



Federal Emergency Management Agency

Washington, D.C. 20472

50-341

30 APR 1982

MEMORANDUM FOR: Brian K. Grimes
Director
Division of Emergency Preparedness
U.S. Nuclear Regulatory Commission

FROM: *Richard W. Krimm*
Richard W. Krimm
Assistant Associate Director
Office of Natural and Technological Hazards

SUBJECT: Interim Finding on Enrico Fermi Atomic Power Plant,
Unit 2

Attached is an updated Interim Finding on the State and local readiness for off-site radiological emergency preparedness for the Enrico Fermi Atomic Power Plant, Unit 2. This finding supplements the January 26, 1982, and March 22, 1982, findings and consists of an evaluation of planning standards A--P from NUREG-0654/FEMA REP-1, Rev. 1.

Attachment
As Stated

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Federal Emergency Management Agency

Region V 300 South Wacker, 24th Floor, Chicago, IL 60606 (312) 353-1500

APR 22 1982

MEMORANDUM FOR: Assistant Associate Director, Office of
Natural and Technological Hazards

ATTENTION: Megs Hepler ✓
Technological Hazards Branch

FROM: Regional Director
FEMA Region V

SUBJECT: Interim Report - Enrico Fermi Atomic Power Plant, Unit 2

Attached is the updated Interim Findings of State and Local
Readiness for off-site radiological emergency preparedness for the
Enrico Fermi Atomic Power Plant, Unit 2.

for Dan Bement
John T. Anderson

Attachment

cc: Mr. Finch
Mr. Axelson, NRC Region III
Mr. Menezzer, NRC Region III

INTERIM FINDINGS FOR
ENRICO FERMI NUCLEAR POWER PLANT, UNIT 2
OFF-SITE RADIOLOGICAL EMERGENCY PREPAREDNESS

I. Introduction:

1. This document constitutes an update of the Interim Findings submitted on January 21, 1982 by the Federal Emergency Management Agency (FEMA) Region V on the adequacy of the radiological emergency preparedness of the State and local governments within FEMA Region V that would have to respond in the event of an accident at the Enrico Fermi Atomic Power Plant, Unit 2. Update material will consist of the findings of the Regional Advisory Committee's review of State and local site specific plans and evaluation results of the full scale exercise conducted on February 2, 1982. The Final Exercise Report was provided FEMA National and Michigan on March 10, 1982.

Enrico Fermi Atomic Power Plant, Unit 2 is located in Frenchtown Township approximately six miles Northeast of Monroe, Michigan and is on the western shore of Lake Erie. The plume exposure pathway Emergency Planning Zone (EPZ) out to ten (10) miles includes parts of Monroe and Wayne Counties in Michigan and the Southern tip of Essex County Canada. The affected population within the 10 mile EPZ is 64,546. The ingestion pathway EPZ (50) miles includes portions of Canada, all of Monroe and Wayne Counties, parts of Macomb, Oakland, Livingston, Washtenaw, Jackson, Lenawee, and Oakland Counties in Michigan. The 50 mile EPZ also includes Erie, Fulton, Lucas, Ottawa, Sandusky, and Wood Counties in Ohio.

The principal technical and planning organizations involved are:

Michigan - The Emergency Services Division, Michigan Department
of State Police

Michigan Department of Agriculture

Michigan Department of Commerce

Michigan Department of Education

Michigan Department of Public Health

Michigan Department of Natural Resources

Michigan Department of Social Services

Michigan Department of Transportation

Other State Departments annexed in the plan but not active during an exercise include:

Michigan Department of Attorney General

Michigan Department of Civil Rights

Michigan Department of Civil Service

Michigan Department of Corrections

Michigan Department of Labor

Michigan Department of Licensing and Regulation

Michigan Department of Mental Health

Michigan Department of Management and Budget

Michigan Department of Military Affairs

Michigan Department of State

Michigan Department of Treasury

Wayne County - Wayne County Office of Emergency Preparedness. The other County agencies are counterparts of the State level.

Monroe County - Monroe City/County office of Emergency Preparedness. The other County agencies are counterparts of the State level.

2. The State plan and site specific plans for Big Rock Point, D.C. Cook, and Palisades were initially prepared by State and local officials using NUREG 0654/FEMA REP-1 Interim as a guide. These plans were informally submitted on April 21, 1980, for screening by FEMA and the Regional Advisory Committee. The results of this screening was provided to State and local officials in Lansing, Michigan on May 13, 1980. These site specific plans were later revised according to NUREG 0654/FEMA REP-1, Revision 1.

A full scale exercise was conducted on June 24, 1980, to test the State plan and Charlevoix and Emmet Counties site specific plans for Big Rock Point Nuclear Power Plant. Subsequent exercises to test the State plan and site specific local plan for D.C. Cook and Palisades was conducted on October 9, 1980, and December 9, 1980.

