

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monitor is known to have stopped due to actions to isolate the release path, then the effluent monitor reading is no longer valid for classification purposes.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: 1,2,3,4,5, 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 (Table R1) 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"> Readings on ANY Table R1 Effluent Monitor > Table R1 value for ≥ 15 minutes. OR Dose assessment Using actual meteorology indicates doses at or beyond the site boundary of EITHER: <ol style="list-style-type: none"> > 1000 mRem TEDE OR > 5000 mRem CDE Thyroid OR 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. OR Analyses of field survey samples indicate > 5000 mRem CDE Thyroid for 60 minutes of inhalation. <table border="1" data-bbox="1081 1253 2020 1411"> <thead> <tr> <th colspan="2">Table R1 Effluent Monitor Thresholds</th> </tr> <tr> <th>Effluent Monitor</th> <th>General Emergency</th> </tr> </thead> <tbody> <tr> <td>Stack</td> <td>7880 mR/hr</td> </tr> <tr> <td>Turb Bldg Exh</td> <td>2.44 mR/hr</td> </tr> <tr> <td>Radw Bldg Exh</td> <td>4.74 mR/hr</td> </tr> </tbody> </table>	Table R1 Effluent Monitor Thresholds		Effluent Monitor	General Emergency	Stack	7880 mR/hr	Turb Bldg Exh	2.44 mR/hr	Radw Bldg Exh	4.74 mR/hr	<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) 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 readily available for use by the SM.</p>
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OR Analyses of field survey samples indicate > 500 mRem CDE Thyroid for 60 minutes of inhalation. <table border="1" data-bbox="1081 1358 2013 1514"> <thead> <tr> <th colspan="2" style="text-align: center;">Table R1 Effluent Monitor Thresholds</th> </tr> <tr> <th style="text-align: center;">Effluent Monitor</th> <th style="text-align: center;">Site Area Emergency</th> </tr> </thead> <tbody> <tr> <td>Stack</td> <td style="text-align: center;">788 mR/hr</td> </tr> <tr> <td>Turb Bldg Exh</td> <td style="text-align: center;">0.244 mR/hr</td> </tr> <tr> <td>Radw Bldg Exh</td> <td style="text-align: center;">0.474 mR/hr</td> </tr> </tbody> </table>	Table R1 Effluent Monitor Thresholds		Effluent Monitor	Site Area Emergency	Stack	788 mR/hr	Turb Bldg Exh	0.244 mR/hr	Radw Bldg Exh	0.474 mR/hr	<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) Added the following to bullet #3 " Classification based on effluent monitor readings assumes that a release path to the environment is established." 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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 or 4)</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. 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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, 5, 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 (Table R1) 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"> Readings on ANY Table R1 Effluent Monitor > Table R1 value for ≥ 15 minutes. OR Dose assessment using actual meteorology indicates doses at or beyond the site boundary of EITHER: <ol style="list-style-type: none"> > 10 mRem TEDE OR > 50 mRem CDE Thyroid OR 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 OR 50 mRem CDE Thyroid for 60 minutes of exposure OR 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. OR Analyses of field survey samples indicate > 50 mRem CDE Thyroid for 60 minutes of inhalation. <table border="1" data-bbox="1081 1401 2013 1554"> <thead> <tr> <th colspan="2">Table R1 Effluent Monitor Thresholds</th> </tr> <tr> <th>Effluent Monitor</th> <th>Alert</th> </tr> </thead> <tbody> <tr> <td>Stack</td> <td>78.8 mR/hr</td> </tr> <tr> <td>Turb Bldg Exh</td> <td>N/A</td> </tr> <tr> <td>Radw Bldg Exh</td> <td>N/A</td> </tr> </tbody> </table>	Table R1 Effluent Monitor Thresholds		Effluent Monitor	Alert	Stack	78.8 mR/hr	Turb Bldg Exh	N/A	Radw Bldg Exh	N/A	<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 readily available for use by the SM. Only monitors with continuous release paths were chosen for this EAL, for example; the liquid rad waste monitor is not used in this EAL since the liquid release path is a batch release path and as such is sampled to determine the concentration or release rate making this IC determined via EAL #3. In addition, NEI added an EAL based upon field survey results to maintain consistency through this EAL set from the Alert to the GE. Radiation monitors for Service Water 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.
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<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, 5, 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 Liquid Radwaste Effluent Monitor (17RM-350) > 2 times hi-hi trip for ≥ 60 minutes. OR Readings on ANY Table R1 Effluent Monitor > Table R1 value for ≥ 60 minutes. OR Confirmed sample analyses for gaseous or liquid releases indicate concentrations or release rates > 2 times ODCM Limit with a release duration of ≥ 60 minutes. <table border="1" data-bbox="1081 971 2017 1187"> <thead> <tr> <th colspan="2">Table R1 Effluent Monitor Thresholds</th> </tr> <tr> <th>Effluent Monitor</th> <th>Unusual Event</th> </tr> </thead> <tbody> <tr> <td>Stack</td> <td>0.451 mR/hr (High Range Monitor)</td> </tr> <tr> <td>Rx Bldg Exh</td> <td>9.50E+05 cpm (Low Range Monitor)</td> </tr> <tr> <td>Turb Bldg Exh</td> <td>6.72E+05 cpm (Low Range Monitor)</td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td>Refuel Floor Exh</td> <td>9.28E+05 cpm (Low Range Monitor)</td> </tr> </tbody> </table>	Table R1 Effluent Monitor Thresholds		Effluent Monitor	Unusual Event	Stack	0.451 mR/hr (High Range Monitor)	Rx Bldg Exh	9.50E+05 cpm (Low Range Monitor)	Turb Bldg Exh	6.72E+05 cpm (Low Range Monitor)			Refuel Floor Exh	9.28E+05 cpm (Low Range Monitor)	<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 readily available for use by the SM. Radiation monitors for Service Water 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.
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<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 1.00 foot for 60 minutes or longer</p> <p>Operating Mode Applicability:</p> <p>1, 2, 3, 4, 5, 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>Spent fuel pool level cannot be restored to at least 1.00 foot as indicated on 19LI-60A or 19LI-60B 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>

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<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> <p>1. Spent fuel pool level cannot be restored to at least (site-specific Level 3 description)</p>	<p style="text-align: right;">RS2</p> <p>Initiating Condition: Spent fuel pool level at 1.00 foot.</p> <p>Operating Mode Applicability: 1, 2, 3, 4, 5, D</p> <p>Emergency Action Level (EAL): Lowering of spent fuel pool level to 1.00 foot as indicated on 19LI-60A or 19LI-60B.</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>

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<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, 5, 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 R2 Radiation Monitor Alarm. <p style="text-align: center;">OR</p> <ol style="list-style-type: none"> 3. Lowering of spent fuel pool level to 11.00 feet as indicated on 19LI-60A or 19LI-60B. <div style="border: 1px solid black; padding: 5px; margin: 10px auto; width: fit-content;"> <p style="text-align: center;">Table R2 Refuel Floor Radiation Monitors</p> <ul style="list-style-type: none"> • 18RIA-051-12 Spent Fuel Pool (EPIC A-1229) • 18RIA-051-14 New Fuel Vault (EPIC A-1231) • 18RIA-052-30 Refuel Floor West (EPIC A-1247) • 17RIS-456A or B Refuel Floor Exhaust </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>

