

September 4, 1981

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Docket No. 50-341

*Hard copy to
12/2/81 & 1/2/81*

MEMORANDUM FOR: Robert L. Tedesco,
Assistant Director for Licensing
Division of Licensing

FROM: Brian K. Grimes, Director
Division of Emergency Preparedness
Office of Inspection & Enforcement

SUBJECT: FERMI-2 NUCLEAR STATION EMERGENCY
PREPAREDNESS EVALUATION REPORT

Enclosed is our Emergency Preparedness Evaluation Report (August 1981) for the Fermi-2 Nuclear Station.

Based on our review against the criteria of NUREG-0654, Rev. 1 (November 1980), we conclude that the Fermi-2 Emergency Plan, upon satisfactory completion of those items identified in the enclosed evaluation, will meet the requirements of 10 CFR 50 and Appendix E thereto.

After receiving the findings and determinations made by FEMA on the State and local emergency response plans, and reviewing the results of a joint emergency preparedness exercise, a supplement to the Emergency Preparedness Evaluation Report will provide our overall conclusions on the status of Emergency preparedness for the Fermi-2 Nuclear Station and related Emergency Planning Zones.

Original signed by:

Frank G. Pagano

Brian K. Grimes, Director
Division of Emergency Preparedness
Office of Inspection & Enforcement

Enclosure:
Fermi-2 Emergency Preparedness
Evaluation Report

cc w/enclosure:
D. Eisenhut
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LB/I&E
PPsomas:sc
8/24/81

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DD/DEP/I&E
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8/24/81

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BKGrimes
8/18/81

ROUTING AND TRANSMITTAL SLIP

Date *3 Aug 81*

TO: (Name, office symbol, room number, building, Agency/Post)	Initials	Date
1. <i>Dick Van Niel</i>		
2.		
3.		
4.		
5.		

Action	File	Note and Return
Approval	For Clearance	Per Conversation
As Requested	For Correction	Prepare Reply
Circulate	For Your Information	See Me
Comment	Investigate	Signature
Coordination	Justify	

REMARKS

Attached is a draft of the proposed FERMI 2 SER. It is ~~due~~ due to Kintner 10 Aug 81. Please provide your comments ASAP.

DO NOT use this form as a RECORD of approvals, concurrences, disposals, clearances, and similar actions

FROM: (Name, org. symbol, Agency/Post) <i>Paul P</i>	Room No.—Bldg.
	Phone No.

5041-102

OPTIONAL FORM 41 (Rev. 7-76)
Prescribed by GSA
FPMR (41 CFR) 101-11.206

III. Emergency Preparations and Radiation Protection

III. A.1.1 Upgrade Emergency Preparedness

Position

Provide an emergency response plan in compliance with NUREG-0654, Rev. 1 (November 1980) "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants." NRC will give substantial weight to FEMA findings on offsite plans in judging the adequacy against NUREG-0654. Perform an emergency exercise to test the integrated capability and a major portion of the basic elements existing within emergency preparedness plans and organizations.

This requirement shall be met before issuance of a full-power license.

Discussion and Conclusions

We have reviewed the applicant's revised emergency plan against the current regulatory requirements contained in 10 CFR Part 50 and the guidance criteria in NUREG-0654 dated November 1980. Upon satisfactory completion of the items identified below, the staff will issue a finding with respect to emergency preparedness matters for full power operation of the FERMI Nuclear Generating Station.

1. Correct the deficiencies identified in our Emergency Preparedness Evaluation Report which is included as Appendix to this report (NUREG-0737, item III.A.1.1).

2. Perform an emergency response exercise that tests the integrated capability and a major portion of the basic elements existing within the emergency preparedness plans and organizations (NUREG-0694, item III.A.1.1).
3. Submit revised radiological response plans of State and local governments within the plume exposure pathway Emergency Planning Zone as well as the plans of State governments within the ingestion pathway Emergency Planning Zone that conform to the criteria of NUREG-0654 (10 CFR 50.33q).

III. Emergency Preparations and Radiation Protection

III.A.1.2 Upgrade Emergency Support Facilities

Position

Provide radiation monitoring and ventilation systems, including particulate and charcoal filters, and otherwise increase the radiation protection to the onsite technical support center to assure that personnel in the center will not receive doses in excess of 5 rem to the whole body or 30 rem to the thyroid for the duration of the accident. Provide direct display of plant safety system parameters and call up display of radiological parameters.

