



# Federal Emergency Management Agency

Washington, D.C. 20472

JUL 18 1983

MEMORANDUM FOR: Edward L. Jordan  
Director, Division of Emergency Preparedness  
and Engineering Response  
Office of Inspections and Enforcement  
U.S. Nuclear Regulatory Commission

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

SUBJECT: Review of Offsite Radiological Emergency Planning and  
Preparedness Issues at the Enrico Fermi Atomic Power Plant,  
Unit II

The attached report, prepared by the Federal Emergency Management Agency (FEMA) Region V, is in response to your requests dated March 3, 1983, April 25, 1983, and May 23, 1983, concerning offsite radiological emergency planning and preparedness issues at the Enrico Fermi Atomic Power Plant, Unit II, raised by Monroe County, Michigan. These memoranda, in accordance with the FEMA/Nuclear Regulatory Commission (NRC) Memorandum of Understanding, requested FEMA to address a range of emergency planning and preparedness concerns raised in a petition filed by Monroe County with the Atomic Safety and Licensing Board (ASLB) to intervene in the Fermi-II evidentiary proceedings.

Initially, the Monroe County petition was denied, and upon appeal, the denial was reaffirmed by the Atomic Safety and Licensing Appeals Board (ASLAB). However, realizing that the Monroe County planning concerns should be addressed, the ASLAB requested the NRC to proceed, under 10 CFR 2.206 of NRC regulations, and evaluate the County's concerns. Subsequently, NRC requested assistance from FEMA in reviewing the issues. During FEMA's review, additional information related to the Monroe County concerns became available and was provided to FEMA for review in the above mentioned memoranda.

The attached FEMA report addresses the following items:

1. The eight emergency preparedness issues in the Monroe County petition (NRC memorandum dated March 3, 1983);
2. Consideration of information provided by the Citizens for Employment and Energy (NRC memorandum dated April 25, 1983); and
3. Responses to concerns raised by Ms. Mumaw and Mr. Barrett, intervenors from Ida, Michigan (NRC memorandum dated May 23, 1983).

Please do not hesitate to contact me for additional information.

Attachments  
As Stated

IE-35  
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# Federal Emergency Management Agency

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

JUN 23 1983

MEMORANDUM FOR: Assistant Associate Director, Office of Natural  
and Technological Hazards  
Attention: Megs Hepler, Field Operations Branch

FROM: Acting Chief, Technological Hazards Branch

SUBJECT: Request for Assistance Concerning Emergency  
Preparedness Issues at Fermi II

Our memorandum dated June 17, 1983, forwarded the FEMA Region V reply to NRC's request for review of documents related to this subject.

Since mailing our memo, we have received a copy of the licensee's response to queries raised by the Atomic Safety and Licensing Appeals Board resulting from the Monroe County petition to intervene. Our cursory review of this material indicates the licensee has reached the same conclusions involving these points as we did. A copy of their reply is forwarded for your information.

*Dan Bement*  
Dan Bement

Attachment

13. The intervenor raises points related to re-entry and recovery which were posed to the ASLAB by Monroe County in their petition to intervene. Please see our earlier discussion of Assertion #3 in Attachment 1.

14. The intervenor raises points related to transportation of transportation dependent persons which was included in Monroe County's petition to intervene. Please see our earlier discussion of Assertion #1 in Attachment 1.

15. The intervenor raises points concerning hospital evacuation that were discussed during the Monroe County public meeting and posed to the ASLAB in Monroe County's petition to intervene. Please see our discussion of Assertion #3 in Attachment 1.

16. The Monroe County plan provides for the RADEF officer, in coordination with the Michigan Department of Agriculture, to recommend placing milk animals on stored feed. The plan also contains a sample news release to this effect. Protective Actions Guides related to protection of livestock produced for human food are included in the Michigan Department of Public Health portions of the Michigan plan. There is no Federal criteria concerning pets, thus no requirement exists for care of pets to be shown in the plans. As a result, Monroe County has developed their own procedures for processing pets, which includes providing space in the county animal shelter for pets that must be temporarily separated from their owners. In other cases people would be referred to temporary lodging that would accept pets.

17. The intervenor raises points that were posed to the ASLAB in Monroe County's petition to intervene. Please see our earlier discussion of Assertion #2 in Attachment 1.



# Federal Emergency Management Agency

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

JUN 17 1983

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

Attention: Megs Hepler, Field Operations Branch

FROM: Acting Chief, Technological Hazards Branch

SUBJECT: Request for Assistance Concerning Emergency Preparedness Issues at Fermi II

The purpose of this memorandum is to respond to your letter dated April 26, 1983, and Mr. Jordan's memorandum of March 3, 1983, April 13, 1983, and May 23, 1983, regarding this same subject.

