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RA-22-0313

October 27, 2022

10 CFR 50.54(q)
10 CFR 72.44(f)

Attn: Document Control Desk
U.S. Nuclear Regulatory Commission
11555 Rockville Pike
Rockville, Maryland 20852-2746

Duke Energy Carolinas, LLC
Oconee Nuclear Station, Units 1, 2, and 3
Docket Nos. 50-269, -270, and -287
Renewed License Nos. DPR-38,-47, and -55

**SUBJECT: Oconee Emergency Action Level (EAL) Technical Basis Document, Revision 4,
EAL Wallchart, Revision 3 and Alternate TSC and OSC Renovations.**

Pursuant to 10 CFR 50.54(q) and 10 CFR 72.44(f), Duke Energy is submitting revision summaries for the Oconee Nuclear Station (ONS) EAL Technical Bases (CSD-EP-ONS-0101-01, Revision 4) and Wallchart (CSD-EP-ONS-0101-02, Revision 3). The effective date is September 27, 2022. Additionally, renovations were completed to the Alternate TSC and OSC on September 29, 2022.

Attachment 1 is a summary of analyses for revising the EAL Technical Bases and Wallchart.. Attachment 2 includes a summary of analyses for the changes to the Alternate TSC and OSC.

This document contains no new regulatory commitments.

If there are any questions or concerns pertaining to these revisions please call David Wilson, Manager Nuclear Support Services, at 864-873-3451.

Sincerely,

Steven M. Snider
Site Vice President
Oconee Nuclear Station

Attachments

1. 10 CFR 50.54(q) - EAL Technical Bases, Rev.004 and EAL Wallchart, Rev. 003
2. 10 CFR 50.54(q) - Alternate TSC and OSC Renovations

cc: Ms. Laura Dudes
Administrator, USNRC Region II
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Ms. Shana Helton
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NRC Senior Resident Inspector
Oconee Nuclear Station

ATTACHMENT 1

10 CFR 50.54(q) - EAL Technical Bases, Rev.004 and EAL Wallchart, Rev. 003

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Section I: 10 CFR 50.54(q) Review Number: (EREg #):				02435539	
Applicable Sites and Applicability Determination # (5AD)					
<input type="checkbox"/> BNP		<input type="checkbox"/> CNS		<input type="checkbox"/> HNP	
<input type="checkbox"/> MNS		<input checked="" type="checkbox"/> ONS	02435534	<input type="checkbox"/> RNP	
Document #, EC #, or N/A	Revision # or N/A	Document or Activity Title			
CSD-EP-ONS-0101-01	004	EAL Technical Basis Document			
CSD-EP-ONS-0101-02	003	EAL Wallchart (Both Hot and Cold)			

Section II: Identify/Describe All Proposed Activities/Changes being Reviewed
Event or action, or series of actions that may result in a change to the emergency plan or affect the implementation of the emergency plan (Use attachments, or continue additional pages as necessary): Continue to Section III .

CSD-EP-ONS-0101-01 is the EAL technical basis document and CSD-EP-ONS-0101-02 is the EAL wallchart for Oconee Nuclear Station (ONS).

- Editorial changes: punctuation, grammar, formatting, typographical errors, website links, EAL Basis document title, statalarm references updated.
- Updated the Operability Mode Applicability definitions.
- Updated wording to clarify that the leak is to be isolated in CU1.2, CA1.2, CS1.1 and CG1.1, otherwise it is unisolable.
- Added clarifying information to CU2.1, CA2.1, SU1.1, SA1.1, SS1.1, SG1.1 and SG1.2: the alignment specified in parenthesis on tables C-3 and S-1 is not required to be actually aligned to be considered as a power source.
- Deleted incorrect basis reference to HU2.1 in CA6.1 and SA9.1.
- Added clarification that a single train fire alarm can be verified by alternate Control Room indications or alarms, or by reports from the field for HU4.2.
- SU5.1 and Fission Product Barrier (FPB) Matrix for RCS or SG Tube Leakage A1 (Loss and Potential Loss): Updated wording to clarify that the RCS leak must be isolated less than the EAL limit. RCS= Reactor Coolant System, SG = Steam Generator.
- SU8.1 and FPB Matrix for Containment D3 potential loss: reformatted to provide clarifying information that the EAL defines RBS and RBCU requirements as intended for classification purposes. RBS=Reactor Building Spray, RBCU = Reactor Building Cooling Unit.
- Added clarifying information to SU6.1, SU6.2, SA6.1 and SS6.1: added "RPS" to references of an automatic trip and information why DSS cannot be credited as another "automatic" trip (setpoint higher than RPS). RPS = Reactor Protection System.
- Attachment 2, FPB Matrix for RCS Potential Loss A2 and the EAL wallchart (hot): in "HPI has operated in the injection mode with no RCPs operating", updated formatting to be third option instead of an "or" as the second option. HPI = High Pressure Injection.
- FPB Matrix for Fuel Clad A1: reworded information about RCPs and LPIPs running, added clarifying information that the RVLS indication used in the EAL is also used for the EOP. RCP = Reactor Coolant Pump, LPIP = Low Pressure Injection Pump.
- Added clarification that Note 11 for CA6.1 and SA9.1 applies if only one safety train was out of service prior to the event being evaluated for possible escalation.
- Updated the EAL Wallchart for EU1.1 information to match the EAL Basis.

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Unless otherwise specified, all changes are to CSD-EP-ONS-0101-01 EAL Technical Basis Document

Change #	Section or Step #	Change From	Change To
1	Title Page	Emergency Action Level Technical Bases	EAL Technical Basis Document
2	Throughout both documents	Old revision number (003) for CSD-EP-ONS-0101-01 and Old revision number (002) for CSD-EP-ONS-0101-02	New revision number (004) for CSD-EP-ONS-0101-01 and New revision number (003) for CSD-EP-ONS-0101-02
3	New Section: Revision Summary	Added to document	<p>REVISION SUMMARY DRR 02406048 DESCRIPTION</p> <ul style="list-style-type: none"> • Editorial changes: punctuation, grammar, formatting, typographical errors, website links, EAL Basis document title updated, statalarms updated etc. DRR 02410006 • Updated the Operability Mode Applicability definitions. DRR 02352436 • Added clarifying information that the leak is to be isolated in CU1.2, CA1.2, CS1.1 and CG1.1, otherwise it is unisolable • Added clarifying information to CU2.1, CA2.1, SU1.1, SA1.1, SS1.1, SG1.1 and SG1.2: the alignment specified in parenthesis on tables C-3 and S-1 is not required to be actually aligned to be considered as a power source. DRR 02352439 • Deleted basis reference to HU2.1 in CA6.1 and SA9.1. DRR 02406041, 02399000 • Added clarification that a single train fire alarm can be verified by alternate Control Room indications or alarms, or by reports from the field fur HU4.2. • SU5.1 and Fission Product Barrier (FPB) Matrix for RCS or SG Tube Leakage A1 (Loss and Potential Loss): Updated wording to clarify that the that the RCS leak must be

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			<p>isolated less than the EAL limit instead of "can be isolated". DRR 02431485</p> <ul style="list-style-type: none"> • SU8.1 and FPB Matrix for Containment D3 potential loss: reformatted to provide clarifying information that the EAL defines RBS and RBCU requirements as intended for classification purposes. DRR 02406048 • Added clarifying information to SU6.1, SU6.2, SA6.1 and SS6.1: added "RPS" to references of an automatic trip and information why DSS cannot be credited as another "automatic" trip (setpoint higher than RPS). • Attachment 2, FPB Matrix for RCS Potential Loss A2 and the EAL wallchart (hot): in "HPI has operated in the injection mode with no RCPs operating", updated formatting to be third option instead of an "or" as the second option. DRR 02412910 • FPB Matrix for Fuel Clad A1: reworded information about RCPs and LPIPs running, added clarifying information that the RVLS indication used in the EAL is also used for the EOP. • Clarified Note 11 for CA6.1 and SA9.1: Note 11 only applies if the only affected safety system was already OOS.
4	Table of Contents	Updated table of contents page numbers as a result of the changes to the procedure.	Updated table of contents page numbers as a result of the changes to the procedure.
5	Page 6, Step 2.4, last paragraph.	Category and subcategory titles are selected to represent conditions that are operationally significant to the EAL-user. The ONS EAL categories are aligned to and represent the NEI 99-01 "Recognition Categories." Subcategories are used in the ONS scheme as necessary to further divide the EALs of a category into logical sets	Category and subcategory titles are selected to represent conditions that are operationally significant to the EAL-user. The ONS EAL categories are aligned to and represent the NEI 99-01 "Recognition Categories." Subcategories are used in the ONS scheme as necessary to further divide the EALs of a category into logical sets of possible

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		of possible emergency classification thresholds. The ONS EAL categories and subcategories are listed below.	emergency classification thresholds. The ONS EAL categories and subcategories are listed below.
6	Section 2.5 Technical Bases Information Mode Applicability	One or more of the following plant operating conditions comprise the mode to which each EAL is applicable: 1 - Power Operation, 2 - Startup, 3 – Hot Standby, 4 - Hot Shutdown, 5 - Cold Shutdown, 6 - Refueling, NM – No Mode, or Any. (See Section 2.6 for operating mode definitions)	One or more of the following plant operating conditions comprise the mode to which each EAL is applicable: 1 - Power Operation, 2 - Startup, 3 – Hot Standby, 4 - Hot Shutdown, 5 - Cold Shutdown, 6 - Refueling, NM – No Mode, or Any. (See Section 2.6 for operating mode definitions)
7	Section 2.6 Operating Mode Applicability	<p>1 <u>Power Operation</u> $K_{eff} \geq 0.99$ and reactor thermal power $> 5\%$</p> <p>2 <u>Startup</u> $K_{eff} \geq 0.99$ and reactor thermal power $\leq 5\%$</p> <p>3 <u>Hot Standby</u> $K_{eff} < 0.99$ and average coolant temperature $\geq 250^{\circ}\text{F}$</p> <p>4 <u>Hot Shutdown</u> $K_{eff} < 0.99$ and average coolant temperature $250^{\circ}\text{F} > T_{avg} > 200^{\circ}\text{F}$ and all reactor vessel head closure bolts fully tensioned</p> <p>5 <u>Cold Shutdown</u> $K_{eff} < 0.99$ and average coolant temperature $\leq 200^{\circ}\text{F}$ and all reactor vessel head closure bolts fully tensioned</p>	<p>1 <u>Power Operation</u> $K_{eff} \geq 0.99$ and rated thermal power $> 5\%$</p> <p>2 <u>Startup</u> $K_{eff} \geq 0.99$ and rated thermal power $\leq 5\%$</p> <p>3 <u>Hot Standby</u> $K_{eff} < 0.99$ and average reactor coolant temperature $\geq 250^{\circ}\text{F}$</p> <p>4 <u>Hot Shutdown</u> $K_{eff} < 0.99$ and average reactor coolant temperature $250^{\circ}\text{F} > T_{avg} > 200^{\circ}\text{F}$ and all reactor vessel head closure bolts fully tensioned</p> <p>5 <u>Cold Shutdown</u> $K_{eff} < 0.99$ and average reactor coolant temperature $\leq 200^{\circ}\text{F}$ and all reactor vessel head closure bolts fully tensioned</p>
8	Section 4.2 Implementing	<p>4.2.1 NEI 99-01 Rev. 6 to ONS EAL Comparison Matrix</p> <p>4.2.2 ONS EAL Matrix</p>	<p>4.2.1 AD-EP-ALL-0101, EMERGENCY CLASSIFICATION</p> <p>4.2.2 CSD-EP-ONS-0101-02, EAL Wallchart (both Hot and Cold)</p> <p>4.2.3 NEI 99-01 Rev. 6 to ONS EAL Comparison Matrix</p>

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9	Sect 5.2 Acronyms and Abbreviations for psig and PSW	PWR PSIG PSW.....	psig PSW..... PWR.....
10	Att. 1, EAL: RU 2.1 Reference(s)	ONS Basis Reference(s): 1. OP/1/A/6101/009 Alarm Response Guide 1SA-09, A-5; OP/2/A/6102/009; OP/3/A/6103/009	ONS Basis Reference(s): 1. Alarm Response Guides: <ul style="list-style-type: none"> OP/1/A/6101/009, 1SA-09/A-5 (SF Spent Fuel Pool Level High/Low) OP/3/A/6103/009, 3SA-09/A-5 (SF Spent Fuel Pool Level High/Low)
11	Att. 1, EAL: RA 2.2 Reference(s)	ONS Basis Reference(s): 1. OP/1/A/6101/008, Alarm Response Guide 1SA-08 B-9; OP/2/A/6101/008; OP/3/A/6101/008	ONS Basis Reference(s): 1. Alarm Response Guides: <ul style="list-style-type: none"> OP/1/A/6101/008, 1SA-08/B-9 (RM Process Monitor Radiation High) OP/2/A/6102/008, 2SA-08/B-9 (RM Process Monitor Radiation High) OP/3/A/6103/008, 3SA-08/B-9 (RM Process Monitor Radiation High)
12	Att. 1 EAL CU1.2 Basis 1st paragraph	A RCS leak should be considered UNISOLABLE if the leak cannot be isolated within 15 min.	A RCS leak should be considered UNISOLABLE if the leak is not isolated within 15 minutes.
13	Att. 1 EAL CA1.2 Basis 1st paragraph	A RCS leak should be considered UNISOLABLE if the leak cannot be isolated within 15 minutes.	A RCS leak should be considered UNISOLABLE if the leak is not isolated within 15 minutes.
14	Att.1 EAL CS1.1 Basis 1st paragraph	A RCS leak should be considered UNISOLABLE if the leak cannot be isolated within 15 minutes.	A RCS leak should be considered UNISOLABLE if the leak is not isolated within 15 minutes.
15	Att.1 EAL CG1.1 Basis 1st paragraph	A RCS leak should be considered UNISOLABLE if the leak cannot be isolated within 15 minutes.	A RCS leak should be considered UNISOLABLE if the leak is not isolated within 15 minutes.

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16	Att. 1, EAL CG1.1 Basis 11th paragraph:	With CONTAINMENT CLOSURE not established, there is a high potential for a direct and unmonitored release of radioactivity to the environment. If CONTAINMENT CLOSURE is re-established prior to exceeding the 30-minute time limit, then declaration of a General Emergency is not required.	With CONTAINMENT CLOSURE not established, there is a high potential for a direct and unmonitored release of radioactivity to the environment. If CONTAINMENT CLOSURE is re-established prior to exceeding the 30-minute time limit, then declaration of a General Emergency is not required.
17	Att. 1, EAL CG1.1 ONS Basis Reference (s):	5. OP/1/A/6101/002; OP/2/A/6102/002; OP/3/A/6103/002 Alarm Response Guide 1,2,3SA-02, A-6	5. Alarm Response Guides: <ul style="list-style-type: none"> • OP/1/A/6101/002, 1SA-02/A-6 (SR Flux High) • OP/2/A/6102/002, 2SA-02/A-6 (SR Flux High) • OP/3/A/6103/002, 3SA-02/A-6 (SR Flux High)
18	Att. 1, EAL CU2.1 Basis	For emergency classification purposes, "capability" means that an AC power source is available to and capable of powering the emergency bus(es) within 15 min, whether or not the buses are currently powered from it.	The 4160 V buses MFB-1 and MFB-2 are the essential buses (ref. 1). For emergency classification purposes, "capability" means that an AC power source is available to and capable of powering the emergency bus(es) within 15 min, whether or not the buses are currently powered from it. If a power source in Table C-3, AC Power Sources, can be aligned in the stated position, including parenthetical supplemental information, within 15 minutes, it should be considered capable. For example, the standby bus does not have to be energized from the Central switchyard via CT5 to be a 'capable Offsite power source' as long as it can be energized from that source within 15 minutes.
19	Att. 1, EAL CA2.1 EAL Box	Loss of all offsite and all emergency AC power capability to essential 4160 V buses MFB-1 and MFB-2 for ≥ 15 min. (Note 1)	Loss of all offsite and all emergency AC power capability to essential 4160 V buses MFB-1 and MFB-2 for ≥ 15 min. (Note 1)
20	Att. 1, EAL CA2.1 Basis	For emergency classification purposes, "capability" means that an AC power source is available to and capable of powering the emergency bus(es) within 15 min, whether or not the buses are currently powered from it.	The 4160 V buses MFB-1 and MFB-2 are the essential buses (ref. 1). For emergency classification purposes, "capability" means that an AC power source is available to and capable of powering the emergency bus(es) within 15 min, whether or not the buses are currently powered from it. If a power

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			source in Table C-3, AC Power Sources, can be aligned in the stated position, including parenthetical supplemental information, within 15 minutes, it should be considered capable. For example, the standby bus does not have to be energized from the Central switchyard via CT5 to be a 'capable Offsite power source' as long as it can be energized from that source within 15 minutes.
21	Att. 1 CA3.1 Basis 7th paragraph	The RCS Heat-up Duration Thresholds table also addresses an increase in RCS temperature with the RCS intact. The status of CONTAINMENT CLOSURE is not crucial in this condition since the intact RCS is providing a high pressure barrier to a fission product release. The 60-minute time frame should allow sufficient time to address the temperature increase without a substantial degradation in plant safety.	The RCS Heat-up Duration Thresholds table also addresses an increase in RCS temperature with the RCS intact. The status of CONTAINMENT CLOSURE is not crucial in this condition since the intact RCS is providing a high pressure barrier to a fission product release. The 60-minute time frame should allow sufficient time to address the temperature increase without a substantial degradation in plant safety.
22	Att. 1, EAL CU5.1 3rd paragraph after the 7 definitions of communication systems.	This IC should be assessed only when extraordinary means are being utilized to make communications possible (e.g., use of non-plant, privately owned equipment, relaying of on-site information via individuals or multiple radio transmission points, individuals being sent to offsite locations, etc.).	This IC should be assessed only when extraordinary means are being utilized to make communications possible (e.g., use of non-plant, privately owned equipment, relaying of on-site information via individuals or multiple radio transmission points, individuals being sent to offsite locations, etc.).
23	Att. 1, EAL CA6.1 Basis, 1st 5 bullets	<ul style="list-style-type: none"> The significance of seismic events are discussed under EAL HU2.1 (ref. 1) 	<i>Removed from document</i>
24	Att. 1, EAL CA6.1 Basis page after table to assist in determining two train threshold	Blank page (old page 103 of 244)	<i>Removed from document</i>
25	Att. 1, EAL HU2.1 Basis, 5th paragraph and website	To avoid inappropriate emergency classification resulting from spurious actuation of the seismic instrumentation or felt motion not attributable to seismic activity, an offsite agency (USGS,	To avoid inappropriate emergency classification resulting from spurious actuation of the seismic instrumentation or felt motion not attributable to seismic activity, an offsite agency (USGS,

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		<p>National Earthquake Information Center (NEIC)) can confirm that an earthquake has occurred in the area of the plant. Such confirmation should not, however, preclude a timely emergency declaration based on receipt of the OBE alarm. The NEIC can be contacted by calling (303) 273-8500 (ref. 2). Select option #1 and inform the analyst you wish to confirm recent seismic activity in the vicinity of ONS. If requested, provide the analyst with the following ONS coordinates: 34° 47' 38.2" north latitude, 82° 53' 55.4" west longitude (ref. 4). Alternatively, near real-time seismic activity can be accessed via the NEIC website:</p> <p>http://earthquake.usgs.gov/eqcenter/</p>	<p>National Earthquake Information Center (NEIC)) can confirm that an earthquake has occurred in the area of the plant. Such confirmation should not, however, preclude a timely emergency declaration based on receipt of the OBE alarm. The NEIC can be contacted by calling (303) 273-8500 (ref. 2). Select option #1 and inform the analyst you wish to confirm recent seismic activity in the vicinity of ONS. If requested, provide the analyst with the following ONS coordinates: 34° 47' 38.2" north latitude, 82° 53' 55.4" west longitude (ref. 4). Alternatively, near real-time seismic activity can be accessed via the NEIC website:</p> <p>http://earthquake.usgs.gov</p>
26	<p>Att. 1, EAL HU4.2</p> <p>Basis 1st paragraph</p>	<p>The 30 minute requirement begins upon receipt of a single valid fire detection system alarm. The alarm is to be validated using available Control Room indications or alarms to prove that it is not spurious, or by reports from the field. Actual field reports must be made within the 30 minute time limit or a classification must be made. If a fire is verified to be occurring by field report, classification shall be made based on EAL HU4.1.</p>	<p>The 30 minute requirement begins upon receipt of a single valid fire detection system alarm. There are two methods to verify the validity of the alarm:</p> <ul style="list-style-type: none"> • Using available alternate Control Room indications or alarms. • By field reports. <p>In the absence of alternate Control Room indications or alarms, field reports must be made within the 30 minute time limit or a classification must be made. Field reports verifying a fire are to be classified based on EAL HU4.1.</p>
27	<p>Att. 1, EAL HU4.2</p> <p>Reference(s)</p>	3. OP/1,2,3/A/6101/003	<p>3. Alarm Response Guides:</p> <ul style="list-style-type: none"> • OP/1/A/6101/003, 1SA-03/B-6 (Fire Alarm) • OP/3/A/6103/003, 3SA-03/B-6 (Fire Alarm)
28	<p>Att. 1 EAL HA5.1</p> <p>Basis, 2nd paragraph</p>	Not used.	

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29	Att. 1 EAL HA5.1 Basis, 8th paragraph	This EAL does not apply to firefighting activities that automatically or manually activate a fire suppression system in an area..	This EAL does not apply to firefighting activities that automatically or manually activate a fire suppression system in an area.
30	Att. 1 EAL HS6.1 Mode Applicability	1 - Power Operation, 2 - Startup, 3 - Hot Standby, 4 – Hot Shutdown, 5 – Cold Shutdown, 6 - Refuel	1 - Power Operation, 2 - Startup, 3 - Hot Standby, 4 – Hot Shutdown, 5 – Cold Shutdown, 6 - Refuel
31	Att. 1 EAL SU1.1 Initiating Condition	Loss of all offsite AC power capability to essential buses for 15 minutes or longer	Loss of all offsite AC power capability to essential buses for 15 minutes or longer
32	Att. 1 EAL SU1.1 Basis 1st paragraph	The 4160 V AC System provides the power requirements for operation and safe shutdown of the plant. 4160 V buses MFB-1 and MFB-2 are the essential buses (ref. 1).	The 4160 V AC System provides the power requirements for operation and safe shutdown of the plant. 4160 V buses MFB-1 and MFB-2 are the essential buses (ref. 1). If a power source in Table S-1, AC Power Sources, can be aligned in the stated position, including parenthetical supplemental information, within 15 minutes, it should be considered capable. For example, the standby bus does not have to be energized from the Central switchyard via CT5 to be a 'capable Offsite power source' as long as it can be energized from that source within 15 minutes.
33	Att. 1 EAL SA1.1 Basis, 1st paragraph	For emergency classification purposes, "capability" means that an AC power source is available to and capable of powering the emergency bus(es) within 15 min, whether or not the buses are currently powered from it.	The essential 4160 V buses are MFB-1 and MFB-2 (ref. 1). For emergency classification purposes, "capability" means that an AC power source is available to and capable of powering the emergency bus(es) within 15 min, whether or not the buses are currently powered from it. If a power source in Table S-1, AC Power Sources, can be aligned in the stated position, including parenthetical supplemental information, within 15 minutes, it should be considered capable. For example, the standby bus does not have to be energized from the Central switchyard via CT5 to be a 'capable Offsite power source' as long as it can be energized from that source within 15 minutes.