For the near-site Emergency Operations Facility, provide shielding against direct radiation, ventilation isolation capability, dedicated communications with the onsite technical support center and direct display of radiological and meteorological parameters.

Discussion and Conclusions

The above requirements are those set forth in NUREG-0696, "Functional Criteria for Emergency Response Facilities", dated February 1981 which specifies the functional criteria necessary for the design and implementation of the Technical Support Center and the Emergency Operation Facility.

The Emergency Plan, date March 1981, does not provide a sufficient description to evaluate. Therefore, the applicant must submit a detailed description of those facilities that are evaluated and deemed adequate prior to fuel load.

III.A.2 Improving Licensee Emergency Preparedness - Long Term

Position

1. Each nuclear facility shall upgrade its emergency plan to provide reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency. Specific criteria to meet this requirement is delineated in NUREG-0654.
2. Perform an emergency response exercise to test the integrated capability and a major portion of the basic elements existing within emergency preparedness plans and organizations.

Discussion and Conclusions

In the FSAR dated March 9, 1981, the applicant submitted upgraded emergency plans for the FERMI site. Revised State and local entities within the plume and ingestion exposure emergency planning zones have not yet been received. We reviewed the applicant's onsite emergency plan and prepared an Emergency Preparedness Evaluation Report which is attached to this report (see Appendix of this report). The Evaluation Report lists each planning standard of 10 CFR Part 50.47(b), followed by a discussion of how the applicant meets the standard. Deficiencies with respect to the regulation are identified.

After receiving the findings and determinations made by FEMA on the State and local emergency response plans, and after reviewing the revised applicant's plan, a supplement to this Safety Evaluation Report will provide our conclusions on the status of emergency preparedness for FERMI 2 and related emergency planning zones.

Based on our review, we conclude that the FERMI Site Emergency Plan, upon satisfactory corrections of the open items listed in Appendix of this report, will meet the planning standards of 10 CFR 50.47(b) and conform to the guidance stated in NUREG-0654, Revision 1. We will address the resolution of these items in a supplement to this report.

APPENDIX

EVALUATION OF LICENSEE EMERGENCY PLAN

EMERGENCY PREPAREDNESS EVALUATION REPORT

BY THE

DIVISION OF EMERGENCY PREPAREDNESS

OFFICE OF INSPECTION AND ENFORCEMENT

FERMI 2 NUCLEAR POWER STATION

DOCKET NO. 50-341

AUGUST 1981

FERMI 2 SUPPLEMENT
TO THE
SAFETY EVALUATION REPORT
INPUT FROM EPLB

INTRODUCTION

The Nuclear Regulatory Commission's (NRC) evaluation of the state of emergency preparedness associated with the FERMI 2 Nuclear Power Station involves review of the licensee's onsite emergency plans plus review of the Federal Emergency Management Agency (FEMA) findings and determinations pertaining to State and local emergency preparedness. This evaluation report addresses the licensee's emergency preparedness. A subsequent supplement to this report will address the FEMA findings and determinations providing an evaluation of the status of emergency preparedness associated with the FERMI 2 site.

The Detroit Edison Company (hereinafter referred to jointly as the Licensee) filed with the NRC a comprehensive revision to the FERMI 2 Nuclear Power Station Emergency Plan (Plan) in March 1981. Previously, the staff had reviewed preliminary versions of the Plan, conducted a site visit to the facility, and held a local public meeting on emergency preparedness.

The March 1981 Plan was reviewed against the 16 planning standards in 10 CFR 50.47, the requirements of 10 CFR 50, Appendix E, and the specific criteria of NUREG-0654/FEMA-Rev. 1 entitled, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," Revision 1, November 1980.

This evaluation report follows the format of Part II of NUREG-0654. Each of the Planning Standards is listed and is followed by a summary of applicable portions of the Plan that relate principally to that specific standard. The conclusions of the staff review are provided at the end of this report.