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<p style="text-align: right;">AU2</p> <p>Initiating Condition: UNUSUAL EVENT UNPLANNED loss of water level above irradiated fuel 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: (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. (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 Operating Mode Applicability: 1, 2, 3, 4, 5, D</p> <p>Emergency Action Level (EAL):</p> <p>1. a. UNPLANNED water level drop in the REFUELING PATHWAY as indicated by ANY of the following:</p> <ul style="list-style-type: none"> • Inability to restore and maintain Spent Fuel Pool 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>b. UNPLANNED Area Radiation Monitor reading rise on ANY Table R2 radiation monitor.</p> <div style="border: 1px solid black; padding: 5px; margin: 10px auto; width: fit-content;"> <p style="text-align: center;">Table R2 Refuel Floor Radiation Monitors</p> <ul style="list-style-type: none"> • 18RIA-051-12 Spent Fuel Pool (EPIC A-1229) • 18RIA-051-14 New Fuel Vault (EPIC A-1231) • 18RIA-052-30 Refuel Floor West (EPIC A-1247) • 17RIS-456A or B Refuel Floor Exhaust </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.a first bullet as it is easily recognizable by the CR staff and allows for proper escalation between the unusual event and alert thresholds.</p>

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<p style="text-align: right;">AA3</p> <p>Initiating Condition – ALERT Radiation levels that impede access to equipment necessary for normal plant operations, cooldown or shutdown.</p> <p>Operating Mode Applicability: All</p> <p>Example Emergency Action Levels: (1 or 2)</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"> Dose rate greater than 15 mR/hr in ANY of the following areas: <ul style="list-style-type: none"> Control Room Central Alarm Station (other site-specific areas/rooms) 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) 	<p style="text-align: right;">RA3</p> <p>Initiating Condition: Radiation levels that impede access to equipment necessary for normal plant operations, cooldown or shutdown.</p> <p>Operating Mode Applicability: 1, 2, 3, 4, 5, D</p> <p>Emergency Action Level (EAL):</p> <p>Note: If the equipment in the room or area listed in Table R4 was already inoperable, or out of service, before the event occurred, then no emergency classification is warranted.</p> <ol style="list-style-type: none"> Dose rate > 15 mR/hr in ANY of the areas in Table R3. <table border="1" data-bbox="1255 747 1852 937" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th colspan="2" style="text-align: center;">Table R3 Areas Requiring Continuous Occupancy</th> </tr> </thead> <tbody> <tr> <td colspan="2"> <ul style="list-style-type: none"> Main Control Room – (by survey) Central Alarm Station – (by survey) Secondary Alarm Station – (by survey) </td> </tr> </tbody> </table> <p style="text-align: center;">OR</p> <ol style="list-style-type: none"> UNPLANNED event results in radiation levels that prohibit or significantly impede access to ANY of the areas in Table R4. <table border="1" data-bbox="1168 1130 1942 1588" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th colspan="2" style="text-align: center;">Table R4 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> <ul style="list-style-type: none"> Reactor Building East Crescent Reactor Building West Crescent Reactor Building 272' Elevation Reactor Building 300' Elevation </td> <td rowspan="2" style="text-align: center; vertical-align: middle;">Modes 3, 4, and 5</td> </tr> <tr> <td> <ul style="list-style-type: none"> Relay Room North Cable Room </td> </tr> </tbody> </table>	Table R3 Areas Requiring Continuous Occupancy		<ul style="list-style-type: none"> Main Control Room – (by survey) Central Alarm Station – (by survey) Secondary Alarm Station – (by survey) 		Table R4 Areas with Entry Related Mode Applicability		Area	Entry Related Mode Applicability	<ul style="list-style-type: none"> Reactor Building East Crescent Reactor Building West Crescent Reactor Building 272' Elevation Reactor Building 300' Elevation 	Modes 3, 4, and 5	<ul style="list-style-type: none"> Relay Room North Cable Room 	<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 plant rooms and areas with identified mode applicability to ensure timely classification. Additional discussion added to the basis section describing Table R4 as follows: <p style="margin-left: 40px;"><i>“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.”</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 R4 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).</i></p> <p style="margin-left: 40px;"><i>Rooms and areas listed in EAL #1 do not need to be included in EAL #2, including the Control Room.”</i></p>
Table R3 Areas Requiring Continuous Occupancy													
<ul style="list-style-type: none"> Main Control Room – (by survey) Central Alarm Station – (by survey) Secondary Alarm Station – (by survey) 													
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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 style="text-align: center;">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, 3</p> <p>Emergency Action Level (EAL):</p> <ol style="list-style-type: none"> Offgas radiation \geq hi-hi alarm <p style="text-align: center;">OR</p> <ol style="list-style-type: none"> Specific coolant activity > 2.0 $\mu\text{Ci/gm}$ 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 Exelon fleet 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, 3			FS1 Loss or Potential Loss of ANY two barriers. 1,2, 3			FA1 ANY Loss or ANY Potential Loss of either Fuel Clad or RCS 1,2, 3		
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 breaks) 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.		

