

JUN 30 1981

Docket No. 50-341

MEMORANDUM FOR: Joseph B. Youngblood, Chief  
Operations Reactor Branch #1  
Division of Licensing  
Office of Nuclear Reactor Regulation

FROM: Frank G. Pagano, Chief  
Emergency Preparedness Licensing Branch  
Division of Emergency Preparedness  
Office of Inspection & Enforcement

SUBJECT: REVIEW OF EMERGENCY PLAN - FERMI NUCLEAR POWER PLANT

We have completed our review of the Emergency Plan for the Fermi Nuclear Power Plant which was transmitted by licensee submittal dated March, 1981. The review was performed against the criteria in NUREG-0654, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants". Our review has indicated that additional information and commitments from the licensee are required before we can find the plan acceptable.

We request that the attached comments and a letter similar to the enclosed draft be sent to the licensee. Please provide this Branch with a copy of the correspondence.

The Emergency Preparedness Licensing Branch contact is Paul Psomas (301) 492-9688.

Frank G. Pagano, Chief  
Emergency Preparedness Licensing Branch  
Division of Emergency Preparedness  
Office of Inspection & Enforcement

Enclosures:  
As stated

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8108-100507 NA

EPLB PSomas/es 6/22/81  
EPLB CRVan Niel 6/24/81  
EPLB FPagano 6/24/81  
SSchwartz 6/29/81  
BGrimes 6/30/81

D R A F T

Docket No. 50-341

Dear :

We have completed our review of your emergency plan submittal dated March, 1981, for the Fermi Nuclear Power Plant. Your plan was reviewed against the criteria stated in NUREG-0654, "Criteria for Preparation and Evaluation of Radiological Emergency Plans and Preparedness in Support of Nuclear Power Plants". This document addresses the standards in the revised 10 CFR 50 which became effective November 3, 1980.

Our review has indicated that substantial additional information and commitments are required before we can conclude that your onsite emergency preparedness program meets these criteria. Unless the plan is promptly modified to correct the many deficiencies identified with respect to the guidance of NUREG-0654, Rev. 1, the licensing schedule for this facility may be affected. Enclosed are our comments for which resolution is necessary. Your emergency plan should be revised to address these comments in accordance with the provisions of the revised 10 CFR 50.

Sincerely,

Enclosure

REVIEW COMMENTS ON FERMI 2

EMERGENCY PLAN MARCH 1981

DOCKET NO. 50-341

A. ASSIGNMENT OF RESPONSIBILITY (ORGANIZATIONAL CONTROL)

A.1.c. Provide a block diagram illustrating the interrelationships of State, local, Federal and private sector organizations with the Fermi Nuclear Power Facility.

A.1.d. Identify a specific individual by title that is in charge of the emergency response for each organization.

A.1.e. Describe the provisions for 24 hour per day emergency response manning of communications for offsite organizations.

A.3 Provide written letters of agreement for each offsite support organization. These letters of agreement should include concepts of operation, specific support commitments, authorities, responsibilities, and limits on actions of each, contractor, private organization, and local service support group.

A.4 Provide evidence that each principal organization is capable of continuous (24 hour) operation for a protracted period.

## B. ONSITE EMERGENCY ORGANIZATION

- B.2. Verify that the Emergency Coordinator has the authority to unilaterally initiate any emergency actions.
- B.3. Describe the line of succession and identify the specific conditions for higher level officials assuming the function of Emergency Coordinator.
- B.4. Clearly define the responsibilities of the Emergency Coordinator that may not be delegated, i.e., the decision to notify and to recommend protective actions to authorities responsible for offsite emergency measures.
- B.5. Specify how minimum staffing requirements, as per Table B-1 of the criteria, will be established. A total augmentation plan should also be established showing, the 30 and 60 minute augmentation schedule. Augmentation plans should also address provisions for inclement weather.
- B.6. Specify the interfaces between onsite functional areas of emergency activity, licensee headquarters support, local services support, and State and local government response organization. Clearly illustrate these interfaces with a block diagram.

B.7. Identify the corporate management and administrative and technical support personnel that will augment the plant staff.

B.9. Identify the services to be provided by local agencies. Submit copies of the arrangements and agreements reached. These agreements should delineate the authorities, responsibilities and limits on the actions of the contractor, private organization and local services support groups.

C. EMERGENCY RESPONSE SUPPORT AND RESOURCES

- C.1.a. Identify specific persons authorized to request Federal assistance.
- C.1.b. Submit provisions for incorporating the Federal response capability & into Emergency operations (i.e., Department of Energy). The Plan
- C.1.c. should specify the Federal resources expected for accident categories in Appendix 1 of the criteria, including expected times of arrival at the site. Specific licensee resources as needed to support the Federal response should be listed in the Plan, e.g., command posts, telephone lines, radio frequencies and telecommunications centers.
  
- C.2.b. Specify the provisions for dispatching a representative to principal offsite government Emergency Operations Centers (EOC).
  
