

Change Summary

The revision of NUREG-0654/FEMA-REP-1, Rev. 1 encompassed updating and modernizing general emergency planning information pertinent to commercial nuclear power plants, while refocusing the evaluation criteria on overall emergency preparedness (EP) program capabilities deemed essential to meet each of the EP planning standards found in NRC regulations at 10 CFR 50.47(b) and FEMA regulations at 44 CFR 350.5(a). The following is a high-level summary of the changes made to the document.

SECTION I: INTRODUCTION

Overall, Section I has been updated and modernized.

- Current Presidential and FEMA emergency planning and preparedness doctrine, such as the National Preparedness System, were added. References to the Nuclear/Radiological Incident Annex (NRIA) to the Federal Interagency Operational Plans (FIOPs) and the National Planning Frameworks were also included.
- The document was revised to include tribal governments as potential participants in the offsite response and recovery structure.
- Document usage is addressed for those entities applying for licenses, beginning EP programs, or maintaining current programs, as well as NRC and FEMA reviewers of emergency plans and preparedness programs.
- Clarification was added on the use of alternative approaches to meet the EP planning standards in a manner that is different from what the evaluation criteria recommend. Additionally, the relationship of this document to other NRC and FEMA guidance was described.

SECTION II: PLANNING STANDARDS AND EVALUATION CRITERIA

The majority of the changes to this Section were made to clarify the evaluation criteria and ensure the evaluation criteria address overall EP program capabilities rather than specific implementation methods.

- Information that was deemed too detailed was moved to the FEMA REP Program Manual and is reflected in various NRC guidance documents.
- Evaluation criteria that were considered redundant to regulation were removed, except in those instances where additional emphasis was deemed appropriate.
- Evaluation criteria were added to address EP program capabilities related to new regulatory requirements put in place since Rev. 1 was issued in 1980.

- The planning standard language was updated to align with the language in 10 CFR 50.47(b).
- All previously issued supplements, appendices, and the addenda have either been folded into the document and the FEMA REP Program Manual or are reflected in various NRC guidance documents as noted under Additional Information (page 6 in this *Change Summary*).
- Outdated references, terminology, and titles were removed in an effort to maintain “timeless” language. Specific references are listed in *Section III: Resources* of the new document and the FEMA REP Program Manual or are reflected in various NRC guidance documents.
- The evaluation criteria were written without the use of the words “should” and “shall” to avoid implying that some evaluation criteria are requirements because NUREG-0654/FEMA-REP-1, Rev. 2 is a guidance document.

Introduction

- The format of NUREG-0654/FEMA-REP-1 was updated to include colored boxes to indicate each evaluation criterion’s applicability, across four categories: (1) NRC applicants/licensees and organizations at the (2) state, (3) local, and (4) tribal government levels.
- Colored and labeled boxes indicate that the corresponding evaluation criterion *may be* applicable to organizations in that category. There can be exceptions or variations to the actual implementation within emergency plans.
- Explains that users of this document will find more specific guidance in the current edition of the FEMA REP Program Manual and various NRC guidance documents listed in *Section III: Resources*.

Planning Standard A

- Editorial changes were made to several evaluation criteria to improve clarity.
- The provision for providing the legal basis for authorities pertaining to emergency response was broadened to include delegation of responsibilities and authorities to state, local, and tribal governments.
- Detailed information regarding documentation of agreements among response and support organizations was relocated to the FEMA REP Program Manual and is reflected in various NRC guidance documents.

Planning Standard B

- Evaluation criteria were added to ensure licensees and applicants develop onsite emergency response organizations (EROs) in accordance with applicable NRC regulations, and that EP functions are not assigned to individuals who may have competing tasks.
- The evaluation criterion regarding identification of local support agencies was moved to Planning Standard C to better align with the intent of the planning standard.
- Table B-1 was revised to clarify existing and add new onsite EP functions, remove on-shift staffing numbers to recognize that on-shift staffing levels will be determined by site-specific on-shift staffing analyses, eliminate the column for 30-minute augmented staffing, and provide additional clarifying notes for developing and documenting the on-shift and ERO augmentation staffing plan.