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34	Att. 1 EAL SA1.1 Basis, 7th paragraph	The 15-minute interval was selected as a threshold to exclude transient or momentary power losses. If the capability of a second source of emergency bus power is not restored within 15 minutes, an Alert is declared under this EAL.	The 15-minute interval was selected as a threshold to exclude transient or momentary power losses. If the capability of a second source of emergency bus power is not restored within 15 minutes, an Alert is declared under this EAL.
35	Att. 1 EAL SS1.1 EAL box	Loss of all offsite and all emergency AC power capability to essential 4160 V buses MFB-1 and MFB-2 for ≥ 15 min. (Note 1)	Loss of all offsite and all emergency AC power capability to essential 4160 V buses MFB-1 and MFB-2 for ≥ 15 min. (Note 1)
36	Att. 1 EAL SS1.1 Basis 1st paragraph	For emergency classification purposes, "capability" means that an AC power source is available to and capable of powering the emergency bus(es) within 15 minutes, whether or not the buses are currently powered from it.	The essential 4160 V buses are MFB-1 and MFB-2 (ref. 1). For emergency classification purposes, "capability" means that an AC power source is available to and capable of powering the emergency bus(es) within 15 minutes, whether or not the buses are currently powered from it. If a power source in Table S-1, AC Power Sources, can be aligned in the stated position, including parenthetical supplemental information, within 15 minutes, it should be considered capable. For example, the standby bus does not have to be energized from the Central switchyard via CT5 to be a 'capable Offsite power source' as long as it can be energized from that source within 15 minutes.
37	Att. 1 EAL SG1.1 EAL box	<p>Loss of all offsite and all emergency AC power capability to essential 4160 V buses MFB-1 and MFB-2</p> <p>AND</p> <p>Failure to power SSF equipment and PSW unavailable</p> <p>AND EITHER:</p> <ul style="list-style-type: none"> Restoration of at least one essential bus in < 4 hour is not likely (Note 1) CETC reading > 1200°F 	<p>Loss of all offsite and all emergency AC power capability to essential 4160 V buses MFB-1 and MFB-2</p> <p>AND</p> <p>Failure to power SSF equipment and PSW unavailable</p> <p>AND EITHER:</p> <ul style="list-style-type: none"> Restoration of at least one essential bus in < 4 hour is not likely (Note 1) CETC reading > 1200°F

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38	Att. 1 EAL SG1.1 Basis, 1st paragraph	For emergency classification purposes, "capability" means that an AC power source is available to and capable of powering the essential bus(es), whether or not the buses are currently powered from it. 4160 V buses MFB-1 and MFB-2 are the essential buses (ref. 1).	The essential 4160 V buses are MFB-1 and MFB-2 (ref. 1). For emergency classification purposes, "capability" means that an AC power source is available to and capable of powering the essential bus(es), whether or not the buses are currently powered from it. If a power source in Table S-1, AC Power Sources, can be aligned in the stated position, including parenthetical supplemental information, within 15 minutes, it should be considered capable. For example, the standby bus does not have to be energized from the Central switchyard via CT5 to be a 'capable Offsite power source' as long as it can be energized from that source within 15 minutes.
39	Att. 1 EAL SG1.2 EAL box	Loss of all offsite and all emergency AC power capability to essential 4160 V buses MFB-1 and MFB-2 for ≥ 15 min. AND Failure to power SSF equipment and PSW unavailable AND Loss of 125 VDC power based on battery bus voltage indications < 105 VDC on both vital DC Distribution Centers DCA and DCB for ≥ 15 min. (Note 1)	Loss of all offsite and all emergency AC power capability to essential 4160 V buses MFB-1 and MFB-2 for ≥ 15 min. AND Failure to power SSF equipment and PSW unavailable AND Loss of 125 VDC power based on battery bus voltage indications < 105 VDC on both vital DC Distribution Centers DCA and DCB for ≥ 15 min. (Note 1)
40	Att. 1 EAL SG1.2 Basis, 2nd paragraph	For emergency classification purposes, "capability" means that an AC power source is available to and capable of powering the emergency bus(es) within 15 minutes, whether or not the buses are currently powered from it.	For emergency classification purposes, "capability" means that an AC power source is available to and capable of powering the emergency bus(es) within 15 minutes, whether or not the buses are currently powered from it. If a power source in Table S-1, AC Power Sources, can be aligned in the stated position, including parenthetical supplemental information, within 15 minutes, it should be considered capable. For example, the standby bus does not have to be energized from the Central switchyard via CT5 to be a 'capable Offsite power source' as long as it can be energized from that source within 15 minutes.

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41	Att. 1 EAL SU4.1 Basis, 1st paragraph	The specific iodine activity is limited to $\leq 50 \mu\text{Ci/gm}$ Dose Equivalent I-131 for > 48 hr continuous period. The specific Xe-133 activity is limited to $\leq 280 \mu\text{Ci/gm}$ Dose Equivalent Xe-133 for > 48 hr continuous period. Entry into Condition C of LCO 3.4.11 meets the intent of this EAL (ref 1).	The specific iodine activity is limited to $\leq 50 \mu\text{Ci/gm}$ Dose Equivalent I-131 for > 48 hr continuous period. The specific Xe-133 activity is limited to $\leq 280 \mu\text{Ci/gm}$ Dose Equivalent Xe-133 for > 48 hr continuous period. Entry into Condition C of LCO 3.4.11 meets the intent of this EAL (ref 1).
42	Att. 1 EAL SU5.1 Basis, next to last paragraph	The 15-minute threshold duration allows sufficient time for prompt operator actions to isolate the leakage, if possible. If the leak can not be isolated in 15 minutes it should be considered unisolable.	The 15-minute threshold duration allows sufficient time for prompt operator actions to isolate the leakage, if possible. If the leak is not isolated (less than the EAL criteria) in 15 minutes, it should be considered unisolable.
43	Att. 1 EAL SU5.1 Basis, last paragraph	Escalation of the emergency classification level would be via ICs of Recognition Category R or F.	Escalation of the emergency classification level would be via ICs of Recognition Category R or F.
44	Att. 1 EAL SU6.1 last 7 paragraphs	<p>This IC addresses a failure of the RPS to initiate or complete an automatic or manual reactor trip that results in a reactor shutdown, and either a subsequent operator manual action taken at the reactor control consoles or an automatic trip is successful in shutting down the reactor. This event is a precursor to a more significant condition and thus represents a potential degradation of the level of safety of the plant.</p> <p>Following the failure on an automatic reactor trip, operators will promptly initiate manual actions at the reactor control consoles to shutdown the reactor (e.g., initiate a manual reactor trip). If these manual actions are successful in shutting down the reactor, core heat generation will quickly fall to a level within the capabilities of the plant's decay heat removal systems.</p> <p>If an initial manual reactor trip is unsuccessful, operators will promptly take manual action at another location(s)</p>	<p>This IC addresses a failure of the RPS to initiate or complete an RPS automatic or manual reactor trip that results in a reactor shutdown, and either a subsequent operator manual action taken at the reactor control consoles or an automatic trip is successful in shutting down the reactor. This event is a precursor to a more significant condition and thus represents a potential degradation of the level of safety of the plant.</p> <p>Following the failure on an RPS automatic reactor trip, operators will promptly initiate manual actions at the reactor control consoles to shutdown the reactor (e.g., initiate a manual reactor trip). If these manual actions are successful in shutting down the reactor, core heat generation will quickly fall to a level within the capabilities of the plant's decay heat removal systems.</p> <p>If an initial manual reactor trip is unsuccessful, operators will promptly take manual action at another location(s)</p>

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	<p>on the reactor control consoles to shutdown the reactor. Depending upon several factors, the initial or subsequent effort to manually trip the reactor, or a concurrent plant condition, may lead to the generation of an automatic reactor trip signal. If a subsequent manual or automatic trip is successful in shutting down the reactor, core heat generation will quickly fall to a level within the capabilities of the plant's decay heat removal systems.</p> <p>A manual action at the reactor control consoles is any operator action, or set of actions, which causes the control rods to be rapidly inserted into the core (e.g., initiating a manual reactor trip). This action does not include manually driving in control rods or implementation of boron injection strategies. Actions taken at back-panels or other locations within the Control Room, or any location outside the Control Room, are not considered to be "at the reactor control consoles".</p> <p>The plant response to the failure of an automatic or manual reactor trip will vary based upon several factors including the reactor power level prior to the event, availability of the condenser, performance of mitigation equipment and actions, other concurrent plant conditions, etc. If subsequent operator manual actions taken at the reactor control consoles are also unsuccessful in shutting down the reactor, then the emergency classification level will</p>	<p>on the reactor control consoles to shutdown the reactor. Depending upon several factors, the initial or subsequent effort to manually trip the reactor, or a concurrent plant condition, may lead to the generation of an automatic reactor trip signal. If a subsequent manual or automatic trip is successful in shutting down the reactor, core heat generation will quickly fall to a level within the capabilities of the plant's decay heat removal systems.</p> <p>A manual action at the reactor control consoles is any operator action, or set of actions, which causes the control rods to be rapidly inserted into the core (e.g., initiating a manual reactor trip). This action does not include manually driving in control rods or implementation of boron injection strategies. Actions taken at back-panels or other locations within the Control Room, or any location outside the Control Room, are not considered to be "at the reactor control consoles".</p> <p>DSS is designed to trip the reactor at a higher RCS pressure than RPS and may provide a subsequent reactor trip signal. Since the reactor trip setpoint for DSS is greater than the RPS setpoint, DSS cannot be a substitute for RPS failing to trip the reactor. RPS failing to work is an event or condition that significantly reduces the margin to a loss or potential loss of the fuel clad or RCS fission product barrier.</p> <p>The plant response to the failure of an RPS automatic or manual reactor trip will vary based upon several factors including the reactor power level prior to the event, availability of the condenser, performance of mitigation equipment and actions, other concurrent plant conditions, etc. If subsequent operator manual actions taken at the reactor control consoles are also unsuccessful in shutting down the reactor, then the emergency classification level will</p>
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		<p>escalate to an Alert via IC SA6. Depending upon the plant response, escalation is also possible via IC FA1. Absent the plant conditions needed to meet either IC SA6 or FA1, an Unusual Event declaration is appropriate for this event.</p> <p>Should a reactor trip signal be generated as a result of plant work (e.g., RPS setpoint testing), the following classification guidance should be applied.</p> <ul style="list-style-type: none"> ● If the signal causes a plant transient that should have included an automatic reactor trip and the RPS fails to automatically shutdown the reactor, then this IC and the EALs are applicable, and should be evaluated. ● If the signal does not cause a plant transient and the trip failure is determined through other means (e.g., assessment of test results), then this IC and the EALs are not applicable and no classification is warranted. 	<p>escalate to an Alert via IC SA6. Depending upon the plant response, escalation is also possible via IC FA1. Absent the plant conditions needed to meet either IC SA6 or FA1, an Unusual Event declaration is appropriate for this event.</p> <p>Should a reactor trip signal be generated as a result of plant work (e.g., RPS setpoint testing), the following classification guidance should be applied.</p> <ul style="list-style-type: none"> ● If the signal causes a plant transient that should have included an RPS automatic reactor trip and the RPS fails to automatically shutdown the reactor, then this IC and the EALs are applicable, and should be evaluated. ● If the signal does not cause a plant transient and the trip failure is determined through other means (e.g., assessment of test results), then this IC and the EALs are not applicable and no classification is warranted.
45	Att.1 EAL SU6.2 last 7 paragraphs	<p>This IC addresses a failure of the RPS to initiate or complete an automatic or manual reactor trip that results in a reactor shutdown, and either a subsequent operator manual action taken at the reactor control consoles or an automatic trip is successful in shutting down the reactor. This event is a precursor to a more significant condition and thus represents a potential degradation of the level of safety of the plant.</p> <p>Following the failure on an automatic reactor trip, operators will promptly initiate manual actions at the reactor control consoles to shutdown the reactor (e.g., initiate a manual reactor trip). If these manual actions are successful in</p>	<p>This IC addresses a failure of the RPS to initiate or complete an RPS automatic or manual reactor trip that results in a reactor shutdown, and either a subsequent operator manual action taken at the reactor control consoles or an automatic trip is successful in shutting down the reactor. This event is a precursor to a more significant condition and thus represents a potential degradation of the level of safety of the plant.</p> <p>Following the failure on an RPS automatic reactor trip, operators will promptly initiate manual actions at the reactor control consoles to shutdown the reactor (e.g., initiate a manual reactor trip). If these manual actions are</p>

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		<p>shutting down the reactor, core heat generation will quickly fall to a level within the capabilities of the plant's decay heat removal systems.</p> <p>If an initial manual reactor trip is unsuccessful, operators will promptly take manual action at another location(s) on the reactor control consoles to shutdown the reactor. Depending upon several factors, the initial or subsequent effort to manually trip the reactor, or a concurrent plant condition, may lead to the generation of an automatic reactor trip signal. If a subsequent manual or automatic trip is successful in shutting down the reactor, core heat generation will quickly fall to a level within the capabilities of the plant's decay heat removal systems.</p> <p>A manual action at the reactor control consoles is any operator action, or set of actions, which causes the control rods to be rapidly inserted into the core (e.g., initiating a manual reactor trip). This action does not include manually driving in control rods or implementation of boron injection strategies. Actions taken at back-panels or other locations within the Control Room, or any location outside the Control Room, are not considered to be "at the reactor control consoles".</p> <p>The plant response to the failure of an automatic or manual reactor trip will vary</p>	<p>successful in shutting down the reactor, core heat generation will quickly fall to a level within the capabilities of the plant's decay heat removal systems.</p> <p>If an initial manual reactor trip is unsuccessful, operators will promptly take manual action at another location(s) on the reactor control consoles to shutdown the reactor. Depending upon several factors, the initial or subsequent effort to manually trip the reactor, or a concurrent plant condition, may lead to the generation of an automatic reactor trip signal. If a subsequent manual or automatic trip is successful in shutting down the reactor, core heat generation will quickly fall to a level within the capabilities of the plant's decay heat removal systems.</p> <p>A manual action at the reactor control consoles is any operator action, or set of actions, which causes the control rods to be rapidly inserted into the core (e.g., initiating a manual reactor trip). This action does not include manually driving in control rods or implementation of boron injection strategies. Actions taken at back-panels or other locations within the Control Room, or any location outside the Control Room, are not considered to be "at the reactor control consoles".</p> <p>DSS is designed to trip the reactor at a higher RCS pressure than RPS and may provide a subsequent reactor trip signal. Since the reactor trip setpoint for DSS is greater than the RPS setpoint, DSS cannot be a substitute for RPS failing to trip the reactor. RPS failing to work is an event or condition that significantly reduces the margin to a loss or potential loss of the fuel clad or RCS fission product barrier.</p> <p>The plant response to the failure of an RPS automatic or manual reactor trip will</p>
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		<p>based upon several factors including the reactor power level prior to the event, availability of the condenser, performance of mitigation equipment and actions, other concurrent plant conditions, etc. If subsequent operator manual actions taken at the reactor control consoles are also unsuccessful in shutting down the reactor, then the emergency classification level will escalate to an Alert via IC SA6. Depending upon the plant response, escalation is also possible via IC FA1. Absent the plant conditions needed to meet either IC SA6 or FA1, an Unusual Event declaration is appropriate for this event.</p> <p>Should a reactor trip signal be generated as a result of plant work (e.g., RPS setpoint testing), the following classification guidance should be applied.</p> <ul style="list-style-type: none"> ● If the signal causes a plant transient that should have included an RPS automatic reactor trip and the RPS fails to automatically shutdown the reactor, then this IC and the EALs are applicable, and should be evaluated. ● If the signal does not cause a plant transient and the trip failure is determined through other means (e.g., assessment of test results), then this IC and the EALs are not applicable and no classification is warranted. 	<p>vary based upon several factors including the reactor power level prior to the event, availability of the condenser, performance of mitigation equipment and actions, other concurrent plant conditions, etc. If subsequent operator manual actions taken at the reactor control consoles are also unsuccessful in shutting down the reactor, then the emergency classification level will escalate to an Alert via IC SA6. Depending upon the plant response, escalation is also possible via IC FA1. Absent the plant conditions needed to meet either IC SA6 or FA1, an Unusual Event declaration is appropriate for this event.</p> <p>Should a reactor trip signal be generated as a result of plant work (e.g., RPS setpoint testing), the following classification guidance should be applied.</p> <ul style="list-style-type: none"> ● If the signal causes a plant transient that should have included an RPS automatic reactor trip and the RPS fails to automatically shutdown the reactor, then this IC and the EALs are applicable, and should be evaluated. ● If the signal does not cause a plant transient and the trip failure is determined through other means (e.g., assessment of test results), then this IC and the EALs are not applicable and no classification is warranted.
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46	Att.1 EAL SA6.1 1st paragraph	This EAL addresses any automatic or manual reactor trip signal that fails to shut down the reactor followed by a subsequent manual trip that fails to shut down the reactor to an extent the reactor is producing significant power (ref. 1).	This EAL addresses any RPS automatic or manual reactor trip signal that fails to shut down the reactor followed by a subsequent manual trip that fails to shut down the reactor to an extent the reactor is producing significant power (ref. 1).
	6th paragraph	This IC addresses a failure of the RPS to initiate or complete an automatic or manual reactor trip that results in a reactor shutdown, and subsequent operator manual actions taken at the reactor control consoles to shutdown the reactor are also unsuccessful. This condition represents an actual or potential substantial degradation of the level of safety of the plant. An emergency declaration is required even if the reactor is subsequently shutdown by an action taken away from the reactor control consoles since this event entails a significant failure of the RPS.	This IC addresses a failure of the RPS to initiate or complete an RPS automatic or manual reactor trip that results in a reactor shutdown, and subsequent operator manual actions taken at the reactor control consoles to shutdown the reactor are also unsuccessful. This condition represents an actual or potential substantial degradation of the level of safety of the plant. An emergency declaration is required even if the reactor is subsequently shutdown by an action taken away from the reactor control consoles since this event entails a significant failure of the RPS.
	new 8th paragraph		DSS is designed to trip the reactor at a higher RCS pressure than RPS and may provide a subsequent reactor trip signal. Since the reactor trip setpoint for DSS is greater than the RPS setpoint, DSS cannot be a substitute for RPS failing to trip the reactor. RPS failing to work is an event or condition that significantly reduces the margin to a loss or potential loss of the fuel clad or RCS fission product barrier.
	9th paragraph	The plant response to the failure of an automatic or manual reactor trip will vary based upon several factors including the reactor power level prior to the event, availability of the condenser, performance of mitigation equipment and actions, other concurrent plant conditions, etc. If the failure to shut down the reactor is prolonged enough to cause a challenge to the core cooling or RCS heat removal safety functions, the emergency classification level will escalate to a Site Area Emergency via IC SS6. Depending upon plant responses and symptoms, escalation is also	The plant response to the failure of an RPS automatic or manual reactor trip will vary based upon several factors including the reactor power level prior to the event, availability of the condenser, performance of mitigation equipment and actions, other concurrent plant conditions, etc. If the failure to shut down the reactor is prolonged enough to cause a challenge to the core cooling or RCS heat removal safety functions, the emergency classification level will escalate to a Site Area Emergency via IC SS6. Depending upon plant responses and symptoms, escalation is

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		possible via IC FS1. Absent the plant conditions needed to meet either IC SS6 or FS1, an Alert declaration is appropriate for this event.	also possible via IC FS1. Absent the plant conditions needed to meet either IC SS6 or FS1, an Alert declaration is appropriate for this event.
47	<p>Att.1 EAL SS6.1 Basis, 1sr paragraph</p> <p>7th paragraph</p> <p>new 9th paragraph</p>	<p>This EAL addresses the following:</p> <ul style="list-style-type: none"> Any automatic reactor trip signal (ref. 1) followed by a manual trip that fails to shut down the reactor to an extent the reactor is producing energy in excess of the heat load for which the safety systems were designed (ref. 5), and Indications that either core cooling is extremely challenged or heat removal is extremely challenged. <p>This IC addresses a failure of the RPS to initiate or complete an automatic or manual reactor trip that results in a reactor shutdown, all subsequent operator actions to manually shutdown the reactor are unsuccessful, and continued power generation is challenging the capability to adequately remove heat from the core and/or the RCS. This condition will lead to fuel damage if additional mitigation actions are unsuccessful and thus warrants the declaration of a Site Area Emergency.</p>	<p>This EAL addresses the following:</p> <ul style="list-style-type: none"> Any RPS automatic reactor trip signal (ref. 1) followed by a manual trip that fails to shut down the reactor to an extent the reactor is producing energy in excess of the heat load for which the safety systems were designed (ref. 5), and Indications that either core cooling is extremely challenged or heat removal is extremely challenged. <p>This IC addresses a failure of the RPS to initiate or complete an RPS automatic or manual reactor trip that results in a reactor shutdown, all subsequent operator actions to manually shutdown the reactor are unsuccessful, and continued power generation is challenging the capability to adequately remove heat from the core and/or the RCS. This condition will lead to fuel damage if additional mitigation actions are unsuccessful and thus warrants the declaration of a Site Area Emergency.</p> <p>DSS is designed to trip the reactor at a higher RCS pressure than RPS and may provide a subsequent reactor trip signal. Since the reactor trip setpoint for DSS is greater than the RPS setpoint, DSS cannot be a substitute for RPS failing to trip the reactor. RPS failing to work is an event or condition that significantly reduces the margin to a loss or potential loss of the fuel clad or RCS fission product barrier.</p>

