



# Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants

Final Report

U.S. Nuclear Regulatory Commission  
Office of Nuclear Reactor Regulation  
Washington, DC 20555-0001

Federal Emergency Management Agency  
Office of National Preparedness  
Washington, DC 20472



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## **Final Report**

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## ADDENDA TO NUREG-0654/FEMA-REP-1, Rev. 1

The following citations replace the outdated citations referred to in Revision 1 to NUREG-0654/FEMA-REP-1. The page, section, and footnote (FN), as appropriate, are given for each original citation. These addenda do not include any citation that is still valid.

1. **Page 2, Section I.B, FN 1 states that agency responsibilities will be promulgated “in the near future” by FEMA.**

FEMA promulgated in 44 CFR 351, Subparts B and C, concerning the responsibilities of other Federal agencies regarding the development and promulgation of guidance for the preparation, review, and testing of radiological emergency response plans.

2. **Page 3, Section I.B refers to the “proposed FEMA rule.”**

FEMA issued final rules on emergency plans and preparedness in 44 CFR Parts 350, 351, 352, 353, and 354.

3. **Page 3, Section I.B, FN 2 refers to future guidance on transportation accidents.**

FEMA issued FEMA-REP-5, Rev. 2, “Guidance for Developing State, Tribal, and Local Radiological Emergency Response Planning and Preparedness for Transportation Accidents,” as a final document in November 2000.

4. **Page 6, Section I.B, FN 3 refers to the “EPA Manual of Protective Action Guides and Protective Actions for Nuclear Incidents,” EPA-52011-75-001, September 1975.**

EPA issued the “EPA Manual of Protective Action Guides and Protective Actions for Nuclear Incidents” as EPA 400-R-92-001 in May 1992, which supersedes this citation.

5. **Page 6, Section I.B, FN 4 refers to “Accidental Radioactive Contamination of Human Food and Animal Feeds,” USDHEW, 43 FR 58790, December 15, 1978.**

The Food and Drug Administration, Department of Health and Human Services, issued “Guidance on Accidental Radioactive Contamination of Human Food and Animal Feeds; Recommendations for State and Local Agencies; Availability,” on August 13, 1998 (63 FR 43402), which supersedes this citation.

6. **Page 9, Section I.D, FN 5 refers to Potassium Iodide as a Thyroid-Blocking Agent in a Radiation Emergency, issued by U.S. Department of Health, Education and Welfare, 43 FR 58798, December 15, 1978.**

The Food and Drug Administration (FDA) issued “Potassium Iodide as a Thyroid Blocking Agent in a Radiation Emergency,” on December 11, 2001 (66 FR 238:64046), which supersedes this citation.

7. **Page 14, Section I.D, FN 7 refers to guidance being prepared by an interagency Task Force on Emergency Instrumentation (offsite) for offsite radiation measurement systems, accident assessment techniques, and the type and quantity of instruments needed for the various exposure pathways.**

FEMA issued FEMA-REP-2, Rev. 2, "Guidance on Offsite Emergency Radiation Measurement Systems, Phase 1 Airborne Release," in June 1990.

8. **Pages 27-28, Section 1.1 discusses the development of a National Radiological Emergency Preparedness Plan.**

FEMA issued the Federal Radiological Emergency Response Plan (FRERP) on May 8, 1996 (61 FR 20944).

9. **Page 40, Section II.C.1 refers to a Federal Radiological Monitoring and Assessment Plan, the former Radiological Assistance Plan (RAP), and the Interagency Radiological Assistance Plan (IRAP).**

FEMA issued the Federal Radiological Emergency Response Plan (FRERP) on May 8, 1996 (61 FR 20944), which supersedes these documents.

10. **Page 45, Section II.E.5 refers to the Emergency Broadcast System (EBS).**

The Emergency Broadcast System (EBS) was replaced by the Emergency Alert System (EAS) by a Report and Order that the Federal Communications Commission issued on December 28, 1994 (59 FR 67090).

11. **Page 46, Section II.E.7 refers to the "Respiratory Protective Devices Manual," pages 123–126, issued in 1963 by the American Industrial Hygiene Association, for ad hoc respiratory protection.**

The current Respiratory Protective Devices Manual (2nd edition) and the forthcoming 3rd edition do not contain a similar table for ad hoc respiratory protection; however, according to the American Industrial Hygiene Association, it is still correct to refer to the 1963 manual as the most recent version of the Respiratory Protection Manual that contains the ad hoc respiratory protection table.

12. **Page 52, Sections II.H.1 and II.H.2 refer to NUREG-0696, Revision 1.**

"Revision 1" should be deleted; NUREG-0696 has not been revised.

