The 2019 version of the Federal Emergency Management Agency (FEMA) Radiological Emergency Preparedness (REP) Program Manual (RPM) was modernized to reflect changes that were made to NUREG-0654/FEMA-REP-1, Rev. 2, in addition to keeping up with advancements in the emergency management field. While the entire RPM was updated, there are three Parts where changes were more noteworthy: Parts II, III, and V.

**Part II: REP Program Planning Guidance.** This Part was edited, and drafted where necessary, by the Part II Working Group. The Part II Working Group was comprised of representatives from both the FEMA Regional offices and FEMA Headquarters. This Working Group met frequently throughout the Fall of 2017 and Spring/Summer of 2018 and finalized the first draft during a multi-day, in-person meeting in August 2018. This Part coincides with the newly revised NUREG-0654/FEMA-REP-1, Rev. 2 and provides updated guidance for planning.

**Part III: REP Program Assessment Policies and Guidance.** This Part was developed from the ground up by the four Part III Writing Teams, comprised of representatives from both the FEMA Regional offices and FEMA Headquarters, and builds upon the best practices and lessons learned from the Reasonable Assurance Alignment Framework (RAAF) activities undertaken during the last couple of years. The result is an updated Part III that includes five overarching objectives, 22 capability targets, and the core capabilities.

**Part V: Alert and Notification System Guidance.** This Part was updated to reflect and account for contemporary alert and notification system (ANS) practices. This includes a focus on the capabilities and methods of a jurisdiction’s ANS.

Parts I and IV were restructured to adapt to the changing landscape of FEMA’s National Preparedness System (NPS), in addition to providing updates that reflect current practices specific to FEMA Technological Hazards Division (THD).

The following provides more detail on the revisions made to each Part of the RPM.

**INTRODUCTION TO THE FEMA REP PROGRAM MANUAL**

- This newly developed section was added to address two major concepts: how the RPM is aligned with modern emergency management doctrine and the use of the RPM by each stakeholder group.

**PART I: THE REP PROGRAM**

- A concrete mission statement, specific to FEMA THD, was developed.

- In the Purpose Section, clarifying updates were made to the alternative approaches and reasonable assurance language to align with their usage and definitions within NUREG-0654/FEMA-REP-1, Rev. 2.

- The Scope of the document was revised to reflect changes made to the assessment-related portions of the RPM.
The Basis of the REP Program section was completely revised and now outlines the establishment of the REP Program and its interconnectedness with the Nuclear Regulatory Commission (NRC). It also discusses current REP Program initiatives such as alignment with NUREG-0654/FEMA-REP-1, Rev. 2; the REP Program assessment strategy; and the updated ANS guidance.

Finally, general updates were made to better align with the January 2017 version of the United States Environmental Protection Agency (EPA) Protective Action Guide (PAG) Manual: Protective Action Guides and Planning Guidance for Radiological Incidents (EPA-400/R-17/001).

PART II: REP PROGRAM PLANNING GUIDANCE

Overall

- Evaluation criteria were updated to reflect changes to language in NUREG-0654/FEMA-REP-1, Rev. 2.
- Throughout this Part, editorial revisions were made to clarify or remove overly specific guidance; particularly guidance that focused on specific methods, or the “how.”
- The references were refreshed and updated. Outdated references were transferred to Appendix D and terminology was modernized.

Planning Standard A

- Details regarding letter(s) of agreement (LOAs) were moved to this section. This includes references to Emergency Response Support and Resources Agreements, Accident Assessment Agreements, Medical and Public Health Support Agreements, and all laboratory agreements.

Planning Standard C

- Expanded to account for all suppliers of emergency response support and resources, and not just those from the Federal government.

Planning Standard D

- Emergency classification level (ECL) definitions were standardized to those used by the NRC and industry.

Planning Standard E

- Language was updated to reflect current ANS practices.
- There was a deliberate move to make this guidance more process-oriented to emphasize alert and notification methods, procedures, and capabilities instead of particular types of systems.

Planning Standard F

- Edits were made to reflect modern concepts and terminology.

Planning Standard G

- Concepts from Supplement 3 of NUREG-0654/FEMA-REP-1, Rev. 1 were added to this section.
- Introduces the use of joint information system (JIS) concepts for coordination and dissemination of information to the public and the media.
Planning Standard H
- Total effective dose equivalent (TEDE) was changed to total effective dose (TED) where applicable, to align with the 2017 EPA PAG Manual.
- Planning for an alternate emergency operations center (EOC) for those locations where the primary EOC is located within the plume exposure pathway emergency planning zone (EPZ) was formalized.
- Clarified language to ensure radiological survey instruments are checked on a specific basis, relative to how often they are used.

Planning Standard I
- New guidance regarding methods for assessing contamination of drinking water for a nuclear power plant (NPP) located on or near bodies of water from which public drinking water is drawn was added in response to the EPA drinking water PAGs.

Planning Standard J
- Concepts from Supplement 3 of NUREG-0654/FEMA-REP-1, Rev. 1 were added to this section.
- The means for registering, monitoring, and decontaminating service animals and pets at reception centers located outside the plume exposure pathway EPZ are now addressed.
- Relocation plans and activities were moved from planning standard M to planning standard J as they are considered protective actions.

Planning Standard K
- Guidance for the accounting of occupational dose limits is now included.
- Considerations for dosimetry and potassium iodide (KI) for offsite emergency workers during a hostile action-based (HAB) incident, particularly when those emergency workers may be needed onsite, have been more explicitly described.

