask specific allowable radiation level as per ATTACHMENT A, TECHNICAL SPECIFICATIONS, TRANSNUCLEAR, INC. STANDARDIZED NUHOMS® HORIZONTAL MODULAR STORAGE SYSTEM, CERTIFICATE OF COMPLIANCE NO. 1004, AMENDMENT NO. 10, DOCKET 72-1004</p> <p>2) Not all technical specification radiation readings were on contact, one is a radiation reading at 3 feet required by technical specification. Modified the EAL by removing the "on the surface" requirement, and required "a radiation reading" allowing for the technical specification 3 feet reading to be added to the EAL.</p>