APPENDIX

EVALUATION OF LICENSEE EMERGENCY PLAN

EVALUATION

A. Assignment of Responsibility (Organization Control)

Standard

Primary responsibilities for emergency response by the nuclear facility licensee and by State and local organizations within the Emergency Planning Zones (EPZ) have been assigned, the emergency responsibilities of the various supporting organizations have been specifically established, and each principal response organization has staff to respond and to augment its initial response on a continuous basis.

Licensee Emergency Plan Evaluation

The Shift Supervisor for the FERMI 2 Nuclear Plant is initially designated as the Emergency Director. When an abnormal condition arises, it is his responsibility to determine if the abnormality meets any of the emergency classification specified in the plan and to implement the plan, if necessary. There is a 24-hour-a-day communication capability between the station and Federal, State, and local response organizations to ensure rapid transmittal of accurate notification information and emergency assessment data.

Responsibility for overall performance of the emergency response organization is vested in the Emergency Director who is responsible for the overall direction of the plant emergency organization. Qualified members of the station staff who report directly to the Emergency Director have been assigned specific responsibilities for the major elements of emergency response.

Resolution of the Following is Needed

Updated written agreements with appropriate agencies and organizations need to be maintained. These agreements should be rewritten to provide concepts of operation, specific support commitments, authorities' responsibilities and limits on actions of contractors, private organizations, and local services support groups.

The Plan does not have a description of the capabilities of offsite organizations to provide 24 hour response, manning of communications, nor the ability to provide continuous (24 hour) operations for a protracted period.

B. Onsite Emergency Organization

Standard

On-shift facility licensee responsibilities for emergency responses are unambiguously defined, adequate staffing to provide initial facility accident response in key functional areas is maintained at all times, timely augmentation of response capabilities is available, and the interfaces among various onsite response activities and offsite support and response activities are specified.

Licensee Emergency Plan Evaluation

The Nuclear Shift Supervisor (or Senior Control Operator) assumes the Emergency Director (ED) function until the appointed ED arrives. Station staff emergency assignments have been made and the relationship between the emergency organization and normal staff complement are specified in the plan. Positions and/or titles of shift and plant staff personnel, both onsite and offsite, assigned emergency functional duties are listed.

Resolution of the Following is Needed

The plan does not indicate that minimum staffing requirements, as per Table B-1 of the criteria, will be established. Specifically, only eleven qualified individuals are available on a 24-hour/day basis. A total augmentation plan should be established showing how the licensee will meet Table B-1 staffing requirements and the 30- and 60-minute augmentation schedule. Table B-1 lists 28. The augmentation plans should also address measures to be taken to expedite augmentation during inclement weather.

In addition, the authorities and responsibilities of the ED need to be clearly defined to ensure that the ED can immediately and unilaterally declare an emergency and make offsite notification.

C. Emergency Response Support and Resources

Standard

Arrangements for requesting and effectively using assistance resources have been made, arrangements to accommodate State and local staff at the licensee's near-site Emergency Operations Facility have been made, and other organizations capable of augmenting the planned response have been identified.

Licensee Emergency Plan

Arrangements for requesting and utilizing outside resources have been made, including authority to request Federal assistance, as well as assistance from the reactor vendor and the architect/engineer by corporate headquarters support personnel. The Emergency Operations Facility (EOF) will be activated for the

more serious emergency classifications having or potentially having environmental consequences (Alert, Site Area Emergency, and General Emergency). The EOF will accommodate representatives from Federal, State, and local government agencies, as well as representatives from contractor and other support groups. It will be the central data collection point for providing information needed by primary response agencies for implementation of offsite protective actions.

Resolution of the Following is Needed

1. Specify who is authorized to request Federal response.

Provide for incorporating the Federal response capability (i.e., Department of Energy). The Plan 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., airfields, command posts, telephone lines, radio frequencies, and telecommunications centers.

Identify available radiological laboratories and their capabilities and the expected response times of support groups that can be used in an emergency (i.e., vendors, universities, private laboratories, etc.).

D. Emergency Classification System

Standard

A standard emergency classification and action level scheme, the basis of which include facility system and effluent parameters is in use by the nuclear facility licensee, and State and local response plans call for reliance on

information provided by facility licensees for determinations of minimum initial response measures.