GENERAL EMERGENCY			SITE AREA EMERGENCY			ALERT		
FG1 Loss of ANY two barriers AND Loss or Potential Loss of third barrier. 1 2 3			FS1 Loss or Potential Loss of ANY two barriers. 1 2 3			FA1 ANY Loss or ANY Potential Loss of either Fuel Clad or RCS. 1 2 3		
Sub-Category	FC – Fuel Clad		RC – Reactor Coolant System		CT - Containment			
	Loss	Potential Loss	Loss	Potential Loss	Loss	Potential Loss		
1. RCS Activity	Coolant activity > 300 uCi/gm I-131 dose equivalent.	None	None	None	None	None		
2. RPV Water Level	1. SAOG entry required	2. RPV water level cannot be restored and maintained > 0 inches (TAF). OR 3. RPV water level cannot be determined.	1. RPV water level cannot be restored and maintained > 0 inches (TAF). OR 2. RPV water level cannot be determined.	None	None	SAOG entry required		
3. Primary Containment Pressure / Conditions	None	None	1. a. Primary Containment pressure > 2.7 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. Primary Containment pressure > 56 psig and rising. OR 4. a. Primary Containment hydrogen concentration ≥ 6%. AND b. Primary Containment oxygen concentration ≥ 5%. OR 5. Heat Capacity Temperature Limit (HCTL) (EOP-11) exceeded.		
4. RCS Leak Rate	None	None	1. UNISOLABLE Main Steam Line (MSL), HPCI, RWCU, RCIC, or Feedwater line break. OR 2. Emergency RPV Depressurization is required.	3. UNISOLABLE primary system leakage that results in EITHER of the following: a. Secondary Containment area temperature > EOP-5 Maximum Normal Operating Limit. OR b. Secondary Containment area radiation > EOP-5 Maximum Normal Operating Limit.	None	None		
5. Primary Containment Radiation	Drywell radiation monitor reading > 1.8E+03 R/hr (1800 R/hr).	None	Drywell radiation monitor reading > 63 R/hr.	None	None	Drywell radiation monitor reading > 1.8E+04 R/hr (18,000 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 or purging per EOPs or SAOGs due to accident conditions. OR 3. UNISOLABLE primary system leakage that results in EITHER of the following: a. Secondary Containment area temperature > EOP-5 Maximum Safe Operating Limit. OR b. Secondary Containment area radiation > EOP-5 Maximum Safe Operating Limit.	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 Containment Barrier.	2. Any Condition in the opinion of the Emergency Director that indicates Potential Loss of the Containment 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, 3</p> <p>Fission Product Barrier (FPB) Threshold: <u>Loss</u> Coolant activity > 300 uCi/gm I-131 dose 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</p> <p>Operating Mode Applicability: Power Operation, Startup, Hot Standby, Hot Shutdown</p> <p>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</p> <p>Operating Mode Applicability: 1, 2, 3</p> <p>Fission Product Barrier (FPB) Threshold: <u>Loss</u> 1. SAOG entry required <u>Potential Loss</u> 2. RPV water level cannot be restored and maintained > 0 inches (TAF). 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 "SAOG entry required" vice "Primary containment flooding required" entry into the SAOG indicates adequate core cooling cannot be restored and maintained and that core damage is possible. Entry into SAOGs 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 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, 3</p> <p>Fission Product Barrier (FPB) Threshold: <u>Loss</u> Drywell radiation monitor reading > 1.8 E+03 R/hr (1800 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</p> <p>A. Any Condition in the opinion of the Emergency Director that indicates Loss of the Fuel Clad Barrier.</p> <p>Potential Loss</p> <p>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, 3</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 Fuel Clad 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 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, 3 Fission Product Barrier (FPB) Threshold: <u>Loss</u> 1. a. Primary Containment pressure > 2.7 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 </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;">RC2</p> <p>Category: Reactor Coolant System Barrier RPV Water Level</p> <p>Operating Mode Applicability: Power Operation, Startup, Hot Standby, Hot Shutdown</p> <p>Fission Product Barrier Threshold: Loss</p> <p>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</p> <p>Operating Mode Applicability: 1, 2, 3</p> <p>Fission Product Barrier (FPB) Threshold: <u>Loss</u></p> <p>1. RPV water level cannot be restored and maintained > 0 inches (TAF). OR 2. RPV water level cannot be determined.</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;">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 breas)</p> <p style="text-align: center;">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> <ol style="list-style-type: none"> 1. Max Normal Operating Temperature <p style="text-align: center;">OR</p> <ol style="list-style-type: none"> 2. Max Normal Operating Area Radiation Level. 	<p style="text-align: right;">RC4</p> <p>Category: Reactor Coolant System Barrier RCS Leak Rate</p> <p>Operating Mode Applicability: 1, 2, 3</p> <p>Fission Product Barrier (FPB) Threshold: <u>Loss</u></p> <ol style="list-style-type: none"> 1. UNISOLABLE Main Steam Line (MSL), HPCI, RWCU, RCIC, or Feedwater line break. <p style="text-align: center;">OR</p> <ol style="list-style-type: none"> 2. Emergency RPV Depressurization is required. <p><u>Potential Loss</u></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. Secondary Containment area temperature > EOP-5 Maximum Normal Operating Limit. <p style="text-align: center;">OR</p> <ol style="list-style-type: none"> b. Secondary Containment area radiation > EOP-5 Maximum Normal Operating Limit. 	<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 systems and threshold values to ensure timely classification.</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, 3 Fission Product Barrier (FPB) Threshold: <u>Loss</u> Drywell radiation monitor reading >63 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;">RC5</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</p> <p>A. Any Condition in the opinion of the Emergency Director that indicates Loss of the RCS Barrier.</p> <p>Potential Loss</p> <p>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, 3</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 RCS 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 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 Conditions Operating Mode Applicability: Power Operation, Startup, Hot Standby, Hot Shutdown Fission Product Barrier Threshold: Loss A. UNPLANNED rapid drop in primary containment pressure following primary containment pressure rise OR B. Primary containment pressure response not consistent with LOCA conditions. Potential Loss A. Primary containment pressure greater than (site-specific value) OR B. (site-specific explosive mixture) exists inside primary containment OR C. HCTL exceeded.</p>	<p style="text-align: right;">CT3</p> <p>Category: Containment Barrier Primary Containment Pressure/Conditions Operating Mode Applicability: 1, 2, 3 Fission Product Barrier (FPB) Threshold: <u>Loss</u> 1. UNPLANNED rapid drop in Primary Containment pressure following Primary Containment pressure rise. OR 2. Primary Containment pressure response not consistent with LOCA conditions. <u>Potential Loss</u> 3. Primary Containment pressure > 56 psig and rising. OR 4. a. Primary Containment hydrogen concentration \geq 6%. AND b. Primary Containment oxygen concentration \geq 5%. OR 5. Heat Capacity Temperature Limit (HCTL) (EOP-11) 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 EAL wording.</p>

NEI 99-01 Rev 6	Proposed EAL	Justification
<p style="text-align: right;">CT2</p> <p>Category: Containment Barrier RPV Water Level</p> <p>Operating Mode Applicability: Power Operation, Startup, Hot Standby, Hot Shutdown</p> <p>Fission Product Barrier Threshold: Potential Loss</p> <p>A. Primary containment flooding required.</p>	<p style="text-align: right;">CT2</p> <p>Category: Containment Barrier RPV Water Level</p> <p>Operating Mode Applicability: 1, 2, 3</p> <p>Fission Product Barrier (FPB) Threshold: <u>Potential Loss</u></p> <p>SAOG entry required.</p>	<p> <input type="checkbox"/> No Change <input checked="" type="checkbox"/> Difference <input type="checkbox"/> Deviation </p> <p>1) Used "SAOG entry required" vice "Primary containment flooding required" entry into the SAOG indicates adequate core cooling cannot be restored and maintained and that core damage is possible. Entry into SAOGs 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 style="text-align: center;">OR</p> <p>B. Intentional primary containment venting per EOPs</p> <p style="text-align: center;">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 style="text-align: center;">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, 3</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 after Primary Containment isolation signal. <p style="text-align: center;">OR</p> <ol style="list-style-type: none"> 2. Intentional Primary Containment venting or purging per EOPs or SAOGs due to accident conditions. <p style="text-align: center;">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. Secondary Containment area temperature > EOP-5 Maximum Safe Operating Limit. <p style="text-align: center;">OR</p> <ol style="list-style-type: none"> b. Secondary Containment area radiation > EOP-5 Maximum Safe Operating Limit. 	<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) Added "or SAOGs" to threshold 2 since venting or purging of containment can also be directed from these procedures.</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, 3 Fission Product Barrier (FPB) Threshold: <u>Potential Loss</u> Drywell radiation monitor reading > 1.8 E+04 R/hr (18,000 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;">CT5</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, 3</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, 3</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 4160 V emergency buses 10500 and 10600.</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 4160 V emergency bus 10500 or 10600 in < 4 hours is not likely. <li style="padding-left: 40px;">OR b. RPV water level cannot be restored and maintained > -19 inches (MSCRWL). 	<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 equipment, site specific time based on station blackout coping analysis, and site specific indication to ensure timely classification.</p> <p>2) Changed formatting to be 1 AND 2 to maintain consistency with current Exelon fleet EALs.</p> <p>3) Added the following paragraph to the basis section to ensure SM/ED would not declare unnecessarily if a power source is powering one of the buses but it is not one of the listed power sources in lesser EALs within this sequence.</p> <p><i>"If mitigating strategies are effective in reestablishing emergency power to any of the buses listed, within the specified time, then declaration of this EAL is not warranted. This EAL is not concerned with the source of the power as much as the loss of power to the listed buses."</i></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 onsite AC power to emergency buses for 15 minutes or longer.</p> <p>Operating Mode Applicability:</p> <p>1, 2, 3</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"> Loss of ALL offsite and onsite AC power to 4160 V emergency buses 10500 and 10600. <p>AND</p> <ol style="list-style-type: none"> Failure to restore power to at least one 4160 V emergency bus 10500 or 10600 in < 15 minutes from the time of loss of both offsite and onsite AC power. 	<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 maintain consistency with current Exelon fleet EALs.</p> <p>3) Added the following paragraph to the basis section to ensure SM/ED would not declare unnecessarily if a power source is powering one of the buses but it is not one of the listed power sources in lesser EALs within this sequence.</p> <p><i>“If mitigating strategies are effective in reestablishing emergency power to any of the buses listed, within the specified time, then declaration of this EAL is not warranted. This EAL is not concerned with the source of the power as much as the loss of power to the listed buses.”</i></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, 3</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 4160 V emergency buses 10500 and 10600 reduced to only one of the following power sources for ≥ 15 minutes.</p> <ul style="list-style-type: none"> • Reserve Station Transformer T-2 • Reserve Station Transformer T-3 • Station Service Transformer T-4 (While backfeeding from Main Transformer) • EDG A • EDG B • EDG C • EDG D • Main Generator via T-4 <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 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 maintain consistency with current Exelon fleet EALs.</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, 3</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 4160 V emergency buses 10500 and 10600 for ≥ 15 minutes.</p> <ul style="list-style-type: none"> • Reserve Station Transformer T-2 • Reserve Station Transformer T-3 • Station Service Transformer T-4 (While backfeeding from Main Transformer) 	<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, 3</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 4160 V emergency buses 10500 and 10600.</p> <p>AND</p> <p>2. Voltage is < 105 VDC on Vital DC buses 71BCB-2A and 71BCB-2B.</p> <p>AND</p> <p>3. Conditions in EALs #1 and #2 have existed 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 to conform to Exelon fleet formatting.</p> <p>4) Added the following paragraph to the basis section to ensure SM/ED would not declare unnecessarily if a power source is powering one of the buses but it is not one of the listed power sources in lesser EALs within this sequence.</p> <p><i>"If mitigating strategies are effective in reestablishing emergency power to any of the buses listed, within the specified time, then declaration of this EAL is not warranted. This EAL is not concerned with the source of the power as much as the loss of power to the listed buses."</i></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, 3</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 < 105 VDC on Vital DC buses 71BCB-2A and 71BCB-2B 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> <ol style="list-style-type: none"> 1. <ol style="list-style-type: none"> a. An automatic (trip [PWR] / scram [BWR]) did not shutdown the reactor. <p style="text-align: center;">AND</p> b. All manual actions to shutdown the reactor have been unsuccessful. <p style="text-align: center;">AND</p> <ol style="list-style-type: none"> c. EITHER of the following conditions exist: <ol style="list-style-type: none"> 1. (Site-specific indication of an inability to adequately remove heat from the core) <p style="text-align: center;">OR</p> 2. (Site-specific indication of an inability to adequately remove heat from the RCS) 	<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, 2</p> <p>Emergency Action Level (EAL):</p> <ol style="list-style-type: none"> 1. Automatic scram did not shutdown the reactor as indicated by Reactor Power $\geq 2.5\%$. <p style="text-align: center;">AND</p> <ol style="list-style-type: none"> 2. ALL manual / ARI actions to shutdown the reactor have been unsuccessful as indicated by Reactor Power $\geq 2.5\%$. <p style="text-align: center;">AND</p> <ol style="list-style-type: none"> 3. EITHER of the following conditions exist: <ul style="list-style-type: none"> • RPV water level cannot be restored and maintained > -19 inches (MSCRWL). <p style="text-align: center;">OR</p> <ul style="list-style-type: none"> • Heat Capacity Temperature Limit (HCTL) (EOP-11) exceeded. 	<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 indications to ensure timely classification. 2) Added ARI as an equivalent scram 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. 4) Mode 2 included in operating mode applicability as per developer notes.

