

Efficiency Opportunity



December 17, 2018

Efficiency Opportunity: 18–EP–02

Evaluate incorporating the Emergency Response Organization (ERO) staffing guidance from NUREG-0654, Revision 2, into the site emergency plan, and revise the plan as appropriate

Incorporation of new staffing guidance may provide an opportunity to streamline the size of the ERO, including both the on-shift and augmenting staff.

Issue: Current site EROs are generally based on guidance from 1980 presented in Table B-1 of NUREG-0654, Revision 1, and have evolved to address the operating experience from training, drills and exercises conducted since startup and initial operation. Over time, the emergency preparedness community has learned many lessons related to ERO staffing and augmentation, and benefitted from significant advancements in technology. For these reasons, some sites may have EROs that are larger than is necessary to perform required emergency preparedness functions, resulting in unwarranted expenditures of site resources.

Summary of Efficiency Opportunity

- The U.S. Nuclear Regulatory Commission (NRC) is expected to issue Revision 2 of NUREG-0654, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," in 2019. This revision updates Table B-1, "Emergency Response Organization (ERO) Staffing and Augmentation Plan," to address the many improvements and lessons learned by both licensees and the NRC since 1980. The updated table offers several opportunities to rebaseline ERO staffing, including on-shift positions, and allows greater flexibility in managing changes to ERO positions.
- Although NUREG-0654, Revision 2, has not been formally issued, the NRC staff has made the ERO staffing guidance contained in the document available for use on an interim basis and encouraged licensees to consider it when developing updated ERO staffing plans.

Relevant Standards

None

Relevant Regulatory Requirements

- 10 CFR 50.47(b)(2)
- 10 CFR Appendix E, Section IV.A
- 10 CFR 50.54(q)

Guidance

- NUREG-0654/FEMA-REP-1, *Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants*, Revision 2 (Pre-decisional Draft ML14163A605)
- NRC NSIR/DPR-ISG-01, *Interim Staff Guidance, Emergency Planning for Nuclear Power Plants*, Revision 0
- NRC Regulatory Guide 1.219, *Guidance on Making Changes to Emergency Plans for Nuclear Power Reactors*, Revision 1
- NRC Regulatory Issue Summary (RIS) 2016-10, *License Amendment Requests for Changes to Emergency Response Organization Staffing and Augmentation*
- NRC Letter, *Alternative Guidance for Licensee Emergency Response Organizations*, Kahler to Perkins-Grew, dated June 12, 2018 (ML18022A352)
- NEI 10-05, *Assessment of On-Shift Emergency Response Organization Staffing and Capabilities*, Revision 0
- NEI 12-01, *Guideline for Assessing Beyond Design Basis Accident Response Staffing and Communications Capabilities*, Revision 0

Recommended Industry Actions

Each site should evaluate the guidance in NUREG-0654, Revision 2, Table B-1, (or as presented in NRC Letter, *Alternative Guidance for Licensee Emergency Response Organizations*) to determine if implementation is cost-effective. This would entail a comparison of the existing ERO to a future-state ERO and quantification of potential cost savings, with consideration of change-related costs such as the use of a contractor and submittal of a License Amendment Request (LAR). If there are sufficient anticipated savings, then a project plan should be developed to address actions, such as revising the site emergency plan, performing a change evaluation and staffing assessments, submitting an LAR, and implementing the new organization.

Other Actions for Consideration

- Some actions required to implement the new ERO staffing guidance may require the use of contracted support (e.g., to update staffing assessments performed in accordance with NEI 10-05 or NEI 12-01). Project plans should include budgeting for necessary contractor support.

Change Management Considerations

Industry Activities

NEI Emergency Preparedness Working Group (EPWG) to monitor industry implementation, and facilitate sharing of key actions and lessons learned.

Company Actions

- Determine cost-beneficial staffing changes.
- Identify emergency plan changes and prepare a change evaluation in accordance with 10 CFR 50.54(q); the guidance in Regulatory Guide 1.219 should be followed when preparing the evaluation.
- Update on-shift ERO staffing assessment required by 10 CFR 50 Appendix E (Section IV.A.9); the guidance in the NRC NSIR/DPR-ISG-01 and NEI 10-05 should be followed to perform this assessment.
- Determine the impact of proposed staffing changes on the ability to implement beyond-design-basis mitigation strategies (e.g., FLEX strategies) by reviewing the existing staffing assessment and update as necessary; the guidance in NEI 12-01 is typically followed to perform this assessment.
- Consider uses of technology to support performance of an emergency preparedness function; review the examples provided in RIS 2016-10.
- Prepare and submit an LAR, and receive NRC approval.
- Revise procedures and train personnel as necessary.

Guidetrails

- Based on NRC guidance and/or review comments, there may be cases where staffing “trade-offs” are necessary to move forward. For example, securing an extended response time for some augmenting ERO positions may require an additional on-shift staff resource.

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