Mr. Jordan's memorandum of March 3, 1983, requested our review and comments concerning assertions derived from Monroe County's petition to intervene as summarized by the Atomic Safety and Licensing Appeal Board. An earlier draft reflecting the results of our review was transmitted to you by our memorandum of April 20, 1983. Further examination of our earlier response, which included discussions with Mr. Falk Kantor of the NRC staff, has caused some modification to clarify points. Therefore, our response included as Attachment 1 to this memorandum supersedes the April 20th draft, which is to be disregarded.

Mr. Jordan's memorandum of April 13, 1983, transmitted a listing of five factors in which NRC shares concern and/or interest with FEMA. The concerns are discussed in Attachment 2 of this memorandum.

Mr. Jordan's memorandum of May 23, 1983, transmitted a listing of citizens' concerns regarding the proposed radiological emergency response plan for Monroe County. The listing was compiled by the intervenors Mike Barrett and Joan Mumaw and addresses, for the most part, concerns stated during the Monroe County Board's public meeting of June 16, 1982. There is distinct similarity to concerns posed to the ASLAB by Monroe County in its petition to intervene. In several instances our response to the intervenors' concerns, which is Attachment 3 to this memorandum, are referenced to our responses to the ASLAB's queries in Attachment 1.

In all the attachments our responses are numerically identified in correlation to the query document.

*for Rick Anthony*  
Dan Bement

Attachments

## FEMA RESPONSE TO ASLAB QUERRIES

Assertion #1: The County lacks the bus capacity to evacuate people who are without transportation.

Discussion: Information in our files originally developed by Monroe County and State planners during their initial planning indicates:

(1) The total population within the 360 degree 10-mile EPZ is estimated to be 64,546. Of these, 34,474 people are in Sector "N" (WSW) and between five and ten miles from the plant. Prevailing wind is from WSW, which decreases probability of evacuation involving that sector. (Monroe County Plan, page BP-1-23).

(2) Addition of the figures in the Monroe County Plan, page BP-1-23 shows the total population within 360 degrees and five miles of the plant is 12,298.

(3) Resource information obtained from Michigan EMD concerning Monroe County school districts shows they have 297 buses with a capacity for 18,191 persons in the public schools. Private schools in the area have an additional 8 buses with a total capacity for 494 persons. Fifteen of the public school buses, with a total capacity for 650 persons, are equipped with lifts.

(4) For exemplification only, two scenarios using a full 180 degree evacuation were devised. The first, based on prevailing winds from WSW involves an estimated total population of 12,847. This is approximately 68.7 percent of the available school bus capacity. The second scenario was based on winds from ESE to include the maximum number of people within the 180 degree arc. An estimated 9,224 persons would be within five miles of the plant. Total population within ten miles of the plant is estimated to be 64,546. Available school bus capacity would be exceeded only if more than 29.8 percent of these people were transportation dependent. The Monroe County plan cites a PRC Voorhees study dated October, 1980, estimating that four percent of the population could fall into this category.

Emergency evacuation planning included other resources available from Monroe Rapid Transit System. At the time of initial planning there was a legal question concerning use of school buses. The Michigan State Attorney General, subsequently, has issued an opinion that school buses may be used for evacuation in event of an emergency.

Three points must be emphasized. One, the above scenarios describe an unlikely evacuation of 180 degrees. Two, primary means of evacuation will be by private vehicle. And, lastly, some resources are available from Monroe Rapid Transit System in addition to the school buses discussed herein.

CONCLUSION: FEMA Region V does not endorse this assertion. It appears there is sufficient bus capacity to accommodate all transportation dependent individuals.

Assertion #2: The County doubts the willingness and training of volunteer emergency workers to carry out all of their assigned tasks.

Discussion: The County's petition contains unsupported statements regarding the willingness of volunteer firefighters to perform their emergency tasks. This seems uncharacteristic of volunteers. However, FEMA Region V has not polled the firefighters and cannot, at the present time, confirm nor contradict this portion of the County's assertion. Potentially, a tentative impasse may exist until documentary evidence can be developed by the County, State, and FEMA.

Training of emergency workers has been a concern of the Michigan Emergency Management Division. As a result, they have developed a comprehensive radiological emergency training program for emergency workers which is now being implemented. The training program involves a general four part program for all workers who could operate within the 10 mile EPZ and specific training for certain groups of workers, i.e. local fire departments and fire volunteers receive additional orientation of decontamination procedures. The general program is designed to provide training in basic nuclear physics, biological effects of radiation, radiological emergency response, support organizations' structures and responsibilities and procedures.

