

EPFAQ Number: 2015-012

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Relevant Guidance: NEI 99-01 REV. 6

Applicable Section(s): VARIOUS

Status: Public Comment Period

QUESTION OR COMMENT:

Some plant parameter information and data may not be available in the Control Room and must be obtained from other remote or locally read sources. Can this type of information and data source be used in an Emergency Action Level (EAL)?

PROPOSED SOLUTION:

The overriding consideration is to develop EALs that can support 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,” as required by 10 CFR 50, Appendix E, Section IV.C.2. In support of this requirement, emergency classification scheme developers should specify EAL parameter information and data that can be read in the Control Room, or readily determined at another remote location or locally and made available to the Control Room. To illustrate this expectation, it would normally be acceptable to specify the following information and data sources in an EAL:

- An indication located anywhere inside the Control Room;
- An indication located outside the Control Room but within close proximity such that operators could obtain the data themselves. For example, a fire alarm zone panel that is located just outside the Control Room doors;
- An indication located outside the Control Room and not within close proximity but that can be determined and provided to the Control Room staff within a time frame sufficient to support an emergency declaration within 15 minutes of other indications or reports of an off-normal condition. For example, a reading from a Continuous Air Monitor located on the refueling deck.

Emergency classification scheme developers should confirm that personnel can assess all EAL parameters under the environmental conditions that would likely prevail at the time of the emergency assessment and response. For example, the use of water level markings available on a building wall to support a flooding assessment may be used as a flooding EAL threshold provided that the ability of personnel to safely and reliably obtain the readings during potential flood-related conditions is verified.

With respect to the last bullet above, NEI 99-01, Revision 6, contains three generic EALs that make use of wide-range spent fuel level instrumentation installed to meet the requirements of NRC Order EA-12-051 (ADAMS Accession No. ML12054A679). The guidance documents associated with this Order allow licensees latitude in the design and operation of the instrumentation. For example, the instrumentation may be operable only during an event involving an extended loss of AC [alternating current] power (i.e., actions are taken at the time of the emergency to place the instrumentation in service). In addition, the level indications may be available in the Control Room or at an in-plant location, and determined in accordance with procedures and guidelines used only under certain circumstances. As a result, there may be cases where the acquisition of wide-range spent fuel pool level readings will require more than 15 minutes from an indication or report of an off-normal condition; however, these EALs should

still be included as they provide a redundant path for escalating an emergency classification during a beyond design basis event. The Developer Notes for these EALs encourage developers to ensure that their EALs and Bases reflect any site-specific constraints or limitations associated with the design or operation of the instrumentation. This will allow the NRC staff reviewer of an EAL scheme conversion submittal to understand how the site-specific instrumentation will be used.

NRC RESPONSE:

This question has been addressed in NRC Interim Staff Guidance (ISG) NSIR/DPR-ISG-01, "Emergency Planning for Nuclear Power Plants," (ADAMS Accession No. ML113010523). EPFAQs are not to be used to reconsider staff decisions made during inspections or rulemaking activities. The ISG explains the staff's expectation related to EAL declaration timing, and the associated instrumentation used as thresholds.

However, the ISG does not preclude the development of EALs that may use other instrumentation, i.e., outside the Main Control Room, if advantageous to the entire EAL scheme. The timing of the EAL declaration should be discussed within the basis section of the applicable EAL. The expected timing of the declaration should be limited to a reasonable amount of time, e.g., "...within 30-minutes," in order to ensure that the event is declared within a reasonable amount of time. The staff must approve this approach as part of a license amendment request for prior approval. In many cases, the staff can approve EALs that use instrumentation outside of the Control Room envelope, or otherwise take time to determine, if by doing so the overall EAL scheme is enhanced and the wording of the EAL provides a reasonable expectation for timeliness by specifying a time window for classification.

This is considered a "deviation" in accordance with Regulatory Issue Summary (RIS) 2003-18, Supplement 2, *"Use of Nuclear Energy Institute (NEI) 99-01, Methodology for Development of Emergency Action Levels, Revision 4,"* dated January 2003.