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48	Att.1 EAL SS6.1 Basis, 5th paragraph	Indication of continuing core cooling degradation is manifested by CETCs are reading greater than 1200°F. This setpoint is used as an indication of an extreme ICC condition and entry into the Oconee Severe Accident Guidelines (OSAG) is initiated for further mitigative actions (ref. 4).	Indication of continuing core cooling degradation is manifested by CETCs reading greater than 1200°F. This setpoint is used as an indication of an extreme ICC condition and entry into the Oconee Severe Accident Management Guidelines (SAMG) is initiated for further mitigative actions (ref. 4).
49	Att. 1, EAL SU7.1 Basis, 3rd paragraph after the 7 definitions of communication systems.	This IC should be assessed only when extraordinary means are being utilized to make communications possible (e.g., use of non-plant, privately owned equipment, relaying of on-site information via individuals or multiple radio transmission points, individuals being sent to offsite locations, etc.).	This IC should be assessed only when extraordinary means are being utilized to make communications possible (e.g., use of non-plant, privately owned equipment, relaying of on-site information via individuals or multiple radio transmission points, individuals being sent to offsite locations, etc.).
50	Att. 1, EAL SU8.1 Basis, 1st five paragraphs	<p>Reactor Building isolations are initiated by Engineered Safeguards Actuation Channels 5 and 6 in response to a high reactor building pressure signal (3.0 psig) (ref. 1, 2, 4).</p> <p>Two engineered safeguards systems, the Reactor Building Spray System and the Reactor Building Cooling System, are provided to remove heat from the containment atmosphere following an accident. Both the Reactor Building Spray System and the Reactor Building Cooling System, with either at full capacity, are individually capable of maintaining the containment pressure below the design limit following a LOCA or MSLB. (ref. 1, 3)</p> <p>The Reactor Building Spray (RBS) System consists of two separate trains of equal capacity. Spray flow greater or equal to 700 gpm satisfies the spray flow design requirement. The Reactor Building pressure setpoint (10 psig) is the pressure at which the Reactor Building Spray equipment should actuate and begin performing its function (ref. 1, 2, 3, 5).</p>	<p>Reactor Building isolations are initiated by Engineered Safeguards Actuation Channels 5 and 6 in response to a high reactor building pressure signal (3.0 psig) (ref. 1, 2, 4).</p> <p>Two engineered safeguards systems, the Reactor Building Spray System and the Reactor Building Cooling System, are provided to remove heat from the containment atmosphere following an accident.</p> <p>The Reactor Building Spray (RBS) System consists of two separate trains of equal capacity. Spray flow greater or equal to 700 gpm satisfies the spray flow design requirement. The Reactor Building pressure setpoint (10 psig) is the pressure at which the Reactor Building Spray equipment should actuate and begin performing its function (ref. 1, 2, 3, 5).</p> <p>Each of three Reactor Building Cooling Units (RBCUs) consists of a fan, cooling coils, and the required distribution duct work. The Reactor Building atmosphere is circulated past cooling coils by fans and returned to the building. Cooling water for the cooling units is supplied by</p>

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		Each of three Reactor Building Cooling Units (RBCUs) consists of a fan, cooling coils, and the required distribution duct work. The Reactor Building atmosphere is circulated past cooling coils by fans and returned to the building. Cooling water for the cooling units is supplied by the Low Pressure Service Water System. The Reactor Building Cooling System provides the design heat removal capacity with two of three coolers operating (ref. 1).	<p>the Low Pressure Service Water System. The Reactor Building Cooling System provides the design heat removal capacity with two of three coolers operating (ref. 1).</p> <p>Even though both the Reactor Building Spray System and the Reactor Building Cooling System, with either at full capacity, are individually capable of maintaining the containment pressure below the design limit following a LOCA or MSLB. (ref. 1, 3), for the purposes of this EAL, one full train of the containment heat removal system consists of the following:</p> <ul style="list-style-type: none"> • 1 RBS train with > 700 gpm spray flow <p style="text-align: center;"><u>AND</u></p> <ul style="list-style-type: none"> • 2 RBCUs operating per design
51	Att. 1, EAL SU8.1 Basis, 8th paragraph	The second condition addresses a condition where containment pressure is greater than the setpoint at which containment energy (heat) removal systems are designed to automatically actuate, and less than one full train of equipment is capable of operating per design. The 15-minute criterion is included to allow operators time to manually start equipment that may not have automatically started, if possible. The inability to start the required equipment indicates that containment heat removal/depressurization systems (e.g., containment sprays) are either lost or performing in a degraded manner.	The second condition addresses a condition where containment pressure is greater than the setpoint at which containment energy (heat) removal systems are designed to automatically actuate, and less than one full train of equipment is capable of operating per design. The 15-minute criterion is included to allow operators time to manually start equipment that may not have automatically started, if possible. The inability to start the required equipment indicates that containment heat removal/depressurization systems (e.g., containment sprays) are either lost or performing in a degraded manner.
52	Att. 1, EAL SA9.1 Basis, 1st 5 bullets	<ul style="list-style-type: none"> • The significance of seismic events are discussed under EAL HU2.1 (ref. 1). 	<i>Removed from document</i>

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53	Att. 2 FPB matrix: RCS Barrier Potential Loss A.2 AND Table F-1 FPB matrix: RCS Barrier Potential Loss A.2 in CSD-EP-ONS-0101-02 (wallchart)	2. RCS cooldown < 400°F at > 100°F/hr OR HPI has operated in the injection mode with no RCPs operating	2. RCS cooldown < 400°F at > 100°F/hr 3. HPI has operated in the injection mode with no RCPs operating
54	Att.2 FPB Matrix Fuel Clad Barrier Potential Loss B1 and B2	1. CETCs > 700°F 2. RCS heat removal cannot be established AND RCS subcooling < 0 °F	1. CETCs > 700°F 2. RCS heat removal cannot be established AND RCS subcooling < 0 °F
55	Att.2 FPB Matrix RCS Barrier Potential Loss B1 and B2	1. RCS heat removal cannot be established AND RCS subcooling < 0 °F 2. HPI forced cooling initiated	1. RCS heat removal cannot be established AND RCS subcooling < 0 °F 2. HPI forced cooling initiated
56	Att. 2 FPB matrix: Containment Barrier Potential Loss B.1	1. CETCs > 1200°F AND Restoration procedures not effective within 15 min. (Note 1)	1. CETCs > 1200°F AND Restoration procedures not effective within 15 min. (Note 1)
57	Att.2 FPB matrix Containment Barrier Potential Loss D.3	3. Containment pressure > 10 psig with < one full train of containment heat removal system (1 RBS with > 700 gpm spray flow AND 2 RBCUs) operating per design for ≥ 15 min. (Note 1)	3. Containment pressure > 10 psig with < one full train of containment heat removal system (1 RBS with > 700 gpm spray flow AND 2 RBCUs) operating per design for ≥ 15 min. (Note 1)
58	Atth. 2 FPB Basis, Fuel Clad Barrier RCS or SG Tube Leakage	Note 9: RVLS is not valid if EITHER of the following exists: - One or more RCPs are running OR - LPI pump(s) are running	Note 9: RVLS is not valid if EITHER of the following exists: -One or more RCPs are running OR - LPI pump(s) are running

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	Potential Loss A.1 Note 9		
59	Atth. 2 FPB Bases, Fuel Clad Barrier RCS or SG Tube Leakage Potential Loss A.1 Basis, 1st paragraph New 2nd paragraph	RVLS indicated level $\leq 0''$ with all RCPs not running and both LPI pumps not running represents reactor vessel level below the bottom of the RCS hotleg (without instrument uncertainty considered). This is the lowest measurable reactor vessel level and is used in lieu of actual reactor vessel level indication of level at or below top of active fuel.	RVLS indicated level $\leq 0''$ with <u>no</u> RCPs running and <u>no</u> LPI pumps running represents reactor vessel level below the bottom of the RCS hotleg (without instrument uncertainty considered). This is the lowest measurable reactor vessel level and is used in lieu of actual reactor vessel level indication of level at or below top of active fuel. RVLS $\leq 0''$ is consistent with the reactor vessel water level values used by the EOP to identify a degraded core cooling condition.
60	Atth. 2 FPB Bases RCS Barrier RCS or SG Tube Leakage Loss A.1 Basis, 1st paragraph	A RCS leak should be considered UNISOLABLE if the leak cannot be isolated within 15 minutes	If the RCS leak is not isolated (less than the EAL criteria) within 15 minutes of exceeding the EAL criteria, it should be considered UNISOLABLE.
61	Atth. 2 FPB Bases RCS Barrier RCS or SG Tube Leakage Potential Loss A.1, Basis, 1st paragraph	A RCS leak should be considered UNISOLABLE if the leak cannot be isolated within 15 min.	If the RCS leak is not isolated (less than the EAL criteria) within 15 minutes of exceeding the EAL criteria, it should be considered UNISOLABLE.
62	Atth. 2 FPB Bases RCS Barrier RCS or SG Tube Leakage Potential Loss A.2	<div>Barrier: Reactor Coolant System</div> <div>Category: A. RCS or SG Tube Leakage</div> <div>Degradation Threat: Potential Loss</div> <div>Threshold:<div><div>2. RCS cooldown to $< 400^{\circ}\text{F}$ at $> 100^{\circ}\text{F/hr}$</div><div>OR</div><div>HPI has operated in the injection mode with no RCPs operating</div></div></div>	<div>Barrier: Reactor Coolant System</div> <div>Category: A. RCS or SG Tube Leakage</div> <div>Degradation Threat: Potential Loss</div> <div>Threshold:<div><div>2. RCS cooldown to $< 400^{\circ}\text{F}$ at $> 100^{\circ}\text{F/hr}$</div></div></div>

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	New: Atth. 2 FPB Bases RCS Barrier RCS or SG Tube Leakage Potential Loss A.3	<p>Definition(s):</p> <p>None</p> <p>Basis: 400°F is the temperature below which a cooldown greater than 100°F/hr requires implementation of Pressurized Thermal Shock (PTS) guidance (rule 8) (ref. 1, 2). HPI operating in the injection mode with no RCPs operating also invokes Rule 8 (ref. 3).</p> <p>This condition indicates an extreme challenge to the integrity of the RCS pressure boundary due to pressurized thermal shock – a transient that causes rapid RCS cooldown while the RCS is in Mode 3 or higher (i.e., hot and pressurized).</p> <p>ONS Basis Reference(s):</p> <ol style="list-style-type: none"> 1. OSC-2820 Emergency Procedure Setpoints, Setpoint No. 7.1.2.7 2. OSC-2820 Emergency Procedure Setpoints, Setpoint No. 7.1.8.7 3. EP/*A/1800/001 Rule 8 Pressurized Thermal Shock (PTS) 4. NEI 99-01 RCS or SG Tube Leakage Reactor Coolant System Potential Loss 1.B 	<p>Definition(s):</p> <p>None</p> <p>Basis: 400°F is the temperature below which a cooldown greater than 100°F/hr requires implementation of Pressurized Thermal Shock (PTS) guidance (rule 8) (ref. 1, 2, 3).</p> <p>This condition indicates an extreme challenge to the integrity of the RCS pressure boundary due to pressurized thermal shock – a transient that causes rapid RCS cooldown while the RCS is in Mode 3 or higher (i.e., hot and pressurized).</p> <p>ONS Basis Reference(s):</p> <ol style="list-style-type: none"> 1. OSC-2820 Emergency Procedure Setpoints, Setpoint No. 7.1.2.7 2. OSC-2820 Emergency Procedure Setpoints, Setpoint No. 7.1.8.7 3. EP/*A/1800/001 Rule 8 Pressurized Thermal Shock (PTS) 4. NEI 99-01 RCS or SG Tube Leakage Reactor Coolant System Potential Loss 1.B <p>Barrier: Reactor Coolant System</p> <p>Category: A. RCS or SG Tube Leakage</p> <p>Degradation Threat: Potential Loss</p> <p>Threshold:</p> <div> <p>3. HPI has operated in the injection mode with no RCPs operating</p> </div> <p>Definition(s):</p> <p>None</p>

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			<p>Basis: HPI operating in the injection mode with no RCPs operating invokes Rule 8 (ref. 1).</p> <p>This condition indicates an extreme challenge to the integrity of the RCS pressure boundary due to pressurized thermal shock – a transient that causes rapid RCS cooldown while the RCS is in Mode 3 or higher (i.e., hot and pressurized).</p> <p>ONS Basis Reference(s):</p> <ol style="list-style-type: none"> EP/*A/1800/001 Rule 8 Pressurized Thermal Shock (PTS) NEI 99-01 RCS or SG Tube Leakage Reactor Coolant System Potential Loss 1.B
63	Att. 2 FPB Bases Containment Barrier, CMT Integrity or Bypass Potential Loss D.3 Basis, 1st 5 paragraphs	<p>Two engineered safeguards systems, the Reactor Building Spray System and the Reactor Building Cooling System, are provided to remove heat from the containment atmosphere following an accident. Both the Reactor Building Spray System and the Reactor Building Cooling System, with either at full capacity, are individually capable of maintaining the containment pressure below the design limit following a LOCA or MSLB. (ref. 1, 3)</p> <ul style="list-style-type: none"> The Reactor Building Spray (RBS) System consists of two separate trains of equal capacity. Spray flow greater or equal to 700 gpm satisfies the spray flow design requirement. The Reactor Building pressure setpoint (10 psig) is the pressure at which the Reactor Building Spray equipment should actuate and begin performing its function (ref. 1, 2, 3, 4). Each of three Reactor Building Cooling Units (RBCUs) consists of a fan, cooling coils, and the 	<p>Two engineered safeguards systems, the Reactor Building Spray System and the Reactor Building Cooling System, are provided to remove heat from the containment atmosphere following an accident.</p> <p>The Reactor Building Spray (RBS) System consists of two separate trains of equal capacity. Spray flow greater or equal to 700 gpm satisfies the spray flow design requirement. The Reactor Building pressure setpoint (10 psig) is the pressure at which the Reactor Building Spray equipment should actuate and begin performing its function (ref. 1, 2, 3, 4).</p> <p>Each of three Reactor Building Cooling Units (RBCUs) consists of a fan, cooling coils, and the required distribution ductwork. The Reactor Building atmosphere is circulated past cooling coils by fans and returned to the building. Cooling water for the cooling units is supplied by the Low Pressure Service Water System. The Reactor Building Cooling System provides the design heat removal capacity with two of</p>

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		<p>required distribution duct work. The Reactor Building atmosphere is circulated past cooling coils by fans and returned to the building. Cooling water for the cooling units is supplied by the Low Pressure Service Water System. The Reactor Building Cooling System provides the design heat removal capacity with two of three coolers operating (ref. 1).</p> <p>This threshold describes a condition where containment pressure is greater than the setpoint at which containment energy (heat) removal systems are designed to automatically actuate, and less than one full train of equipment is capable of operating per design. The 15-minute criterion is included to allow operators time to manually start equipment that may not have automatically started, if possible. This threshold represents a potential loss of containment in that containment heat removal/depressurization systems (e.g., containment sprays, ice condenser fans, etc., but not including containment venting strategies) are either lost or performing in a degraded manner.</p>	<p>three coolers operating (ref. 1).</p> <p>Even though both the Reactor Building Spray System and the Reactor Building Cooling System, with either at full capacity, are individually capable of maintaining the containment pressure below the design limit following a LOCA or MSLB (ref. 1, 3), for purposes of this EAL, one full train of the containment heat removal system consists of the following:</p> <ul style="list-style-type: none">1 RBS train with > 700 gpm spray flow <p>AND</p> <ul style="list-style-type: none">2 RBCUs operating per design <p>This threshold describes a condition where containment pressure is greater than the setpoint at which containment energy (heat) removal systems are designed to automatically actuate, and less than one full train of equipment is capable of operating per design. The 15-minute criterion is included to allow operators time to manually start equipment that may not have automatically started, if possible. This threshold represents a potential loss of containment in that containment heat removal/depressurization systems (e.g., containment sprays, ice condenser fans, etc., but not including containment venting strategies) are either lost or performing in a degraded manner.</p>																																																																																																																
64	CA6.1, SA9.1 and CSD-EP-ONS-0101-02 (wallboard) Note 11	If the affected SAFETY SYSTEM train was already inoperable or out of service before the hazardous event occurred, then this emergency classification is not warranted.	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.																																																																																																																
65	CSD-EP-ONS-101-02 EAL Wallchart for Table E-1 ISFSI Dose Limits	<table><tr><th colspan="7">Table E-1 ISFSI Dose Limits</th></tr><tr><th></th><th colspan="6">HSM Module</th></tr><tr><th></th><th>E1-E20, W1-W20</th><th>E21-E42, W21-W42</th><th>E43-E57, W43-W47</th><th>E58-E74, W48-W74</th><th>E75-E86, W75-W86</th><th>E87-E92, W87-W92</th></tr><tr><th>Location</th><th>24P^a</th><th>24P^b</th><th>24PHB</th><th>24PHB</th><th>24PTH</th><th>24PTH</th></tr><tr><td>HSM front surface</td><td>400 mrem/hr</td><td>400 mrem/hr</td><td>1000 mrem/hr</td><td></td><td></td><td></td></tr><tr><td>HSM front bird screen</td><td></td><td></td><td></td><td>1050 mrem/hr</td><td>1050 mrem/hr</td><td>1200 mrem/hr</td></tr><tr><td>Outside HSM door</td><td></td><td>200 mrem/hr</td><td>40 mrem/hr</td><td>40 mrem/hr</td><td>140 mrem/hr</td><td>160 mrem/hr</td></tr><tr><td>End shield wall exterior</td><td></td><td>40 mrem/hr</td><td>600 mrem/hr</td><td>550 mrem/hr</td><td>600 mrem/hr</td><td>800 mrem/hr</td></tr></table>	Table E-1 ISFSI Dose Limits								HSM Module							E1-E20, W1-W20	E21-E42, W21-W42	E43-E57, W43-W47	E58-E74, W48-W74	E75-E86, W75-W86	E87-E92, W87-W92	Location	24P ^a	24P ^b	24PHB	24PHB	24PTH	24PTH	HSM front surface	400 mrem/hr	400 mrem/hr	1000 mrem/hr				HSM front bird screen				1050 mrem/hr	1050 mrem/hr	1200 mrem/hr	Outside HSM door		200 mrem/hr	40 mrem/hr	40 mrem/hr	140 mrem/hr	160 mrem/hr	End shield wall exterior		40 mrem/hr	600 mrem/hr	550 mrem/hr	600 mrem/hr	800 mrem/hr	<table><tr><th colspan="7">Table E-1 ISFSI Dose Limits</th></tr><tr><th></th><th colspan="6">HSM Module</th></tr><tr><th></th><th>E1-E20, W1-W20</th><th>E21-E42, W21-W42</th><th>E43-E57, W43-W47</th><th>E58-E74, W48-W74</th><th>E75-E86, W75-W86</th><th>E87-E92, W87-W92</th></tr><tr><th>Location</th><th>24P^a</th><th>24P^b</th><th>24PHB</th><th>24PHB</th><th>24PTH</th><th>24PTH</th></tr><tr><td>HSM front surface</td><td>400 mrem/hr</td><td>800 mrem/hr</td><td>1000 mrem/hr</td><td></td><td></td><td></td></tr><tr><td>HSM front bird screen</td><td></td><td></td><td></td><td>1050 mrem/hr</td><td>1050 mrem/hr</td><td>1200 mrem/hr</td></tr><tr><td>Outside HSM door</td><td></td><td>200 mrem/hr</td><td>40 mrem/hr</td><td>40 mrem/hr</td><td>140 mrem/hr</td><td>160 mrem/hr</td></tr><tr><td>End shield wall exterior</td><td></td><td>40 mrem/hr</td><td>600 mrem/hr</td><td>550 mrem/hr</td><td>600 mrem/hr</td><td>800 mrem/hr</td></tr></table>	Table E-1 ISFSI Dose Limits								HSM Module							E1-E20, W1-W20	E21-E42, W21-W42	E43-E57, W43-W47	E58-E74, W48-W74	E75-E86, W75-W86	E87-E92, W87-W92	Location	24P ^a	24P ^b	24PHB	24PHB	24PTH	24PTH	HSM front surface	400 mrem/hr	800 mrem/hr	1000 mrem/hr				HSM front bird screen				1050 mrem/hr	1050 mrem/hr	1200 mrem/hr	Outside HSM door		200 mrem/hr	40 mrem/hr	40 mrem/hr	140 mrem/hr	160 mrem/hr	End shield wall exterior		40 mrem/hr	600 mrem/hr	550 mrem/hr	600 mrem/hr	800 mrem/hr
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Section III: Description and Review of Licensing Basis Affected by the Proposed activity or Change:

List all emergency plan sections that were reviewed for this activity by number and title.

IF THE ACTIVITY IN ITS ENTIRETY IS AN EMERGENCY PLAN CHANGE, EAL CHANGE OR EAL BASIS CHANGE, Enter Licensing Basis affected by the change and continue to **Section VI**.

Licensing Basis

- EP-ALL-EPLAN, Duke Energy Common Emergency Plan, Section D, Emergency Classification System, Revision 0
- EP-ONS-EPLAN-ANNEX, Duke Energy Oconee Emergency Plan Annex, Section D, Emergency Classification System, Revision 0.

Licensing Basis for NEI 99-01 Rev 6 EALS

- ONS: ML16109A093 Letter Dated May 26, 2016. Subject: Oconee Nuclear Station, Units 1, 2, and 3- Issuance of license amendments regarding Emergency Action Level scheme change (CAC NOS. MF6454, MF6455, AND MF6456) Amendment Nos. 399, 401, and 400 to Renewed Facility Operating License Nos. DPR-38, DPR-47, and DPR-55, for the Oconee Station, Units 1, 2, and 3, respectively.
- ML19058A632 Letter dated July 1, 2019. Subject: Oconee Nuclear Station, Units 1, 2, And 3; - Issuance of Amendments To Revise Emergency Action Level Schemes To Incorporate Clarifications Provided By Emergency Preparedness Frequently Asked Questions 2015-013, 2015-014, And 2016-002 (EPID L-2018-LLA-0174)
- Amendment Nos. 412, 414, and 413 to Renewed Facility Operating License Nos. DPR-38, DPR-47, and DPR-55 for the Oconee Nuclear Station, Units 1, 2, and 3 (Oconee), respectively.

Current Emergency Plan

- EP-ALL-EPLAN, Duke Energy Common Emergency Plan, Section D, Emergency Classification System, Revision 2.
- EP-ONS-EPLAN-ANNEX, Duke Energy Oconee Emergency Plan Annex, Section D, Emergency Classification System, Revision 1.

Current EALs

- Oconee Nuclear Station Emergency Action Level Technical Bases CSD-EP-ONS-0101-01, Revision 003.
- Oconee Nuclear Station EAL Wallchart (Both Hot and Cold), CSD-EP-ONS-0101-02, Revision 002.

The differences in approved revisions and the current revisions of the Emergency Plans have been reviewed, and they have been determined to meet the regulatory requirements required during the course of revisions.