Retrospectively, this is among the issues County representatives declined to discuss during the meeting on March 1, 1983. The County representatives' firm declination to discuss this assertion was qualified by a reference to an earlier meeting with utility officials. There was inference this assertion was or is being resolved between the County and the utility.

CONCLUSION: We find the newly implemented training program to be comprehensive and specifically designed to acquaint emergency workers with their specific responsibilities as well as providing an accurate explanation of considerations and characteristics involving radiological phenomena and environments. We believe implementation of the training program will tend to alleviate concerns stated in this assertion. Recognizing the County's reluctance to further pursue the assertion with FEMA Region V and State representatives, we have deferred necessary field activities in pursuit of additional pertinent information. Initiation of the field activities will be in coordination with the State and is dependent upon direction from FEMA Headquarters as well as being at the discretion of the Atomic Safety and Licensing Appeals Board.

Assertion #3: The County lacks sufficient funds or expertise to undertake recovery and reentry operations.

Discussion: This is the singular assertion Monroe County representatives discussed with FEMA Region V and Michigan Emergency Management Division representatives during the meeting on March 1, 1983. Discussion focused on the following paragraph of the present Monroe County Emergency Preparedness Plan:

"Local government is responsible for the recovery of and reentry into areas evacuated and/or contaminated due to an offsite release. They will receive advice and assistance from the Michigan Department of Public Health. Tasks required during this period include:

- a. Decontamination of people, property and food:
- b. Continued security of evacuated areas to prevent unauthorized entry and vandalism;
- c. Health and medical services for evacuees;

- d. Mass care and welfare;
- e. Monitoring of people and property;
- f. Transportation;
- g. Radioactive waste disposal;
- h. Engineering support;
- i. Long-term monitoring;
- j. Scheduling and controlling reentry based on criteria established by the Michigan Department of Public Health;
- k. Preparing a summary report of the emergency with recommendations for further actions and information to the local Emergency Operations Plan."

This paragraph, as written, makes Monroe County solely responsible for accomplishment of tremendous tasks far beyond the County's financial capability. The State representatives agreed that plan revision should be made to better define the extent of the County's responsibilities; identify assistance to be available from and through the State and; generally clarify the role of County, State, and Federal governments.

In contrast to the specific interpretation of the wording in the plan, during the full-scale exercise in February of 1982, the County and State demonstrated a mutual understanding of responsibilities and accomplishment of tasks. This mutual understanding is further evidenced by replies made by County officials to specific queries during the public meeting of June 16, 1982. Specifics include:

- a. The Monroe County Director of Social Services explained his staff of 120 persons would be augmented by volunteers from the American Red Cross and by Department of Health staff to man reception and decontamination centers. The Department of Health has responsibility for personnel decontamination. Methods for decontamination of canned and fresh foods were explained. It was not mentioned that actions would be taken to prevent contaminated foods from being marketed.
- b. Representatives from the Monroe County Sheriff Department and Monroe Police Department explained resources available to assist in traffic control, access control and continued security of evacuated areas. These resources include use of mutual aid law enforcement agencies, special deputies, State Police and Michigan National Guard.
- c. Discussion of health and medical services focused primarily on two types of circumstances. One, the handling of contaminated patients at hospitals and, two, assistance to bedridden or other individuals who could not be moved, but were within the zone to be evacuated. In answer to the first, it was explained that Mercy Hospital had facilities for handling contaminated persons. In event, Mercy Hospital is inside the zone to be evacuated, Seaway Hospital

serves as an alternate. It is anticipated the most likely need would be care for contaminated and injured individuals from on-site, but the general public (from off-site) would be afforded necessary treatment. In answer to the second aspect, arrangements for identification of transportation dependent people, including provision of transportation, were explained briefly. Method includes the coordination and cooperation of Social Services, Health Department, Law Enforcement, fire agencies and schools. Sheltering of the individual who could not be moved was mentioned as a possibility.

d. Mass care and welfare was not discussed as a singular topic, but was acknowledged to be the responsibility of the Department of Social Services. Discussion generally concerned the operation of reception and decontamination centers.

e. Monitoring of people and property was acknowledged to be the responsibility of the Department of Health with assistance from the State Department of Public Health.

f. Transportation discussions involved a variety of specific instances. Use of privately owned vehicles is the planned primary source of transportation. The plan provides for the removal of traffic impediments such as stalled vehicles and priority snow removal on evacuation routes during inclement weather. Use of school buses is planned to provide transportation for transportation dependent individuals. Possible widening and improvement of the North Dixie Highway, which is an evacuation route, had been referred to the Monroe County Road Commission for study.

g. Radioactive waste disposal would be under supervision of the State Department of Public Health.

h. Engineering support was not discussed during the public meeting.

i. Long-term monitoring would be under supervision of the State Department of Public Health.

j. Scheduling and controlling reentry would be based on criteria established by the Michigan Department of Public Health.