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 or manual (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, 2</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. This action 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 $\geq 2.5\%$.</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 $\geq 2.5\%$.</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> <p>4) Mode 2 included in operating mode applicability as per developer notes.</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. <ol style="list-style-type: none"> 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. 2. <ol style="list-style-type: none"> 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, 2</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. This action does not include manually driving in control rods or implementation of boron injection strategies.</p> <ol style="list-style-type: none"> 1. <ol style="list-style-type: none"> a. Automatic scram did not shutdown the reactor as indicated by Reactor Power $\geq 2.5\%$. <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 $< 2.5\%$. 2. <ol style="list-style-type: none"> a. Manual scram did not shutdown the reactor as indicated by Reactor Power $\geq 2.5\%$. <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 $< 2.5\%$. <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 $< 2.5\%$. 	<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 indications to ensure timely classification. 2) Added ARI as an equivalent scram 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. 4) Mode 2 included in operating mode applicability as per developer notes.

NEI 99-01 Rev 6	Proposed EAL	Justification																		
<p style="text-align: right;">SA2</p> <p>Initiating Condition: ALERT</p> <p>UNPLANNED loss of Control Room indications for 15 minutes or longer with a significant transient in progress.</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 has been exceeded, or will likely be exceeded.</p> <p>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]</p> <table border="1" data-bbox="149 753 1019 1253"> <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> <p>AND</p> <p>b. Any of the following transient events in progress.</p> <ul style="list-style-type: none"> • Automatic or Manual runback greater than 25% thermal reactor power • Electrical load rejection greater than 25% full electrical load • Reactor Scram [BWR] / trip [PWR] • ECCS (SI) actuation • Thermal power oscillations greater than 10% [BWR] 	[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;">MA4</p> <p>Initiating Condition:</p> <p>UNPLANNED loss of Control Room indications for 15 minutes or longer with a significant transient in progress.</p> <p>Operating Mode Applicability:</p> <p>1, 2, 3</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. 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="1296 764 1808 1108"> <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 Level • Torus Temperature </td> </tr> </tbody> </table> <p>AND</p> <p>2. ANY Table M2 transient in progress.</p> <table border="1" data-bbox="1087 1268 2017 1584"> <thead> <tr> <th>Table M2 Significant Transients</th> </tr> </thead> <tbody> <tr> <td> <ul style="list-style-type: none"> • Auto/Manual runback > 25% thermal reactor power • Electric load rejection > 25% full electric load • Reactor Scram • ECCS Injection • Thermal Power oscillations > 10% (peak to peak) </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 Level • Torus Temperature 	Table M2 Significant Transients	<ul style="list-style-type: none"> • Auto/Manual runback > 25% thermal reactor power • Electric load rejection > 25% full electric load • Reactor Scram • ECCS Injection • Thermal Power oscillations > 10% (peak to peak) 	<p style="text-align: center;"> <input checked="" type="checkbox"/> No Change <input type="checkbox"/> Difference <input type="checkbox"/> Deviation </p>
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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="149 721 1019 1225"> <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, 3</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="1317 681 1783 1024"> <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 Level • Torus 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 Level • Torus Temperature 	<p> <input checked="" type="checkbox"/> No Change <input type="checkbox"/> Difference <input type="checkbox"/> Deviation </p>
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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: ALERT</p> <p>Hazardous event affecting a SAFETY SYSTEM required for the current operating mode.</p> <p>Operating Mode Applicability:</p> <p>1, 2, 3</p> <p>Emergency Action Level (EAL):</p> <p>Note:</p> <ul style="list-style-type: none"> • If the only affected SAFETY SYSTEM train was already inoperable or out of service before the hazardous event occurred, then this emergency classification is not warranted. • For SAFETY SYSTEMS with multiple trains if the hazardous event only resulted in VISIBLE DAMAGE or degraded performance to the one train, then this emergency classification is not warranted. • If it is determined that the conditions of MA5 are not met then assess the event via HU3, HU4, or HU6. <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. a. Event damage has caused indications of degraded performance or VISIBLE DAMAGE to one train of a SAFETY SYSTEM required by Technical Specifications for the current operating mode.</p> <p style="text-align: center;">AND</p> <p>b. ANY of the following for SAFETY SYSTEMS with multiple trains:</p> <ul style="list-style-type: none"> • Event damage has caused indications of degraded performance to a second train of the SAFETY SYSTEM required by Technical Specifications for the current operating mode. <p style="text-align: center;">OR</p> <ul style="list-style-type: none"> • Event damage has resulted in VISIBLE DAMAGE to a second train of the SAFETY SYSTEM required by Technical Specifications for the current operating mode. <p style="text-align: center;">OR</p> <ul style="list-style-type: none"> • An additional train of the SAFETY SYSTEM is inoperable or out of service. 	<p style="text-align: center;"> <input type="checkbox"/> No Change <input type="checkbox"/> Difference <input checked="" 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> <p>4) Revised to add notes and wording to warrant the escalation to Alert only if the hazardous event has caused VISIBLE DAMAGE or degraded performance in more than one operable train of a SAFETY SYSTEM (for multiple train SAFETY SYSTEMS) or in one train of single train SAFETY SYSTEM. As such this will reduce the potential of declaring an Alert when events are in progress that do not involve an actual or potential substantial degradation of the level of safety of the plant, i.e., does not cause significant concern with shutting down or cooling down the plant. The addition of the notes and wording are consistent with the current NRC-endorsed Alert classification language. The definition for VISIBLE DAMAGE has been revised since it is only used for CA2 and MA5 and the EALs are revised to be based upon SAFETY SYSTEM trains and not individual components and structures.</p>

