



## Department of Nuclear Engineering

Ward Hall  
Manhattan, Kansas 66506  
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June 20, 1984

Standardization and Special Projects Branch  
Attn: Cecil O. Thomas, Chief  
Division of Licensing  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Re: Docket 50-188

Dear Sirs:

Please find enclosed three copies of a revised Emergency Plan for the Kansas State University TRIGA Mk II Nuclear Reactor Facility, License R-88. You will find attached a list of the changes made, keyed to the revisions requested in the enclosure to your letter of 4 May 1984.

Very sincerely yours,

Richard E. Faw, Director  
KSU Nuclear Reactor Facility

Encl.

cc: N. D. Eckhoff  
J. F. Higginbotham  
U.S. Nuclear Regulatory Commission, Region IV

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PROPOSED REVISIONS IN EMERGENCY PLAN  
KANSAS STATE UNIVERSITY NUCLEAR REACTOR FACILITY

30 MAY 84

A. Emergency Action Levels [ANSI Std., Section 3.5]

1. Add the following statement to the action level for suspected fuel damage (page 19, Section 5.3.5):

Unambiguous evidence, calling for notification of an Unusual Event, would be an otherwise unexplained exposure rate in excess of 5 mrem/h at the reactor pool surface, or a Cs-137 specific activity in the primary coolant in excess of 8000 picocuries per cubic centimeter.

B. Emergency Response [ANSI Std., Section 3.7]

1. Insert the following paragraph at the beginning of Section 2.3, p. 5:

In the event of a suspected emergency situation, the emergency organization will be notified by telephone (see emergency notification list, Emergency Procedure No. 1 or posting at entrance to Reactor Facility). During times that the Reactor Facility is attended by operating staff, the notification will be made by the reactor operator on duty. Otherwise, the notification will be initiated by Campus Security personnel. Order of succession in the position of Emergency Director is as described in Section 2.2, above.

2. On page 12, paragraph 2, replace sentences 4 through 7 with the following:

Upon sounding of the evacuation alarm (5 R/h at the reactor 22-ft level), the operations boundary will be evacuated (Emergency Procedure 4). Emergency assembly area #1 is the lobby of Ward Hall. Emergency assembly area #2, for persons believed to be contaminated (Emergency Procedure 3), is the shower-equipped restroom in the basement of Ward Hall. All non-essential personnel will be evacuated from the site boundary if the radiation level in the hallway at the entrance to the operations boundary is in excess of 100 mR/h (Emergency Procedure 4). The site evacuation order shall be given by the Emergency Director and personnel should evacuate to an upwind, sheltered location where the exposure rate is less than 5 mR/h. Emergency Procedures 4 and 5 shall be followed to assure isolation and access control of potentially contaminated or hazardous areas and to minimize exposure to radiation and the spread of contamination.

3. On page 20, paragraph 2, replace the last sentence, and on page 26, Section 6.3.6, replace the second sentence in the last paragraph with the following:

Conditions and procedures for operations and site boundary evacuation, as well as access control, are described in Section 3.5 and in Emergency Procedures 4 and 5.

C. Emergency Facilities and Equipment [ANSI Std., Section 3.8]

1. Insert the following as Section 8.3.5 on page 36:

Non-Radiological Monitors

Fire within the operations boundary would be sensed by combustion-product detectors located in the Control Room and at several locations in the Reactor Bay. Activation of the detectors is annunciated as an alarm at the Campus Security Office. Upon an alarm, security personnel are dispatched immediately to the Reactor Facility. An abnormally low level of shielding water is indicated by a visual alarm located so as to be seen at either the entrance to the Control Room or the Reactor Bay.

D. Maintaining Emergency Preparedness [ANSI Std., Section 3.10]

1. Insert the following as Section 10.3.3 on page 39:

Training Programs (See Emergency Procedure 14)

Training for Reactor Facility Staff incorporates annual lectures, drills, and written examinations over the Emergency Plan and Emergency Procedures, with special attention given to the following topics:

- Emergency notifications
- Radiation surveys
- Decontamination
- Evacuation procedures
- Personnel accountability
- Re-entry and recovery operations

Training for off-site personnel incorporates lectures, drills and exercises, with special attention given to the following topics:

- External and internal radiation hazards
- Radiation surveys of personnel and equipment
- Contamination control and decontamination
- Protective actions
- First-aid and patient treatment