CONCLUSION: The Monroe County Board has acted upon the citizens' concerns stated during the public meeting of June 16, 1982, by formally addressing the concerns to the Atomic Safety and Licensing Appeal Board, the NRC, and FEMA. The broad scope of this assertion interrelates to the concerns expressed in the remaining assertions. Irrespective of this interrelationship, however, FEMA Region V, the State of Michigan, and Monroe County representatives mutually agree that additional clarification and definition of responsibilities during recovery and reentry must be included in the plan. Action is being taken by Monroe County and the State of Michigan to accomplish the revision.

Assertion #4: The County questions whether an evacuation can be successfully accomplished, given the length of time needed to mobilize command officials, the inadequacy of existing roads and the frequent impassibility of the roads in winter.

Discussion: The minutes of the public meeting held on June 16, 1982, reflect citizens' concerns regarding evacuation. County officials cited examples when evacuation of portions of Monroe County was successfully accomplished during flooding. Discussion of the length of time needed involved the notification from the plant, alerting of officials and the County and State level, and getting a decision from the Governor ordering evacuation. These concerns seemed to be based partially on doubt of prompt notification from the utility and partially upon a situation wherein a significant release occurs within a few seconds of normal operation conditions. In response, explanation included description of the emergency action level scheme, the notification communications network and emphasized the likelihood that EOCs would be manned at the "Alert" level. The Monroe County Emergency Operations Plan contains an estimate that the EOC will be fully operational within one hour following notification of an "Alert". If warranted by an extremely rapidly deteriorating situation, this mobilization time would be running coincidentally with data gathering and recommendations to the Governor concerning protective actions to be implemented. The length of time required to mobilize local resources is a factor for consideration in selection of protective actions to be implemented; however, the decision making process is a separate function which, if necessary, could be accomplished independently without the Monroe County EOC. Implementation of protective actions is dependent upon support and coordination by the Monroe County command officials and the time required for local mobilization, in an extreme circumstance, could influence which protective actions are to be implemented.

Within the minutes of the public meeting, we find references regarding the difficulty of evacuating the Stony Point and Bay Brest areas within Frenchtown Township. This was a contention heard before the ASLB on April 4, 1982. Further discussion of this specific issue is inappropriate at this time. During the public meeting there was also a spontaneous proposal to widen North Dixie Highway near the plant. The Chairman of the County Board indicated the proposal had been referred to the Road Commission for study. We can find no other documentation referencing inadequacy of existing roads. To the contrary, we find that all evacuation routes selected in the Monroe County Plan have an estimated capacity of, at least, 1200 vehicles per hour. This estimate, we believe, was extracted from the PRC Voorhees' Study, "Preliminary Estimate of Evacuation Times," dated October, 1980. The estimates are reflected in the Law Enforcement Annex to the Monroe County plan. Regarding the alleged frequent impassability of the roads in winter, this situation may occur as a result of normal scheduling and utilization of snow removal equipment serving the county. However, priorities for snow removal during normal times would not be applicable in the emergency situation. The Monroe County plan provides for keeping evacuation routes open for evacuation traffic to be a top priority of the County Road Commission and local police agencies. The Law Enforcement Annex provides for removal of traffic impediments on the evacuation routes during an emergency. The same annex provides for manning of traffic control points to expedite the exiting of traffic.

CONCLUSION: During natural disasters, Monroe County has experienced need to accomplish evacuation and has done so successfully. The concern regarding the length of time required to mobilize command officials would be applicable in an extreme circumstance only, when protective action other than evacuation could well be more appropriate. Improvement in existing roads is always desirable; however, we believe the present evacuation routes are adequate. The priority afforded for snow removal in winter during an emergency would avoid the impassability conditions experienced when emergency conditions do not exist. FEMA Region V finds the concerns raised in this contention have been recognized

previously and that planning adequately compensates against significant adverse impact.

Assertion #5: The County lacks sufficient personnel to staff decontamination/reception centers.