Licensee Emergency Plan Evaluation

The four standard emergency classes (i.e., Unusual Event, Alert, Site Area Emergency, and General Emergency) have been established by the licensee. Emergency Action Levels (EALs) are established based upon onsite and offsite radiation monitoring information and upon readings from various reactor sensors. These EALs are used for rapid classification of emergency situations.

Resolution of the Following is Needed

Provide comprehensive parameter values and/or equipment status for all emergency action levels (EALs) and initiating conditions for each emergency classification. These EALs shall be observable and measurable conditions identified by using specific instrumentation, parameters and equipment status.

E. Notification Methods and Procedures

Standard

Procedures have been established for notification, by the licensee of State and local response organizations and for notification of emergency personnel by all response organizations; the content of initial and follow-up messages to response organizations and the public has been established; and means to provide early notification and clear instructions to the populace within the plume exposure pathway Emergency Planning Zone have been established.

Licensee Emergency Plan Evaluation

Procedures have been established for notification of State and local response organizations in case of emergency. The Emergency Duty Supervisor has been given the authority and responsibility to make prompt notification to declare an emergency.

Resolution of the Following is Needed

A Prompt Alerting and Notification System meeting the design objectives of Appendix 3 of the criteria must be developed and installed. The Plan should address the administrative and physical means, and the time required to promptly notify the public of an emergency.

Provide for written messages intended for the public consistent with the operator's classification scheme. In particular, messages to the public giving instructions regarding specific protective actions to be taken by occupants of affected areas should be included in the licensee's plan. In addition, the plan should contain a description of the message authentication scheme and verification procedures.

F. Emergency Communications

Standard

Provisions exist for prompt communications among principal response organizations to emergency personnel and to the public.

Licensee Emergency Plan Evaluation

The communication system is designed to provide redundant and diverse communications to essential onsite and offsite locations. Within the plant, there are a multi-channel, hard-wired paging system, a PSBX telephone system, and a two-way radio system. Communications between the station, State, and county EOCs are provided by telephone lines with a backup private microwave. Communications between the station, the Monroe County Sheriff, other police agencies, hospitals, water departments, and U. S. Coast Guard, aircraft, will be via dedicated lines.

Resolution of the Following is Needed

A description stating how State, local, and other support groups will be notified 24 hours per day (e.g., town sheriff, volunteer fire fighters, local EOC volunteers).

A description of the communications link between the facility and mobile medical support.

G. Public Information

Standard

Information is made available to the public on a periodic basis on how they will be notified and what their initial actions should be in an emergency; the principal points of contact with the news media for dissemination of information during an emergency (including physical location or locations) are established in advance; and procedures for coordinated dissemination of information to the public are established.

Licensee Emergency Plan Evaluation

The utility is in the process of developing a comprehensive plan for public information dissemination.

Resolution of the Following is Needed

1. The Public Information Program indicated in the plan does not clearly define who in 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, the program does not make provisions for the special needs of the handicapped.
2. Include an actual sample of the Public Information Program that will be distributed. This Program will be reviewed by the NRC and FEMA to determine that it meets the planning objective.
3. Describe the means and methods used by each organization for rumor control.

H. Emergency Facilities and Equipment

Standard

Adequate emergency facilities and equipment to support the emergency response are provided and maintained.

Licensee Emergency Plan Evaluation

Emergency facilities needed to support an emergency will be provided. Each will be actuated for an alert or higher emergency classification.

The TSC will be the ground floor of a two-story office services building located within the security perimeter of the FERMI 2 plant. Functionally, the TSC will provide information on plant status for use by technical and management personnel in support of the command and control functions executed in the Control Room. The TSC when activated will accommodate approximately 25 personnel representing the licensee and NRC. Additionally, the TSC will function as the primary information/communications source to the NRC, the Operational Support Center (OSC), and the Emergency Operations Facility (EOF) and will perform the functions of the EOF until such time as the EOF is activated.

The OSC will be a designated area at the north end of the third floor of the Turbine Building and will provide an assembly point for shift support personnel for assignment of duties in support of emergency operations. Personnel such as instrument technicians, engineers, mechanics, electricians, radiation technicians, equipment operators, etc., will be dispatched from this area.

