

DMB

FEB 28 1985

Docket No. 50-186

University of Missouri
ATTN: Dr. Robert M. Brugger
Director, Research
Reactor Facility
Research Park
Columbia, MO 65201

Subject: Emergency Preparedness Appraisal

Gentlemen:

To verify that licensees have attained an adequate state of onsite emergency preparedness, the Office of Inspection and Enforcement is conducting special appraisals of the emergency preparedness programs at research and test reactors with an authorized power level of 2 MW(th) or more. The objectives of the appraisal are to evaluate the overall adequacy and effectiveness of emergency preparedness and to identify areas of weakness that need to be strengthened.

During the period February 5-7, 1985 the NRC conducted a special appraisal of the emergency preparedness program at the University of Missouri Research Reactor Facility (MURR). Areas examined during this appraisal are described in the enclosed report (50-186/85-002).

No noncompliances or deviations were identified as a result of this appraisal.

The findings of this appraisal identified several emergency planning deficiencies that should be addressed to ensure that adequate implementation of the MURR emergency preparedness program. These items include the incorporation of additional Emergency Action Levels, additional clarification in the areas of evacuation and accountability, provisions for personnel monitoring equipment and required training. These items are identified as Emergency Planning Deficiencies and are listed in the enclosed Appendix A. Upon acceptable correction of these deficiencies, the NRC finds that there is reasonable assurance that the licensee's emergency response organization can and will protect the health and safety of the public and employees during a radiological emergency.

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The findings also indicate that there are several items in your emergency preparedness program which need improvement, and these items are listed in the enclosed Appendix B. These improvements are areas which we feel, based on professional judgment, should be corrected.

You are requested to submit a written statement within forty-five days of the date of this letter, describing your planned actions for completing each of the items identified in Appendix A.

In accordance with 10 CFR 2.790 of the Commission's regulations, a copy of this letter, the enclosures, and your response to this letter will be placed in the NRC's Public Document Room.

The responses directed by this letter are not subject to the clearance procedures of the Office of Management and Budget as required by the Paperwork Reduction Act of 1980, PL 96-511.

We will gladly discuss any questions you have concerning this inspection.

Sincerely,

C. J. Paperiello, Chief
Emergency Preparedness and
Radiological Protection Branch

Enclosures:

- 1. Appendix A, Emergency Preparedness Deficiencies
- 2. Appendix B, Improvement Items
- 3. Inspection Report No. 50-186/84-002(DRSS)

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Appendix A

EMERGENCY PLANNING DEFICIENCIES

Based on the results of the NRC's appraisal of the University of Missouri Research Reactor Facility Emergency Preparedness Program, the following is a list of actions which must be taken to correct deficiencies identified regarding the adequate implementation of the Reactor Facility emergency preparedness programs.

1. The following EALs need to be added to the Emergency Procedures:

Unusual Event - threats to or breaches of facility security

- prolonged fire or minor explosion within the facility but nonspecific to the reactor or its control system.
- other plant conditions exist that warrant assuring emergency personnel are available to respond and assuring information will be provided to offsite authorities.

Alert - fire or explosion which might adversely affect the reactor or its safety systems.

- loss of physical control of the facility.
- other plant conditions exist that warrant notification of the emergency staff and activation of the Facility Emergency Organization.

Site Area Emergency - fire compromising the functions of safety systems.

- other plant conditions exist that warrant activation of the Facility Emergency Organization and assistance from offsite support organizations.

(Section 2.2.1)

2. Provide procedures for obtaining and analyzing stack samples under accident conditions. (Section 2.2.1)
3. Inconsistencies in the procedures in regards to the Emergency Coordinator, Duty Operator and surveillance team having responsibility and assigned tasks for evacuation activities need to be corrected. (Section 2.3.2)
4. The procedures need to be revised to accurately reflect how accountability will be implemented and that people will be required to be surveyed for contamination before being allowed to leave the area. (Section 2.3.2)
5. In accordance with 10 CFR Part 20.202, supply appropriate personnel monitoring equipment to personnel entering the facility under circumstances in which it is possible for them to receive a significant dose. Provisions need to be established either in the Emergency Plan or Emergency Procedures to supply the appropriate personnel dosimetry to offsite emergency response personnel. (Section 2.3.3)
6. Provide the required biennial training to the medical support staff in handling contaminated injured persons. (Section 3.2)

Appendix B

IMPROVEMENT ITEMS

Based on the results of the NRC's appraisal of the University of Missouri Research Reactor Facility emergency preparedness program, the following items should be considered for improvement:

1. The original facility emergency procedures should be integrated into the new radiological emergency procedures to provide a single set of procedures for all emergencies. (Section 2.1)
2. The training to personnel responsible for directing emergency response activities should be improved. (Section 2.2.2)
3. Methods to ensure that emergency kit check lists accurately reflect the contents of the emergency kits should be instituted, and any shortages should be noted. (Section 2.3.1)
4. Document control procedures should be instituted to ensure the proper maintenance of inventory records. (Section 2.3.1)
5. The locations and descriptions of decontamination control facilities should be specified in the Emergency Plan. (Section 2.3.1)
6. Periodic training in the use of self contained breathing apparatus should be provided to members of the facility emergency response organization who might be called upon to use them. (Section 2.3.1)
7. Personnel dosimetry provided for offsite response personnel should result in a permanent legal record of dose received while responding to the emergency situation. (Section 2.3.3)
8. A discussion of dosimetry available for use during an emergency, where it is located, and some guidance concerning the conditions under which it should be used, should be included in the Emergency Plan. (Section 2.3.3)
9. A means for recording and logging personnel exposure received during emergency response should be provided, other than just authorized exposures beyond 10 CFR 20 limits. (Section 2.3.3)
10. Records of training conducted by the UMC Health Physics Services should be maintained to ensure MURR training commitments are being implemented. (Section 3.2)