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Section IV: Ability to Maintain the Emergency Plan.	
<i>Answer the following questions related to impact on the ability to maintain the Emergency Plan. Continue to Section V.</i>	
1. Do any of the elements of the proposed activity change information or intent contained in the Emergency Plan?	Yes <input type="checkbox"/> No <input type="checkbox"/>
2. Do any elements of the proposed activity change the process or capability for alerting or notifying the public as described in the FEMA-approved Alert and Notification System Design Report?	Yes <input type="checkbox"/> No <input type="checkbox"/>
3. Do any elements of the proposed activity change the Evacuation Time Estimate results?	Yes <input type="checkbox"/> No <input type="checkbox"/>
4. Do any elements of the proposed activity change the On-Shift Staffing Analysis results?	Yes <input type="checkbox"/> No <input type="checkbox"/>
5. Does the Proposed activity require a change to the Emergency Plan Programmatic Description?	Yes <input type="checkbox"/> No <input type="checkbox"/>
<i>If Question 5 was answered yes, and the document being reviewed is NOT the Emergency Plan, then exit this review until the Emergency Plan change is complete or the proposed change is modified to not change the Emergency Plan Programmatic Description.</i>	
Section IV conclusion: <input type="checkbox"/> If questions 1-5 in Section IV marked NO, then complete Section V . <input type="checkbox"/> If any question 1-5 of Section IV marked yes, then continue at Section VI .	

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Section V: Maintaining the Emergency Plan Conclusion.

The questions in **Section IV** do not represent the total of all conditions that may cause a change to or impact the ability to maintain the emergency plan. Originator and reviewer signatures in **Section XIV** document that a review of all elements of the proposed change have been considered for their impact on the ability to maintain the emergency plan and their potential to change the emergency plan.

- Provide a brief conclusion below that describes how the conditions, as described in the emergency plan, are maintained with this activity.
 - Select the box below when the review completes all actions for all elements of the activity and no 10CFR50.54 screening or evaluation is required for any element. Continue to **Section XIV**.
- ☐ I have completed a review of this activity in accordance with 10CFR50.54(q)(2) and determined that the effectiveness of the emergency plan is maintained. This activity does not make any changes to the emergency plan. No further actions are required to screen or evaluate this activity in accordance with 10CFR50.54(q)(3).

Section VI: Activity Previously Reviewed?

Is this activity fully bounded by an NRC approved 10CFR50.90 submittal or Alert and Notification System Design Report?

<input type="checkbox"/>	Yes	10 CFR 50.54(q) Evaluation is not required. Identify bounding source document below and continue to Section XIV .
<input checked="" type="checkbox"/>	No	Continue to Section VII .
<input type="checkbox"/>	Partially	If PARTIALLY , identify bounding source document and list changes bounded by the approved 10 CFR 50.90 or Alert and Notification System Design Report below. Changes not bound by the approved 10 CFR 50.90 or Alert and Notification System Design Report (i.e., part requiring further review). Continue the review in Section VII .

Section VII: Editorial Changes

<input type="checkbox"/>	Yes	All Activities/Changes identified in Section II are editorial/typographical changes such as formatting, paragraph numbering, spelling, or punctuation that does not change intent.
<input type="checkbox"/>	No	None of the Activities/Changes listed in Section II are editorial/typographical changes. Continue to Section VIII .
<input checked="" type="checkbox"/>	Partially	Some Activities/Changes are editorial/typographical.

If **Yes** is checked, Identify the activities/changes listed in **Section II** that are editorial/typographical changes and provide justification below. Continue to **Section XII**.

If **Partially** is checked, Identify the activities/changes listed in **Section II** that are editorial/typographical changes and provide justification below. Continue to **Section VIII** for changes not identified as editorial.

Justification:

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The proposed changes below are defined as editorial in accordance with AD-EP-ALL-0602, and do not change the intent of the steps as written:

Proposed change 1 updates procedure title to match title in EP-ALL-EPLAN with no change to intent of document.

Proposed change 2 updates CSD-EP-ONS-0101-01 revision from 3 to 4 and CSD-EP-ONS-0101-02 from revision 2 to revision 3 with no change to intent of document.

Proposed change 3 adds a revision summary with no change to intent of document.

Proposed change 4 updated the table of contents page due to changes in this revision, with no change to intent of document.

Proposed change 5 updates formatting to keep "NEI 99-01" on the same line to improve readability, with no change to intent of document.

Proposed change 6 updates formatting to keep "5-Cold Shutdown" on the same line to improve readability, with no change to intent of the document.

Proposed change 8 updates reference for ONS Emergency Action Level documents with no change to intent of document.

Proposed change 9 updates formatting for "psig" and moves "psig" and "PSW" to alphabetical order with no change to intent of document.

Proposed change 10 corrects reference to document and added name of the statalarm with no change to intent of document. The Spent Fuel Pool (SFP) for Units 1 and 2 is shared between both Units with the associated statalarm installed on Unit 1. Unit 3 has a separate SFP and associated statalarm. This change is removing the incorrect reference to the Unit 2 SFP statalarm. "Stalarm" is the common term for panel alarms at ONS

Proposed change 11 adds the name of the statalarm and updates the formatting for the statalarms with no change to intent of document.

Proposed change 16 updates formatting to keep "re-established" on the same line to improve readability, with no change to intent of document.

Proposed change 17 adds the name of the statalarm and updates formatting with no change to intent of document.

Proposed changes 19, 35, 37 and 39: updates formatting to keep "MFB-1" on the same line to improve readability, with no change to the intent of the document.

Proposed change 21 updates formatting to keep "60-minutes" on the same line to improve readability, with no change to intent of document.

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Proposed changes 22 and 49 updates formatting to keep "on-site" on the same line to improve readability, with no change to intent of document.

Proposed change 24 corrects formatting by removing a blank page at the end of table to assist in determining two train criteria in CA6.1 with no change to intent of document.

Proposed change 25 corrects formatting by adding an empty line to the bottom of the page to force the last 2 lines of the paragraph to the next page to improve the visual tie to the website reference and also updates the website reference to <http://earthquake.usgs.gov>, with no change to intent of document.

Proposed change 27 corrects reference to the ONS Basis Reference documents, adds the noun name of the statalarm and a page break after the 5th basis reference with no change to intent of document. The Fire Alarm system in Unit 1 and 2 Control Rooms is common to both units. The statalarm for the Fire Panel is installed on Unit 1 only, not Unit 2. Unit 3 has a separate fire alarm system and associated statalarm. This change is removing the incorrect reference to the Unit 2 statalarm.

Proposed change 28 not used. Attempts to improve wording without changing the intent of the EAL could not be made as intended in this revision. Decision made to not attempt to renumber remaining changes to prevent human error.

Proposed change 29 corrects punctuation, an extra ". " was removed with no change to intent of document.

Proposed change 30 updates formatting to keep "6 - Refuel" on the same line to improve readability, with no change to intent of document.

Proposed changes 31, 34 and 51 updates formatting to keep "15 minutes" on the same line to improve readability with no change to intent of document.

Proposed change 41 updates formatting to keep "Xe-133" on the same line to improve readability with no change to intent of document.

Proposed change 43 updates formatting to keep "or F" on the same line to improve readability with no change to intent of document.

Proposed changes 44 and 45 have an editorial change in addition to the evaluated change being made. The editorial portion is removing extraneous spacing between words. They are specifically documented with the respective change to more easily understand what is being changed without duplicating efforts and providing more confusion if they were documented separately.

Proposed change 48 corrects a grammatical error (deleted "are") and reference to severe accident guides with no change to intent of document. OSAG reference updated to Oconee SAMG procedures to align with nomenclature in AD-EP-ALL-0302 Severe Accident Management Program and PWROG-15015-P Revision 0 PWROG Severe Accident Management Guidelines with no change to intent of document.

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Proposed change 54 updates formatting to have the "AND" in the second requirement of the second condition (AND RCS Subcooling < 0 F) indented to the right to align with the EAL wallchart alignment and improve human factors with no change to intent of document.

Proposed change 55 updates formatting to have the "AND" in the second requirement of the first condition (AND RCS Subcooling < 0 F) indented to the right to align with the EAL wallchart alignment and improve human factors with no change to intent of document.

Proposed change 56 updates formatting to have the "AND" and the second requirement (restoration procedure not effective....) indented to the right to align with the rest of the wording in the Containment Barrier Potential Loss category, align with the EAL wallboard alignment and improve human factors with no change to intent of document.

Proposed change 57 updates formatting to have the second requirement (AND 2 RBCUs operating....) moved to begin on a separate line to match the EAL wallchart alignment and improve human factors with no change to intent of document.

Proposed change 58 updates formatting to have the two items indented to the right (RCPs or LPI pumps running....) to align with the EAL wallchart alignment and improve human factors with no change to intent of document.

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Section VIII: Emergency Planning Element and Function Screen		
<i>(Utilize Reg Guide 1.219 and Attachment 1, Additional Regulatory Guidance References for additional assistance)</i>		
Does any of Proposed Activities/Changes Identified in Section I impact any of the following, including program elements from NUREG-0654/FEMA REP-1 Section II? If yes check appropriate box.		
1	10 CFR 50.47(b)(1) Assignment of Responsibility (Organization Control)	
1a	Responsibility for emergency response is assigned.	<input type="checkbox"/>
1b	The response organization has the staff to respond and to augment staff on a continuing basis (24-7 staffing) in accordance with the emergency plan.	<input type="checkbox"/>
2	10 CFR 50.47(b)(2) Onsite Emergency Organization	
2a	Process ensures that on shift emergency response responsibilities are staffed and assigned	<input type="checkbox"/>
2b	The process for timely augmentation of onshift staff is established and maintained.	<input type="checkbox"/>
3	10 CFR 50.47(b)(3) Emergency Response Support and Resources	
3a	Arrangements for requesting and using off site assistance have been made.	<input type="checkbox"/>
3b	State and local staff can be accommodated at the EOF in accordance with the emergency plan.	<input type="checkbox"/>
4	10 CFR 50.47(b)(4) Emergency Classification System	RS
4a	A standard scheme of emergency classification and action levels is in use. (Requires V/V (Attachment 3) and final approval of Screen and Evaluation by EP CFAM)	<input checked="" type="checkbox"/>
5	10 CFR 50.47(b)(5) Notification Methods and Procedures	RS
5a	Procedures for notification of State and local governmental agencies are capable of alerting them of the declared emergency within 15 minutes (60 minutes for CR3) after declaration of an emergency and providing follow-up notification.	<input type="checkbox"/>
5b	Administrative and physical means have been established for alerting and providing prompt instructions to public within the plume exposure pathway.	<input type="checkbox"/>
5c	The public ANS meets the design requirements of FEMA-REP-10, Guide for Evaluation of Alert and Notification Systems for Nuclear Power Plants, or complies with the licensee's FEMA-approved ANS design report and supporting FEMA approval letter	<input type="checkbox"/>
6	10 CFR 50.47(b)(6) Emergency Communications	
6a	Systems are established for prompt communication among principal emergency response organizations.	<input type="checkbox"/>
6b	Systems are established for prompt communication to emergency response personnel.	<input type="checkbox"/>
7	10 CFR 50.47(b)(7) Public Education and Information	
7a	Emergency preparedness information is made available to the public on a periodic basis within the plume exposure pathway emergency planning zone (EPZ).	<input type="checkbox"/>
7b	Coordinated dissemination of public information during emergencies is established.	<input type="checkbox"/>
8	10 CFR 50.47(b)(8) Emergency Facilities and Equipment	
8a	Adequate facilities are maintained to support emergency response	<input type="checkbox"/>
8b	Adequate equipment is maintained to support emergency response.	<input type="checkbox"/>
9	10 CFR 50.47(b)(9) Accident Assessment	RS
9a	Methods, systems, and equipment for assessment of radioactive releases are in use.	<input type="checkbox"/>

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10	10 CFR 50.47(b) (10) Protective Response	RS
10a	A range of public PARs is available for implementation during emergencies.	<input type="checkbox"/>
10b	Evacuation time estimates for the population located in the plume exposure pathway EPZ are available to support the formulation of PARs and have been provided to State and local governmental authorities.	<input type="checkbox"/>
10c	A range of protective actions is available for plant emergency workers during emergencies, including those for hostile action events.	<input type="checkbox"/>
10d	KI is available for implementation as a protective action recommendation in those jurisdictions that chose to provide KI to the public.	<input type="checkbox"/>
11	10 CFR 50.47(b) (11) Radiological Exposure Control	
11a	The resources for controlling radiological exposures for emergency workers are established.	<input type="checkbox"/>
12	10 CFR 50.47(b) (12) Medical and Public Health Support	
12a	Arrangements are made for medical services for contaminated, injured individuals.	<input type="checkbox"/>
13	10 CFR 50.47(b) (13) Recovery Planning and Post-Accident Operations	
13a	Plans for recovery and reentry are developed.	<input type="checkbox"/>
14	10 CFR 50.47(b) (14) Drills and Exercises	
14a	A drill and exercise program (including radiological, medical, health physics and other program areas) is established.	<input type="checkbox"/>
14b	Drills, exercises, and training evolutions that provide performance opportunities to develop, maintain, and demonstrate key skills are assessed via a formal critique process in order to identify weaknesses.	<input type="checkbox"/>
14c	Identified weaknesses are corrected.	<input type="checkbox"/>
15	10 CFR 50.47(b) (15) Emergency Response Training	
15a	Training is provided to emergency responders.	<input type="checkbox"/>
16	10 CFR 50.47(b) (16) Emergency Plan Maintenance	
16a	Responsibility for emergency plan development and review is established.	<input type="checkbox"/>
16b	Planners responsible for emergency plan development and maintenance are properly trained.	<input type="checkbox"/>
Section VIII: Conclusion		
<p>■ If any Section VIII criteria are checked, document the basis for conclusion below for any changes that are more than editorial, however not impacted by any of the identified criteria in Section VIII and continue the 50.54(q) Review in Section IX.</p> <p><input type="checkbox"/> If no Section VIII criteria are checked, 10CFR50.54(q)(3) Evaluation is NOT required. Document justification below for any changes that are more than editorial and continue to Section XIV.</p>		

None

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Section IX: Description of Emergency Plan Planning Standards, Functions and Program Elements Affected by the Proposed Change

Copy each emergency planning standard, function and program element affected by the proposed change that was identified as applicable in **Section VIII**. Continue to **Section X**.

Planning Standard

A standard emergency classification and action level scheme, the bases of which include facility system and effluent parameters, is in use by the nuclear facility licensee, and State and local response plans call for reliance on information provided by facility licensees for determinations of minimum initial offsite response measures.

Function

(1) A standard scheme of emergency classification and action levels is in use.

Supporting requirements from Appendix E to 10 CFR Part 50

B. Assessment Actions

1. The means to be used for determining the magnitude of, and for continually assessing the impact of, the release of radioactive materials shall be described, including emergency action levels that are to be used as criteria for determining the need for notification and participation of local and State agencies, the Commission, and other Federal agencies, and the emergency action levels that are to be used for determining when and what type of protective measures should be considered within and outside the site boundary to protect health and safety. The emergency action levels shall be based on in-plant conditions and instrumentation in addition to onsite and offsite monitoring. By June 20, 2012, for nuclear power reactor licensees, these action levels must include hostile action that may adversely affect the nuclear power plant. The initial emergency action levels shall be discussed and agreed on by the applicant or licensee and state and local governmental authorities, and approved by the NRC. Thereafter, emergency action levels shall be reviewed with the State and local governmental authorities on an annual basis.

2. A licensee desiring to change its entire emergency action level scheme shall submit an application for an amendment to its license and receive NRC approval before implementing the change. Licensees shall follow the change process in § 50.54(q) for all other emergency action level changes.

C. Activation of Emergency Organization

1. The entire spectrum of emergency conditions that involve the alerting or activating of progressively larger segments of the total emergency organization shall be described. The communication steps to be taken to alert or activate emergency personnel under each class of emergency shall be described. Emergency action levels (based not only on onsite and offsite radiation monitoring information but also on readings from a number of sensors that indicate a potential emergency, such as the pressure in containment and the response of the Emergency Core Cooling System) for notification of offsite agencies shall be described. The existence, but not the details, of a message authentication scheme shall be noted for such agencies. The emergency classes defined shall include: (1) Notification of unusual events, (2) alert, (3) site area emergency, and (4) general emergency. These classes are further discussed in NUREG-0654/FEMA-REP-1.

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2. By June 20, 2012, nuclear power reactor licensees shall establish and maintain the capability to assess, classify, and declare an emergency condition within 15 minutes after the availability of indications to plant operators that an emergency action level has been exceeded and shall promptly declare the emergency condition as soon as possible following identification of the appropriate emergency classification level. Licensees shall not construe these criteria as a grace period to attempt to restore plant conditions to avoid declaring an emergency action due to an emergency action level that has been exceeded. Licensees shall not construe these criteria as preventing implementation of response actions deemed by the licensee to be necessary to protect public health and safety provided that any delay in declaration does not deny the State and local authorities the opportunity to implement measures necessary to protect the public health and safety.

Informing criteria from Section II.D of NUREG-0654 REP-1, revision 2

D. A standard emergency classification and action level scheme is established and maintained. The scheme provides detailed EALs for each of the four ECLs in Section IV.C.1 of Appendix E to 10 CFR Part 50.

D.1.a The EALs are developed using guidance provided or endorsed by the NRC that is applicable to the reactor design.

D.1.b The initial emergency classification and action level scheme is discussed and agreed to by the licensee and OROs, and approved by the NRC. Thereafter, the scheme is reviewed with OROs on an annual basis.

D.2 The capability to assess, classify, and declare the emergency condition within 15 minutes after the availability of indications to NPP operators that an EAL has been met or exceeded is described.

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Section X: Describe How the Proposed Change Complies with Relevant Emergency Preparedness Regulation(s) and Previous Commitment(s) Made to the NRC

If the emergency plan, modified as proposed, no longer complies with planning standards in 10 CFR 50.47(b) and the requirements in Appendix E to 10 CFR Part 50, then ensure the change is rejected, modified, or processed as an exemption request under 10 CFR 50.12, Specific Exemptions, rather than under 10 CFR 50.54(q). Address each Planning Standard identified in **Section IX. Continue to Section XI.**

Proposed change 7:

Proposed change 7 is being made to align the definitions of Operating Mode to the ONS Technical Specification definitions of Operating Mode. The changes replace "reactor" thermal power with "rated" thermal power and adds "reactor" to the coolant temperatures referenced.

Excerpt from NEI 99-01, revision 6, section 3.5: Developers will need to incorporate the mode criteria from unit-specific Technical Specifications into their emergency classification scheme.

Accuracy Assessment

This proposed change is an improvement to EAL Technical Bases accuracy. The proposed change is being made to remove conflicting definitions between the EAL Basis and ONS Technical Specifications in Table 1.1-1 MODES of ON-TS-1.1 Definitions, Revision 002.

Definitions
1.1

Table 1.1-1 (page 1 of 1)
MODES

MODE	TITLE	REACTIVITY CONDITION (k_{eff})	% RATED THERMAL POWER ^(a)	AVERAGE REACTOR COOLANT TEMPERATURE (°F)
1	Power Operation	≥ 0.99	> 5	NA
2	Startup	≥ 0.99	≤ 5	NA
3	Hot Standby	< 0.99	NA	≥ 250
4	Hot Shutdown ^(b)	< 0.99	NA	$250 > T > 200$
5	Cold Shutdown ^(b)	< 0.99	NA	≤ 200
6	Refueling ^(c)	NA	NA	NA

Timeliness Assessment

The modification of the definitions to align to the ONS Technical Specifications has no negative impact to the capability to classify any EAL. ONS maintains the capability to classify EALs as specified in CSD-EP-ONS-0101-01.

Proposed change 7 can be made because it continues to be aligned with the intent of the approved EAL basis and NEI 99-01 Rev. 6 EAL scheme.

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Proposed changes 12, 13, 14 and 15:

Proposed changes 12, 13, 14 and 15 are being made to add clarification that a loss of Reactor Coolant System (RCS) inventory is to be considered unisolable if the crew fails to isolate the leak within 15 minutes regardless of the ability to isolate the leak. This change is being made to be consistent with actions as an RCS barrier loss and inventory loss in Modes 1-4 EALs. The change is based on experience from a Catawba Operating crew failing to correctly classify an Operations Training scenario where the Shift Manager (SM) incorrectly concluded that the leak was isolable based upon the location of the leak and ability to isolate the leak from the Control Room.

Accuracy Assessment

This change is an improvement to EAL declaration accuracy. A SM incorrectly concluded that a leak was isolable based upon the ability to isolate the leak from the Control Room. Since the SM believed the leak could be isolated, the unisolable definition was not met and therefore did not declare the EAL. The proposed change adds clarification that RCS Inventory is lost if the crew fails to isolate the leak within 15 minutes regardless of the ability to isolate the leak. This change ensures classification will be accurate which will avoid possible under classifications or over classifications.

Timeliness Assessment

The change from "can be isolated" to "is not isolated" to clarify EAL has no negative impact to capability to classify this EAL within the EAL specified time frame. ONS maintains the capability to classify loss of RCS inventory following the detection of an RCS leak.

Proposed changes 12, 13, 14 and 15 can be made because they continue to be aligned with the intent of the approved EAL basis, EAL wallchart and section 3.2.6 Classification of Transient Conditions in NEI 99-01 Rev. 6 section 5.8:

EAL momentarily met but the condition is corrected prior to an emergency declaration – If an operator takes prompt manual action to address a condition, and the action is successful in correcting the condition prior to the emergency declaration, then the applicable EAL is not considered met and the associated emergency declaration is not required.

This change is also consistent with 10 CFR Part 50 Appendix E, IV.C.2 which states in part:

... Nuclear power reactor licensees shall establish and maintain the capability to assess, classify, and declare an emergency condition within 15 minutes after the availability of indications to plant operators that an emergency action level has been exceeded and shall promptly declare the emergency condition as soon as possible following identification of the appropriate emergency classification level. Licensees shall not construe these criteria as a grace period to attempt to restore plant conditions to avoid declaring an emergency action due to an emergency action level that has been exceeded. Licensees shall not construe these criteria as preventing implementation of response actions deemed by the licensee to be necessary to protect public health. . .

Following the detection of an RCS leak, a plant operator must assess, classify, and declare the emergency within the specified time of the EAL. If operators, following procedures, can isolate the leak prior to meeting the EAL, RCS inventory will be maintained, and no emergency declaration is required. If the leak cannot be isolated, from the Control Room or locally per the definition of UNISOLABLE, then the RCS inventory must be considered lost and the appropriate EAL declared.

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Proposed changes 18 and 20:

Proposed changes 18 and 20 copied the definition of essential buses from the second paragraph into the first and adds clarifying information that the alignment in parenthesis on Table C-3 need not be physically aligned, as long as the alignment can be made within 15 minutes, it should be considered capable of being aligned.

This change is being made to clarify that the parenthetical alignment is not physically required to be made to meet the EAL. Most of the specified alignments cannot be made < 15 minutes, but the Transformer CT-5 from Central switchyard alignment can be provided the conditions are met. Until recently, even this alignment was likely not to have been made < 15 minutes, so the Operators were trained that way. AP/0/A/1700/048 (Loss of Startup Transformer) provides guidance to align Transformer CT-5 from the Central Switchyard and has been issued for some time now and given appropriate conditions, the alignment is possible to be made within the 15 minutes allowed by the EAL. Adding the definition of essential buses into the first paragraph ensures the user is immediately aware of the specific equipment that is required to have the power alignment as specified in the EAL.