Planning Standard C

- Evaluation criteria were expanded to include all resources that could be provided from a variety of sources and not just those provided by the Federal government.
- Provisions for supporting offsite resources responding to the nuclear power plant site were added.
- Arrangements for integrating the licensee's response with the NRC response centers and site team are now addressed.
- Provisions for activating the NRC's Emergency Response Data System were added.

Planning Standard D

- Provisions were added for ensuring the emergency classification level and emergency action level scheme conforms to NRC regulations and appropriate guidance is used for developing emergency action levels, including discussion with and agreement by offsite response organizations (OROs) and an annual review between all parties.
- An evaluation criterion was added to ensure that licensees have 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 met or exceeded.

Planning Standards E and F

- Overall terminology was updated and changes were made to reflect the updated requirements that were part of the NRC's 2011 EP rulemaking.
- Timely supplemental information updates are now addressed in Planning Standard E.
- Detailed information regarding emergency notification content was relocated to the FEMA REP Program Manual and is reflected in various NRC guidance documents.

Planning Standard G

- Detailed information regarding the content of public information materials and public information programs was relocated to the FEMA REP Program Manual and is reflected in various NRC guidance documents.
- Introduces the use of joint information system (JIS) concepts for coordination and dissemination of information to the public and the media.
- The need for information to be disseminated using multiple methods to include non-English translations per current Federal guidance is more specifically addressed.

Planning Standard H

- An evaluation criterion was added to address licensee provisions for an alternative facility that would be accessible during hostile action.
- An evaluation criterion regarding the location of the Joint Information Center was added.
- Provisions for OROs to identify an alternate emergency operations center were added.

Planning Standard I

- The evaluation criterion regarding radiological assessment capabilities was revised to address events occurring at multiple units at a plant site simultaneously.
- Additional specific parameters needed for performing radiological assessments were added.
- An evaluation criterion was added to address OROs accounting for methods to assess contamination of drinking water through liquid release pathways or deposition of airborne materials for a nuclear power plant located on or near a body of water from which public drinking water is drawn. This revision was made in response to the drinking water protective action guides (PAGs) released by the Environmental Protection Agency (EPA) in 2017.

Planning Standard J

- Provisions were added for emphasizing that the latest evacuation time estimate (ETE) information is incorporated into emergency plans and considered in the development of a site-specific protective action strategy.
- Evaluation criteria addressing relocation concepts are now addressed more specifically as relocation is considered to be a protective action.

Planning Standard K

- Evaluation criteria were updated to align with current exposure control guidance and address radiation protection briefings.
- Provisions were added to address dosimetry for offsite responders arriving onsite, when needed.

Planning Standard L

- Separate onsite and offsite evaluation criteria for medical services were created due to the range of radiological injuries that could occur at a nuclear power plant site.
- Enhancements were made to address radiation overexposure treatment and licensee radiological controls.
- Evaluation criteria were added to address contamination control during transport of patients, as well as decontamination of transport vehicles.

Planning Standard M

- Information was added to more fully address reentry, recovery, and return planning as well as reoccupancy planning as described in the latest version of the EPA PAG Manual. This includes the addition of “reoccupancy” concepts.
- Further detail was added to address continuity during transfer of responsibility between incident phases and development of sampling plans.

Planning Standard N

- Required biennial exercise scenario elements currently found in NRC regulations have been added.
- Evaluation criteria were added to address various types of drills, including laboratory, ingestion pathway, off-hours report-in, and off-hours call-in drills.
- Evaluation criteria for medical drills have been separated into onsite and offsite activities.
- Clarification was provided for environmental monitoring drills.

Planning Standard O

- The evaluation criteria were simplified to account for the numerous training requirements, programs, and types of training available and necessary to maintain the appropriate level of radiological emergency response knowledge and skills.

Planning Standard P

- A provision was added for tracking and addressing licensee EP program-related issues.
- A provision was added for ensuring licensees evaluate changes in plant configuration for their impact on the effectiveness of the emergency plan.