On February 26, 1981, the Director of the Emergency Services Division, Michigan Department of State Police formally submitted to FEMA Region V for the Regional Director review of the State plan and local site specific plan for Big Rock Point, D.C. Cook, and Palisades Nuclear Power Plants. The Regional Director review is currently in process.

The State plan, Monroe and Wayne Counties site specific plan for Enrico Fermi Atomic Power Plant, Unit 2 was submitted to FEMA Region V for screening by FEMA Region V and the Regional Advisory Committee on November 19, 1981. The Regional Advisory Committee provided their plan review findings to the Emergency Services Division, Michigan Department of State Police on January 15, 1982. The State and local site specific plans were prepared by State and local officials using NUREG 0654/FEMA REP-1, Revision 1 as a guide.

A full scale exercise to test the State plan and local site-specific plans for Enrico Fermi Atomic Power Plant, Unit 2 was conducted on February 2, 1982. Public official conference and training drills were scheduled during January to prepare State and local officials for the February 2nd exercise. A Public Meeting was held on February 3, 1982 to explain the State and local site-specific plans for Enrico Fermi Atomic Power Plant, Unit 2.

The attached letter from the Director of the Michigan Department of Public Health indicates the Department's 1977 Peacetime Nuclear Incident rules are in effect. This letter also indicates the Michigan Department of Public Health will proceed with the promulgation of permanent rules to be consistent with the emergency classification system outlined in NUREG 0654/FEMA REP-1, revision 1. In the interim, the attached interpretative statement offered by the Michigan Department of Public Health explains how certain Peacetime Nuclear Incident rules will be interpreted as an effort to insure compatibility with the emergency classification system outlined in NUREG 0654/FEMA REP-1, revision 1. See Attachment 1.

A significant political event concerns the emergency classification system. Temporary rules were initially adopted so that the emergency classification system used by the State and local governments would be consistent with that of the utility. These temporary rules when formally considered during the summer of 1981 were not formally adopted. Subsequent inquiries with the State has somewhat clarified what emergency classification system Michigan follows. See Attachment 1.

3. Materials available for examination that form the basis for the findings presented in this document include the following:

- The Michigan Emergency Preparedness Plan including Radiological Emergency Response Procedures.
- Monroe County Emergency Operations Plan, Appendix 1, Nuclear Facility Procedures.
- Wayne County Emergency Operations Plan, Appendix 1, Nuclear Facility Procedures.
- Regional Advisory Committee plan review comments on the State, Wayne and Monroe Counties Site Specific plans for the Enrico Fermi Atomic Power Plant, Unit 2.
- Final Report on the Enrico Fermi Atomic Power Plant, Unit 2 full scale exercise conducted jointly with the State of Michigan, Wayne and Monroe Counties on February 1 and 2, 1982. Final Exercise Report is dated February 22, 1982.
- Public Meeting transcript of February 3, 1982 meeting.

These documents form the basis for the specific findings of adequacy and inadequacy presented below. Items of special concern as a result of evaluating the data contained in these documents are discussed in each section. These items may not necessarily be major impediments to plan development and implementation, but are serious enough to warrant attention in this report and special effort on the State's part to correct.

II. Evaluation: Planning Standards and Evaluation Criteria

- A. The agencies represented at the State alternate EOC (Northville) and the on-scene EOC (Flatrock), roles and functions, were adequately demonstrated. There appeared to be little doubt that the State, Monroe, and Wayne Counties demonstrated a capability to bring staff together and maintain an operational status for periods in excess of 24 hours. Successful shift changes were demonstrated at the State, Monroe, and Wayne Counties. Additional training is recommended for the Director of Operations at the alternate State EOC (Northville) since authority was not passed to anyone following the shift change. In Monroe County, the Emergency Preparedness Director in charge seemed usurped by the Deputy Chief of Emergency Services. These State agencies are not present in an exercise for example, Department of Attorney General, Department of Civil Service, and Department of Corrections, and were not at the alternate State EOC. If necessary, they would be present during an actual accident. Also some departments are still in process of developing annexes to the plan outlining their duties. The agencies represented at the on-scene EOC (Flatrock) adequately demonstrated their roles and functions. The on-scene EOC Director provided effective direction of the EOC and had periodic staff briefings throughout the exercise. Additional staff for answering telephones would be helpful. Participants at the alternate State EOC managed emergency operations in an outstanding manner. The Director of the operations group was firmly in control throughout the exercise. The written procedures for emergency actions and the coordination of their execution through oral briefings worked well.

