

Exelon EAL Upgrade Project
 NRC Request for Additional Information
 Braidwood Station / Byron Station

RAI #	EAL	Question
GENERIC		<p>It is expected that licensees adhere to endorsed guidance, particularly for Initiating Conditions (ICs) and Definitions, with no differences or deviations other than those related to a licensee's particular design. This is to ensure regulatory stability of the Emergency Action Level (EAL) scheme. This also ensures that, as stated in Title 10 of the <i>Code of Federal Regulations</i>, (10 CFR), Paragraph 50.47(b)(4), licensees implement "A standard emergency classification and action level scheme, the bases of which include facility system and effluent parameters...."</p> <p>While the NRC staff is not enforcing strict verbatim compliance with the endorsed guidance, where applicable, the NRC staff will be pointing out areas where it expects the endorsed guidance to be used to ensure implementation of a standard scheme. This is primarily based upon industry and NRC staff experience with issues related to a particular EAL.</p> <p>While formatting is usually not technically relevant to the NRC staff's review of EALs, when inconsistent formatting may result in potential misunderstanding, an RAI will be developed to correct the formatting or to obtain additional information in support of the deviation.</p>

Exelon EAL Upgrade Project
 NRC Request for Additional Information
 Braidwood Station / Byron Station

RAI #	EAL	Question
1	GENERAL	<ol style="list-style-type: none"> 1. Please confirm that all stated values, set points, and indications provided are within the calibrated range of the applicable instrumentation and that the instrumentation is appropriate for the EAL. 2. Off-scale high or low thresholds are usually not within the calibrated range of instrumentation. Please explain how the EALs that use one or the other of these thresholds will not be confused with failed instrumentation. 3. The NEI IC Cross-Reference Table has several errors on it, please correct them to ensure a quality EAL Technical Basis Document <ol style="list-style-type: none"> a. FC4 (Exelon) not reflected as FC3 (NEI) b. MU2 (Exelon) not reflected as CU3 (NEI) c. HS4 (Exelon) incorrectly referenced, it is actually HS2 (Exelon) d. RC3 (Exelon) incorrectly referenced, it is actually RC1 (Exelon) 4. Sections 3.9, 3.10 and 3.11 from the endorsed guidance contain important information necessary to understand the intent of the guidance, as well as NRC staff expectations. Please indicate whether these sections will be incorporated into the document or fully document the technical basis for why it cannot be incorporated. 5. Missing EAL Basis Document pages, from 3-9 through 3-26 (BW) and from 3-9 through 3-25 (BY). The staff needs to review the entire EAL Technical Basis Document and supporting information. Please provide the missing information or provide adequate justification why these pages are not applicable to the NRC staff's review. 6. The entire paragraph from Section 3.1 related to "EALs are for unplanned events..." is not in accordance with staff expectations nor in accordance with the standard EAL scheme (Section 3.9) approved by the NRC. Please revise to incorporate the approved expectation or provide technical justification to support the deviation. 7. The NRC staff requests that ADAMS Accession No. ML080450149 be used to reference NEI 99-01, Revision 5, to ensure that the multiple draft copies of this document that are in ADAMS are not inadvertently referenced.

Exelon EAL Upgrade Project
 NRC Request for Additional Information
 Braidwood Station / Byron Station

RAI #	EAL	Question
2	SECT 4.0	<p>It is expected that definitions are verbatim from the endorsed guidance, with the exception of terms specifically defined by the licensee, to ensure implementation of a standard emergency classification and action level scheme.</p> <ol style="list-style-type: none"> 1. As noted above, please provide the site-specific definitions for the following terms or justification as to why the generic wording used in the endorsed guidance should be used: <ol style="list-style-type: none"> a. Containment closure b. Protected area c. Vital area 2. Do these sites have an independent spent fuel storage installation (ISFSI), and if so, provide the definition as approved by the staff.
3	RG1 RS1	<ol style="list-style-type: none"> 1. The previously NRC-approved version of this EAL contained useful information related to support your EAL, as it is different from guidance document approved by the staff. Please explain why this information is not carried over into this submittal, or revise accordingly. 2. (RG1) The 2nd paragraph from the approved guidance is not considered by the staff to be EAL Developer information. Please incorporate this information to ensure consistency in understanding or provide justification to support its removal.
4	RA1 RU1	<ol style="list-style-type: none"> 1. The IC states "Radiological Effluent Technical Specifications/ODCM." Typically licensees use one or the other, not both. Please verify that the wording aligns with your site's document. 2. The previously NRC-approved version of this EAL contained useful information related to support your EAL, as it is different than guidance document approved by the staff. Please explain why this information is not carried over into this submittal, or revise accordingly.
5	RA3	<p>Explain why SAS [Secondary Alarm Station] is in Table R2. Typically it is either the CAS [Central Alarm Station] or SAS, but not both.</p>
6	RU3	<p>The standard EAL scheme required by 10 CFR 50.47(b)(4), and approved by the NRC (NEI 99-01 Revision 5), has this EAL as SU4. Explain why this EAL deviates from the approved guidance, or revise accordingly.</p>