The EOF will be a command post for the overall management of the emergency response with offsite organizations, the coordination of radiological and environmental assessments, the determination of recommended protective actions for the public, and management of recovery operations. The primary EOF, designed to handle 40 persons, will be an annex to the Nuclear Operations Center, and will be located three-fourths (3/4) to one (1) mile southwest of the plant

on owner controlled property. An alternate EOF will be provided approximately 10 miles West of the plant near the Monroe County Community College.

The EOF will function to provide assistance in the decision making process to protect the public health and safety and to control radiological emergency monitoring teams and facilities onsite and offsite. Radiological and meteorological data and adequate plant systems information will be provided to perform these functions. The EOF is normally the focal point for the receipt and analysis of all field monitoring data and the coordination of sample media.

Resolution of the Following is Needed

1. Provide for 'as built' diagrams for use by personnel in the EOF, TSC, and OSC.
2. Specify the types of equipment available in the TSC and EOF, including the types and locations of communications equipment. This information should be detailed on a scaled drawing.
3. Provide a detailed description of the process monitors. The description provided in Table H.8 does not contain sufficient detail.
4. Identify what percentage of the personnel will have protective equipment available to them during an emergency.
5. Describe the meteorological instrumentation and procedures which satisfy the criteria in Appendix 2, and the provisions to obtain representative real-time meteorological information from other sources.
6. Clearly 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.

7. Identify laboratory facilities, their capabilities, and expected backup response that could be used during an emergency.

I. Accident Assessment

Standard

Adequate methods, systems, and equipment for assessing and monitoring actual or potential offsite consequences of a radiological emergency condition are in use.

Licensee Emergency Plan Evaluation

The plan describes systems, equipment, and facilities that will be used as natural phenomena monitors, process radiation, containment monitoring systems (High range and Post-Accident), secondary containment radiation monitors, stack monitoring systems, etc.

The applicant states that there will be onsite capability and resources to provide initial and continuing assessment throughout the course of an accident, readout in the control room, post-accident sampling capability, and containment monitoring.

Onsite and offsite surveys will be performed to verify release information or will be used as a backup assessment method, should the instrumentation used for dose assessment go offscale or become inoperable. An environs survey team can be placed in the field within one hour.

Resolution of the Following is Needed

1. Include a plot or graph indicating the relationship between the containment radiation monitor(s) reading(s) and the radioactive material available for release from containment.

2. 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.
3. Describe the methodology for determining release rates and projected doses if the instrumentation used for assessment were to go offscale or become inoperable.
4. Describe the capability and resources for field monitoring within the plume Emergency Planning Zone including the methods, equipment, and expertise to make rapid assessments of the actual or potential magnitude and location of any radiological hazards through the liquid or gaseous pathways. The description should address activation criteria, means of notification, field team composition, transportation, communication, and monitoring equipment.
5. Describe the means for relating measured field contamination levels to dose rates for key isotopes and gross radioactivity measurements. The plan should also describe provisions for estimating an integrated dose from these estimates with protective action guides.
6. Describe the in-place arrangements for location and tracking of the airborne plume.

J. Protective Response

Standard

A range of protective actions has been developed for the plume exposure pathway EPZ for emergency workers and the public. Guidelines for the choice of protective actions during an emergency, consistent with Federal guidance, are developed and in place, and protective actions for the ingestion exposure pathway EPZ appropriate to the locale have been developed.

Licensee Emergency Plan Evaluation

The applicant has described the protective actions to be taken by onsite personnel. Onsite predetermined assembly areas are designated. The station has an alarm system to signal personnel to assemble in these areas. Persons not having an emergency response assignment, including visitors and contractor personnel, are required to assemble when notified by the alarm. Onsite accountability is determined by the Station Security force.

Resolution of the Following is Needed

1. Explain the basis for adverse weather evacuation time estimates; and the alternative routes and methods of evacuation that will be used during inclement weather (e.g., snow, flood). In addition, the evacuation time estimates should be modified to consider institutions, such as correctional facilities, hospitals, nursing homes.
2. Describe the provisions for evacuation of nonessential personnel. Describe the evacuation routes, transportation, and decontamination capabilities.