Monroe and Wayne Counties demonstrated they have the necessary leadership and management control to operate on a long term basis. Recommend continued on-the-job training. The Monroe City/County Joint Communications Center (JCC) is manned 24 hours per day; in addition, the required levels of experience and expertise is available on a 24 hour basis. The Wayne County Emergency Preparedness Director was hospitalized the day before the exercise. The Acting Director should be complimented on a job well done. Continued operations were demonstrated through a shift change. The on-coming staff were briefed by the out-going staff.

The State plan contains a table of primary and support responsibilities, the specific functions and responsibilities for the major elements and key individuals are not included. The assignment of emergency responsibilities of the various support organizations has been established with the exception of the responsibilities of the Department of Agriculture (USDA). The following statement should be included to establish USDA's role, "The United States Department of Agriculture has established in every State and County, USDA Emergency Boards to coordinate USDA State or County disaster assistance efforts. All of the USDA agencies having major emergency responsibilities are represented on these boards. USDA emergency personnel are to establish continuing liaison with State and County agriculture agencies to insure coordination of assistance activities and damage assessments." The USDA Regional Radiological Representative for the State of Michigan is: Dr. Fred J. Burke, Springfield, Illinois, (217) 492-4500. The USDA State Emergency Board representative for the State of Michigan is: Dorn Diehl, East Lansing, Michigan, (517) 373-1097.

The Wayne County plan NUREG 0654 cross-reference implies there is only one signature page, when in fact, there are several pages that include signature lines for cognizant local officials to sign off. None of the sign-off lines have been signed. The plan does not mention nor reference other documents giving details of written letters of agreement between Federal and State organizations. The written agreements between support organizations do not include the use of USDA resources. A request for USDA services would include the use of the State Emergency Board and the County Emergency Board and the use of Agriculture Extension Agents to notify farmers in the event of a nuclear accident. The responsibilities assigned to the agriculture agency may be shared with the County Emergency Board. The plans have not taken full advantage of the relationship of the County agent to the County Emergency Board as one of its working members. With the approval of other CEB members, the County agency may continue to serve as the primary agriculture contact, advisor, and representative at the County Emergency Operations Center. The State Emergency Board is composed of the following agencies: The Agricultural Stabilization and Conservation Service (ASCS), the Statistical Reporting Service (SRS), the Soil Conservation Service (SCS), the Food Safety and Inspection Service (FSIS), the Forest Service (FS), the Animal and Plant Health Inspection Service (APHIS), the Food and Nutrition Service (FNS), the Cooperative Extension Service (CES), the Farmers Home Administration (FmHA), and the Rural Electrification Administration (REA). The efforts of these organizations in providing services are directed and coordinated by the chairperson of the State Emergency Board.

C. Emergency Response Support and Resources

All communications equipment was adequate at the State level. Federal assistance was competently requested in a timely manner. Internal communications were adequate, in place, and operable. Some planned backup communications systems were not in place at the time of the exercise. Monroe County EOC needs improvement in the number of available radio frequencies. The dispatch of a County representative to the near-site EOF is not required by the plan. Recommend Monroe County plan be amended to provide for this.

The Wayne County plan was found deficient in listing local resources. Reference to utility generated resource lists should be avoided. Local resources as needed to support the Federal response, such as air fields, command posts, telephone lines, radio frequencies, telecommunication centers that will be made available to IRAP should be addressed. Facilities to support the functions of IRAP need to be included in the plan and a signature sheet verifying the agreements has to be added. The Monroe and Wayne County plans limit themselves to referencing only medical support individuals or facilities. The cross-reference index should reference other support services for social or transportation support. It would be helpful if the list provided a description of the type of assistance offered by each entry.

D. Emergency Classification System

The emergency classification system utilized during the exercise was consistent with the utility at all EOCs. At Monroe County, observers noted a delay occurring when the classification changed.

The EOC director at the State on-scene EOC had developed Standard Operating Procedures specifying appropriate actions for each emergency classification. At both Monroe and Wayne Counties, support from elected officials was evidenced by their presence during the exercise. Frequent briefings were held to keep all participants informed of activities and actions taken.

E. Notification Methods and Procedures

The State on-scene and alternate emergency operations centers adequately alerted the public within the scope of their responsibilities. Coordination with the on-scene EOC from the alternate State EOC should be improved to the point they are more specifically aware of the actions their counterparts on-scene are taking. The prompt notification system (outdoor warning siren) is not in place. Public alerting and notification in Monroe County was accomplished and EOC participants were kept informed through continuous briefings. Public alerting was not necessary in Wayne County since the plume did not reach the area. The Joint Public Information Center at Monroe Community College is responsible for disseminating appropriate information. Alert procedures were accomplished relating to notifying and mobilizing emergency response personnel at Monroe County EOC.