Planning Standard L
- The handling of contaminated, injured emergency workers and members of the general public is more specifically addressed.
- Guidance more specifically addresses contamination control during transport and decontamination of transport vehicles.

Planning Standard M
- Guidance for reoccupancy was added to align with concepts introduced in the 2017 EPA PAG Manual.
- Transfer of responsibility between incident phases is now addressed.
- References to and discussion of the Price-Anderson Nuclear Industries Indemnity Act (Price-Anderson Act) were included.

Planning Standard N
- Guidance from Supplement 4 of NUREG-0654/FEMA-REP-1, Rev. 1 was added to this section.
- Guidance to support the addition of the Laboratory and Ingestion Pathway and Post-Plume Phase drills was added.
Planning Standard O

- The overly specific guidance regarding the many types of training available for those that participate in the REP Program was generalized to allow for more flexibility, though this should not be considered a relaxation of the requirements.

Planning Standard P

- No significant changes were made.

PART III: REP PROGRAM ASSESSMENT POLICIES AND GUIDANCE

- A new assessment strategy was developed that includes objectives, capability targets, and core capabilities. Planning and preparedness are assessed over the biennial assessment period, which generally coincides with the 2-year exercise cycle.

- There are five overarching objectives: **Objective 1:** Emergency Operations Management, **Objective 2:** Exposure Control, **Objective 3:** Alert and Notification, **Objective 4:** Detect, Measure, Sample, Analyze, and Assess, and **Objective 5:** Operate.

- Under each objective, there are multiple capability targets that align with the planning standards found in FEMA’s regulations at 44 CFR 350.5 and the NUREG-0654/FEMA-REP-1, Rev. 2 evaluation criteria.

- There are two new tools that support the new assessment strategy:
  - **Work Plan.** A jointly-developed assessment strategy between FEMA and the offsite response organization (ORO) that guides all the activities to be evaluated throughout the biennial assessment period.
  - **Biennial Preparedness Report.** This is a FEMA-developed report that compiles all the assessment activities accomplished, and describes the overall assessment of offsite preparedness by core capabilities for the entire biennial assessment period.

PART IV: FEMA REP PROGRAM ADMINISTRATION

- Many sections throughout this Part were updated to align with current guidance, particularly NUREG-0654/FEMA-REP-1, Rev. 2, the 2017 EPA PAG Manual, and the FEMA Tribal Policy.

- The REP Exercise Process Milestones and Frequencies section was added to provide quick reference to the recommended timeline for completing exercise development, conduct, evaluation, and reporting activities as well as a breakdown of the various activities that need to occur within an 8-year exercise cycle.

- The Annual Letter of Certification, Plan Review, and Public Information Review Guide guidance remains in Part IV, however the checklists associated with these processes have been updated to align with the objectives/capability targets from the new assessment strategy and can now be found in the REPP RPM Implementation Community within the Preparedness Toolkit (PrepToolkit).

- The sections listed below were removed for the following reasons:
  - **Regulatory Summary.** Given the pending revision of the regulations, and subsequent public comment period, it was decided that a summary of the current regulations provided little utility.
  - **Non-Participating State, local, and Tribal governments (NUREG-0654/FEMA-REP-1, Supplement 1).** This information shifted to the Introduction where the licensee ORO concept is addressed for situations where the state, local, and/or tribal governments “decline or fail” to participate in the REP Program.
• Early Site Permit (ESP) Applications (NUREG-0654/FEMA-REP-1, Supplement 2). This information is addressed in Parts I and IV under discussion of the FEMA/NRC Memorandum of Understanding and Plan Reviews.

• Protective Action Strategies (NUREG-0654/FEMA-REP-1, Supplement 3). This information was accounted for under guidance found for planning standard J in Part II.

• Exercise Methodology, More Challenging Drills and Exercises, and Backup Alert and Notification Requirements (NUREG-0654/FEMA-REP-1, Supplement 4). This information is accounted for under guidance found for planning standards E and N in Part II.

• Demonstration Considerations for No/Minimal Release Scenarios. The guidance provided is accounted for as part of the Work Plan and extent-of-play agreement discussion described in Part III.

• Integration of REP Demonstration Criteria and Core Capabilities. This section has been replaced by the new assessment strategy and guidance found in Part III.

• Submitting Best Practices on the FEMA Website. This section was removed as this process is now defunct.

PART V: REP PROGRAM ALERT AND NOTIFICATION SYSTEM GUIDANCE

- Guidance was modernized to accommodate new ANS technologies.
- A graphic was added that depicts the review and approval process for submitted ANS evaluation reports.
- FEMA, licensee, and ORO roles and responsibilities are more explicitly defined.
- There is new ANS Evaluation Report Guidance that provides direction on completing the various sections of the report.
- The ANS Evaluation Report template can be found in the REP Policy and Doctrine Community within the PrepToolkit.

APPENDICES

- All appendices were updated to reflect the revisions to the Manual to include the deletion/addition of abbreviations, acronyms, and terms, addition of new references, retirement of outdated references, and an update to reflect the current fleet of commercial NPPs.

ADDITIONAL INFORMATION

- The phrase 'tribal government' was added throughout the text to more appropriately account for them as potential participants in the offsite response and recovery structure.
- Throughout the text, the word 'emergency' was replaced by 'incident,' where appropriate, to be more encompassing since not all incidents are considered to be emergencies.
- The term 'shall' was removed throughout the text where there were no regulatory implications supporting its use.
- Language describing individuals with access and functional needs was updated.