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<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, 3</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 <p style="text-align: center;">OR</p> <ol style="list-style-type: none"> 2. RCS identified leakage in the Drywell > 25 gpm for ≥ 15 minutes <p style="text-align: center;">OR</p> <ol style="list-style-type: none"> 3. Leakage from the RCS to a location outside the Drywell > 25 gpm for ≥ 15 minutes 	<p> <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 values to ensure timely classification. 2) in EAL #3 Changed wording from containment to Drywell for clarity to better define the primary containment structure. 3) In EAL #1 and 2 added "in 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. 4) Added the following from the front matter to the Basis section of the EAL as it may be applicable to this EAL threshold. "The assessment of this EAL may be based on the results of RCS leak rate calculation that may be necessary to ascertain whether the EAL has been exceeded. In this case, the 15-minute declaration period starts with the availability of the RCS leak rate calculation results that show the EAL to be exceeded (i.e., this is the time that the EAL information is first available). "

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, 3</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 909 1992 1362" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="4" style="text-align: center;">Table M3 Communications Capability</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>Page/Party System (Gaitronics)</td> <td style="text-align: center;">X</td> <td></td> <td></td> </tr> <tr> <td>Control Room/Portable Radio</td> <td style="text-align: center;">X</td> <td></td> <td></td> </tr> <tr> <td>Plant Telephones (all VOIP, switched, non-switched)</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>Out-of-Plant Cellular Phones</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>Plant Satellite Phones</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> <tr> <td>Dedicated Phone Lines (ENS)</td> <td></td> <td style="text-align: center;">X</td> <td style="text-align: center;">X</td> </tr> <tr> <td>HPN and FTS 2001</td> <td></td> <td style="text-align: center;">X</td> <td style="text-align: center;">X</td> </tr> </tbody> </table>	Table M3 Communications Capability				System	Onsite	Offsite	NRC	Page/Party System (Gaitronics)	X			Control Room/Portable Radio	X			Plant Telephones (all VOIP, switched, non-switched)	X	X	X	Out-of-Plant Cellular Phones	X	X	X	Plant Satellite Phones		X	X	RECS		X		Dedicated Phone Lines (ENS)		X	X	HPN and FTS 2001		X	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>
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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: 4, 5, 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"> Loss of ALL offsite and onsite AC power to 4160 V emergency buses 10500 and 10600. <p>AND</p> <ol style="list-style-type: none"> Failure to restore power to at least one 4160 V emergency buses 10500 or 10600 in < 15 minutes from the time of loss of both offsite and onsite AC power. 	<p> <input type="checkbox"/> No Change <input checked="" type="checkbox"/> Difference <input type="checkbox"/> Deviation </p> <ol style="list-style-type: none"> Listed site specific equipment to ensure timely classification. Changed formatting to be 1 and 2 to conform to Exelon fleet formatting Added the following paragraph to the basis section to ensure SM/ED would not declare unnecessarily if power source is powering one of the buses but it is not one of the listed power sources in lesser EALs within this sequence. <p><i>"If mitigating strategies are effective in reestablishing emergency power to any of the buses listed, within the specified time, then declaration of this EAL is not warranted. This EAL is not concerned with the source of the power as much as the loss of power to the listed buses."</i></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: 4, 5, 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 4160 V emergency buses 10500 and 10600 reduced to only one of the following power sources for ≥ 15 minutes.</p> <ul style="list-style-type: none"> • Reserve Station Transformer T-2 • Reserve Station Transformer T-3 • Station Service Transformer T-4 (While backfeeding from Main Transformer) • EDG A • EDG B • EDG C • EDG D <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: 4, 5</p> <p>Emergency Action Level (EAL):</p> <p>Note:</p> <ul style="list-style-type: none"> • If the only affected SAFETY SYSTEM train was already inoperable or out of service before the hazardous event occurred, then this emergency classification is not warranted. • For SAFETY SYSTEMS with multiple trains if the hazardous event only resulted in VISIBLE DAMAGE or degraded performance to the one train, then this emergency classification is not warranted. • If it is determined that the conditions of CA2 are not met then assess the event via HU3, HU4, or HU6. <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. a. Event damage has caused indications of degraded performance or VISIBLE DAMAGE to one train of a SAFETY SYSTEM required by Technical Specifications for the current operating mode.</p> <p>AND</p> <p>b. ANY of the following for SAFETY SYSTEMS with multiple trains:</p> <ul style="list-style-type: none"> • Event damage has caused indications of degraded performance to a second train of the SAFETY SYSTEM required by Technical Specifications for the current operating mode. <p>OR</p> <ul style="list-style-type: none"> • Event damage has resulted in VISIBLE DAMAGE to a second train of the SAFETY SYSTEM required by Technical Specifications for the current operating mode. <p>OR</p> <ul style="list-style-type: none"> • An additional train of the SAFETY SYSTEM is inoperable or out of service. 	<p style="text-align: center;"> <input type="checkbox"/> No Change <input type="checkbox"/> Difference <input checked="" 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> <p>4) Revised to add notes and wording to warrant the escalation to Alert only if the hazardous event has caused VISIBLE DAMAGE or degraded performance in more than one operable train of a SAFETY SYSTEM (for multiple train SAFETY SYSTEMS) or in one train of single train SAFETY SYSTEM. As such this will reduce the potential of declaring an Alert when events are in progress that do not involve an actual or potential substantial degradation of the level of safety of the plant, i.e., does not cause significant concern with shutting down or cooling down the plant. The addition of the notes and wording are consistent with the current NRC-endorsed Alert classification language. The definition for VISIBLE DAMAGE has been revised since it is only used for CA2 and MA5 and the EALs are revised to be based upon SAFETY SYSTEM trains and not individual components and structures.</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: 4, 5</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 < 105 VDC on required Vital DC buses 71BCB-2A and 71BCB-2B 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>