The proper procedures for notification of USDA emergency personnel is as follows: The Michigan State Department of Agriculture will notify the USDA Regional Radiological Representative (RRR), Dr. Fred J. Burke in Springfield by telephone. The RRR will notify the USDA's State Emergency Board Chairperson, Mr. Dorn Diehl, East Lansing. Emergency information will be disseminated to all affected farmers and other agricultural industries by the USDA State Emergency Board through the County Emergency Boards. The mobilization procedures are not provided in the plan. In the Wayne County plan, the communication system to be used for initial notification is not described. The plan should list the specific radio stations included as part of the Emergency Broadcast System (EBS). The time required for notifying and providing prompt instructions to the public within the plume exposure pathway is not included in the State, Monroe and Wayne County plans. Attachments G and H to Appendix 1 are incomplete regarding siren coverage and siren inventory. Siren system is not installed at this time.

F. Emergency Communications

All communications were adequate at the State alternate EOC and the State on-scene EOC. Both have primary (telephone) and backup (radio) communications. The EOC operated adequately with existing equipment and facilities which included dedicated phone lines, State Police radio and Law Enforcement Information Network (LEIN) resulting in timely message transfer. The Monroe County EOC internal communications were adequate, in place, and operable. Some planned backup communications systems were not in place at the time of the exercise, but will be complete soon. Recommend installation of backup communications system between the nuclear facility, near site EOF, State, and local EOCs. Monroe City/County Joint Communications Center has the capability to communicate with fixed and mobile medical facilities 24 hours per day.

Recommend adequate emergency medical vehicles be available for various contingencies, such as, severe weather conditions. Personnel notification procedures are adequate. Communications between Wayne and Monroe Counties and the State consisted of telephone with radio backup. Additional telephones are recommended in Wayne County in that some agencies had to share phones. Except for a shortage of telephones, the alerting and mobilization efforts were excellent to the extent observed. Radio to fixed and mobile medical support facilities were not demonstrated during this exercise since it was not part of the scenario. Recommend this capability be obtained and demonstrated.

Communications between the local EOCs and the State EOC should be tested more than once a year. The monitoring teams should also test their communications with the local and State EOCs more than once a year. Recommend revision be made in the plans. The plans do include instructions for the periodic testing of the entire emergency communications system. The USDA would begin with the Michigan State Department of Agriculture notifying the USDA Regional Radiological Representative (RRR) Dr. Fred J. Burke in Springfield. The RRR will notify USDA's State Emergency Board Chairperson, Mr. Dorn Diehl, East Lansing.

G. Public Education and Information

The Joint Public Information Center (JPIC) facility was excellent. Ample work space was provided for the media as well as 25 phone lines for their use. The State, County, and utility was provided with adequate work and meeting space. Dedicated phone line communications to all off-site locations were provided according to plans. Internal communications were good. Pre-briefing meetings were held between all briefings spokesmen and contained well coordinated information. The Governor's Press Secretary is the media spokesperson who has been designated to have access to all necessary information and is responsible for the coordination of information provided at the Joint Public Information Center. Primary briefing spokesmen at the Joint Public Information Center include spokesmen from the State, the Wayne and Monroe Counties and the utility. The briefings, held every 30 minutes, were followed with JPIC hard copy releases which included information for the State, County, and utility. Media briefings and releases were well prepared and comprehensive. The State needs to preface each briefing with the caption, "this is an exercise." The displays and graphics used to illustrate were well done. The State spokesperson was well informed and able to answer all media questions. A Radiological Health Department spokesperson was present to supplement the briefings with technical information. Security at the press center was good. Phone lines were provided for rumor control and indications were given during the briefings of rumor control procedures. A press representative under escort was allowed into the alternate EOC at Northville. The possibility could exist of disseminating information without clearing it through the JPIC. Recommendation made that press not be allowed in the EOCs but referred to the JPIC. This press representative is aware his source of information is the Joint Public Information Center. He was allowed into the State alternate EOC for picture taking purposes. Subsequent investigation revealed this person was a photographer for the Michigan Department of State Police. The evaluators at the Monroe and Wayne County EOCs did not observe activity relating to Public

Education and Information as it was handled at the Joint Public Information Center. A Detroit Edison publication is sent periodically to residents near Fermi informing them of plans and procedures used in case of an accident. Rumor control was handled properly by EOC personnel and was referred to the JPIC. Some EOC staff appeared hesitant on rumor control procedures. Additional on-the-job training and familiarity with written procedures is recommended. Wayne and Monroe Public Information Officers assigned to the JPIC were kept informed by County EOC staff of all important information. Recommend television and radio equipment be placed in the EOC for monitoring information released at the JPIC.