- C.3. Identify available radiological laboratories and their capabilities and the response times that can be expected in an emergency (i.e., vendors, universities, private laboratories, etc.).
  
- C.4. Provide a copy of the mutual aid agreement with other nuclear facilities.

D. EMERGENCY CLASSIFICATION SYSTEM

- D.1. Provide comprehensive parameter values an/or equipment status for all emergency action levels and initiating conditions for each emergency classification. The information provided in Tables D1-D4 does not provide sufficient detail for evaluation.
- D.3. Demonstrate that State and local organizations have procedures providing for emergency actions consistent with those recommended by the FERMI nuclear facility.

## E. NOTIFICATION METHODS AND PROCEDURES

- E.1. Describe the procedures for message authentication and verification.
- E.2. Describe the provisions for followup messages from the facility to offsite authorities.
- E.6. Commit that a prompt Alerting and Notification System meeting the design objectives of NUREG-0654, Rev. 1, Appendix 3 will be developed and in place. The Plan should address the administrative and physical means, and the time required to promptly notify the public of an emergency. The Plan should commit to the establishment of such a system and indicate when the system will be operational.
- E.7. Provide for written messages intended for the public consistent with the licensee's classification scheme. Messages to the public giving instructions regarding specific protective actions to be taken by occupants of affected areas should be included in the Plan.

F. EMERGENCY COMMUNICATIONS

The provision for communications as described in the Plan is insufficient to meet the objectives of the criteria. The Plan should include information to describe:

- F.1. 1) Alternates for both ends of the communications link.
- F.1.a. 2) How State, local and other support groups will be notified 24 hours per day (e.g., town sheriff, volunteer fire fighters, local EOC volunteers).
- F.2. 3) The communications link between the facility and mobile medical support groups.

G. PUBLIC EDUCATION AND INFORMATION

- G.1. The Public Information Program described in the Plan does not clearly define what sector of the public will receive periodic information regarding how they will be notified, what their actions should be in an emergency, the agreed upon means of evacuation verification, the location of relocation centers and the use of radioprotective drugs. Further, information on provisions for the specific needs of the handicapped should be included. Provide this information.
- G.2. Provide actual samples of the Public Information Program that will be distributed to the public, for review and evaluation.
- G.4.c. Describe the means and methods used by each organization for rumor control.

## H. EMERGENCY FACILITIES AND EQUIPMENT

- o Identify all acronyms used to describe plant systems.
  - o Verify that "as built" diagrams of the facility will be available for the personnel in the EOF and TSC.
  - o Identify Laboratory facilities, their capabilities, and the expected backup response they may provide during an emergency.
- H.1. Specify the types of equipment available in the TSC, and EOF, identified in NUREG-0696, including the types and locations of communications equipment. This information should be detailed on a scaled drawing.
- H.2. Specify the road distance and travel time between the control room for both the interim and permanent nearsite EOF.
- H.5.a. Provide a detailed description of the process monitors. The description provided in Table H.8 does not give sufficient detail for evaluation.
- H.5. Provide a description of the meteorological instrumentation and  
& procedures as identified in Appendix 2 of NUREG-0654, Rev. 1 and  
H.6. the provisions to obtain representative real-time meteorological information from other sources.

H.9. Specify how personnel onsite during the emergency will have adequate protective equipment available to them, i.e., protective respiratory devices.

H.10. Identify the provisions for inspection, inventory, quarterly operational checks and calibration of both fixed and portable instruments and equipment (protective equipment, communication equipment, radiological monitoring equipment and emergency supplies).

## I. ACCIDENT ASSESSMENTS

- I.3. Include a plot or graph indicating the relationship between the containment radiation monitor(s) reading(s) and radioactive material available for release from containment.
- I.4. available for release from containment.
- I.3.b. Clearly establish methods and techniques used to determine the magnitude of a release of radioactive materials based on plant effluent monitors. In addition, establish the relationship between effluent monitor readings and onsite and offsite exposures and contamination for various meteorological conditions.
- I.6. Describe the methodology to be used for determining release rates and projected doses if the instrumentation used for assessment were to go offscale or become inoperable.
- I.7. Describe the capability and resources for field monitoring within the plume exposure Emergency Planning Zone. Methods, equipment, and expertise to make rapid assessments of the actual or potential magnitude and locations of any radiological hazards through the liquid or gaseous pathways should be described. The description should address activation criteria, means of notification, field team composition, transportation, communication, monitoring equipment, and estimated deployment times.

- I.9. Describe the means for relating measured field contamination levels to dose rates for key isotopes and gross radioactivity measurements. Also describe the provisions for estimating an integrated dose for comparison with Protective Action Guides.
- I.10. Describe the in-place arrangements for location and tracking of the airborne radioactive plume.

## J. PROTECTIVE RESPONSE

- o Table J.9 is missing from the Plan.
  
- J.2. Explain the basis for the adverse weather evacuation time estimates, the selection of alternative routes and the methods of evacuation that will be used during inclement weather.
  