The EAL basis for CU2.1 and CA2.1 state: For emergency classification purposes, "capability" means that an AC power source is available to and capable of powering the emergency bus(es) within 15 min, whether or not the buses are currently powered from it.

Accuracy Assessment

This change is an improvement to EAL declaration accuracy by assuring personnel understand that if an electrical alignment can be made within the specified time frame, an emergency declaration is not warranted and reinforces the definition of essential buses that must have the specified power alignment. This change ensures classification will be accurate which will avoid possible under classifications or over classifications.

Timeliness Assessment

The addition of an example when to apply the EAL has no negative impact to capability classify these EALs within the EAL specified time frame. ONS maintains the capability to classify conditions associated with AC Power sources.

Proposed changes 18 and 20 can be made because they continue to be aligned with the intent of the approved EAL basis, EAL wallchart and NEI 99-01 Rev. 6 EAL scheme.

Proposed changes 23 and 52

Proposed changes 23 and 52 remove the reference to HU2.1 in the Basis for CA6.1 and SA9.1.

These changes are being made to clarify that HU2.1 is not required to be met to classify CA6.1 or SA9.1, so the Emergency Coordinator (EC) can use available information to classify the event, whether or not the Seismic Trigger has been received. An earthquake could create the conditions to classify CA6.1 or SA9.1 without being "large" enough to cause the Seismic Trigger alarm, which is required to classify HU2.1. AP/0/A/1700/005 (Earthquake) does not require the Seismic Trigger to have been received to enter the procedure. The other examples of hazardous events in Table C-6 Hazardous Events and Table S-5 Hazardous Events do not have Control Room Alarms that are required to be received to have the EC make

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the classification associated with those events. Having HU2.1 as the Basis for CA6.1 and SA9.1 provides information that leads the users to think the Seismic Trigger is required to classify CA6.1 or SA9.1 due to an earthquake.

Excerpt from NEI 99-01 Revision 6, Section 4.6:

A Basis section should not contain information that could modify the meaning or intent of the associated IC or EAL. Such information should be incorporated within the IC or EAL statements, or as an EAL Note. Information in the Basis should only clarify and inform decision-making for an emergency classification.

Since neither the IC nor the EAL statements nor a note in the EAL mention the need to receive the Seismic Trigger alarm to make the classification, having HU2.1 referenced in the EAL basis is inappropriate since it leads the users to think the seismic trigger is required to classify CA6.1 or SA9.1.

Accuracy Assessment

This change is an improvement to EAL declaration accuracy by assuring personnel understand that HU2.1 is not required to be met to declare CA6.1 or SA9.1. This change assures the classification will be accurate which will avoid possible under classifications.

Timeliness Assessment

The removal of the HU2.1 reference in the basis has no negative impact to capability classify these EALs within the EAL specified time frame. ONS maintains the capability to classify conditions associated with hazardous events that affects Safety Systems.

Proposed changes 23 and 52 can be made because they continue to be aligned with the intent of the approved EAL basis, EAL wallchart and NEI 99-01 Rev. 6 EAL scheme.

Proposed change 26

Proposed change 26 is being made to add clarification that a single train fire alarm can be verified by alternate Control Room indications or alarms, OR by reports from the field. This change is being made due to the following two sentences that could be interpreted as being contradictory:

The alarm is to be validated using available Control Room indications or alarms to prove that it is not spurious, or by reports from the field.

Actual field reports must be made within the 30 minute time limit or a classification must be made.

The first sentence clearly states two methods are available to verify the validity of a single fire alarm. The second sentence can imply that actual field reports must be performed. This change is being made to clarify there are two methods to verify validity of a single alarm and that if actual field reports are the only method available then the field reports must be made within 30 minutes of the alarm or classification must be made.

Accuracy Assessment

This proposed change is an improvement to EAL declaration accuracy. As currently written, one could assume that a field report must be made within 30 minutes of a single fire alarm even though there could be other Control Room indications or alarms available that substantiate the alarm may be spurious. The field report could take longer than 30 minutes based on plant conditions or priorities resulting in an unnecessary classification. This proposed change ensures classification will be accurate which will avoid possible under classifications or over classifications.

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Timeliness Assessment

The modification of two sentences to clarify EAL has no negative impact to capability to classify this EAL within 30 minutes of a single fire alarm. ONS maintains the capability to classify a fire potentially degrading the level of safety of the plant.

Proposed change 26 can be made because it continues to be aligned with the intent of the approved EAL basis, EAL wallchart and NEI 99-01 Rev. 6 EAL scheme.

Proposed changes 32 and 40:

Proposed changes 32 and 40 adds clarifying information that the alignment in parenthesis on Table S-1 need not be physically aligned, as long as the alignment can be made within 15 minutes, it should be considered capable of being aligned.

This change is being made to clarify that the parenthetical alignment is not physically required to be made to meet the EAL. Most of the specified alignments cannot be made < 15 minutes, but the CT-5 from Central switchyard alignment can be provided the conditions are met. Until recently, even this alignment was likely not to have been made < 15 minutes, so the Operators were trained that way. AP/0/A/1700/048 (Loss of Startup Transformer) provides guidance to align CT-5 from the Central Switchyard and has been issued for some time now and given appropriate conditions, the alignment is possible to be made within the 15 minutes allowed by the EAL.

The EAL basis for SU1.1 and SG1.2 state: For emergency classification purposes, "capability" means that an AC power source is available to the essential buses, whether or not the buses are powered from it.

Accuracy Assessment

This change is an improvement to EAL declaration accuracy by assuring personnel understand that if an electrical alignment can be made within the specified time frame, an emergency declaration is not warranted. This change assures classification will be accurate which will avoid possible under classifications or over classifications.

Timeliness Assessment

The addition of an example when to apply the EAL has no negative impact to capability classify these EALs within the EAL specified time frame. ONS maintains the capability to classify conditions associated with AC Power sources.

Proposed changes 32 and 40 can be made because it continues to be aligned with the intent of the approved EAL basis, EAL wallchart and NEI 99-01 Rev. 6 EAL scheme.

Proposed changes 33 and 36:

Proposed changes 33 and 36 copies information from the second paragraph into the first to ensure the user is immediately aware of the definition of essential buses and adds clarifying information that the alignment in parenthesis on Table S-1 need not be physically aligned, as long as the alignment can be made within 15 minutes, it should be considered capable of being aligned.

This change is being made to clarify that the parenthetical alignment is not physically required to be made

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to meet the EAL. Most of the specified alignments cannot be made < 15 minutes, but the CT-5 from Central switchyard alignment can be provided the conditions are met. Until recently, even this alignment was likely not to have been made < 15 minutes, so the Operators were trained that way. AP/0/A/1700/048 (Loss of Startup Transformer) provides guidance to align CT-5 from the Central Switchyard and has been issued for some time now and given appropriate conditions, the alignment is possible to be made within the 15 minutes allowed by the EAL. Adding the definition of essential buses into the first paragraph ensures the user is immediately aware of the specific equipment that is required to have the power alignment as specified in the EAL.

The EAL basis for SA1.1 and SS1.1 states: For emergency classification purposes, “capability” means that an AC power source is available to and capable of powering the emergency bus(es) within 15 minutes, whether or not the buses are currently powered from it.

Accuracy Assessment

This change is an improvement to EAL declaration accuracy by assuring users understand that if an electrical alignment can be made within the specified time frame, an emergency declaration is not warranted and reinforces the definition of essential buses that must have the specified power alignment. This change assures classification will be accurate which will avoid possible under classifications or over classifications.

Timeliness Assessment

The addition of an example when to apply the EAL has no negative impact to capability classify these EALs within the EAL specified time frame. ONS maintains the capability to classify conditions associated with AC Power sources.

Proposed changes 33 and 36 can be made because they continue to be aligned with the intent of the approved EAL basis, EAL wallchart and NEI 99-01 Rev. 6 EAL scheme.

Proposed change 38:

Proposed change 38 moves the definition of essential buses from the last sentence in the first paragraph to the beginning of the paragraph and adds clarifying information that the alignment in parenthesis on Table S-1 need not be physically aligned, as long as the alignment can be made within 15 minutes, it should be considered capable of being aligned.

This change is being made to clarify that the parenthetical alignment is not physically required to be made to meet the EAL. Most of the specified alignments cannot be made < 15 minutes, but the CT-5 from Central switchyard alignment can be provided the conditions are met. Until recently, even this alignment was likely not to have been made < 15 minutes, so the Operators were trained that way. AP/0/A/1700/048 (Loss of Startup Transformer) provides guidance to align CT-5 from the Central Switchyard and has been issued for some time now, and given appropriate conditions, the alignment is possible to be made within the 15 minutes allowed by the EAL. Moving the definition of essential buses to the beginning of first paragraph ensures the user is immediately aware of the specific equipment that is required to have the power alignment as specified in the EAL and remains consistent with other AC Power EALs.

The EAL basis for SG1.1 states: For emergency classification purposes, “capability” means that an AC power source is available to and capable of powering the essential bus(es), whether or not the buses are currently powered from it.

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Accuracy Assessment

This change is an improvement to EAL declaration accuracy by assuring users understand that if an electrical alignment can be made within the specified time frame, an emergency declaration is not warranted. This change assures classification will be accurate which will avoid possible under classifications or over classifications.

Timeliness Assessment

The addition of an example when to apply the EAL has no negative impact to capability classify these EALs within the EAL specified time frame. ONS maintains the capability to classify conditions associated with AC Power sources.

Proposed change 38 can be made because it continues to be aligned with the intent of the approved EAL basis and NEI 99-01 Rev. 6 EAL scheme.

Proposed change 42, 60 and 61:

Proposed changes 42, 60 and 61 are being made to add clarification that a loss of Reactor Coolant System (RCS) inventory is to be considered unisolable if the crew fails to isolate the leak less than the EAL limit within 15 minutes regardless of the ability to isolate the leak. The change is based on experience from a Catawba Operating crew failing to correctly classify an Operations Training scenario where the Shift Manager incorrectly concluded that the leak was isolable based upon the location of the leak and ability to isolate the leak from the Control Room.

Accuracy Assessment

This change is an improvement to EAL declaration accuracy. A SM incorrectly concluded that a leak was isolable based upon the ability to isolate the leak from the Control Room. Since the SM believed the leak could be isolated, the unisolable definition was not met and therefore did not declare the EAL. The proposed change adds clarification that RCS Inventory and the RCS Barrier are lost if the crew fails to isolate the leak within 15 minutes regardless of the ability to isolate the leak. This change ensures classification will be accurate which will avoid possible under classifications or over classifications.

Timeliness Assessment

The change from "can be isolated" to "is not isolated" to clarify EAL has no negative impact to capability to classify this EAL within the EAL specified time frame. ONS maintains the capability to classify loss of RCS inventory and loss of the RCS Barrier following the detection of an RCS leak.

Proposed changes 42, 60 and 61 can be made because they continue to be aligned with the intent of the approved EAL basis, EAL wallchart and section 3.2.6 Classification of Transient Conditions in NEI 99-01 Rev. 6 section 5.8:

EAL momentarily met but the condition is corrected prior to an emergency declaration – If an operator takes prompt manual action to address a condition, and the action is successful in correcting the condition prior to the emergency declaration, then the applicable EAL is not considered met and the associated emergency declaration is not required.

This change is also consistent with 10 CFR Part 50 Appendix E, IV.C.2 which states in part:
Nuclear power reactor licensees shall establish and maintain the capability to assess, classify, and declare an emergency condition within 15 minutes after the availability of indications to plant operators that an emergency action level has been exceeded and shall promptly declare the emergency condition as soon as

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possible following identification of the appropriate emergency classification level. Licensees shall not construe these criteria as a grace period to attempt to restore plant conditions to avoid declaring an emergency action due to an emergency action level that has been exceeded. Licensees shall not construe these criteria as preventing implementation of response actions deemed by the licensee to be necessary to protect public health.

Following the detection of an RCS leak, a plant operator must assess, classify, and declare the emergency within 15 minutes. If operators, following procedures, can isolate the leak prior to meeting the EAL, RCS inventory and the RCS Barrier will be maintained, and no emergency declaration is required. If the leak cannot be isolated, from the Control Room or locally per the definition of UNISOLABLE, then the RCS inventory and Barrier must be considered lost and the appropriate EAL declared.

Proposed changes 44, 45, 46 and 47

Proposed changes 44, 45, 46 and 47 adds clarifying information to specify "RPS" automatic trips when discussing failing to trip the reactor automatically, a statement that DSS cannot be credited as RPS in this EAL due to the DSS trip setpoint being greater than the RPS setpoint, DSS could provide subsequent reactor trip signals and that RPS not working significantly reduces the margin to loss or potential loss of fuel clad or RCS fission product barriers. DSS = Diversified Scram System.

These changes are being made to clarify that DSS trips cannot be credited as an RPS trip when addressing the RPS Failure EALs and inform that subsequent trips from the DSS system are to be considered when assessing the EAL. Prior to the change to NEI 99-01 revision 6, DSS was credited and if either RPS or DSS tripped the reactor, the respective EAL was not met. The current EAL Basis for all 4 EALs only lists the RPS system, not the DSS system.

Excerpt from OSS-0254.00-00-2001, revision 13, ATWS Mitigation System Actuation Circuitry (AMSAC) And the Diverse Scram System (DSS), section 2.1.2.1.5 DSS:

Trip Setpoint DSS designs based on Very High RCS Pressure input channels shall use a setpoint representative of 2450 ±25 psig.

Excerpt from OSS-0254.00-00-2002 Revision 023 Reactor Protective System (RPS) Design Basis Specification, Section 4.1.2 for Unit 1, Section 5.1.2 for Unit 2 and Section 6.1.2 for Unit 3: *System Outputs Reactor Trip Summary for RCS High Pressure is 2,345 psig*

CSD-EP-ONS-0101-02 (EAL Wallchart (Both Hot and Cold), Section 6 remains labelled as "RPS Failure".

Proposed change 44: also removed extra space between "trip is", in the 8th paragraph, "trip signal" in the 10th paragraph, and "trip will" in the 12th paragraph with no change to the intent of the document. This is an editorial change that improves formatting; it is included here to prevent having to list these editorial changes as a separate change since the other changes for this EAL are not editorial.

Proposed change 45 also removes extra spaces between: "trip that" in the 7th paragraph, "trip the" in the 9th paragraph, "trip will" in the 12th paragraph, "trip signal" in the 13th paragraph, "trip and" in the first bullet and "trip failure" in the last bullet. This is an editorial change that improves formatting; it is included here to prevent having to list these editorial changes as a separate change since the other changes for this EAL are not editorial.

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Accuracy Assessment

This change is an improvement to EAL declaration accuracy since it specifies that the RPS setpoint trip is the required trip the EAL is referring to without the user having to refer to the basis reference1 to determine that RPS is the credited system for EAL. Adding information that DSS is no longer credited as a primary reactor trip signal for EAL purposes but continues to be a subsequent trip signal assures the EAL will be classified as the EAL intended. Removing extraneous spaces between words has no effect on the classification accuracy of the specified EALs. This change assures classification will be accurate which will avoid possible under classifications.

Timeliness Assessment

The addition of "RPS" in several statements and a short paragraph explaining why DSS can no longer be considered the primary trip signal when assessing the EAL and removing extraneous spaces between words has no negative impact to the capability to classify this EAL within 15 minutes of indications. The changes may improve the timeliness of the declarations since the user can quickly confirm that DSS is not an acceptable substitute for the RPS trips. ONS maintains the capability to classify RPS failures.

Proposed changes 44, 45, 46 and 47 can be made because they continue to be aligned with the intent of the approved EAL basis, the approved EAL wallchart and NEI 99-01 Rev. 6 EAL scheme.

Proposed changes 50 and 63

Proposed changes 50 and 63 adds EAL threshold information into the basis to clarify how the EAL defines one full train of containment heat removal and moved the existing information about the design of the RBCUs and RBS trains to be prior to the definition of one full train of containment heat removal.

These changes are being made to clarify the EAL classification requirements. As written, the statements about the RBCU and RBS capability provides confusion since they are both designed to be capable of maintaining containment pressure below design limits and the EAL requires a combination of RBCU and RBS flow requirements. The existing RBCU and RBS is design information and added per NEI 99-01 revision 6, Section 3.4 guidance: Basis – Provides background information that explains the intent and application of the IC and EALs. In some cases, the basis also includes relevant source information and references.

Adding clarifying information from the EAL into the Basis removes the confusion while leaving the design information. The RBS and RBCU design information was moved to improve readability.

Accuracy Assessment

This change is an improvement to EAL declaration accuracy since information in the basis directly aligns with the EAL. Moving the RBCU and RBS design information has no effect on the classification accuracy of the specified EALs. This change assures classification will be accurate which will avoid possible under classifications or over classifications.

Timeliness Assessment

The addition of "1 RBS train with > 700 gpm spray flow AND 2 RBCUs operating per design" information into the basis and moving the RBS and RBCU design information has no negative impact to the capability to classify this EAL within 15 minutes of indications. The changes may improve the timeliness of the declarations since the user can quickly confirm that the EAL basis is aligned with the EAL. ONS maintains the capability to classify Containment Integrity EALs.

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Proposed changes 50 and 63 can be made because they continue to be aligned with the intent of the approved EAL basis, the approved EAL wallchart and NEI 99-01 Rev. 6 EAL scheme.

Proposed changes 53 and 62:

Proposed changes 53 and 62 updates formatting in the EAL Threshold box to have the second option broken out as a standalone third option and the associated basis information moved with the third option (now A.3). In the basis for change 62, this change required deletion of "also" in revision 4 (new) version of the statement "HPI operating in the injection mode with no RCPs operating *a/so* invokes Rule 8 (ref 1) and added the reference to EP/*1800/001 Rule 8 Pressurized Thermal Shock (PTS) to the basis statement: 400°F is the temperature below which a cooldown greater than 100°F/hr requires implementation of Pressurized Thermal Shock (PTS) guidance (rule 8) (ref. 1, 2, 3) for A.2.

These changes are being made to improve human factors by separating the two conditions under the second option tied by an "OR" statement into a standalone third option under the same EAL.

Accuracy Assessment

This proposed change is an improvement to EAL declaration accuracy. As currently written, users could overlook the second option that, if met would require classification. This change assures classification will be accurate which will avoid possible under classifications or over classifications

Timeliness Assessment

The separation of a second condition tied as an "OR" statement to the first statement has no negative impact to the capability to classify the EAL within 15 minutes of a potential loss of the RCS barrier. ONS maintains the capability to classify a potential loss of the RCS barrier.

Proposed changes 53 and 62 can be made because the changes continue to align with the intent of the approved EAL Basis, approved EAL wallchart and NEI 99-01 Rev. 6 EAL scheme.

Proposed change 59:

Proposed change 59 updates verbiage in the first paragraph and adds clarifying information that the same RVLS values are used by the EOP. RVLS = Reactor Vessel Level System.

These changes are being made to improve readability (all + not and both + not are more difficult to understand than "no RCPs and no LPI pumps..."), and to clarify that any LPI pump operating will make RLVS indications invalid. Additional information was added to clarify the stated RVLS value was specifically selected to reinforce the potential degradation of the core. This change also prevents classifying this EAL before the EAL value has been met based on assumptions with core uncovery.

Currently, the basis says "both LPI Pumps", each ONS unit has three LPI pumps, any of the three LPI pumps can take a suction off the piping that invalidates RVLS indications. The EAL basis was written considering that only the "A" and "B" LPI pumps would be operating, since those are credited for event mitigation. Excerpt from OSS-0254-00-00-1028 (Low Pressure Injection And Core Flood System) revision 66, Section 4.1.1. (Unit 1), Section 5.1.1 (Unit 2) and Section 6.1.1 (Unit 3) Functional Description: *The Low Pressure Injection (LPI) System consists of two 100% capacity trains, each containing an LPI*

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pump and a Decay Heat Cooler. The system contains a third LPI pump that can be aligned to either LPI train.

While the "C" LPI pump is not automatically started or aligned as the "A" and "B" LPI pumps are; if specific failures occur, The Emergency Operating Procedure (designated as an "EP" procedure) for all 3 Units provides guidance to align and start the "C" LPI pump. Since any of the LPI pumps could be aligned, changing the statement to include the third LPI pump does not change the intent of the EAL. Note 9 is not impacted since it does not specify the number of LPI pumps.

Concerning the addition of the RVLS and EOP information:

EP/1/A/1800/001 OD, revision 002, Step 36 verifies either the core is superheated or the Rx vessel head level is at 0", and if so, Step 37 sends the user to the Inadequate Core Cooling (ICC) Tab.

EP/2/A/1800/001 OD, revision 002, Step 36 verifies either the core is superheated or the Rx vessel head level is at 0", and if so, Step 37 sends the user to the Inadequate Core Cooling (ICC) Tab.

EP/3/A/1800/001 OD, revision 002, Step 36 verifies either the core is superheated or the Rx vessel head level is at 0", and if so, Step 37 sends the user to the Inadequate Core Cooling (ICC) Tab.

An excerpt of the EOP steps being referenced:

36. Verify <u>either</u> :	<u>GO TO</u> Step 38.
___ Core superheated	
___ Rx vessel head level at 0"	
37. ___ <u>GO TO</u> ICC tab.	

Accuracy Assessment

The proposed change is an improvement to EAL declaration accuracy. As currently written, the information in the basis does not provide for the third LPI pump to invalidate RVLS indications. Adding the information that the EAL values are consistent with the EOP has no adverse impact to classification accuracy. This proposed change assures the classification will be accurate which will avoid possible under classifications or over classifications.

Timeliness Assessment

The addition of the information concerning LPI pumps may improve the timeliness of the classification due to the LPI and RCP improved wording requiring less mental processing and not having to question whether or not the core could be uncovered as soon as RVLS indicates zero inches. The EOP information added has no adverse impact on classification timeliness. ONS maintains the capability to classify a potential loss of the Fuel Clad Barrier within 15 minutes.

Proposed change 59 can be made because the change continues to be aligned with the intent of the approved EAL, EAL wallchart and NEI 99-01 Rev. 6 EAL scheme.

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Proposed change 64

Proposed change 64 clarifies Note 11 by adding "only" to better clarify that the note applies to a single safety system train to improve human performance when classifying CA6.1 or SA9.1. Notes 11 and 12 are used for determining whether or not CA6.1 and SA9.1 are to be classified when assessing the impact of a large scale or wide spread event. Since Note 12 states "at least one train of a safety system", it is clear to the user that multiple trains must be impacted to declare CA6.1 or SA9.1. However, there is no similar information in Note 11, so it is difficult to recognize that Note 11 applies only when one safety system train is impacted.