H. Emergency Facilities and Equipment

The exercise began one day prior for the utility. The scenario jointly exercised the utility, State, and local jurisdictions during the second day. Federal evaluators did not observe activation of EOCs. It is assumed that given the vast array of State and County resources available, it is doubtful any problems would be encountered in activation and staffing at any of the EOCs on a timely basis. At the State alternate EOC, space was adequate but some State agencies listed in the State plan were not present. Those State Departments missing are normally not directly concerned with emergencies of this type or were not required during this exercise. If all agencies were represented, the EOC space would have been overtaxed. The message board was difficult to read. The security guard was too close to the EOC and would disrupt EOC operations should a confrontation begin. Security generally was good although a rear stair door was not secure. The on-scene EOC has limited space. A larger facility would improve the operations of the State on-scene EOC staff. Cross-talk within the working area caused communication problems among the EOC staff. Hand carrying messages slowed procedures, more spacious quarters would enhance delivery of messages. Security measures were adequate. The Monroe County EOC space was small and crowded. To better facilitate the staff, the facility should be larger. Message handling procedures were carefully followed. Security procedures were clearly functional. The space was insufficient for the numerous County agencies and other communities' representatives who would occupy the EOC space at the Wayne County EOC. Internal security such as checking IDs and messages can be improved.

The timeliness of activating and staffing the EOC is not indicated in the plans. Some of the radiation monitoring equipment located at the County Office of Civil Preparedness in Westland is not suitable for monitoring radiation effluents resulting from nuclear plant incidents. In the Wayne County plan, field communication equipment and emergency supplies for field personnel needs to be listed. The Monroe County plan needs to address the availability of consumable supplies. Maps with preselected monitoring locations, forms for recording information, tables of dose conversion factors, procedures for obtaining and administering stable iodine needs to be incorporated.

I. Accident Assessment

The State environmental radiation teams were dispatched in a timely manner. The Michigan Department of Public Health also dispatched their new mobile laboratory (van) to the vicinity of the State on-scene

EOC to provide field analysis of data gathered by the State field monitoring teams. This mobile lab had communications to the State alternate EOC at Northville. Capability and resource for field monitoring are adequate for monitoring in plume emergency planning zone (EPZ). Equipment is suitable for gross radiation monitoring and I-131 detection and measurement. Team members need some instruction and training for collecting surface samples. The State alternate EOC exhibited the capability of taking release rate data from the utility and the U.S. Weather Service and using the data in estimating dose rates. The State plan should include information on the capability for field monitoring within the primary EPZ. The personnel capabilities or procedures are not included. The Wayne County plan should include an estimate of the time it will take to deploy the field teams. Accident assessment was not observed at the Monroe or Wayne County EOCs.

J. Protective Response

At the alternate EOC, maps showing population distribution near the nuclear facility were not displayed. The on-scene EOC should display maps showing field radiation monitoring, environmental sampling points, and population distribution near the nuclear facility by evacuation areas. The width of the plume should be posted and available to the entire EOC staff. Population distribution maps were not displayed until mid-way through the exercise at the Wayne County EOC. Agency officials at the State on-scene EOC performed their assigned roles to coordinate the mobilization of such notification activities as informing persons engaged in recreational activities within Sterling State Park and fishing on Lake Erie of the situation, obtaining the Governor's approval for protective actions involving the public, and assuring that dairy farmers and the owners of the exposed food production, processing, and sales facilities were kept up-to-date. The State was not timely in recommending protective action based on release rate data from the utility and the U. S. Weather Service in estimating dose rates. There was a delay in changing the accident classification as conditions changed. Evacuation was delayed approximately an hour after the recommendation to evacuate came from the licensee, while State Health authorities completed an independent assessment of the need to evacuate. The State provided capable support and assistance to the Counties in implementing procedures once they concurred with the evacuation decision. State Police and County authorities cooperated in establishing traffic control points. Roadblocks existed at the perimeter of the 10 mile EPZ and around the evacuated area, however, EOC staff could not determine if access was controlled around the sheltered area. The State Department of Transportation provided continuous snow plowing service and responded promptly to a report of an accident blocking traffic. Blizzard conditions prevailed for three days prior to the exercise with approximately 8 inches of new snow. State and County road crews by exercise day had devoted many hours of overtime work to keep major highways and roads open. The evaluation team during the exercise experienced no difficulty traveling State and County roads. Methods for evacuating mobility impaired persons were not demonstrated since this was not part of the scenario. The State Department of Agriculture adequately provided for sheltering of farm animals and knew the locations of dairy and food processing plants within the EPZ. Personnel dosimetry records