13. **Page 56, Section II.I.2 refers to NUREG-0578, "TMI-2 Lessons Learned Task Force Status Report and Short-Term Recommendations," July 1979, and the NRC letter to licensees, dated October 30, 1979, on accident assessment and in-plant radiation monitoring.**

NUREG-0737, "Clarification of TMI Action Plan Requirements," November 1980, and Supplement 1 to NUREG-0737, January 1983, supersede these citations.

14. **Page 59, Section II.J, Protective Response Planning Standard.**

On January 19, 2001, the NRC issued a final rule amending this planning standard to insert the following sentence after the first sentence in the planning standard: "In developing this range of actions, consideration has been given to evacuation, sheltering, and, as a supplement to these, the prophylactic use of potassium iodide (KI), as appropriate." (66 FR 5427)

15. **Page 60, Section II.J.7 refers to EPA PAG Manual EPA-52011-75-001.**

EPA issued EPA-400-R-92-001, May 1992, which supersedes this document.

16. **Page 61, Section II.J.9 refers to EPA-52011-75-001 regarding exposure resulting from passage of radioactive airborne plumes and the DHEW (new DHHS), FDA, Federal Register notice of December 15, 1978 (43 FR 58790) regarding radioactive contamination of human food and animal feeds.**

EPA issued EPA-400-R-92-001, May 1992, which supersedes EPA-52011-75-001. The Food and Drug Administration (FDA), Department of Health and Human Services (DHHS), issued "Guidance on Accidental Radioactive Contamination of Human Food and Animal Feeds, Recommendations for State and Local Agencies, Availability," on August 13, 1998 (63 FR 43402).

17. **Page 63, FN 1 refers to the DHEW (new DHHS) Federal Register notice of December 15, 1978, "Potassium Iodide as a Thyroid-Blocking Agent in a Radiation Emergency."**

The Food and Drug Administration (FDA) issued "Potassium Iodide as a Thyroid Blocking Agent in a Radiation Emergency," on December 11, 2001 (66 FR 238:64046), which supersedes this citation.

18. **Page 64, FN 2 refers to 1977 and 1978 documents on protection afforded by sheltering.**

EPA issued EPA 400-R-92-001 in May 1992, which supersedes this citation.

19. **Page 66, Section II.K.1 refers to EPA Emergency Worker and Lifesaving Activity Protective Action Guides in EPA 52011-751001.**

EPA issued EPA 400-R-92-001 in May 1992, which supersedes this citation.

20. **Page 67, Section II.K.6.c refers to Draft ANSI 13.12 for permitting return of areas and items to normal use.**

EPA PAG Manual, EPA 400-R-92-001 (see items 16 and 17), and the Food and Drug Administration, DHHS, "Guidance on Accidental Radioactive Contamination of Human Food and Animal Feeds: Recommendations for State and Local Agencies," dated August 13, 1998 (63 FR 43402) supersede this citation.

21. **Page 70, Section II.M.2 refers to the recovery organization recommended by the Atomic Industrial Forum's "Nuclear Power Plant Emergency Response Plan," dated October 11, 1979.**

"Functional Criteria for Emergency Response Facilities," NUREG-0696, issued on February 1981, and "Clarification of TMI Action Plan Requirements, Requirements for Emergency Response Capability," NUREG-0737, Supplement No. 1, issued January 1983, supersede this citation.

22. **Appendix 1, page 1-3 Basis for Emergency Action Levels for Nuclear Power Facilities, page 1-16, State and Local Offsite Authority Actions, Item No.3, and pages 1-17 to 1-19, Example Initiating Conditions: General Emergency.**

Supplement 3, "Criteria for Protective Action Recommendations for Severe Accidents," Draft Report for Interim Use and Comment to NUREG-0654/FEMA-REP-1, Rev. 1, issued July 1996, supersedes these cited pages.

23. **Appendix 2, page 2-2 refers to "proposed Revision 1 to NRC Regulatory Guide 1.23" for acceptance criteria for meteorological measurements.**

Supplement 1 to NUREG-0737, "Clarification of TMI Action Plan Requirements," January 1983, supersedes this citation.

24. **Appendix 3, page 3-8 refers to "Outdoor Warning Systems Guide," Report No. 4100, by Bolt, Beranek, and Newman, Inc., June 1979 (FEMA publication no. CPG-1-17).**

"Guide for the Evaluation of Alert and Notification Systems for Nuclear Power Plants," FEMA-REP-10, November 1985, supersedes this citation.

25. **Appendix 3, Section C.4.a, page 3-13 refers to the Emergency Broadcast System (EBS).**

The Emergency Broadcast System (EBS) was replaced by the Emergency Alert System (EAS) by a Report and Order of the Federal Communications Commission issued on December 28, 1994 (59 FR 67090).