3. Describe the use of radioprotective drugs by onsite personnel; specify who decides when they are used, the dosage, and the amount available onsite.
4. Describe the recommendations for protective measures that may be given to the public based on measured or calculated dose rates specified in Appendix 1 of the criteria for each emergency condition.
5. Describe the provisions for individual respiratory protection, protective clothing and use of radioprotective drugs by onsite workers.
6. Submit a map showing evacuation routes to be used by onsite and offsite personnel, relocation centers, medical facilities, and shelter areas.

K. Radiological Exposure Control

Standard

Means for controlling radiological exposures, in an emergency, are established for emergency workers. The means for controlling radiological exposures shall include exposure guidelines consistent with EPA Emergency Worker and Lifesaving Activity Protective Action Guides.

Licensee Emergency Plan Evaluation

Emergency response personnel may receive radiation exposure in excess of the limits imposed by 10 CFR 20 when authorized by the Emergency Director. Emergency Plan Implementing Procedures and the Plan will contain emergency guidelines for whole body and thyroid doses consistent with EPZ Emergency Worker and Life Saving Activity Protective Action Guides.

The station will provide and distribute self-reading and accumulative type dosimeters to personnel involved in emergency onsite response regardless of company affiliation. Dose records for workers will be maintained and checked daily throughout the emergency.

Onsite contamination control procedures for personnel, equipment, and access control will be in place. Criteria for permitting return of contaminated areas and their contents to normal use will be established in the appropriate contamination control procedures.

Resolution of the Following is Needed

1. Specify who, besides the Emergency Director, can authorize excess exposure to personnel.
2. Submit information regarding the personnel training program that will allow volunteers to make rapid decisions based upon knowledge of potential risks.
3. 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.
4. Specify action levels for determining the need for decontamination.
5. Specify the means for radiological decontamination of emergency personnel.
6. Identify the locations and specify the capability for decontaminating relocated onsite personnel, provisions for extra clothing, etc.

L. Medical and Public Health Support

Standard

Arrangements are made for medical services for contaminated injured individuals.

Licensee Emergency Plan Evaluation

The licensee has provided for medical care at three facilities: (1) an onsite first aid facility, (2) Seaway Hospital and (3) the University Hospital. Arrangements have been made with each of these offsite facilities. The purpose of these arrangements is to ensure appropriate medical care.

Medical transportation is provided by EMTS Ambulance Service.

Resolution of the Following is Needed:

Provide Letters of Agreement with the Seaway and University Hospitals specifying what services will be provided by the hospital, what the limits of actions will be, and what concepts of operation are during medical treatment of a patient for both the licensee and the hospital.

Specify, clearly, what first aid treatment facilities are 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.

Provide a Letter of Agreement with EMTS Ambulance Service. 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 mobile transport unit, the site and the hospital.

M. Recovery and Reentry Planning and Postaccident Operations

Standard

General plans for recovery and reentry are developed.

Licensee Emergency Plan Evaluation

The licensee states that the Recovery Manager has the responsibility for determining and declaring when an emergency situation is stable and the plant is ready to enter the Reentry and Recovery Phase. At this time, the Recovery Organization will develop, coordinate and expedite plans and schedules for reentry and recovery operations.

The Emergency Director, under the direction of the Recovery Manager, will be responsible at the site for authorizing the start of reentry and restoration activities and the return to normal operations when approved by NRC.

The Recovery Manager will be responsible for notifying offsite authorities that a recovery operation will be initiated. Additional notification will be made whenever the operation may have potential offsite effects. In the event a release of radioactive material is planned, the anticipated offsite dose will be calculated, including an estimate of the population dose.

Nuclear Operations environmental and dose projection personnel will periodically update total population exposure estimates with State and Federal agencies.

Resolution of the Following is Needed

1. Describe the means by which decisions are reached to relax both onsite and offsite protective measures during the recovery period following an emergency.
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.
3. Describe the means for informing members of the response organizations that a recovery operation is to be initiated, and identify changes in the organizational structure that may occur.
4. Describe the methods established for periodically estimating total population exposure.

N. Exercises and Drills

Planning Objective

Periodic exercises are (will be) conducted to evaluate major portions of emergency response capabilities, periodic drills are (will be) conducted to develop and maintain key skills, and deficiencies identified as a result of exercises or drills are (will be) corrected.