were excellent for the State field monitoring teams. Guidelines for authorized emergency workers exposures and decontaminations action levels were established but the scenario did not exercise these requirements. The MDPH maintains a quantity of Potassium iodide at its central office in Lansing, Michigan. When an incident occurs this supply will be transported to the local area. The MDPH also has contacts from which additional drugs can be obtained for distribution to the general public. The Director of the County Health Department will distribute the drugs. Reference State plan, annex 1, page Q19 and Monroe County Plan, appendix 1, page J-1-2 and J-1-10. State monitoring teams carry KI for their protection with the ingestion being left to the discretion of the team members individually. This is according to the State plan. KI was taken during the exercise before any release of radioactive iodine which deviates from criteria established in the Michigan Radiological Emergency Response Plan. The EOC staff demonstrated a capability to determine doses received in the EOC with representative film badges. The alternate State EOC did not have a capability for periodic estimation of total population exposure without an appropriate display map. Monroe County EOC demonstrated they could effectively manage evacuation, reception, care and transportation for the public involved. Access control was not actually observed but the activity of several support agencies within the EOC indicated they have the ability to coordinate the control of access to the evacuated area. In Wayne County, registration and monitoring was demonstrated and a center was established. An actual evacuation did not take place; therefore, these capabilities were not fully demonstrated. Some of the roadblocks in Wayne County were not according to the plan. Additional training on roadblock establishment and confirmation is recommended. Many categories were either not observed or exercised on only a standby basis, hospitals and ambulances were on standby but evacuation was not required.

The State plan does not contain the criteria for use of KI as outlined in the County plans for the use of radioprotective drugs, and the predetermined conditions under which these may be used by emergency workers. If the State plans to distribute KI to the public, supplies should be stored locally rather than in Lansing. The plan should also include some basic agricultural resource information. Maps for recording survey and monitoring data, key land use data (e.g. farming), food processing plans, dairies, water sheds, water supply intake and treatment plants and reservoirs. The maps should start at the facility and include all of the 50-mile ingestion pathway EPZ. Updated lists of the name and location of all facilities which regularly process large amounts of food or agricultural products should be maintained. Such maps, if too large to be included in this publication, should be listed as to their location and availability.

K. Radiological Exposure Control

State personnel at the on-scene EOC were not issued dosimeters. Personnel records were not maintained; however, some monitoring teams in the field maintained excellent records. Action levels for decontamination have been specified in the State plan. Their capability was not evaluated because there was no iodine released by the reactor according to

the scenario. Recommendation that future scenarios include iodine release so this capability may be evaluated. The Monroe County field monitoring team was called to position themselves at pre-established monitoring stations though this capability was not exercised. Future scenarios should exercise decontamination of personnel, supplies, and/or equipment. The staff at the decontamination facility in Monroe County expressed a need for better understanding and training in this area. Recommend training as necessary to carry out decontamination procedures. The facilities to perform decontamination were in place and exercised. Thermoluminescent dosimeters (TLDs) and Civil Defense dosimeters were issued to emergency workers. Recommend future scenarios exercise the County's ability to monitor and maintain dosage records of emergency workers and decontamination of emergency workers, equipment etc.

Procedures for decontamination of personnel and equipment are omitted from the State and County plans. Specific instructions for periodically reading dosimeters should be included in State and County plans. The time period between readings should relate to the average projected or measured radiation levels. The Wayne County plan should include the decision chain defined from the worker to the agency head for authorizing exposure in excess of recommended levels. Recommended levels should be firmly established rather than voluntary.

L. Medical and Public Health Support

The medical and public health support function was not observed at the State or Monroe and Wayne Counties during the exercise since this was not part of the scenario. Hospital facilities were notified to be on standby as well as ambulances, but were not utilized. Future scenarios should exercise this function. Consequently, additional training for medical support is recommended.

The plan lists hospitals with decontamination units willing to accept people with radiation injuries, but there is no evidence provided regarding their capability to evaluate RAD exposure and uptake since it cannot be determined that these hospitals are adequately prepared to handle contaminated personnel.

M. Recovery and Reentry Planning and Post-Accident Operations

State response organizations were promptly informed when recovery and reentry operations could begin. The State procedures demonstrated during recovery operations included traffic control and assignment of agriculture inspectors to begin sampling milk from dairy plants. The speed with which the on-scene State emergency operation center staff confirmed the RAD health evaluation of information needs improvement. The support agencies in the Monroe County EOC effectively coordinated their efforts to achieve a smooth and orderly transition. Monitoring of reentry activities to insure security and maintain order was accomplished by law enforcement personnel. Wayne County agencies carried out reentry operations appropriately. Most operations were simulated in both Monroe and Wayne Counties. A better demonstration of ability would result from more actual reentry activity.

N. Exercises and Drills

The February 2, 1982 exercise adequately demonstrated sufficient capabilities and resources at the State and County levels to protect life and property in the event of a nuclear power plant accident. Their performance was timely and their actions appropriate to the problems introduced by the scenario.

More unexpected problems introduced by the scenario would more adequately test the State alternate EOC (Northville) as a support facility to the State on-scene EOC (Flat Rock). Future scenarios should include an iodine release to observe implementation of contamination levels or KI distribution. Some participants appeared to have had access to the scenario. Future exercise scenarios should not be available to exercise participants. Continued on-the-job training of EOC staff is recommended to increase their response capabilities. It is recommended future scenarios include plume movement toward Wayne County in order to fully exercise emergency facilities and capabilities in Wayne County.