Note 11 applies to a single component or train as stated in EPFAQ 20116-002: *an emergency declaration would not be appropriate in response to a hazard affecting a piece of equipment or system that was non-functional prior to the event (e.g., tagged out for maintenance).*

The addition of "only" maintains the intent of the EAL by clarifying that Note 11 would not apply for events where more than one train is impacted. The statements concerning Note 11 from EPFAQ 2016-002 are copied below to demonstrate that the context and intent of the EPFAQ is maintained:

Proposed solution:

Concerning the second question, an emergency declaration would not be appropriate in response to a hazard affecting a piece of equipment or system that was non-functional prior to the event (e.g., tagged out for maintenance). For this reason and consistent with the approach used in other ICs, the following note may be added to IC HA2 (NEI 99-01 R4 and R5), or ICs CA6 and SA9 (NEI 99-01 R6).

Note: If the affected safety system (or component) was already non-functional before the event occurred, then no emergency classification is warranted.

NRC Response:

In order to warrant escalation to the Alert classification, the hazardous event should cause indications of degraded performance to one train of a SAFETY SYSTEM with either indications of degraded performance on the second SAFETY SYSTEM train or VISIBLE DAMAGE to the second SAFETY SYSTEM train, such that the operability or reliability of the second train is a concern. In addition, escalation to the Alert classification should not occur if the damage from the hazardous event is limited to a SAFETY SYSTEM that was inoperable, or out of service, prior to the event occurring.

- 1. Adding the following note to the applicable EALs, per this EPFAQ, is acceptable as it meets the intent of the EALs, is consistent with other EALs (e.g., EAL HA5 from NEI 99-01, Revision 6; this revision was endorsed by the NRC in a letter dated March 28, 2013, available at ADAMS Accession No. ML12346A463), and ensures that declared emergencies are based upon unplanned events with the potential to pose a radiological risk to the public.*

If the affected SAFETY SYSTEM train was already inoperable or out of service before the hazardous event occurred, then this emergency classification is not warranted.

Accuracy Assessment

This proposed change is an improvement to EAL declaration accuracy by communicating that Note 11 applies only when one train of a multiple train system is impacted. This change assures EAL classification will be accurate which will avoid possible under classifications.

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Timeliness Assessment

The addition of "only" to Note 11 has no negative effect, and may improve timeliness of EAL declaration since the user will understand that Note 11 applies only when one train of a multiple train system is impacted. ONS maintains the capability to classify a hazardous event that affects safety systems within 15 minutes.

Proposed change 64 can be made because the changes continue to align with the intent of the approved EAL Basis and NEI 99-01 Rev. 6 EAL scheme.

Proposed change 65

Proposed change 65 corrects the EAL Wallboard value for Table E-1 for the second column (E-21 – W-42), top row (HSM Front surface), from 400 mr/hr to 800 mr/hr to match the approved value per the EAL Basis for the same parameter.

The values were corrected to allow the EAL Wallboard to continue to be used as a standalone document when assessing EALs. The current value is the Technical Specification (TS) limit, the EAL specifies the limits are to be twice the TS limit. All other values have been verified to match the EU1.1 Basis limits as intended by Eplan change 2019-004. Applicable excerpts from EU1.1 EAL Basis:

Table E-1-ISFSI-Dose Limits						
	HSM-Module					
	E1-E20, W1-W20	E21-E42, W21-W42	E43-E67, W43-W67	E68-E74, W68-W74	E75-E80, W75-W80	E81-E92, W81-W92
Location	24P	24P**	24PHB	24PHB	24PTH	24PTH
HSM-Front-Surface	400 mrem/hr	800 mrem/hr	1,000 mrem/hr	°	°	°
HSM-Front-Bird-Screen	°	°	°	1,050 mrem/hr	1,050 mrem/hr	1,200 mrem/hr
Outside-HSM-Door	°	200 mrem/hr	40 mrem/hr	40 mrem/hr	140 mrem/hr	160 mrem/hr
End-shield-wall-exterior	°	40 mrem/hr	600 mrem/hr	550 mrem/hr	600 mrem/hr	800 mrem/hr

The Table E-1 values shown are 2 times the limits specified in the ISFSI Certificate of Compliance Technical Specifications for radiation external to the applicable loaded DSC (ref. 1, 2, 4).

The existence of "damage" is determined by radiological survey. The technical specification multiple of "2 times", which is also used in Recognition Category R IC RU1, is used here to distinguish between non-emergency and emergency conditions. The emphasis for this classification is the degradation in the level of safety of the spent fuel cask and not the magnitude of the associated dose or dose rate. It is recognized that in the case of extreme damage to a loaded cask, the fact that the "on-contact" dose rate limit is exceeded may be determined based on measurement of a dose rate at some distance from the cask.

HSMs E/W-21 – E/W-42 were loaded with 24P canister types under Certificate of Compliance (CoC) Technical Specification (TS) for Spent Fuel Storage Casks, number 1004, Amendments 0 through 7. Per the TS, the dose rate limits are 800, 200, and 40 mrem per hour as shown below. HSM = Horizontal Storage Module.

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1.2.7 HSM Dose Rates with a Loaded 24P, 52B or 61BT DSC

Limit/Specification:

Dose rates at the following locations shall be limited to levels which are less than or equal to:

- 400 mrem/hr at 3 feet from the HSM surface.
- Outside of HSM door on center line of DSC 100 mrem/hr.
- End shield wall exterior 20 mrem/hr.

Accuracy Assessment

This proposed change is an improvement to EAL declaration accuracy by ensuring the EAL would be declared at twice the TS as the EAL intends. This change assures EAL classification will be accurate which will avoid possible over classifications.

Timeliness Assessment

The changed value in the E-1 Table may improve timeliness by allowing the classification to be made using the wallboard instead of having to find the values in the > 200-page EAL basis document. ONS maintains the capability to classify an ISFSI within 15 minutes.

Proposed change 65 can be made because the changes continue to align with the intent of the approved EAL Basis and NEI 99-01 Rev. 6 EAL scheme.

Proposed changes 7, 12, 13, 14, 15, 18, 20, 23, 26, 32, 33, 36, 38, 40, 42, 44, 45, 46, 47, 50, 52, 53, 59, 60, 61, 62, 63, 64 and 65 continue to comply with 10 CFR 50.47(b)(4) because the changes continue to ensure a standard emergency classification and action level scheme, the bases of which include facility system and effluent parameters, is in use by ONS.

Proposed changes 7, 12, 13, 14, 15, 18, 20, 23, 26, 32, 33, 36, 38, 40, 42, 44, 45, 46, 47, 50, 52, 53, 59, 60, 61, 62, 63, 64 and 65 continue to comply with 10 CFR Part 50 Appendix E, IV.C.2, because ONS has established and maintains the capability to assess, classify, and declare an emergency condition within 15 minutes after the availability of indications to plant operators that an emergency action level has been exceeded. These changes continue to ensure ONS will promptly declare the emergency condition as soon as possible following identification of the appropriate emergency classification level.

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Section XI: Description of Impact of the Proposed Change on the Effectiveness of Emergency Plan Functions

Address each function identified in **Section IX**. Continue to Section XII.

Proposed change 7:

Proposed change 7 is being made to align the definitions of Operating Mode to the ONS Technical Specification definitions of Operating Mode. The changes replace "reactor" thermal power with "rated" thermal power and adds "reactor" to the coolant temperatures referenced.

Excerpt from NEI 99-01, revision 6, section 3.5: Developers will need to incorporate the mode criteria from unit-specific Technical Specifications into their emergency classification scheme.

Accuracy Assessment

This proposed change is an improvement to EAL Technical Bases accuracy. The proposed change is being made to remove conflicting definitions between the EAL Basis and ONS Technical Specifications in Table 1.1-1 MODES of ON-TS-1.1 Definitions, Revision 002.

Definitions
1.1

Table 1.1-1 (page 1 of 1)
MODES

MODE	TITLE	REACTIVITY CONDITION (K_{eff})	% RATED THERMAL POWER ^(a)	AVERAGE REACTOR COOLANT TEMPERATURE (°F)
1	Power Operation	≥ 0.99	> 5	NA
2	Startup	≥ 0.99	≤ 5	NA
3	Hot Standby	< 0.99	NA	≥ 250
4	Hot Shutdown ^(b)	< 0.99	NA	$250 > T > 200$
5	Cold Shutdown ^(b)	< 0.99	NA	≤ 200
6	Refueling ^(c)	NA	NA	NA

Timeliness Assessment

The modification of the definitions to align to the ONS Technical Specifications has no negative impact to the capability to classify any EAL. ONS maintains the capability to classify EALs as specified in CSD-EP-ONS-0101-01.

Proposed change 7 can be made because it continues to be aligned with the intent of the approved EAL basis and NEI 99-01 Rev. 6 EAL scheme.

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Proposed changes 12, 13, 14 and 15:

Proposed changes 12, 13, 14 and 15 are being made to add clarification that a loss of Reactor Coolant System (RCS) inventory is to be considered unisolable if the crew fails to isolate the leak within 15 minutes regardless of the ability to isolate the leak. This change is being made to be consistent with actions as an RCS barrier loss and inventory loss in Modes 1-4 EALs. The change is based on experience from a Catawba Operating crew failing to correctly classify an Operations Training scenario where the Shift Manager (SM) incorrectly concluded that the leak was isolable based upon the location of the leak and ability to isolate the leak from the Control Room.

Accuracy Assessment

This change is an improvement to EAL declaration accuracy. A SM incorrectly concluded that a leak was isolable based upon the ability to isolate the leak from the Control Room. Since the SM believed the leak could be isolated, the unisolable definition was not met and therefore did not declare the EAL. The proposed change adds clarification that RCS Inventory is lost if the crew fails to isolate the leak within 15 minutes regardless of the ability to isolate the leak. This change ensures classification will be accurate which will avoid possible under classifications or over classifications.

Timeliness Assessment

The change from "can be isolated" to "is not isolated" to clarify EAL has no negative impact to capability to classify this EAL within the EAL specified time frame. ONS maintains the capability to classify loss of RCS inventory following the detection of an RCS leak.

Proposed changes 12, 13, 14 and 15 can be made because they continue to be aligned with the intent of the approved EAL basis, EAL wallchart and section 3.2.6 Classification of Transient Conditions in NEI 99-01 Rev. 6 section 5.8:

EAL momentarily met but the condition is corrected prior to an emergency declaration – If an operator takes prompt manual action to address a condition, and the action is successful in correcting the condition prior to the emergency declaration, then the applicable EAL is not considered met and the associated emergency declaration is not required.

This change is also consistent with 10 CFR Part 50 Appendix E, IV.C.2 which states in part:

... Nuclear power reactor licensees shall establish and maintain the capability to assess, classify, and declare an emergency condition within 15 minutes after the availability of indications to plant operators that an emergency action level has been exceeded and shall promptly declare the emergency condition as soon as possible following identification of the appropriate emergency classification level. Licensees shall not construe these criteria as a grace period to attempt to restore plant conditions to avoid declaring an emergency action due to an emergency action level that has been exceeded. Licensees shall not construe these criteria as preventing implementation of response actions deemed by the licensee to be necessary to protect public health. . .

Following the detection of an RCS leak, a plant operator must assess, classify, and declare the emergency within the specified time of the EAL. If operators, following procedures, can isolate the leak prior to meeting the EAL, RCS inventory will be maintained, and no emergency declaration is required. If the leak cannot be isolated, from the Control Room or locally per the definition of UNISOLABLE, then the RCS inventory must be considered lost and the appropriate EAL declared.

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Proposed changes 18 and 20:

Proposed changes 18 and 20 copied the definition of essential buses from the second paragraph into the first and adds clarifying information that the alignment in parenthesis on Table C-3 need not be physically aligned, as long as the alignment can be made within 15 minutes, it should be considered capable of being aligned.

This change is being made to clarify that the parenthetical alignment is not physically required to be made to meet the EAL. Most of the specified alignments cannot be made < 15 minutes, but the Transformer CT-5 from Central switchyard alignment can be provided the conditions are met. Until recently, even this alignment was likely not to have been made < 15 minutes, so the Operators were trained that way. AP/0/A/1700/048 (Loss of Startup Transformer) provides guidance to align Transformer CT-5 from the Central Switchyard and has been issued for some time now and given appropriate conditions, the alignment is possible to be made within the 15 minutes allowed by the EAL. Adding the definition of essential buses into the first paragraph ensures the user is immediately aware of the specific equipment that is required to have the power alignment as specified in the EAL.

The EAL basis for CU2.1 and CA2.1 state: For emergency classification purposes, "capability" means that an AC power source is available to and capable of powering the emergency bus(es) within 15 min, whether or not the buses are currently powered from it.

Accuracy Assessment

This change is an improvement to EAL declaration accuracy by assuring personnel understand that if an electrical alignment can be made within the specified time frame, an emergency declaration is not warranted and reinforces the definition of essential buses that must have the specified power alignment. This change ensures classification will be accurate which will avoid possible under classifications or over classifications.

Timeliness Assessment

The addition of an example when to apply the EAL has no negative impact to capability classify these EALs within the EAL specified time frame. ONS maintains the capability to classify conditions associated with AC Power sources.

Proposed changes 18 and 20 can be made because they continue to be aligned with the intent of the approved EAL basis, EAL wallchart and NEI 99-01 Rev. 6 EAL scheme.

Proposed changes 23 and 52

Proposed changes 23 and 52 remove the reference to HU2.1 in the Basis for CA6.1 and SA9.1.

These changes are being made to clarify that HU2.1 is not required to be met to classify CA6.1 or SA9.1, so the Emergency Coordinator (EC) can use available information to classify the event, whether or not the Seismic Trigger has been received. An earthquake could create the conditions to classify CA6.1 or SA9.1 without being "large" enough to cause the Seismic Trigger alarm, which is required to classify HU2.1. AP/0/A/1700/005 (Earthquake) does not require the Seismic Trigger to have been received to enter the procedure. The other examples of hazardous events in Table C-6 Hazardous Events and Table S-5 Hazardous Events do not have Control Room Alarms that are required to be received to have the EC make the classification associated with those events. Having HU2.1 as the Basis for CA6.1 and SA9.1 provides

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information that leads the users to think the Seismic Trigger is required to classify CA6.1 or SA9.1 due to an earthquake.

Excerpt from NEI 99-01 Revision 6, Section 4.6:

A Basis section should not contain information that could modify the meaning or intent of the associated IC or EAL. Such information should be incorporated within the IC or EAL statements, or as an EAL Note. Information in the Basis should only clarify and inform decision-making for an emergency classification.

Since neither the IC nor the EAL statements nor a note in the EAL mention the need to receive the Seismic Trigger alarm to make the classification, having HU2.1 referenced in the EAL basis is inappropriate since it leads the users to think the seismic trigger is required to classify CA6.1 or SA9.1.

Accuracy Assessment

This change is an improvement to EAL declaration accuracy by assuring personnel understand that HU2.1 is not required to be met to declare CA6.1 or SA9.1. This change assures the classification will be accurate which will avoid possible under classifications.

Timeliness Assessment

The removal of the HU2.1 reference in the basis has no negative impact to capability classify these EALs within the EAL specified time frame. ONS maintains the capability to classify conditions associated with hazardous events that affects Safety Systems.

Proposed changes 23 and 52 can be made because they continue to be aligned with the intent of the approved EAL basis, EAL wallchart and NEI 99-01 Rev. 6 EAL scheme.

Proposed change 26

Proposed change 26 is being made to add clarification that a single train fire alarm can be verified by alternate Control Room indications or alarms, OR by reports from the field. This change is being made due to the following two sentences that could be interpreted as being contradictory:

The alarm is to be validated using available Control Room indications or alarms to prove that it is not spurious, or by reports from the field.

Actual field reports must be made within the 30 minute time limit or a classification must be made.

The first sentence clearly states two methods are available to verify the validity of a single fire alarm. The second sentence can imply that actual field reports must be performed. This change is being made to clarify there are two methods to verify validity of a single alarm and that if actual field reports are the only method available then the field reports must be made within 30 minutes of the alarm or classification must be made.

Accuracy Assessment

This proposed change is an improvement to EAL declaration accuracy. As currently written, one could assume that a field report must be made within 30 minutes of a single fire alarm even though there could be other Control Room indications or alarms available that substantiate the alarm may be spurious. The field report could take longer than 30 minutes based on plant conditions or priorities resulting in an unnecessary classification. This proposed change ensures classification will be accurate which will avoid possible under classifications or over classifications.

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Timeliness Assessment

The modification of two sentences to clarify EAL has no negative impact to capability to classify this EAL within 30 minutes of a single fire alarm. ONS maintains the capability to classify a fire potentially degrading the level of safety of the plant.

Proposed change 26 can be made because it continues to be aligned with the intent of the approved EAL basis, EAL wallchart and NEI 99-01 Rev. 6 EAL scheme.

Proposed changes 32 and 40:

Proposed changes 32 and 40 adds clarifying information that the alignment in parenthesis on Table S-1 need not be physically aligned, as long as the alignment can be made within 15 minutes, it should be considered capable of being aligned.

This change is being made to clarify that the parenthetical alignment is not physically required to be made to meet the EAL. Most of the specified alignments cannot be made < 15 minutes, but the CT-5 from Central switchyard alignment can be provided the conditions are met. Until recently, even this alignment was likely not to have been made < 15 minutes, so the Operators were trained that way. AP/0/A/1700/048 (Loss of Startup Transformer) provides guidance to align CT-5 from the Central Switchyard and has been issued for some time now and given appropriate conditions, the alignment is possible to be made within the 15 minutes allowed by the EAL.

The EAL basis for SU1.1 and SG1.2 state: For emergency classification purposes, "capability" means that an AC power source is available to the essential buses, whether or not the buses are powered from it.

Accuracy Assessment

This change is an improvement to EAL declaration accuracy by assuring personnel understand that if an electrical alignment can be made within the specified time frame, an emergency declaration is not warranted. This change assures classification will be accurate which will avoid possible under classifications or over classifications.

Timeliness Assessment

The addition of an example when to apply the EAL has no negative impact to capability classify these EALs within the EAL specified time frame. ONS maintains the capability to classify conditions associated with AC Power sources.

Proposed changes 32 and 40 can be made because it continues to be aligned with the intent of the approved EAL basis, EAL wallchart and NEI 99-01 Rev. 6 EAL scheme.

Proposed changes 33 and 36:

Proposed changes 33 and 36 copies information from the second paragraph into the first to ensure the user is immediately aware of the definition of essential buses and adds clarifying information that the alignment in parenthesis on Table S-1 need not be physically aligned, as long as the alignment can be made within 15 minutes, it should be considered capable of being aligned.

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This change is being made to clarify that the parenthetical alignment is not physically required to be made to meet the EAL. Most of the specified alignments cannot be made < 15 minutes, but the CT-5 from Central switchyard alignment can be provided the conditions are met. Until recently, even this alignment was likely not to have been made < 15 minutes, so the Operators were trained that way. AP/0/A/1700/048 (Loss of Startup Transformer) provides guidance to align CT-5 from the Central Switchyard and has been issued for some time now and given appropriate conditions, the alignment is possible to be made within the 15 minutes allowed by the EAL. Adding the definition of essential buses into the first paragraph ensures the user is immediately aware of the specific equipment that is required to have the power alignment as specified in the EAL.

The EAL basis for SA1.1 and SS1.1 states: For emergency classification purposes, “capability” means that an AC power source is available to and capable of powering the emergency bus(es) within 15 minutes, whether or not the buses are currently powered from it.

Accuracy Assessment

This change is an improvement to EAL declaration accuracy by assuring users understand that if an electrical alignment can be made within the specified time frame, an emergency declaration is not warranted and reinforces the definition of essential buses that must have the specified power alignment. This change assures classification will be accurate which will avoid possible under classifications or over classifications.

Timeliness Assessment

The addition of an example when to apply the EAL has no negative impact to capability classify these EALs within the EAL specified time frame. ONS maintains the capability to classify conditions associated with AC Power sources.

Proposed changes 33 and 36 can be made because they continue to be aligned with the intent of the approved EAL basis, EAL wallchart and NEI 99-01 Rev. 6 EAL scheme.

Proposed change 38:

Proposed change 38 moves the definition of essential buses from the last sentence in the first paragraph to the beginning of the paragraph and adds clarifying information that the alignment in parenthesis on Table S-1 need not be physically aligned, as long as the alignment can be made within 15 minutes, it should be considered capable of being aligned.

This change is being made to clarify that the parenthetical alignment is not physically required to be made to meet the EAL. Most of the specified alignments cannot be made < 15 minutes, but the CT-5 from Central switchyard alignment can be provided the conditions are met. Until recently, even this alignment was likely not to have been made < 15 minutes, so the Operators were trained that way. AP/0/A/1700/048 (Loss of Startup Transformer) provides guidance to align CT-5 from the Central Switchyard and has been issued for some time now and given appropriate conditions, the alignment is possible to be made within the 15 minutes allowed by the EAL. Moving the definition of essential buses to the beginning of first paragraph ensures the user is immediately aware of the specific equipment that is required to have the power alignment as specified in the EAL and remains consistent with other AC Power EALs.

The EAL basis for SG1.1 states: For emergency classification purposes, “capability” means that an AC power source is available to and capable of powering the essential bus(es), whether or not the buses are currently powered from it.

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Accuracy Assessment

This change is an improvement to EAL declaration accuracy by assuring users understand that if an electrical alignment can be made within the specified time frame, an emergency declaration is not warranted. This change assures classification will be accurate which will avoid possible under classifications or over classifications.

Timeliness Assessment

The addition of an example when to apply the EAL has no negative impact to capability classify these EALs within the EAL specified time frame. ONS maintains the capability to classify conditions associated with AC Power sources.

Proposed change 38 can be made because it continues to be aligned with the intent of the approved EAL basis and NEI 99-01 Rev. 6 EAL scheme.

Proposed change 42, 60 and 61:

Proposed changes 42, 60 and 61 are being made to add clarification that a loss of Reactor Coolant System (RCS) inventory is to be considered unisolable if the crew fails to isolate the leak less than the EAL limit within 15 minutes regardless of the ability to isolate the leak. The change is based on experience from a Catawba Operating crew failing to correctly classify an Operations Training scenario where the Shift Manager incorrectly concluded that the leak was isolable based upon the location of the leak and ability to isolate the leak from the Control Room.

Accuracy Assessment

This change is an improvement to EAL declaration accuracy. A SM incorrectly concluded that a leak was isolable based upon the ability to isolate the leak from the Control Room. Since the SM believed the leak could be isolated, the unisolable definition was not met and therefore did not declare the EAL. The proposed change adds clarification that RCS Inventory and the RCS Barrier are lost if the crew fails to isolate the leak within 15 minutes regardless of the ability to isolate the leak. This change ensures classification will be accurate which will avoid possible under classifications or over classifications.

