

Summary of Changes to UMLRR Emergency Plan Rev. 8, May 31, 2023
University of Massachusetts Lowell Research Reactor - Docket 50-223, License R-125

Number designations refer to specific location in the UMLRR Emergency Plan

1.0 – Introduction:

Corrects 10CRF50 with 10CFR50.

1.2 – Facility Description; 1.4 – Site Description; 2.0 – Definitions (2.1 Site, 2.2 Facility, 2.4 Reactor Containment Building, 2.5 Operations Boundary, and 2.11 Emergency Planning Zone); and 6.0 – Emergency Planning Zone:

The term "containment" is removed and replaced with "reactor building" for consistency with the renewed license Technical Specifications.

2.0 – Definitions (2.7 Emergency Action Levels; 2.10 Emergency Plan; 2.12 Emergency Plan Procedures; and 2.21 Shall, Should, and May):

These definitions have been revised with wording consistent with ANSI/ANS 15.16-2105 definitions. Adds definition 2.18 Protective Action Guides.

3.1.1 Emergency Director; 3.1.3 Radiation Safety Officer; and 3.1.4 Reactor Operator:

Substitutes personal pronouns with titles.

3.1.7 Radiation Safety Office:

Substitutes Radiation Safety Officer with RSO.

3.1.8 University Public Relations Office:

The name of the organization has changed to University Media Relations Office.

3.1.10 City of Lowell Fire Department and 3.1.11 Ambulance Service:

Due to the volition of either organization to accept or decline training, the descriptions are revised to indicate training is offered biennially.

3.1.13 Medical Facilities; 7.1 Notification; and 10.1 Training:

Changes references to Saints Memorial Hospital in these sections to Lowell General Hospital due to a merger of the hospitals.

3.2.1 US Nuclear Regulatory Commission:

Adds "Headquarters Operation Center" for specificity.

3.2.2 Commonwealth of Massachusetts:

Clarifies the notification is made for a radiation emergency classified as Alert.

3.3 Termination of an Emergency:

Section 3.3 and 3.4 are essentially the same, possibly due to an editing error in an earlier revision. The change to 3.3 clarifies that termination of an emergency is the responsibility of the Emergency Director and removes the redundancies with section 3.4.

3.4 Authorization for Reentry:

Substitutes personal pronoun with title and changes the word “insure” to “ensure”.

4.2 Unusual Event:

Changes the heading to “Notification of Unusual Events (NOUE)” consistent with ANSI/ANS 15.16-2015.

4.3 Alert:

Revises the description of Alert for consistency with the description in ANSI/ANS 15.16-2015.

Table II – Emergency Classification Guide:

Changes the heading to “Emergency Classes” consistent with ANSI/ANS 15.16-2015.

Table II – Notification of Unusual Events:

Revises action levels to be consistent with those in ANSI/ANS 15.16-2015.

Table II – Alert:

Revises action levels to be consistent with those in ANSI/ANS 15.16-2015.

7.1 Notification:

Edited to clarify that not all emergency team members may be alerted by the alarm and may need to be summoned by telephone.

7.2.1 Fixed Instrumentation:

Changes references to six-month calibration intervals to annual consistent with the renewed reactor license Technical Specifications.

7.2.3 Assessment in the Event of the Failure of Fixed Instrumentation:

Changes “filter tape” is to “filter” to reflect current equipment.

7.3 Corrective Actions:

Clarifies that corrective actions are presented in the implementing procedures and that the procedures are listed in Appendix A.

7.4 Personnel Accountability:

Edited for clarity and updated for current practices. The operations schedule is non-specific and does not provide the best practice for identifying which staff are in the reactor building. Removing the terms "dosimetry" and "book" allows for flexibility to use various methods of maintaining entry/exit logs.

7.4.2 Notification of Persons within the Reactor Building:

Edited to clarify the alarm activated from the external location sounds in the control room.

7.6.1 Protective Clothing/Supplies:

Adds detail regarding the types of protective clothing available. Deletes the reference to respiratory protection consistent with the facts that no credit is taken for the use of respiratory protection and a respirator fitting program is not in place.

7.6.2 Dosimetry:

Substitutes the term "film badges" with "dosimetry" for flexibility of type.

8.1 Emergency Support Center:

Editorial correction removes "the" in first sentence of 3rd paragraph.

8.2.1 Fixed and Portable Monitoring Equipment:

First sentence editorial correction replaces "gas" with "particulate". Adds the term "gamma" to the scintillation detector capability. Second sentence is revised for current gaseous monitor using a scintillator versus GM detector.

8.2.2 Sampling Equipment:

Revises description of the air pump as capable of operating with AC or DC power. Removes the reference to a battery-operated pump.

8.2.3 Laboratory Equipment for Specific Radionuclide Identification:

Substitutes "gas flow proportional counter" with the generic term "sensitive detector" to allow for equipment flexibility in the assay of alpha and/or beta emitting radioactivity. Removes the term "intrinsic" associated with germanium detector and adds "or equivalent" to allow for equipment flexibility in the assay of gamma emitting radioactivity.

8.4.1 Notification of Emergency Team Personnel:

Edited to clarify that not all emergency team members may be alerted by the alarm and may need to be summoned by telephone.

Summary of Changes to UMLRR Emergency Plan Rev. 8, May 31, 2023
University of Massachusetts Lowell Research Reactor - Docket 50-223, License R-125

8.5 Information to be Transmitted in Notification to the U.S. NRC and the Massachusetts Department of Public Health:

Removes the statement notification is made “Following the onset of an emergency situation” to maintain consistency with 10CFR and the reactor license technical specifications reporting requirements. The list of information to be transmitted has been edited to be more consistent with NRC Form 361N “Non-Power Reactor (NPR) Event Notification Worksheet”.

8.6 Inventory of Emergency Equipment and Supplies:

Removes #3 “respiratory protective gear” consistent with the revision to 7.6.1. Revises #5 consistent with the revision to 8.2.2. Removes #9 for security reasons.

9.0 Recovery Operations:

Substitutes personal pronoun with title.

10.1 Training:

Due to the volition of the organizations to accept or decline training, the description is revised to indicate training is offered biennially.

10.4 Emergency Equipment Maintenance and Surveillance:

Changes “insures” to “ensures”.

Appendix A – List of Emergency Plan Procedures:

Changes the title of EP-5 for consistency with revision to Table II NOUE. Removes EP-7 as this procedure is encompassed by procedure EP-1. Removes EP-13 as this procedure is encompassed by procedure EP-9. Renumbers procedures due to deletions. Adds new procedure EP-12 for consistency with revision to Table II Alert.

Appendix B Implementing Procedures:

The implementing procedures have been removed from the document per Reg Guide 2.6-C.5.

End of Summary