The State plan does not provide for communication drills to include the aspect of understanding the content of messages. Suggest the alert procedures for USDA be included as follows: The Regional Radiological Representative, Dr. Fred J. Burke in Springfield, Illinois (217) 492-4500 should be contacted. Mr. Robert Conley, USDA was part of the evaluation team during this exercise. The plan does not include exercise conduct between midnight and 6 a.m., nor does it state the five year period requirement for testing all major elements. Due to fiscal restraints, the State has indicated it does not intent to conduct exercises between midnight and 6 a.m.

O. Radiological Emergency Response Training

The plan refers to Attachment I, appendix 1 of the State plan for a description of Statewide training programs for emergency response personnel. A specific training program with course list is required for directors and coordinators of response organizations. The plan states RAD personnel will attend State and Federal courses. The specific training program and course list is required to be in the plan. The plan includes very general training subjects; however, it does not include specific training programs, course lists, or training frequency. The plan also states in general terms that health and medical agencies will participate in frequent training programs but does not list frequency of training or course list. These additions should be made in the plan.

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

The State plan does not contain an appendix listing, by title, procedures required to implement the plan, nor a listing of actions of the plan to be implemented by each procedure.

III. Schedule of Corrections

The FEMA Region V Regional Advisory Committee review of the State and local plans for the emergency planning zone of the Enrico Fermi Atomic Power Plant Unit #2 revealed that the plans are basically adequate to protect the public. There were some deficiencies noted in this review as conveyed to the State January 15, 1982 and some problems that surfaced as a result of the February 2, 1982 exercise. It should be noted that the problems found in the plans and implementing procedures are such that once corrected would serve to improve upon the overall emergency response capability. Attention should be given to Section E, element 6. At the time of this report the total system does not exist. This is a significant deficiency for Michigan and both Wayne and Monroe Counties. An additional significant deficiency resulting from the Exercise for the State of Michigan is Section J, item 10.b.

Another possible point of concern is the classification system used by the State of Michigan. The system reflected in the plan is consistent with the system outlined in NUREG 0654/FEMA REP-1, Revision 1.

This classification system was not promulgated into permanent rules. The classification system used during the recent exercise appears to be consistent with that used by the Utility even though the classification system now used by Michigan is the Michigan Department of Public Health's 1977 Peacetime Nuclear Incidents (PNI) rules. See page 3 above and Attachment 1. Discussions between FEMA Region V and NRC Region III have been held on this issue. The Director, Michigan Department of Public Health has indicated he will continue to endeavor to promulgate Nuclear Power Plant Emergency rules consistent with that and by the Utility and outlined in NUREG 0654/FEMA REP-1, Revision 1.

The State was provided a copy of the Interim Critique Report on February 3, 1982, and a copy of the Final Report March 10, 1982. We received a response to the Final Exercise Report from Michigan on April 5, 1982. The State of Michigan response lacked a definitive response with dates for corrective actions to the Enrico Fermi Atomic Power Plant, Unit #2 Final Exercise Report. A copy of this letter is attached. FEMA Region V will continue to work with the State of Michigan to develop a schedule of corrections for each significant deficiency. See Attachment 2.

STATE OF MICHIGAN



WILLIAM G. MILLIKEN, Governor

DEPARTMENT OF PUBLIC HEALTH

3500 N. LOGAN

P.O. BOX 30035, LANSING, MICHIGAN 48909

Bailus Walker, Jr., Ph.D., M.P.H.
Director

JAN 1982

December 28, 1981

Colonel Gerald L. Hough, Director
Michigan State Police
714 South Harrison Road
East Lansing, Michigan 48823

Dear Colonel Hough:

As we discussed during our meeting on November 24, 1981, confirmed by my letter of December 1, 1981, this Department is endeavoring to promulgate the Nuclear Power Plant Emergency (NPPE) Rules in an effort to provide a legal basis for the radiological health aspects of the Department's Annex of the Michigan Emergency Preparedness Plan. In the interim, the Department's 1977 Peacetime Nuclear Incidents (PNI) Rules are in effect. Because the PNI Rules contain criteria which may cause confusion during the conduct of an exercise or actual response to a nuclear power plant incident, we have prepared the attached Interpretive Statement in an effort to avoid such confusion.

The Interpretive Statement has been sent to the three utilities owning nuclear power plants in Michigan, and copies of the Department's cover letters have been provided to the Emergency Services Division of your Department, as agreed during our meeting.

If you or your staff have any questions concerning the attached Interpretive Statement or the PNI Rules, please contact us.

Sincerely,

A handwritten signature in cursive script that reads "Bailus Walker".