Timeliness Assessment

The change from "can be isolated" to "is not isolated" to clarify EAL has no negative impact to capability to classify this EAL within the EAL specified time frame. ONS maintains the capability to classify loss of RCS inventory and loss of the RCS Barrier following the detection of an RCS leak.

Proposed changes 42, 60 and 61 can be made because they continue to be aligned with the intent of the approved EAL basis, EAL wallchart and section 3.2.6 Classification of Transient Conditions in NEI 99-01 Rev. 6 section 5.8:

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EAL momentarily met but the condition is corrected prior to an emergency declaration – If an operator takes prompt manual action to address a condition, and the action is successful in correcting the condition prior to the emergency declaration, then the applicable EAL is not considered met and the associated emergency declaration is not required.

This change is also consistent with 10 CFR Part 50 Appendix E, IV.C.2 which states in part:

... Nuclear power reactor licensees shall establish and maintain the capability to assess, classify, and declare an emergency condition within 15 minutes after the availability of indications to plant operators that an emergency action level has been exceeded and shall promptly declare the emergency condition as soon as possible following identification of the appropriate emergency classification level. Licensees shall not construe these criteria as a grace period to attempt to restore plant conditions to avoid declaring an emergency action due to an emergency action level that has been exceeded. Licensees shall not construe these criteria as preventing implementation of response actions deemed by the licensee to be necessary to protect public health. . .

Following the detection of an RCS leak, a plant operator must assess, classify, and declare the emergency within 15 minutes. If operators, following procedures, can isolate the leak prior to meeting the EAL, RCS inventory and the RCS Barrier will be maintained, and no emergency declaration is required. If the leak cannot be isolated, from the Control Room or locally per the definition of UNISOLABLE, then the RCS inventory and Barrier must be considered lost and the appropriate EAL declared.

Proposed changes 44, 45, 46 and 47

Proposed changes 44, 45, 46 and 47 adds clarifying information to specify "RPS" automatic trips when discussing failing to trip the reactor automatically, a statement that DSS cannot be credited as RPS in this EAL due to the DSS trip setpoint being greater than the RPS setpoint, DSS could provide subsequent reactor trip signals and that RPS not working significantly reduces the margin to loss or potential loss of fuel clad or RCS fission product barriers. DSS = Diversified Scram System.

These changes are being made to clarify that DSS trips cannot be credited as an RPS trip when addressing the RPS Failure EALs and inform that subsequent trips from the DSS system are to be considered when assessing the EAL. Prior to the change to NEI 99-01 revision 6, DSS was credited and if either RPS or DSS tripped the reactor, the respective EAL was not met. The current EAL Basis for all 4 EALs only lists the RPS system, not the DSS system.

Excerpt from OSS-0254.00-00-2001, revision 13, ATWS Mitigation System Actuation Circuitry (AMSAC) And the Diverse Scram System (DSS), section 2.1.2.1.5 DSS: *Trip Setpoint DSS designs based on Very High RCS Pressure input channels shall use a setpoint representative of 2450 ±25 psig.*

Excerpt from OSS-0254.00-00-2002 Revision 023 Reactor Protective System (RPS) Design Basis Specification, Section 4.1.2 for Unit 1, Section 5.1.2 for Unit 2 and Section 6.1.2 for Unit 3: *System Outputs Reactor Trip Summary for RCS High Pressure is 2,345 psig.*

CSD-EP-ONS-0101-02 (EAL Wallchart (Both Hot and Cold), Section 6 remains labelled as "RPS Failure".

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Proposed change 44: also removed extra space between "trip is", in the 8th paragraph, "trip signal" in the 10th paragraph, and "trip will" in the 12th paragraph with no change to the intent of the document. This is an editorial change that improves formatting; it is included here to prevent having to list these editorial changes as a separate change since the other changes for this EAL are not editorial.

Proposed change 45 also removes extra spaces between: "trip that" in the 7th paragraph, "trip the" in the 9th paragraph, "trip will" in the 12th paragraph, "trip signal" in the 13th paragraph, "trip and" in the first bullet and "trip failure" in the last bullet. This is an editorial change that improves formatting; it is included here to prevent having to list these editorial changes as a separate change since the other changes for this EAL are not editorial.

Accuracy Assessment

This change is an improvement to EAL declaration accuracy since it specifies that the RPS setpoint trip is the required trip the EAL is referring to without the user having to refer to the basis reference¹ to determine that RPS is the credited system for EAL. Adding information that DSS is no longer credited as a primary reactor trip signal for EAL purposes but continues to be a subsequent trip signal assures the EAL will be classified as the EAL intended. Removing extraneous spaces between words has no effect on the classification accuracy of the specified EALs. This change assures classification will be accurate which will avoid possible under classifications.

Timeliness Assessment

The addition of "RPS" in several statements and a short paragraph explaining why DSS can no longer be considered the primary trip signal when assessing the EAL and removing extraneous spaces between words has no negative impact to the capability to classify this EAL within 15 minutes of indications. The changes may improve the timeliness of the declarations since the user can quickly confirm that DSS is not an acceptable substitute for the RPS trips. ONS maintains the capability to classify RPS failures.

Proposed changes 44, 45, 46 and 47 can be made because they continue to be aligned with the intent of the approved EAL basis, the approved EAL wallchart and NEI 99-01 Rev. 6 EAL scheme.

Proposed changes 50 and 63

Proposed changes 50 and 63 adds EAL threshold information into the basis to clarify how the EAL defines one full train of containment heat removal and moved the existing information about the design of the RBCUs and RBS trains to be prior to the definition of one full train of containment heat removal.

These changes are being made to clarify the EAL classification requirements. As written, the statements about the RBCU and RBS capability provides confusion since they are both designed to be capable of maintaining containment pressure below design limits and the EAL requires a combination of RBCU and RBS flow requirements. The existing RBCU and RBS is design information and added per NEI 99-01 revision 6, Section 3.4 guidance: Basis – Provides background information that explains the intent and application of the IC and EALs. In some cases, the basis also includes relevant source information and references.

Adding clarifying information from the EAL into the Basis removes the confusion while leaving the design information. The RBS and RBCU design information was moved to improve readability.

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Accuracy Assessment

This change is an improvement to EAL declaration accuracy since information in the basis directly aligns with the EAL. Moving the RBCU and RBS design information has no effect on the classification accuracy of the specified EALs. This change assures classification will be accurate which will avoid possible under classifications or over classifications.

Timeliness Assessment

The addition of "1 RBS train with > 700 gpm spray flow AND 2 RBCUs operating per design" information into the basis and moving the RBS and RBCU design information has no negative impact to the capability to classify this EAL within 15 minutes of indications. The changes may improve the timeliness of the declarations since the user can quickly confirm that the EAL basis is aligned with the EAL. ONS maintains the capability to classify Containment Integrity EALs.

Proposed changes 50 and 63 can be made because they continue to be aligned with the intent of the approved EAL basis, the approved EAL wallchart and NEI 99-01 Rev. 6 EAL scheme.

Proposed changes 53 and 62:

Proposed changes 53 and 62 updates formatting in the EAL Threshold box to have the second option broken out as a standalone third option and the associated basis information moved with the third option (now A.3). In the basis for change 62, this change required deletion of "also" in revision 4 (new) version of the statement "HPI operating in the injection mode with no RCPs operating *also* invokes Rule 8 (ref 1) and added the reference to EP/*1800/001 Rule 8 Pressurized Thermal Shock (PTS) to the basis statement: 400°F is the temperature below which a cooldown greater than 100°F/hr requires implementation of Pressurized Thermal Shock (PTS) guidance (rule 8) (ref. 1, 2, 3) for A.2.

These changes are being made to improve human factors by separating the two conditions under the second option tied by an "OR" statement into a standalone third option under the same EAL.

Accuracy Assessment

This proposed change is an improvement to EAL declaration accuracy. As currently written, users could overlook the second option that, if met would require classification. This change assures classification will be accurate which will avoid possible under classifications or over classifications.

Timeliness Assessment

The separation of a second condition tied as an "OR" statement to the first statement has no negative impact to the capability to classify the EAL within 15 minutes of a potential loss of the RCS barrier. ONS maintains the capability to classify a potential loss of the RCS barrier.

Proposed changes 53 and 62 can be made because the changes continue to align with the intent of the approved EAL Basis, approved EAL wallchart and NEI 99-01 Rev. 6 EAL scheme.

Proposed change 59:

Proposed change 59 updates verbiage in the first paragraph and adds clarifying information that the same RVLS values are used by the EOP.

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These changes are being made to improve readability (all + not and both + not are more difficult to understand than "no RCPs and no LPI pumps...."), and to clarify that any LPI pump operating will make RLVS indications invalid. Additional information was added to clarify the stated RVLS value was specifically selected to reinforce the potential degradation of the core. This change also prevents classifying this EAL before the EAL value has been met based on assumptions with core uncover.

Currently, the basis says "both LPI Pumps", each ONS unit has three LPI pumps, any of the three LPI pumps can take a suction off the piping that invalidates RVLS indications. The EAL basis was written considering that only the "A" and "B" LPI pumps would be operating, since those are credited for event mitigation. Excerpt from OSS-0254-00-00-1028 (Low Pressure Injection And Core Flood System) revision 66, Section 4.1.1. (Unit 1), Section 5.1.1 (Unit 2) and Section 6.1.1 (Unit 3) Functional Description: *The Low Pressure Injection (LPI) System consists of two 100% capacity trains, each containing an LPI pump and a Decay Heat Cooler. The system contains a third LPI pump that can be aligned to either LPI train.*

While the "C" LPI pump is not automatically started or aligned as the "A" and "B" LPI pumps are; if specific failures occur, The Emergency Operating Procedure (EOP) for all 3 Units provides guidance to align and start the "C" LPI pump. Since any of the LPI pumps could be aligned, changing the statement to include the third LPI pump does not change the intent of the EAL. Note 9 is not impacted since it does not specify the number of LPI pumps.

Concerning the addition of the RVLS and EOP information:

EP/1/A/1800/001 0D, revision 002, Step 36 verifies either the core is superheated or the Rx vessel head level is at 0", and if so, Step 37 sends the user to the Inadequate Core Cooling (ICC) Tab.

EP/2/A/1800/001 0D, revision 002, Step 36 verifies either the core is superheated or the Rx vessel head level is at 0", and if so, Step 37 sends the user to the Inadequate Core Cooling (ICC) Tab.

EP/3/A/1800/001 0D, revision 002, Step 36 verifies either the core is superheated or the Rx vessel head level is at 0", and if so, Step 37 sends the user to the Inadequate Core Cooling (ICC) Tab.

Excerpt of the EOP steps being referenced:

36. Verify <u>either</u> :	___ GO TO Step 38.
___ Core superheated	
___ Rx vessel head level at 0"	
37. ___ GO TO ICC tab.	

Accuracy Assessment

The proposed change is an improvement to EAL declaration accuracy. As currently written, the information in the basis does not provide for the third LPI pump to invalidate RVLS indications. Adding the information that the EAL values are consistent with the EOP has no adverse impact to classification accuracy. This proposed change assures the classification will be accurate which will avoid possible under classifications or over classifications.

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Timeliness Assessment

The addition of the information concerning LPI pumps may improve the timeliness of the classification due to the LPI and RCP improved wording requiring less mental processing and not having to question whether or not the core could be uncovered as soon as RVLS indicates zero inches. The EOP information added has no adverse impact on classification timeliness. ONS maintains the capability to classify a potential loss of the Fuel Clad Barrier within 15 minutes.

Proposed change 59 can be made because the change continues to be aligned with the intent of the approved EAL, EAL wallchart and NEI 99-01 Rev. 6 EAL scheme.

Proposed change 64

Proposed change 64 clarifies Note 11 by adding "only" to better clarify that the note applies to a single safety system train to improve human performance when classifying CA6.1 or SA9.1. Notes 11 and 12 are used for determining whether or not CA6.1 and SA9.1 are to be classified when assessing the impact of a large scale or wide spread event. Since Note 12 states "at least one train of a safety system", it is clear to the user that multiple trains must be impacted to declare CA6.1 or SA9.1. However, there is no similar information in Note 11, so it is difficult to recognize that Note 11 applies only when one safety system train is impacted.

Note 11 applies to a single component or train as stated in EPFAQ 20116-002: *an emergency declaration would not be appropriate in response to a hazard affecting a piece of equipment or system that was non-functional prior to the event (e.g., tagged out for maintenance).*

The addition of "only" maintains the intent of the EAL by clarifying that Note 11 would not apply for events where more than one train is impacted. The statements concerning Note 11 from EPFAQ 2016-002 are copied below to demonstrate that the context and intent of the EPFAQ is maintained:

Proposed solution:

Concerning the second question, an emergency declaration would not be appropriate in response to a hazard affecting a piece of equipment or system that was non-functional prior to the event (e.g., tagged out for maintenance). For this reason and consistent with the approach used in other ICs, the following note may be added to IC HA2 (NEI 99-01 R4 and R5), or ICs CA6 and SA9 (NEI 99-01 R6).

Note: If the affected safety system (or component) was already non-functional before the event occurred, then no emergency classification is warranted.

NRC Response:

In order to warrant escalation to the Alert classification, the hazardous event should cause indications of degraded performance to one train of a SAFETY SYSTEM with either indications of degraded performance on the second SAFETY SYSTEM train or VISIBLE DAMAGE to the second SAFETY SYSTEM train, such that the operability or reliability of the second train is a concern. In addition, escalation to the Alert classification should not occur if the damage from the hazardous event is limited to a SAFETY SYSTEM that was inoperable, or out of service, prior to the event occurring.

- 1. Adding the following note to the applicable EALs, per this EPFAQ, is acceptable as it meets the intent of the EALs, is consistent with other EALs (e.g., EAL HA5 from NEI 99-01, Revision 6; this revision was endorsed by the NRC in a letter dated March 28, 2013, available at ADAMS*

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Accession No. ML12346A463), and ensures that declared emergencies are based upon unplanned events with the potential to pose a radiological risk to the public.

If the affected SAFETY SYSTEM train was already inoperable or out of service before the hazardous event occurred, then this emergency classification is not warranted.

Accuracy Assessment

This proposed change is an improvement to EAL declaration accuracy by communicating that Note 11 applies only when one train of a multiple train system is impacted. This change assures EAL classification will be accurate which will avoid possible under classifications.

Timeliness Assessment

The addition of "only" to Note 11 has no negative effect, and may improve timeliness of EAL declaration since the user will understand that Note 11 applies only when one train of a multiple train system is impacted. ONS maintains the capability to classify a hazardous event that affects safety systems within 15 minutes.

Proposed change 64 can be made because the changes continue to align with the intent of the approved EAL Basis and NEI 99-01 Rev. 6 EAL scheme.

Proposed change 65

Proposed change 65 corrects the EAL Wallboard value for Table E-1 for the second column (E-21 – W-42), top row (HSM Front surface), from 400 mr/hr to 800 mr/hr to match the approved value per the EAL Basis for the same parameter.

The values were corrected to allow the EAL Wallboard to continue to be used as a standalone document when assessing EALs. The current value is the Technical Specification (TS) limit, the EAL specifies the limits are to be twice the TS limit. All other values have been verified to match the EU1.1 Basis limits as intended by Eplan change 2019-004. Applicable excerpts from EU1.1 EAL Basis:

Table E-1-ISFSI-Dose-Limits						
Location	HSM-Module					
	E1-E20, W1-W20	E21-E42, W21-W42	E43-E67, W43-W67	E68-E74, W68-W74	E75-E80, W75-W80	E81-E92, W81-W92
Location	24P	24P**	24PHB	24PHB	24PTH	24PTH
HSM-Front-Surface	400 mrem/hr	800 mrem/hr	1,000 mrem/hr			
HSM-Front-Bird-Screen				1,050 mrem/hr	1,050 mrem/hr	1,200 mrem/hr
Outside-HSM-Door		200 mrem/hr	40 mrem/hr	40 mrem/hr	140 mrem/hr	160 mrem/hr
End-shield-wall-exterior		40 mrem/hr	600 mrem/hr	550 mrem/hr	600 mrem/hr	800 mrem/hr

The Table E-1 values shown are 2 times the limits specified in the ISFSI Certificate of Compliance Technical Specifications for radiation external to the applicable loaded DSC (ref. 1, 2, 4).

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The existence of "damage" is determined by radiological survey. The technical specification multiple of "2 times", which is also used in Recognition Category R IC RU1, is used here to distinguish between non-emergency and emergency conditions. The emphasis for this classification is the degradation in the level of safety of the spent fuel cask and not the magnitude of the associated dose or dose rate. It is recognized that in the case of extreme damage to a loaded cask, the fact that the "on-contact" dose rate limit is exceeded may be determined based on measurement of a dose rate at some distance from the cask.

HSMs E/W-21 – E/W-42 were loaded with 24P canister types under Certificate of Compliance (CoC) Technical Specification (TS) for Spent Fuel Storage Casks, number 1004, Amendments 0 through 7. Per the TS, the dose rate limits are 800, 200, and 40 mrem per hour as shown below. HSM = Horizontal Storage Module.

1.2.7 HSM Dose Rates with a Loaded 24P, 52B or 61BT DSC

Limit/Specification:

Dose rates at the following locations shall be limited to levels which are less than or equal to:

- 400 mrem/hr at 3 feet from the HSM surface.
- Outside of HSM door on center line of DSC 100 mrem/hr.
- End shield wall exterior 20 mrem/hr.

Accuracy Assessment

This proposed change is an improvement to EAL declaration accuracy by ensuring the EAL would be declared at twice the TS as the EAL intends. This change assures EAL classification will be accurate which will avoid possible over classifications.

Timeliness Assessment

The changed value in the E-1 Table may improve timeliness by allowing the classification to be made using the wallboard instead of having to find the values in the > 200-page EAL basis document. ONS maintains the capability to classify an ISFSI within 15 minutes.

Proposed change 65 can be made because the changes continue to align with the intent of the approved EAL Basis and NEI 99-01 Rev. 6 EAL scheme.

Proposed changes 7, 13, 14, 15, 18, 20, 23, 26, 32, 33, 36, 38, 40, 42, 44, 45, 46, 47, 50, 52, 53, 59, 60, 61, 62, 63, 64 and 65 can be made because they continue to ensure a standard scheme of emergency classification and action levels are in use and there is no negative impact to timeliness or accuracy.

The proposed changes do not reduce the effectiveness of the Duke Energy Common Emergency Plan or the Oconee Nuclear Station Emergency Plan Annex. These changes continue to provide assurance that the Emergency Response Organization has the ability and capability to:

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- respond to an emergency;
- perform functions in a timely manner;
- effectively identify and take measures to ensure protection of the public health and safety; and
- effectively use response equipment and emergency response procedures.

These changes continue to meet NRC requirements, as described in 10 CFR 50.47(b)(4) and 10 CFR 50, Appendix E as well as the requirements of the Duke Energy Common Emergency Plan and ONS Emergency Plan Annex as written and approved.

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Section XII: Evaluation Conclusion	
Answer the following questions about the proposed change:	
1. Does the proposed change comply with 10 CFR 50.47(b) and 10 CFR 50 Appendix E?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2. Does the proposed change maintain the effectiveness of the emergency plan (i.e., no reduction in effectiveness)?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
3. Does the proposed change maintain the current Emergency Action Level (EAL) scheme?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Section XII: Conclusion	
Questions 1, 2 and 3 are answered YES, complete step below to create a General CAS assignment, and then continue on to Section XIV and implement change(s).	<input checked="" type="checkbox"/>
General CAS assignment created - Licensing submit changes in accordance with 10 CFR 50.4(b)(5)(ii) within 30 days of change implementation	<input checked="" type="checkbox"/>
Questions 1 or 2 or 3 are answered NO, complete Sections XIII and Section XIV .	<input type="checkbox"/>

Section XIII: Disposition of Proposed Change Requiring Prior NRC Approval		
Will the proposed change be submitted to the NRC for prior approval?		Yes <input type="checkbox"/> No <input type="checkbox"/>
If No, reject the proposed change, or modify the proposed change and perform a new evaluation. Continue to Section XIV for this evaluation.		
If YES, then initiate a License Amendment Request in accordance 10 CFR 50.90, AD-LS-ALL-0002, Regulatory Correspondence, and AD-LS-ALL-0015, License Amendment Request and Changes to SLC, TRM, and TS Bases, and include the tracking number: _____. Complete Section XIV .		
Section XIV: Signatures:		
EP CFAM Final Approval is required for changes affecting Program Element 4a of Section VIII . If CFAM approval is NOT required, then mark the EP CFAM signature block as not applicable (N/A) to indicate that signature is not required. Section XIV as applicable.		
Preparer Name (Print): Tracy Roland	Preparer Signature: See NAS	Date: See NAS
Reviewer Name (Print): Ryan Bobek	Reviewer Signature: See NAS	Date: See NAS
Approver Name (Print): David Wilson	Approver Signature: See NAS	Date: See NAS
Approver (EP CFAM, as required) Name (Print): David Thompson	Approver Signature: See NAS	Date: See NAS

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10 CFR 50.54(q) - Alternate TSC and OSC Renovations

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Section I: 10 CFR 50.54(q) Review Number: (EREG #):				02439410	
Applicable Sites and Applicability Determination # (5AD)					
<input type="checkbox"/> BNP		<input type="checkbox"/> CNS		<input type="checkbox"/> HNP	
<input type="checkbox"/> MNS		<input checked="" type="checkbox"/> ONS	02441720	<input type="checkbox"/> RNP	
Document #, EC #, or N/A	Revision # or N/A	Document or Activity Title			
ON00CXH OOB renovations	NA	Alternate TSC and Alternate OSC Renovations			

Section II: Identify/Describe All Proposed Activities/Changes being Reviewed
Event or action, or series of actions that may result in a change to the emergency plan or affect the implementation of the emergency plan (Use attachments, or continue additional pages as necessary): Continue to Section III .
Activity/Changes:

Under project number ON00CXH OOB renovations, the Alternate Technical Support Center (TSC) and Alternate Operations Support Center (OSC) will be remodeled. The estimated time to completion is sixteen weeks. Upon completion of renovations, the Alternate TSC and Alternate OSC will return to its normal location in room 316 and 316 A of the Oconee Office Building (OOB).

Section III: Description and Review of Licensing Basis Affected by the Proposed activity or Change:
List all emergency plan sections that were reviewed for this activity by number and title.
IF THE ACTIVITY IN ITS ENTIRETY IS AN EMERGENCY PLAN CHANGE, EAL CHANGE OR EAL BASIS CHANGE, Enter Licensing Basis affected by the change and continue to Section VI .

Licensing Basis:

- EP-ALL-EPLAN, Duke Energy Common Emergency Plan, Revision 0:
 - Section E, Notification Methods and Procedures
 - Section F, Emergency Communications
 - Section H, Emergency Facilities and Equipment.
- EP-ONS-EPLAN-ANNEX, Duke Energy Oconee Emergency Plan Annex, Revision 0:
 - Section E, Notification Methods and Procedures
 - Section H, Emergency Facilities and Equipment.