Exelon EAL Upgrade Project
NRC Request for Additional Information
Braidwood Station / Byron Station

RAI #	EAL	Question
7	FISSION BARRIER MATRIX	<ol style="list-style-type: none"> 1. Revise accordingly to provide Fission Barrier Matrix Table, as it is part of the standard EAL scheme required by 10 CFR 50.47(b)(4) and approved by the NRC (NEI 99-01 Revision 5), or provide justification for not including table. 2. The reference lists the incorrect table from approved guidance for FU1, FA1, FS1, and FG1. Revise matrix accordingly. 3. Provide justification to support not developing additional thresholds, i.e., “other”, as expected from the approved guidance, or revise accordingly.
8	FC4	Averaging the core exit thermocouples (CETs) is not typical nor is it from the approved guidance. Provide justification for this deviation, or revise accordingly.
9	RC5 CT6	Explain deviation from the approved guidance in more detail, or revise accordingly. Specifically, explain why the paragraph related to “...15 minutes...” is in your Basis information. This is not from the approved guidance, and conflicts with the actual thresholds, as neither the LOSS nor Potential Loss thresholds have a timing element associated with them.
10	RC8	Explain the deviation from the approved guidance in more detail, or revise accordingly. Specifically, why was “Indications of RCS Leakage” added?
11	CT7	<ol style="list-style-type: none"> 1. Explain deviation from the approved guidance and standard EAL scheme for LOSS (1.a, i.e.), or revise accordingly. Specifically, “all” isolation valves was not stated. This could lead to a misunderstanding as to the intent of the threshold. 2. Explain in more detail why the 2nd paragraph was added to the Basis information, or revise accordingly. This is not as approved and not considered to be in alignment with the standard EAL scheme as it specifically excludes expected consideration of the threshold.
12	MG1 MS1	The supporting information related to cross-tied breakers from the previously approved EALs for these sites is important to maintain in this submittal. Explain why it is not, or revise accordingly.
13	MA2, MU3, MU4, MA5, MU5, MG8, MS8, MA8, MU8, MU9, MU10*	<p>The standard EAL scheme required by 10 CFR 50.47(b)(4), and approved by the NRC (NEI 99-01 Revision 5), has these EALs in their own unique table and own unique IC designation for Cold/Refuel EALs. Explain why this EAL deviates from the approved guidance and from the regulatory required standard EAL scheme, or revise accordingly.</p> <p>*MU10 was combined for Cold and Hot operating modes. As stated above, the staff expects an IC/EAL for each.</p>

Exelon EAL Upgrade Project
 NRC Request for Additional Information
 Braidwood Station / Byron Station

RAI #	EAL	Question
14	MU8	Explain why deviation from the approved guidance was added related to "...restore and maintained..." in the Basis information, or revise accordingly. The expectation is that level must be back above the procedurally established limit.
15	MU10	Explain how the NARS and TSO/PJM communication systems suffice for notifying the NRC, or revise accordingly.
16	HU3	<ol style="list-style-type: none"> 1. The standard EAL scheme required by 10 CFR 50.47(b)(4), and approved by the NRC (NEI 99-01 Revision 5), has the timing expectation well defined. Explain the deviation from approved guidance and from the regulatory required standard EAL scheme, or revise accordingly. 2. The standard EAL scheme required by 10 CFR 50.47(b)(4), and approved by the NRC (NEI 99-01 Revision 5), has the explosion EAL without the 'damage' caveat. Explain the deviation from approved guidance and from the regulatory required standard EAL scheme, or revise accordingly for the threshold and for the Basis.
17	HA4 HU4	Provide additional justification for not having any 'other' thresholds as expected from the approved guidance, or revise accordingly.
18	HA5	The Basis information is considered to be a deviation from the approved guidance and contrary to the regulatory requirement for a standard EAL scheme. The information from the approved guidance, particularly the 3 rd paragraph, states the staff's expectations for this EAL. The 3 rd and 4 th paragraphs in your submittal conflict with that expectation. Provide sufficient justification for the deviation, or revise accordingly.
19	HU5	The 4 th and 7 th paragraphs of your Basis information are a deviation from the approved guidance. Provide additional detail justifying deviation, or revise accordingly.