Bailus Walker, Jr., Ph.D., M.P.H.
Director

Attachment

INTERPRETIVE STATEMENT

This Interpretive Statement will henceforth serve to provide interpretation by the Michigan Department of Public Health of certain aspects of the Department's Peacetime Nuclear Incidents (PNI) Rules, filed with the Secretary of State on January 3, 1977 and being §§325.5901 through 325.5934 of the Michigan Compiled Laws.

An interpretation is essential in order to maintain compatibility with existing nomenclature found in nuclear power plant emergency response plans pursuant to the requirements of the nuclear plant U. S. Nuclear Regulatory Commission (NRC) license, 10 CFR Part 50, and the joint NRC-Federal Emergency Management Agency (FEMA) document, NUREG-0654/FEMA-REP-1, Rev. 1, titled "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants". Such compatibility is necessary in order to avoid confusion during response to a peacetime nuclear incident at a nuclear power plant, to ensure an adequate and timely response, and to protect the public health and safety. In this regard, the Department is proceeding with the promulgation of permanent rules to achieve these objectives. However, in the interim, certain PNI rules will be interpreted as follows in an effort to ensure compatibility with the aforementioned documents and to provide continuity of the radiological aspects of emergency response.

<u>Rule</u>	<u>Interpretation</u>
2.(1), 2.(2)	Actions taken by an owner in fulfillment of all of the applicable requirements of the Michigan Emergency Preparedness Plan (developed pursuant to Act No. 390 of the Public Acts of 1976, as amended, being §30.401 <u>et seq.</u> of the Michigan Compiled Laws) will be considered to fulfill all of the formerly applicable requirements of the "Michigan emergency plan", as defined in Rule 2.(1) and used in Rule 2.(2).
2.(2), 21, 23, 24	Although "Michigan nuclear facility emergency plan" is obsolete nomenclature, the concept of a "Michigan nuclear facility emergency plan", referred to in Rule 2.(2), has been incorporated into the Michigan Emergency Preparedness Plan. Therefore, reference to the "Michigan nuclear facility emergency plan", in Rules 21, 23, and 24, will be deemed to refer to the "Michigan Emergency Preparedness Plan".


2.(4), 11, 12,

Actions taken by an owner to classify an event or condition as a General Emergency, Site Area Emergency, Alert, or Notification of Unusual Event, as defined in Appendix 1 of NUREG-0654/FEMA-REP-1, Rev. 1, will be considered to conform to the requirements and intent of Rules 2.(4), 11, and 12, that intent being to employ a uniform system for the classification of nuclear incidents.

12, 23

Although the department will use Rule 12 to verify the owner's classification, the classification nomenclature defined in Rule 12 (and used in Rule 23) will be translated according to the following table in order to facilitate comparisons with the owner's classification:

<u>PHI Nomenclature</u>	<u>Equivalent NRC Nomenclature</u>
Class A	General Emergency
Class B	Site Area Emergency
Class C	Alert


Bailus Walker, Jr., Ph.D., M.P.H.

DATE 12-30-81

STATE OF MICHIGAN



WILLIAM G. MILLIKEN, GOVERNOR

DEPARTMENT OF STATE POLICE

COL. GERALD L. HOUGH, DIRECTOR

April 5, 1982

EMERGENCY SERVICES DIVISION
SECOND FLOOR
111 S. CAPITOL AVENUE
LANSING, MICHIGAN 48913

Mr. Dan Bement, Chairman
Regional Advisory Committee
Federal Emergency Management
Agency
Federal Center
Battle Creek, Michigan 49061

Dear Mr. Bement:

This office has received the Federal Emergency Management Agency's final report of the Enrico Fermi Unit 2 full scale exercise. The comments noting certain areas where improvement is necessary to further enhance plans and preparedness have been taken under consideration and will be incorporated as applicable.

The significant deficiencies listed by state and local jurisdictions will be corrected as soon as possible. The deficiency at the State of Michigan level relates to the unavailability of maps displaying population distribution near the Enrico Fermi plant by evacuation area. This information is available in local plans as well as through local EOC operations. In future exercises this information will be displayed at the state EOC's as well.

The significant local deficiency for both Wayne and Monroe counties relates to the adequacy of means used for notification and prompt instruction to the public in the plume exposure pathway. The warning system has not yet been installed in the Enrico Fermi Primary Emergency Planning Zone. When this is in place prior to fuel loading the entire prompt notification system will be tested as required. It was not the intent of the scenario to do so at exercise time.

As noted, the areas of minor deficiency will be corrected as necessary. The recommended changes or additions will be incorporated into plans and implementing procedures to provide for a well managed and coordinated response.

Sincerely,

PETER R. BASOLO, CAPTAIN
Deputy State Director of
Emergency Services

APR 7 9 59 PM '82