- J.4. Describe the provisions for evacuation of non-essential onsite personnel, including evacuation routes, transportation and decontamination capabilities. On a diagram, show the location of decontaminated facilities.
  
- J.6. Describe the use of radioprotective drugs by onsite personnel. Specify who decides when they are used, by whom, and what dosage is. Specify the amount available onsite.
  
- J.7. Describe the recommendations for protective measures that may be given to the public based on measured or calculated dose rates. Recommendations should be keyed to the emergency classifications and Action Levels described in Appendix 1 of the criteria. Verify that as a minimum, the protective actions listed in Tables J.2 and J.4 will be recommended.

J.10. Discuss the provisions for protecting the health and safety of mobility-impaired persons.

J.10.e. Describe the provisions for individual respiratory protection, protective clothing and the use of radioprotective drugs by onsite emergency workers.

J.10.f. Discuss provisions by State and local organizations for administering radioprotective drugs to the general public.

J.11.a. Submit a map showing evacuation routes to be used by onsite and off-site personnel, which identifies relocation centers, medical facilities shelter areas.

K. RADIOLOGICAL EXPOSURE CONTROL

- K.2. Specify who, besides the Emergency Director, can authorize excess exposure to personnel.
  
- K.2. Submit information regarding the personnel training program that will allow volunteers to make rapid decisions based upon knowledge of potential risks.
  
- K.3.b. Specify the methods used to ensure that dosimeters are read at appropriate frequencies (specify these frequencies) and the methods used to provide for maintaining records.
  
- K.5.a. Specify action levels for determining the need for decontamination.
  
- K.5.b. Specify the means for radiological decontamination of emergency personnel.
  
- K.7. Identify the locations and specify the capability for decontaminating relocated onsite personnel, and providing extra clothing.

L. MEDICAL SUPPORT

- L.1 Provide Letters of Agreement with appropriate hospitals (these appear to be the Seaway and University Hospitals in the current plan). These agreement letters should specify what services will be provided by the hospital and what limits of actions will be.
- L.2. Specify what first aid treatment facilities are available onsite. This should be accomplished by both a narrative description of the facility and a diagram showing the first aid area's relationship to the rest of the site.
- L.3. Provide a Letter of Agreement with an ambulance service (EMTS Ambulance Service in the plan). Specify whether a Health Physics Technician from the site will accompany the contaminated injured person(s). Specify what type of communications will be available between the ambulance, the site and the hospital.

M. RECOVERY AND REENTRY PLANNING AND POSTACCIDENT OPERATIONS

- M.1. Describe the means by which decisions are reached to relax both onsite and offsite protective measures during the recovery period following an emergency.
- M.2. The Plan lists the positions of the individuals that fill key positions but not the authority and responsibility of each. Specify by position/ title the authority and responsibilities and who will fill key positions in the facility recovery organization.
- M.3. Describe the means for informing members of the response organizations that a recovery operation is to be initiated, and identify those changes in the organizational structure that may occur.
- M.4. Describe the method(s) established for periodically estimating total population exposure.

N. EXERCISES AND DRILLS

N.2.a. The communications drill frequency should be changed from annually to quarterly to conform to the criteria in NUREG-0654, Rev. 1.

N.2.b. Verify that fire drills will be conducted quarterly.

N.3. Verify that exercise and drill scenarios will be designed to allow free play for decision making.

N.3.a. Verify that advance materials will be provided to official observers.

## 0. RADIOLOGICAL EMERGENCY RESPONSE TRAINING

- 0.1. Additional information is required concerning the training program for personnel who will implement the radiological emergency response plan. The description should include the specialized training and periodic retraining programs (include scope, nature and frequency) for each of the nine categories of personnel listed in Section II.0.4. of NUREG-0654, Rev. 1.
- 0.2. Identify where the formal training program includes training to determine individual qualifications, and specify the minimum level of competence established for each position assigned an emergency response role. Training and retraining programs, qualifications testing and competence for State and local officials should also be included.
- 0.3. The Plan should be modified to specify that first aid personnel will be retrained and tested annually and personnel holding multi-media certifications should be recertified every two years.

P. RESPONSIBILITY FOR PLANNING EFFORT

- 0 Provide an appendix listing the schedules for installation of equipment, the type of equipment to be installed, testing dates and dates when the equipment will be operational.
  
- P.1. Verify that each organization shall provide for the training of individuals responsible for the planning effort.
  
- P.3. The Plan lists the Superintendent-Nuclear Productions and the Manager-Nuclear Operations as having responsibilities for reviewing and updating the Plan. However, it is unclear as to the identity of the Emergency Plan Coordinator. Identify the one individual responsible for review and updating of the Plan.
  
- P.7. Provide an appendix listing, by title, the procedures required to implement the Plan.
  
- P.8. Although the Plan is basically written in NUREG-0654 format, many areas of the Plan pertain to more than one area of NUREG-0654; provide a cross-referenced index to all NUREG-0654 criteria.