SECTION III: RESOURCES

- A Resources Section was added. It includes the pertinent NRC and FEMA authorities under which the EP programs for commercial nuclear power plants are regulated. It also includes specific references to other relevant guidance for licensees and state, local, and tribal government organizations.
- Additional key programmatic terms were added to the Glossary.

ADDITIONAL INFORMATION

Additional Components of NUREG-0654/FEMA-REP-1, Rev. 1	Brief Description	Disposition in NUREG-0654/FEMA-REP-1, Rev. 2
Appendix 1 – Emergency Action Level Guidelines for Nuclear Power Plants	Describes the four classes of emergency action levels and associated examples of initiating conditions. Also describes immediate actions to be taken based on the emergency classification level.	Emergency action level and initiating condition information has been replaced by latest version of NRC-endorsed industry guidance (currently NEI 99-01, Rev. 6). Emergency classification level definitions were added to the Glossary in new Section III. Concepts regarding immediate actions to be taken have been addressed in various evaluation criteria.
Appendix 2 – Meteorological Criteria for Emergency Preparedness at Operating Nuclear Power Plants (including Annex 1)	Provides information for complying with meteorological aspects of 10 CFR 50.47.	This information is addressed in NRC Regulatory Guide 1.23, “Meteorological Monitoring Programs for Nuclear Power Plants.”
Appendix 3 – Means for Providing Prompt Alerting and Notification of Response Organizations and the Population	Provides acceptance criteria for design objectives of alert and notification systems; revised in part by Supplement 4.	This appendix is addressed in the FEMA REP Program Manual and is reflected in various NRC guidance documents.
Appendix 4 – Evacuation Time Estimates within the Plume Exposure Pathway Emergency Planning Zone	Provides example of what is included in an evacuation time assessment study.	This appendix is replaced by NUREG/CR-7002.
Appendix 5 – Glossary	Contains a limited collection of terms and definitions.	This information was updated and relocated to the Glossary in new Section III.
Addenda	Contains citations that replace outdated citations referred to in Revision 1 to NUREG-0654/FEMA-REP-1.	The addenda were addressed in the general revision process.

Additional Components of NUREG-0654/FEMA-REP-1, Rev. 1	Brief Description	Disposition in NUREG-0654/FEMA-REP-1, Rev. 2
Supplement 1 – Criteria for Utility Offsite Planning and Preparedness	Provides guidance for the development, review, and evaluation of utility offsite radiological emergency response planning and preparedness for those situations in which state and/or local governments decline to participate in emergency planning.	This information was incorporated into Section I.
Supplement 2 – Criteria for Emergency Planning in an Early Site Permit Application	Provides guidance for the development, review, and approval of radiological emergency information and plans submitted with an early site permit application under Subpart A of 10 CFR Part 52.	This information was incorporated into Section I.
Supplement 3 – Guidance for Protective Action Strategies	Provides a protective action strategy development tool for use by nuclear power reactor licensees to develop site-specific protective action recommendations (PARs) procedures and protective action strategy guidance for OROs' decision-makers. Provides an acceptable method for the use of ETEs in the formulation of PARs for the plume exposure pathway emergency planning zone (EPZ), and provides guidance for the development of a range of PARs. Also provides guidance for the development of a public information program.	This information was incorporated into applicable Planning Standard J evaluation criteria. Additional information is addressed in the FEMA REP Program Manual and is reflected in various NRC guidance documents.
Supplement 4 – Criteria for National Preparedness Initiative Integration, Exercise Enhancement, and Backup Alert and Notification Systems	Provides additional guidance for the development, review, and evaluation of offsite radiological emergency response planning and preparedness. It addresses four issues: (1) aligning the offsite REP Program with national preparedness initiatives under HSPD-5 and PPD-8; (2) preparing for and responding to hostile action-based incidents at NPPs; (3) enhancing scenario realism and reducing negative training and pre-conditioned responses of exercise participants; and (4) ensuring backup means are in place for alert and notification systems.	This information was incorporated into applicable evaluation criteria in Planning Standards E and N. Additional information is addressed in the FEMA REP Program Manual and is reflected in various NRC guidance documents.