NEI 99-01 Rev 6	Proposed EAL	Justification																																								
<p style="text-align: right;">CU5</p> <p>Initiating Condition: UNUSUAL EVENT Loss of all onsite or offsite communications capabilities</p> <p>Operating Mode Applicability: Cold Shutdown, Refueling, Defuled</p> <p>Example Emergency Action Levels: (1 or 2 or 3)</p> <ol style="list-style-type: none"> Loss of ALL of the following onsite communication methods: (site-specific list of communications method) Loss of ALL of the following ORO communications s) methods: (site-specific list of communications methods) Loss of ALL of the following NRC communications methods: (site-specific list of communications methods) 	<p style="text-align: right;">CU4</p> <p>Initiating Condition: Loss of all onsite or offsite communication capabilities.</p> <p>Operating Mode Applicability: 4, 5, D</p> <p>Emergency Action Level (EAL):</p> <ol style="list-style-type: none"> Loss of all Table C1 onsite communication capabilities affecting the ability to perform routine operations. <p>OR</p> <ol style="list-style-type: none"> Loss of all Table C1 offsite communication capabilities affecting the ability to perform offsite notifications. <p>OR</p> <ol style="list-style-type: none"> Loss of all Table C1 NRC communication capabilities affecting the ability to perform NRC notifications. <table border="1" data-bbox="1131 693 1986 1116"> <thead> <tr> <th colspan="4" style="text-align: center;">Table C1 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>Page/Party System (Gaitronics)</td> <td style="text-align: center;">X</td> <td></td> <td></td> </tr> <tr> <td>Control Room/Portable Radio</td> <td style="text-align: center;">X</td> <td></td> <td></td> </tr> <tr> <td>Plant Telephones (all VOIP, switched, non-switched)</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>Out-of-Plant Cellular Phones</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>Plant Satellite Phones</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> <tr> <td>Dedicated Phone Lines (ENS)</td> <td></td> <td style="text-align: center;">X</td> <td style="text-align: center;">X</td> </tr> <tr> <td>HPN and FTS 2001</td> <td></td> <td style="text-align: center;">X</td> <td style="text-align: center;">X</td> </tr> </tbody> </table>	Table C1 Communication Capabilities				System	Onsite	Offsite	NRC	Page/Party System (Gaitronics)	X			Control Room/Portable Radio	X			Plant Telephones (all VOIP, switched, non-switched)	X	X	X	Out-of-Plant Cellular Phones	X	X	X	Plant Satellite Phones		X	X	RECS		X		Dedicated Phone Lines (ENS)		X	X	HPN and FTS 2001		X	X	<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 communications methods to ensure timely classification</p> <p>2) Added a descriptor sentence as to the capability being affected for each EAL.</p>
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NEI 99-01 Rev 6	Proposed EAL	Justification																												
<p style="text-align: right;">CA3</p> <p>Initiating Condition: ALERT Inability to maintain the plant in cold shutdown.</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 the applicable 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) for greater than the duration specified in the following table. UNPLANNED RCS pressure increase greater than (site-specific pressure reading). (This EAL does not apply during water-solid plant conditions. [PWR]) <table border="1" data-bbox="164 693 1031 1064"> <thead> <tr> <th colspan="3">Table: RCS Heat-up Duration Thresholds</th> </tr> <tr> <th>RCS Status</th> <th>Containment Closure Status</th> <th>Heat-up Duration</th> </tr> </thead> <tbody> <tr> <td>Intact (but not RCS Reduced Inventory [PWR])</td> <td>Not Applicable</td> <td>60 minutes*</td> </tr> <tr> <td rowspan="2">Not Intact (or at reduced inventory [PWR])</td> <td>Established</td> <td>20 minutes*</td> </tr> <tr> <td>Not Established</td> <td>0 minutes</td> </tr> </tbody> </table> <p>* If an RCS heat removal system is in operation within this time frame and RCS temperature is being reduced, the EAL is not applicable.</p>	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	<p style="text-align: right;">CA5</p> <p>Initiating Condition: Inability to maintain plant in cold shutdown.</p> <p>Operating Mode Applicability: 4, 5</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 > 212 °F for > Table C2 duration. <table border="1" data-bbox="1153 768 1951 1161"> <thead> <tr> <th colspan="3">Table C2 RCS Heat-up Duration Thresholds</th> </tr> <tr> <th>RCS Status</th> <th>Containment Closure Status</th> <th>Heat-up Duration</th> </tr> </thead> <tbody> <tr> <td>Intact</td> <td>Not Applicable</td> <td>60 minutes*</td> </tr> <tr> <td rowspan="2">Not Intact</td> <td>Established</td> <td>20 minutes*</td> </tr> <tr> <td>Not Established</td> <td>0 minutes</td> </tr> </tbody> </table> <p>* 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.</p> <p>OR</p> <ol style="list-style-type: none"> UNPLANNED RPV pressure rise > 10 psig as a result of temperature rise. 	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	<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 Technical Specification cold shutdown temperature limit and site-specific pressure reading to ensure timely classification. Listed site specific pressure reading to enhance timely classification. 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." Changed the word increase to rise in the EALs to be consistent with operations language and training.
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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: 4, 5</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 > 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 water level indications 	<p><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>

NEI 99-01 Rev 6	Proposed EAL	Justification									
<p style="text-align: right;">CG1</p> <p>Initiating Condition: GENERAL EMERGENCY</p> <p>Loss of (reactor vessel/RCS [PWR] or RPV [BWR]) inventory affecting fuel clad integrity with containment challenged.</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 General Emergency promptly upon determining that 30 minutes time has been exceeded, or will likely be exceeded.</p> <p>1. a. (Reactor vessel/RCS [PWR] or RPV [BWR]) vessel level less than (site-specific level) for 30 minutes or longer.</p> <p style="padding-left: 20px;">AND</p> <p>b. ANY indication from the Containment Challenge Table</p> <p>2. a. (Reactor vessel/RCS [PWR] or RPV [BWR]) vessel level cannot be monitored for 30 minutes or longer.</p> <p style="padding-left: 20px;">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="padding-left: 20px;">AND</p> <p>c. ANY indication from the Containment Challenge Table).</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Table: Containment Challenge Table</th> </tr> </thead> <tbody> <tr> <td> <ul style="list-style-type: none"> • CONTAINMENT CLOSURE not established* • (Explosive mixture) exists inside containment • UNPLANNED increase in containment pressure • Secondary containment radiation monitor reading above (site-specific value) [BWR] </td> </tr> <tr> <td> <p>* 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.</p> </td> </tr> </tbody> </table>	Table: Containment Challenge Table	<ul style="list-style-type: none"> • CONTAINMENT CLOSURE not established* • (Explosive mixture) exists inside containment • UNPLANNED increase in containment pressure • Secondary containment radiation monitor reading above (site-specific value) [BWR] 	<p>* 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.</p>	<p style="text-align: right;">CG6</p> <p>Initiating Condition:</p> <p>Loss of RPV inventory affecting fuel clad integrity with containment challenged.</p> <p>Operating Mode Applicability:</p> <p>4, 5</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. a. RPV water level < 0 inches (TAF) for ≥ 30 minutes.</p> <p style="padding-left: 20px;">AND</p> <p>b. ANY Table C4 Containment Challenge Indication.</p> <p style="padding-left: 20px;">OR</p> <p>2. a. RPV water level cannot be monitored for ≥ 30 minutes.</p> <p style="padding-left: 20px;">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 style="padding-left: 20px;">OR</p> <ul style="list-style-type: none"> • 18RIA-052-30 Refuel Floor West (EPIC A-1247)Rad monitor ≥ 3 R/hr. <p style="padding-left: 20px;">AND</p> <p>c. ANY Table C4 Containment Challenge Indication.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Table C3 Indications of RCS Leakage</th> </tr> </thead> <tbody> <tr> <td> <ul style="list-style-type: none"> • UNPLANNED Drywell equipment drain sump level rise* • UNPLANNED Drywell floor drain sump level rise* • UNPLANNED Reactor Building equipment sump level rise* • UNPLANNED Reactor Building floor drain sump level rise* • UNPLANNED Torus level rise* • UNPLANNED RPV make up rate rise* • Observation of leakage or inventory loss </td> </tr> <tr> <td> <p>*Rise in level is attributed to a loss of RPV inventory</p> </td> </tr> </tbody> </table>	Table C3 Indications of RCS Leakage	<ul style="list-style-type: none"> • UNPLANNED Drywell equipment drain sump level rise* • UNPLANNED Drywell floor drain sump level rise* • UNPLANNED Reactor Building equipment sump level rise* • UNPLANNED Reactor Building floor drain sump level rise* • UNPLANNED Torus level rise* • UNPLANNED RPV make up rate rise* • Observation of leakage or inventory loss 	<p>*Rise in level is attributed to a loss of RPV inventory</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 levels, radiation monitors, and sumps and tanks to ensure timely classification.</p> <p>2) Listed Explosive mixture in the Containment Challenge Table to ensure timely classification.</p> <p>3) Changed the word increase to rise in the initiating condition to be consistent with operations language and training.</p> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 20px;"> <thead> <tr> <th style="text-align: center;">Table C4 Containment Challenge Indications</th> </tr> </thead> <tbody> <tr> <td> <ul style="list-style-type: none"> • Primary Containment Hydrogen Concentration ≥ 6% and Oxygen ≥ 5% • UNPLANNED rise in containment pressure • CONTAINMENT CLOSURE not established* • Secondary Containment area radiation > ANY Maximum Safe Operating Limit (EOP-5) </td> </tr> <tr> <td> <p>* 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.</p> </td> </tr> </tbody> </table>	Table C4 Containment Challenge Indications	<ul style="list-style-type: none"> • Primary Containment Hydrogen Concentration ≥ 6% and Oxygen ≥ 5% • UNPLANNED rise in containment pressure • CONTAINMENT CLOSURE not established* • Secondary Containment area radiation > ANY Maximum Safe Operating Limit (EOP-5) 	<p>* 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.</p>
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<p>* 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.</p>											