Licensee Emergency Plan Evaluation

An emergency exercise will be conducted annually and will be based on an accident scenario which will simulate an emergency that results in offsite

radiological releases and require response by offsite authorities. The scenario will be varied such that all plans and preparedness organizations are tested within a r-year period.

Drills, which are supervised instruction periods aimed at testing, developing, and maintaining skills in the following areas, will be scheduled at the frequencies noted:

1. Communication drills - initial plant contact with State and county governments will be tested monthly; communications with Federal response agencies, offsite emergency centers, and field assessment teams will be tested annually.
2. Fire drills - according to Station Technical Specifications.
3. Verify that exercise and drill scenarios will be designed to allow for free play for decision making.
4. Verify that advance materials will be provided to official observers.

0. Radiological Emergency Response Training

Standard

Radiological emergency response training is provided to those who may be called upon to assist in an emergency.

Licensee Emergency Plan Evaluation

All personnel holding NRC licenses participate in a continuing requalification program. In addition, coordinators, managers, or supervisors assigned responsibilities and duty stations in the emergency organization receive annual

refresher training. Emergency team members receive initial training and annual retraining. Personnel that receive Red Cross Multi-Media training are retrained every three years.

Resolution of the Following is Needed

1. Additional detail is required regarding the training program for personnel who will implement the radiological emergency response plan. The description should include the specialized training and periodic retraining programs (including scope, nature, and frequency) for each of the nine categories of personnel listed in Section II.0.4 of NUREG-0654.
2. The plan should indicate that formal training programs include training to determine individual qualifications, and any minimum levels of competence have been established for any of the positions assigned emergency response roles. Training and retraining programs, qualifications testing, and competence should also include State and local officials.
3. Verify that first aid personnel will be retrained and tested annually.

P. Responsibility for the Planning Effort: Development, Periodic Review and Distribution of Emergency Plans

Standard

Responsibilities for plan development, review, and distribution of emergency plans are established and that are properly trained.

Licensee Emergency Plan Evaluation

The Superintendent-Nuclear Production and the Manager-Nuclear Operations have overall authority and responsibility for preparation, review and updating of the FERMI 2 Emergency Plan.

The Emergency Plan Coordinator is responsible for the coordination of all emergency planning efforts. The Coordinator presents recommendations to the Onsite Review Organization ((OSRO) for changing, updating, and improving the plant specific portions of the emergency plan. These recommendations may result from exercises, drills, changes in operating procedures or conditions, changes in regulatory or other requirements. The OSRO reviews and approves these recommendations. Final approval is required by Detroit Edison management.

Resolution of the following is needed:

1. Provide an appendix listing the schedules for installation of equipment, the type of equipment to be installed, testing dates and dates when equipment will be operational.
2. Verify that each organization shall provide for the training of individuals responsible for the planning effort.

3. The Plan lists the Superintendent-Nuclear Productions and the Manager-Nuclear Operations as having responsibility for the reviewing and updating the Plan. However, (1) it is unclear as to the identity of the Emergency Plan Coordinator and (2) identify the individual responsible for review and updating of the Plan.
4. Provide an appendix listing, by title, the procedures required to implement the Plan.
5. Although the Plan is basically written in NUREG-0654 format, many areas of the Plan pertain to more than one area of NUREG-0654, therefore provide a cross-referenced index to all NUREG-0654 criteria.

Conclusion:

Based on the NRC review against the criteria in "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," NUREG-0654, Revision 1, November 1980, the staff concludes that the FERMI 2 Nuclear Power Plant Emergency Plan, upon satisfactory correction of those items mentioned above in this section will provide an adequate planning basis for an acceptable state of emergency preparedness and will meet the requirements of 10 CFR 50 and Appendix E thereto.

After receiving the findings and determinations made by FEMA on State and local emergency response plans, and after reviewing the revision(s) to the applicant's plan, a supplement to this report will provide the staff's overall conclusion on the status of emergency preparedness for the FERMI 2 Nuclear Power Plant and related Emergency Planning Zones.

he final NRC approval of the state of emergency preparedness for the FERMI 2 Nuclear Power Plant will be made following implementation of the emergency plans to include development of procedures, training and qualifying of personnel, installation of equipment and facilities, and a joint exercise of all the plans, (site, State and local).