Current Emergency Plans:

- EP-ALL-EPLAN, Duke Energy Common Emergency Plan, Revision 2:
 - Section E Notification Methods and Procedures
 - Section F Emergency Communications
 - Section H, Emergency Facilities and Equipment.

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- EP-ONS-EPLAN-ANNEX, Duke Energy Oconee Emergency Plan Annex, Revision 1:
 - Section E, Notification Methods and Procedures
 - Section H, Emergency Facilities and Equipment.

The differences in the approved and the current revision of the Emergency Plan have been reviewed, and they have been determined to meet the regulatory requirements required during the course of revisions.

Section IV: Ability to Maintain the Emergency Plan. Answer the following questions related to impact on the ability to maintain the Emergency Plan. Continue to Section V.	
1. Do any of the elements of the proposed activity change information or intent contained in the Emergency Plan?	Yes <input type="checkbox"/> No <input type="checkbox"/>
2. Do any elements of the proposed activity change the process or capability for alerting or notifying the public as described in the FEMA-approved Alert and Notification System Design Report?	Yes <input type="checkbox"/> No <input type="checkbox"/>
3. Do any elements of the proposed activity change the Evacuation Time Estimate results?	Yes <input type="checkbox"/> No <input type="checkbox"/>
4. Do any elements of the proposed activity change the On-Shift Staffing Analysis results?	Yes <input type="checkbox"/> No <input type="checkbox"/>
5. Does the Proposed activity require a change to the Emergency Plan Programmatic Description?	Yes <input type="checkbox"/> No <input type="checkbox"/>
If Question 5 was answered yes, and the document being reviewed is NOT the Emergency Plan, then exit this review until the Emergency Plan change is complete or the proposed change is modified to not change the Emergency Plan Programmatic Description.	
Section IV conclusion: <input type="checkbox"/> If questions 1-5 in Section IV marked NO, then complete Section V . <input checked="" type="checkbox"/> If any question 1-5 of Section IV marked yes, then continue at Section VI .	

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Section V: Maintaining the Emergency Plan Conclusion.

The questions in **Section IV** do not represent the total of all conditions that may cause a change to or impact the ability to maintain the emergency plan. Originator and reviewer signatures in **Section XIV** document that a review of all elements of the proposed change have been considered for their impact on the ability to maintain the emergency plan and their potential to change the emergency plan.

1. Provide a brief conclusion below that describes how the conditions, as described in the emergency plan, are maintained with this activity.
2. Select the box below when the review completes all actions for all elements of the activity and no 10CFR50.54 screening or evaluation is required for any element. Continue to **Section XIV**.

☐ I have completed a review of this activity in accordance with 10CFR50.54(q)(2) and determined that the effectiveness of the emergency plan is maintained. This activity does not make any changes to the emergency plan. No further actions are required to screen or evaluate this activity in accordance with 10CFR50.54(q)(3).

Conclusion:

Section VI: Activity Previously Reviewed?

Is this activity fully bounded by an NRC approved 10CFR50.90 submittal or Alert and Notification System Design Report?

<input type="checkbox"/>	Yes	10 CFR 50.54(q) Evaluation is not required. Identify bounding source document below and continue to Section XIV .
<input checked="" type="checkbox"/>	No	Continue to Section VII .
<input type="checkbox"/>	Partially	If PARTIALLY , identify bounding source document and list changes bounded by the approved 10 CFR 50.90 or Alert and Notification System Design Report below. Changes not bound by the approved 10 CFR 50.90 or Alert and Notification System Design Report (i.e., part requiring further review). Continue the review in Section VII .

Bounding source document and list of bounded changes:

Section VII: Editorial Changes

<input type="checkbox"/>	Yes	All Activities/Changes identified in Section II are editorial/typographical changes such as formatting, paragraph numbering, spelling, or punctuation that does not change intent.
<input checked="" type="checkbox"/>	No	None of the Activities/Changes listed in Section II are editorial/typographical changes. Continue to Section VIII .
<input type="checkbox"/>	Partially	Some Activities/Changes are editorial/typographical.

If **Yes** is checked, Identify the activities/changes listed in **Section II** that are editorial/typographical changes and provide justification below. Continue to **Section XII**.

If **Partially** is checked, Identify the activities/changes listed in **Section II** that are editorial/typographical changes and provide justification below. Continue to **Section VIII** for changes not identified as editorial.

Justification:

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Section VIII: Emergency Planning Element and Function Screen		
<i>(Utilize Reg Guide 1.219 and Attachment 1, Additional Regulatory Guidance References for additional assistance)</i>		
Does any of Proposed Activities/Changes Identified in Section I impact any of the following, including program elements from NUREG-0654/FEMA REP-1 Section II? If yes check appropriate box.		
1	10 CFR 50.47(b)(1) Assignment of Responsibility (Organization Control)	
1a	Responsibility for emergency response is assigned.	<input type="checkbox"/>
1b	The response organization has the staff to respond and to augment staff on a continuing basis (24-7 staffing) in accordance with the emergency plan.	<input type="checkbox"/>
2	10 CFR 50.47(b)(2) Onsite Emergency Organization	
2a	Process ensures that on shift emergency response responsibilities are staffed and assigned	<input type="checkbox"/>
2b	The process for timely augmentation of onshift staff is established and maintained.	<input type="checkbox"/>
3	10 CFR 50.47(b)(3) Emergency Response Support and Resources	
3a	Arrangements for requesting and using off site assistance have been made.	<input type="checkbox"/>
3b	State and local staff can be accommodated at the EOF in accordance with the emergency plan.	<input type="checkbox"/>
4	10 CFR 50.47(b)(4) Emergency Classification System	RS
4a	A standard scheme of emergency classification and action levels is in use. (Requires V/V (Attachment 3) and final approval of Screen and Evaluation by EP CFAM)	<input type="checkbox"/>
5	10 CFR 50.47(b)(5) Notification Methods and Procedures	RS
5a	Procedures for notification of State and local governmental agencies are capable of alerting them of the declared emergency within 15 minutes (60 minutes for CR3) after declaration of an emergency and providing follow-up notification.	<input type="checkbox"/>
5b	Administrative and physical means have been established for alerting and providing prompt instructions to public within the plume exposure pathway.	<input type="checkbox"/>
5c	The public ANS meets the design requirements of FEMA-REP-10, Guide for Evaluation of Alert and Notification Systems for Nuclear Power Plants, or complies with the licensee's FEMA-approved ANS design report and supporting FEMA approval letter	<input type="checkbox"/>
6	10 CFR 50.47(b)(6) Emergency Communications	
6a	Systems are established for prompt communication among principal emergency response organizations.	<input type="checkbox"/>
6b	Systems are established for prompt communication to emergency response personnel.	<input type="checkbox"/>
7	10 CFR 50.47(b)(7) Public Education and Information	
7a	Emergency preparedness information is made available to the public on a periodic basis within the plume exposure pathway emergency planning zone (EPZ).	<input type="checkbox"/>
7b	Coordinated dissemination of public information during emergencies is established.	<input type="checkbox"/>
8	10 CFR 50.47(b)(8) Emergency Facilities and Equipment	
8a	Adequate facilities are maintained to support emergency response	<input checked="" type="checkbox"/>
8b	Adequate equipment is maintained to support emergency response.	<input checked="" type="checkbox"/>
9	10 CFR 50.47(b)(9) Accident Assessment	RS
9a	Methods, systems, and equipment for assessment of radioactive releases are in use.	<input type="checkbox"/>
10	10 CFR 50.47(b) (10) Protective Response	RS
10a	A range of public PARs is available for implementation during emergencies.	<input type="checkbox"/>
10b	Evacuation time estimates for the population located in the plume exposure pathway EPZ are available to support the formulation of PARs and have been provided to State and local governmental	<input type="checkbox"/>

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	authorities.	
10c	A range of protective actions is available for plant emergency workers during emergencies, including those for hostile action events.	<input type="checkbox"/>
10d	KI is available for implementation as a protective action recommendation in those jurisdictions that chose to provide KI to the public.	<input type="checkbox"/>
11	10 CFR 50.47(b) (11) Radiological Exposure Control	
11a	The resources for controlling radiological exposures for emergency workers are established.	<input type="checkbox"/>
12	10 CFR 50.47(b) (12) Medical and Public Health Support	
12a	Arrangements are made for medical services for contaminated, injured individuals.	<input type="checkbox"/>
13	10 CFR 50.47(b) (13) Recovery Planning and Post-Accident Operations	
13a	Plans for recovery and reentry are developed.	<input type="checkbox"/>
14	10 CFR 50.47(b) (14) Drills and Exercises	
14a	A drill and exercise program (including radiological, medical, health physics and other program areas) is established.	<input type="checkbox"/>
14b	Drills, exercises, and training evolutions that provide performance opportunities to develop, maintain, and demonstrate key skills are assessed via a formal critique process in order to identify weaknesses.	<input type="checkbox"/>
14c	Identified weaknesses are corrected.	<input type="checkbox"/>
15	10 CFR 50.47(b) (15) Emergency Response Training	
15a	Training is provided to emergency responders.	<input type="checkbox"/>
16	10 CFR 50.47(b) (16) Emergency Plan Maintenance	
16a	Responsibility for emergency plan development and review is established.	<input type="checkbox"/>
16b	Planners responsible for emergency plan development and maintenance are properly trained.	<input type="checkbox"/>
Section VIII: Conclusion		
<input type="checkbox"/> If any Section VIII criteria are checked, document the basis for conclusion below for any changes that are more than editorial, however not impacted by any of the identified criteria in Section VIII and continue the 50.54(q) Review in Section IX . <input type="checkbox"/> If no Section VIII criteria are checked, 10CFR50.54(q)(3) Evaluation is NOT required. Document justification below for any changes that are more than editorial and continue to Section XIV .		

Justification for changes that are more than editorial, however, not impacted by any of the identified criteria in Section VIII:

NA

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Section IX: Description of Emergency Plan Planning Standards, Functions and Program Elements Affected by the Proposed Change

Copy each emergency planning standard, function and program element affected by the proposed change that was identified as applicable in **Section VIII**. Continue to **Section X**.

List affected Emergency Planning Standards, Functions, and Program Elements:

Planning Standard

The regulation at 10 CFR 50.47(b)(8) states the following:

Adequate emergency facilities and equipment to support the emergency response are provided and maintained.

Functions

Adequate facilities are maintained to support emergency response.

Adequate equipment is maintained to support emergency response.

Applicable sections of Appendix E to 10 CFR Part 50

IV.G of Appendix E to 10 CFR Part 50

G. Maintaining Emergency Preparedness

Provisions to be employed to ensure that the emergency plan, its implementing procedures, and emergency equipment and supplies are maintained up to date shall be described.

Informing criteria from NUREG-0654/FEMA-REP-1, revision 2:

The applicable program elements described in NUREG-0654, Section II state:

H.1: A TSC is established, using current Federal guidance, from which NPP conditions are evaluated and mitigative actions are developed.

H.2: An OSC is established, using current Federal guidance, from which repair team activities and teams are dispatched to implement actions.

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Section X: Describe How the Proposed Change Complies with Relevant Emergency Preparedness Regulation(s) and Previous Commitment(s) Made to the NRC

If the emergency plan, modified as proposed, no longer complies with planning standards in 10 CFR 50.47(b) and the requirements in Appendix E to 10 CFR Part 50, then ensure the change is rejected, modified, or processed as an exemption request under 10 CFR 50.12, Specific Exemptions, rather than under 10 CFR 50.54(q). Address each Planning Standard identified in **Section IX. Continue to Section XI.**

Justification:

While the Alternate TSC and Alternate OSC are being renovated, the Primary TSC and Primary OSC will remain available. The procedures and EAL wallcharts from the Alternate TSC and Alternate OSC are being stored in the mechanical room next door to OOB room 316 for the ERO to obtain and easily move to another location should the need arise. There are conference rooms in the OOB and the Outage Control Center (OCC) located in the Maintenance Support Building that are available for the Emergency Response Organization (ERO) to use should the Primary TSC and Primary OSC become unavailable, both the OOB and Maintenance Support Buildings are located inside the Protected Area. The conference rooms and the OCC meet the requirements of EP-ALL-EPLAN, Duke Energy Common Emergency Plan and EP-ONS-EPLAN Annex Section H.2 for the Alternate TSC and Alternate OSC with the following justifications:

E-Plan/Annex Requirement	50.54Q justification/information for Alternate TSC	Information for Alternate TSC following remodel
In the event the TSC must be evacuated, an alternate location has been designated in the Oconee Office Building, Room 316. Radio and telephone communications are available to offsite agencies and the NRC to the same extent as the designated TSC.	<p>There are areas in the OOB and the OCC that are available for the ERO to use should the Primary TSC become unavailable.</p> <p>The OCC area or a conference room in the OOB meets the requirements by having telephones and radios available to contact offsite agencies and the Nuclear Regulatory Commission (NRC).</p>	The changes to the Alternate TSC consist of furniture, telephone, audiovisual upgrades and the addition of computers for each ERO position. The Alternate TSC will continue to be able to maintain communications with the Primary and Alternate OSC, the Control Rooms (CR) and NRC via radios and telephones to the same extent as the Primary TSC. There are no functional differences in radio or telephone capabilities of the Alternate TSC before and after the renovations, therefore, there is no impact to the Emergency Plan.

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E-Plan/Annex Requirement	50.54Q justification/information for Alternate OSC	Information for Alternate OSC following remodel
In the event the OSC must be evacuated, a backup location has been established in the Oconee Office Building, Room 316 A. Communication links are provided for information flow both to the MCR and TSC.	<p>There are areas in the OOB and the OCC that have communication links available for the ERO to use should the Primary OSC become unavailable.</p> <p>The OCC area or a conference room in the OOB meets the requirements by having communication links to the CR, the Primary TSC and the Alternate TSC.</p>	The changes to the Alternate OSC consist of furniture, telephone, audiovisual upgrades and the addition of computers to each ERO position. The Alternate OSC will continue to have communication links to the CR and the Primary and Alternate TSC. There are no functional differences in the capabilities of the communication links in the Alternate OSC before and after the renovations, therefore, there is no impact to the Emergency Plan.
If the OSC is deemed uninhabitable, the OSC may be moved to other locations identified or as deemed appropriate by the OSC Manager.	<p>There are areas in the OOB and the OCC that are available for the ERO to use should the Primary OSC become unavailable.</p> <p>The OCC area or a conference room in the OOB meets the requirements by having the procedures staged and ready for deployment to any location the OSC Manager deems appropriate.</p>	The changes to the Alternate OSC consist of furniture, telephone, audiovisual upgrades and the addition of computers to each ERO position. The Alternate OSC will continue to have communication links to the CR and the Primary and Alternate TSC. There are no functional differences in the capabilities of the communication links in the Alternate OSC before and after the renovations, therefore, there is no impact to the Emergency Plan.

The remodel will consist of new carpet, paint, desks, dedicated computers for each ERO position, an inner office type PA system that will be able to be heard in the rooms surrounding the Alternate TSC and Alternate OSC, microphones, and upgraded audiovisual equipment. The layout of both facilities will be changed to improve communications, teamwork, and information flow to the other facilities. The upgrade of the audiovisual equipment will continue to allow the ERO to view plant data and other important information.

Once the remodeling is complete, upgrades to the Alternate TSC and Alternate OSC will not affect the functionality or its ability to meet the requirements of the Duke Energy Common Emergency Plan or the Duke Energy Oconee Emergency Plan Annex. Procedures and EAL wallcharts will be relocated back to the respective areas in OOB 316 and OOB 316 A and all audiovisual equipment, phones, and computers will be tested to verify functionality.

The function will continue to be maintained during the remodeling of the Alternate TSC and Alternate OSC as well as once completed because adequate emergency facilities and equipment to support the emergency response continue to be provided and maintained.

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Section XI: Description of Impact of the Proposed Change on the Effectiveness of Emergency Plan Functions

Address each function identified in **Section IX. Continue to Section XII.**

Justification:

While the Alternate TSC and Alternate OSC are being renovated, the Primary TSC and Primary OSC will remain available. The procedures and EAL wallcharts from the Alternate TSC and Alternate OSC are being stored in the mechanical room next OOB room 316 for the ERO to obtain and easily move to another location should the need arise. There are conference rooms in the OOB and the Outage Control Center (OCC) (located in the Maintenance Support Building) that are available for the Emergency Response Organization (ERO) to use should the Primary TSC and Primary OSC become unavailable. The conference rooms and the OCC meet the requirements of EP-ALL-EPLAN, Duke Energy Common Emergency Plan and EP-ONS-EPLAN Annex Section H.2 for the Alternate TSC and Alternate OSC the with the following justifications:

E-Plan/Annex Requirement	50.54Q justification/information for Alternate TSC	Information for Alternate TSC following remodel
In the event the TSC must be evacuated, an alternate location has been designated in the Oconee Office Building, Room 316. Radio and telephone communications are available to offsite agencies and the NRC to the same extent as the designated TSC.	<p>There are areas in the OOB and the OCC that are available for the ERO to use should the Primary TSC become unavailable.</p> <p>The OCC area or a conference room in the OOB meets the requirements by having telephones and radios available to contact offsite agencies and the Nuclear Regulatory Commission (NRC).</p>	The changes to the Alternate TSC consist of furniture, telephone, audiovisual upgrades and the addition of computers for each ERO position. The Alternate TSC will continue to be able to maintain communications with the Primary and Alternate OSC, the Control Rooms (CR) and NRC via radios and telephones to the same extent as the Primary TSC. There are no functional differences in radio or telephone capabilities of the Alternate TSC before and after the renovations, therefore, there is no impact to the Emergency Plan.

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E-Plan/Annex Requirement	50.54Q justification/information for Alternate OSC	Information for Alternate OSC following remodel
In the event the OSC must be evacuated, a backup location has been established in the Oconee Office Building, Room 316 A. Communication links are provided for information flow both to the MCR and TSC.	<p>There are areas in the OOB and the OCC that have communication links available for the ERO to use should the Primary OSC become unavailable.</p> <p>The OCC area or a conference room in the OOB meets the requirements by having communication links to the CR, the Primary TSC and the Alternate TSC.</p>	The changes to the Alternate OSC consist of furniture, telephone, audiovisual upgrades and the addition of computers to each ERO position. The Alternate OSC will continue to have communication links to the CR and the Primary and Alternate TSC. There are no functional differences in the capabilities of the communication links in the Alternate OSC before and after the renovations, therefore, there is no impact to the Emergency Plan.
If the OSC is deemed uninhabitable, the OSC may be moved to other locations identified or as deemed appropriate by the OSC Manager.	<p>There are areas in the OOB and the OCC that are available for the ERO to use should the Primary OSC become unavailable.</p> <p>The OCC area or a conference room in the OOB meets the requirements by having the procedures staged and ready for deployment to any location the OSC Manager deems appropriate.</p>	The changes to the Alternate OSC consist of furniture, telephone, audiovisual upgrades and the addition of computers to each ERO position. The Alternate OSC will continue to have communication links to the CR and the Primary and Alternate TSC. There are no functional differences in the capabilities of the communication links in the Alternate OSC before and after the renovations, therefore, there is no impact to the Emergency Plan.

The remodel will consist of new carpet, paint, desks, dedicated computers for each ERO position, an inner office type PA system that will be able to be heard in the rooms surrounding the Alternate TSC and Alternate OSC, microphones, and upgraded audiovisual equipment. The layout of both facilities will be changed to improve communications, teamwork, and information flow to the other facilities. The upgrade of the audiovisual equipment will continue to allow the ERO to view plant data and other important information. Procedures and EAL wallcharts will be relocated back to the respective areas in OOB 316 and OOB 316 A and all audiovisual equipment, phones, and computers will be tested to verify functionality.

The change to the Alternate TSC and Alternate OSC relocation is not a reduction in effectiveness because adequate facilities and equipment continue to be maintained to support emergency response.

The proposed changes do not reduce the effectiveness of Duke Energy Common Emergency Plan or the Oconee Emergency Plan Annex. These changes continue to provide assurance that the Emergency Response Organization has the ability and capability to:

- respond to an emergency;
- perform functions in a timely manner;
- effectively identify and take measures to ensure protection of the public health and safety; and
- effectively use response equipment and emergency response procedures.

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These changes continue to meet NRC requirements, as described in 10 CFR 50.47(b) and 10 CFR 50, Appendix E as well as the requirements of the Duke Energy Site's Emergency Plans as written and approved.

Section XII: Evaluation Conclusion	
Answer the following questions about the proposed change:	
1. Does the proposed change comply with 10 CFR 50.47(b) and 10 CFR 50 Appendix E?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2. Does the proposed change maintain the effectiveness of the emergency plan (i.e., no reduction in effectiveness)?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
3. Does the proposed change maintain the current Emergency Action Level (EAL) scheme?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Section XII: Conclusion	
Questions 1, 2 and 3 are answered YES, complete step below to create a General CAS assignment, and then continue on to Section XIV and implement change(s).	<input checked="" type="checkbox"/>
General CAS assignment created - Licensing submit changes in accordance with 10 CFR 50.4(b)(5)(ii) within 30 days of change implementation	<input checked="" type="checkbox"/>
Questions 1 or 2 or 3 are answered NO, complete Sections XIII and Section XIV .	<input type="checkbox"/>

Section XIII: Disposition of Proposed Change Requiring Prior NRC Approval	
Will the proposed change be submitted to the NRC for prior approval?	Yes <input type="checkbox"/> No <input type="checkbox"/>
If No, reject the proposed change, or modify the proposed change and perform a new evaluation. Continue to Section XIV for this evaluation.	
If YES, then initiate a License Amendment Request in accordance 10 CFR 50.90, AD-LS-ALL-0002, Regulatory Correspondence, and AD-LS-ALL-0015, License Amendment Request and Changes to SLC, TRM, and TS Bases, and include the tracking number:_____. Complete Section XIV .	

EMERGENCY PLAN CHANGE SCREENING AND EFFECTIVENESS EVALUATIONS 10 CFR 50.54(Q)	AD-EP-ALL-0602
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ATTACHMENT 2

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Section XIV: Signatures: EP CFAM Final Approval is required for changes affecting Program Element 4a of Section VIII . If CFAM approval is NOT required, then mark the EP CFAM signature block as not applicable (N/A) to indicate that signature is not required. Section XIV as applicable.		
Preparer Name (Print): Tracy Roland	Preparer Signature: See NAS	Date: See NAS
Reviewer Name (Print): Ryan Bobek	Reviewer Signature: See NAS	Date: See NAS
Approver Name (Print): David Wilson	Approver Signature: See NAS	Date: See NAS
Approver (EP CFAM, as required) Name (Print): N/A	Approver Signature: N/A	Date: N/A

QA RECORD