CS1

Initiating Condition: SITE AREA EMERGENCY

Loss of (reactor vessel/RCS [PWR] or RPV [BWR]) inventory affecting core decay heat removal capability.

Operating Mode Applicability:

Cold Shutdown, Refueling

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

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.

1. a. CONTAINMENT CLOSURE not established.

AND

- b. (Reactor vessel/RCS [PWR] or RPV [BWR]) level less than (site-specific level).

2. a. CONTAINMENT CLOSURE established.

AND

- b. (Reactor vessel/RCS [PWR] or RPV [BWR]) level less than (site-specific level).

3. a. (Reactor vessel/RCS [PWR] or RPV [BWR]) 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)

CS6

Initiating Condition:

Loss of RPV inventory affecting core decay heat removal capabilities.

Operating Mode Applicability:

4, 5

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. With CONTAINMENT CLOSURE **not** established, RPV water level < **120.5 inches**.

OR

2. With CONTAINMENT CLOSURE established, RPV water level < **0 inches (TAF)**.

OR

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

AND

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

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

OR

- 18RIA-052-30 Refuel Floor West (EPIC A-1247)Rad monitor **≥ 3 R/hr**.

Table C3 Indications of RCS Leakage

- UNPLANNED Drywell equipment drain sump level rise*
- UNPLANNED Drywell floor drain sump level rise*
- UNPLANNED Reactor Building equipment sump level rise*
- UNPLANNED Reactor Building floor drain sump level rise*
- UNPLANNED Torus 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

No Change Difference Deviation

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

2) Changed the word increase to rise in the initiating condition to be consistent with operations language and training.

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: 4, 5</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 < 126.5 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. <table border="1" data-bbox="1159 806 1958 1201" style="margin: 10px auto;"> <thead> <tr> <th style="text-align: center;">Table C3 Indications of RCS Leakage</th> </tr> </thead> <tbody> <tr> <td> <ul style="list-style-type: none"> • UNPLANNED Drywell equipment drain sump level rise* • UNPLANNED Drywell floor drain sump level rise* • UNPLANNED Reactor Building equipment sump level rise* • UNPLANNED Reactor Building floor drain sump level rise* • UNPLANNED Torus level rise* • UNPLANNED RPV make up rate rise* • Observation of leakage or inventory loss </td> </tr> <tr> <td>*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 sump level rise* • UNPLANNED Drywell floor drain sump level rise* • UNPLANNED Reactor Building equipment sump level rise* • UNPLANNED Reactor Building floor drain sump level rise* • UNPLANNED Torus 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 levels, and sumps and tanks 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>
Table C3 Indications of RCS Leakage					
<ul style="list-style-type: none"> • UNPLANNED Drywell equipment drain sump level rise* • UNPLANNED Drywell floor drain sump level rise* • UNPLANNED Reactor Building equipment sump level rise* • UNPLANNED Reactor Building floor drain sump level rise* • UNPLANNED Torus 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;">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>4, 5</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 water level cannot be monitored <p style="text-align: center;">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 0;"> <p style="text-align: center;">Table C3 Indications of RCS Leakage</p> <ul style="list-style-type: none"> • UNPLANNED Drywell equipment drain sump level rise* • UNPLANNED Drywell floor drain sump level rise* • UNPLANNED Reactor Building equipment sump level rise* • UNPLANNED Reactor Building floor drain sump level rise* • UNPLANNED Torus level rise* • UNPLANNED RPV make up rate rise* • Observation of leakage or inventory loss <p style="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 the initiating condition 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 bound 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> <ul style="list-style-type: none"> 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. b. Also, as stated above, any event (including Hostile Action) that could reasonably be expected to have a release exceeding EPA PAGs would be bound by EAL HG7. c. From a Hostile Action perspective, EALs HS1, HS7, and HG7 are appropriate and therefore makes this part of HG1 redundant and unnecessary. 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>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>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, 5, 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"> 1. A HOSTILE ACTION is occurring or has occurred within the OWNER CONTROLLED AREA as reported by the (site-specific security shift supervision). 2. 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, 5, D</p> <p>Emergency Action Level (EAL):</p> <ol style="list-style-type: none"> 1. A validated notification from NRC of an aircraft attack threat < 30 minutes from the site. <p>OR</p> <ol style="list-style-type: none"> 2. 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 formatting to make EAL1 to be 2 and EAL 2 to be 1 to conform with the Exelon fleet formatting.</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, 5, 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>OR</p> <ol style="list-style-type: none"> 2. A validated notification from the NRC providing information of an aircraft threat. <p>OR</p> <ol style="list-style-type: none"> 3. Notification by the Security Force of a SECURITY CONDITION that does <u>not</u> 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 Exelon fleet numbering format.

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, 5, 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 AOP-43, Plant Shutdown from Outside the Control Room. <p>AND</p> <ol style="list-style-type: none"> Control of ANY Table H1 key safety function is <u>not</u> reestablished in < 30 minutes. <div style="border: 1px solid black; padding: 5px; margin: 10px auto; width: fit-content;"> <p style="text-align: center;">Table H1 Safety Functions</p> <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) </div>	<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 procedure to effectively list all of the alternate locations, panels, and stations requested by the developer notes. This would be the procedure 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 manned, due to testing or equipment failure.</p>

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, 5, 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 AOP-43, Plant Shutdown from Outside the Control Room.</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 procedure to effectively list all of the alternate locations, panels, and stations requested by the developer notes. This would be the procedure 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 manned, 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> b. The FIRE is located within ANY of the following plant rooms or areas: (site-specific list of plant rooms or areas) 2. a. Receipt of a single fire alarm (i.e., no other indications of a FIRE). <p style="text-align: center;">AND</p> b. The FIRE is located within ANY of the following plant rooms or areas: (site-specific list of plant rooms or areas) <p style="text-align: center;">AND</p> 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, 5, 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" data-bbox="1177 945 1926 1463" style="margin-left: 40px;"> <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 / Relay Room / Cable Run Rooms / Cable Spreading Room • Electric Bays • Control Room AC Equipment Room • Control Room Chiller Room • Emergency Diesel Generator Building • Battery Rooms / Battery Room Corridor • RHRSW / ESW Pump Rooms • Cable Tunnels • Remote Safe Shutdown Panels 25ASP-4 and 25ASP-5 (for MSIV / ADS) </td> </tr> </tbody> </table> 2. a. Receipt of a single fire alarm in ANY Table H2 area (i.e., no other indications of a FIRE). <p style="text-align: center;">AND</p> b. The existence of a FIRE is not verified in < 30 minutes of alarm receipt. <p style="text-align: center;">OR</p> 3. A FIRE within the plant PROTECTED AREA not extinguished in < 60 minutes of the initial report, alarm or indication. <p style="text-align: center;">OR</p> 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 / Relay Room / Cable Run Rooms / Cable Spreading Room • Electric Bays • Control Room AC Equipment Room • Control Room Chiller Room • Emergency Diesel Generator Building • Battery Rooms / Battery Room Corridor • RHRSW / ESW Pump Rooms • Cable Tunnels • Remote Safe Shutdown Panels 25ASP-4 and 25ASP-5 (for MSIV / ADS) 	<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 operator to the escalation ICs.
Table H2 Areas				
<ul style="list-style-type: none"> • Reactor Building (when inerted the Drywell is exempt) • Control Room / Relay Room / Cable Run Rooms / Cable Spreading Room • Electric Bays • Control Room AC Equipment Room • Control Room Chiller Room • Emergency Diesel Generator Building • Battery Rooms / Battery Room Corridor • RHRSW / ESW Pump Rooms • Cable Tunnels • Remote Safe Shutdown Panels 25ASP-4 and 25ASP-5 (for MSIV / ADS) 				

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, 5, 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 Emergency Director in ≤ 15 minutes of the event. • Escalation of the emergency classification level would be via IC CA2 or MA5 <p>1. Seismic event > Operating Basis Earthquake (OBE) as determined by seismic monitoring system in accordance with AOP-14 Earthquake.</p> <p>OR</p> <p>2. When Seismic Monitoring Equipment is not available:</p> <p>a. Control Room personnel feel an actual or potential seismic event.</p> <p>AND</p> <p>b. ANY one of the following confirmed in ≤ 15 minutes of the event:</p> <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 of the plant. 	<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 for when Control Room indication of a seismic event > OBE is not available.</p> <p>2) A difference to HU4.2 (alternate threshold) 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 operator to the escalation ICs.</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> <p>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> <p>AND</p> <p>b. Entry into the room or area is prohibited or impeded.</p>	<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>3, 4, 5</p> <p>Emergency Action Level (EAL):</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> <p>1. Release of a toxic, corrosive, asphyxiant or flammable gas in ANY Table H3 area.</p> <table border="1" data-bbox="1165 913 1942 1370"> <thead> <tr> <th colspan="2" data-bbox="1165 913 1942 983">Table H3 Areas with Entry Related Mode Applicability</th> </tr> <tr> <th data-bbox="1165 983 1662 1058">Area</th> <th data-bbox="1662 983 1942 1058">Entry Related Mode Applicability</th> </tr> </thead> <tbody> <tr> <td data-bbox="1165 1058 1662 1260"> <ul style="list-style-type: none"> • Reactor Building East Crescent • Reactor Building West Crescent • Reactor Building 272' Elevation • Reactor Building 300' Elevation </td> <td data-bbox="1662 1058 1942 1260" style="text-align: center; vertical-align: middle;"> Modes 3, 4, and 5 </td> </tr> <tr> <td data-bbox="1165 1260 1662 1370"> <ul style="list-style-type: none"> • Relay Room • North Cable Room </td> <td data-bbox="1662 1260 1942 1370"></td> </tr> </tbody> </table> <p>AND</p> <p>2. Entry into the room or area is prohibited or impeded</p>	Table H3 Areas with Entry Related Mode Applicability		Area	Entry Related Mode Applicability	<ul style="list-style-type: none"> • Reactor Building East Crescent • Reactor Building West Crescent • Reactor Building 272' Elevation • Reactor Building 300' Elevation 	Modes 3, 4, and 5	<ul style="list-style-type: none"> • Relay Room • North Cable Room 		<p> <input type="checkbox"/> No Change <input checked="" type="checkbox"/> Difference <input type="checkbox"/> Deviation </p> <p>1) Listed plant specific rooms and areas with entry related mode applicability to ensure timely classification.</p> <p>2) Restricted Mode applicability to the modes applicable to Table H3.</p> <p>3) Additional discussion added to the basis section describing Table R4 as follows:</p> <p style="padding-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="padding-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="padding-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="padding-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>
Table H3 Areas with Entry Related Mode Applicability										
Area	Entry Related Mode Applicability									
<ul style="list-style-type: none"> • Reactor Building East Crescent • Reactor Building West Crescent • Reactor Building 272' Elevation • Reactor Building 300' Elevation 	Modes 3, 4, and 5									
<ul style="list-style-type: none"> • Relay Room • North Cable Room 										

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, 5, 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 on-site 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 > 255 feet. <p>OR</p> <ol style="list-style-type: none"> 6. ESW intake bay water level ≤ 237 feet. 	<p><input type="checkbox"/> No Change <input checked="" type="checkbox"/> Difference <input type="checkbox"/> Deviation</p> <p>1) Included low and high intake water level as part of the site specific list of natural or technological hazard events. The low level value is selected to be ≤ 237 feet. IAW AOP-56, Intake Water Level Trouble at 237.5 feet there is adequate time to reduce power (scramming the reactor), remove the second CW pump and trend intake water level as mitigating actions, the ESW pumps are declared inoperable (Alert threshold) at 236.5 feet, so 237 feet allows for mitigating action to be taken prior to declaration and is above the Alert threshold allowing for escalation between the Unusual Event and the Alert thresholds. The high level corresponds to the revised design flood level for the screenwell interior walls and gates.</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 operator to the escalation ICs.</p>

NEI 99-01 Rev 6	Proposed EAL	Justification
<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, 5, 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>

NEI 99-01 Rev 6	Proposed EAL	Justification
<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, 5, 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>

NEI 99-01 Rev 6	Proposed EAL	Justification
<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, 5, 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>

NEI 99-01 Rev 6	Proposed EAL	Justification
<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, 5, 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>

Initiating Condition: UNUSUAL EVENT

E-HU1

Damage to a loaded cask CONFINEMENT BOUNDARY.

Operating Mode Applicability:

All

Example Emergency Action Levels:

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.

Initiating Condition:

E-HU1

Damage to a loaded cask CONFINEMENT BOUNDARY.

Operating Mode Applicability:

1, 2, 3, 4, 5, D

Emergency Action Level (EAL):

Damage to a loaded cask CONFINEMENT BOUNDARY as indicated by a radiation reading > Table E-1 values:

Table E-1 Radiation Reading			
Overpack Serial Number	Overpack Average Surface Dose Rates mrem/hr (gamma+neutron)	Overpack Serial Number HI-STORM 100S (XXX)	Overpack Average Surface Dose Rates mrem/hr (gamma+neutron)
HI-STORM 100S S/N - 15, 16, 17	80 on the side 20 on the top 32 at the inlet and outlet vent ducts	S/N – 0186, 0187, 0188 S/N – 0307, 0308, 0309, 0310, 0311, 0312, 0679, 0680, 0681, 0682, 0683, 0690, 0691, 0692, 0693, 0694, 0695	220 on the side 40 on the top 600 on the side 60 on the top
HI-STORM 100S (232) S/N – 0169, 0170, 0171	100 on the side 20 on the top 90 at the inlet and outlet vent ducts		

No Change Difference Deviation

1) Listed 2x the site specific cask specific allowable radiation level as per ATTACHMENT A, TECHNICAL SPECIFICATIONS listed in Certificate Of Compliance Amendment No.'s 0, 1, 2, 5, and 8.