Discussion: The Monroe County Department of Social Services, with assistance from the American Red Cross, is responsible to staff the reception centers. The County Health Department is to establish the decontamination center function of these locations. The Monroe County plan identifies five schools that may potentially be used as reception/decontamination centers. Selection of the centers to be activated would be dependent upon the situation. In addition, five other schools have been identified for potential use as congregate care shelters, which would be staffed by Department of Social Services and volunteer agencies. It must be recognized that none of these facilities would be activated unless evacuation is directed to the Southwest of the plant. An evacuation to the North is provided for in the Wayne County plan. During the public meeting of June 16, 1982, the Monroe County Director of Social Services stated his staff consists of 120 full-time paid professionals who have received training operating reception centers during radiological incidents. He pointed out that his staff would be augmented by volunteers from the American Red Cross and cited past good experience when these people have manned reception centers during natural disasters. He expressed his belief that the Department of Social Services could carry out their assigned responsibilities.

CONCLUSION: Documentation within the Monroe County plan and in the minutes of the public meeting is contrary to the assertion. FEMA Region V endorses the concept that the County can, in fact, staff the decontamination/reception centers, at least during the initial period following a nuclear incident. It must be recognized that, in a continuing situation, if County resources become taxed, additional manpower resources would be provided through State coordination.

Assertion #6: The County questions whether potassium iodide supplies can be made available quickly.

Discussion: The County's petition states "Supplies of potassium iodide are to be warehoused at a central location under the control of the Michigan Department of Public Health (DPH). Under the DPH's scheme, potassium iodide would be distributed only after a radiological emergency was underway. Such a distribution is unlikely to be timely or effective, thus seriously imperiling the health of EPZ residents and emergency workers." The Michigan Radiological Emergency Response Plan, on page Q17, states, "The (Department of Public Health) has the responsibility to provide thyroid blocking agents to all State emergency workers..." dispatched by State agencies. The MRERP also states, "Local Health Department Directors or health officers are encouraged to develop and implement plans for the acquisition, storage, and distribution of potassium iodide tablets for local emergency workers and the general public based upon guidance which has been provided by the department."

The Monroe County plan states, "The Michigan Department of Public Health maintains a quantity of potassium iodide at its central office. 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 Monroe County Health Department will distribute the drugs." This plan also provides that, at the ALERT level, the Monroe County Health Department will "identify all sources of potassium iodide for emergency workers and the public if needed. Review distribution procedures." Procedures to be implemented

in a GENERAL EMERGENCY include "Recommend emergency workers take potassium iodide and make it available for the general public, as necessary." This latter recommendation would be based on criteria common to the State and County plans and upon guidance received from the Michigan Department of Public Health.

As illustrated in the above quotations, the State and County plans are confusing and may be in conflict. This was noted during earlier Regional Assistance Committee reviews of the plans and the recommendation that, if potassium iodide is to be distributed to the public, supplies should be stored locally. The State has indicated its plan is being revised to include the criteria for distributing KI.

CONCLUSION: We find it is within the County's prerogatives to obtain potassium iodide supplies and devise methods of distribution within the parameters of guidance from the Michigan Department of Public Health. As such, the County can initiate action to resolve problems associated with this assertion.

Assertion #7: The County believes the monitoring systems now in place to detect radiological releases are inadequate.

Discussion: FEMA Region V has very little definitive information concerning on-site radiation detection instrumentation and methods. Also, FEMA lacks the expertise to evaluate these systems for determination of adequacy.

CONCLUSION: FEMA Region V must refer this assertion to the Nuclear Regulatory Commission.

Assertion #8: The County doubts that the method chosen for decontamination of cars and trucks is adequate.

Discussion: In their petition, the County states, "The only method of vehicle decontamination available to ill-equipped fire departments that are responsible for such decontamination is water-hosing vehicles. This method is inadequate to successfully decontaminate vehicles and would create serious additional contamination problems for the farmland or other land used to receive the runoff water."

The Monroe County Plan contains several references to decontamination:

- a. Page BP-1-9, "If possible contaminants are involved, the evacuees may require processing through a decontamination center. Several of these centers will be established along the periphery of the affected area for monitoring, decontamination, registration, and medical surveillance."
- b. The School Annex identifies five schools as potential decontamination centers.
- c. The Fire Annex states, "Fire personnel will decontaminate vehicles, as necessary, at the reception/decontamination centers operated for the general public. The fire department in whose jurisdiction the decontamination center is located will perform the decontamination functions. Guidance will be provided by public health officials." Also, "The fire departments will perform other specialized decontamination tasks as required. This may include hosing down emergency vehicles, supplies, and equipment."
- d. Attachment C to the Fire Annex states, "Fire personnel from the district(s) in which the decontamination center(s) is located will be present to decontaminate (hose down) the private vehicles of the public that may be contaminated as well as the vehicles or equipment of emergency workers. Additional fire personnel will be provided through the Monroe County Fire Mutual Aid Pact. Fire services will bring

hoses that they will attach to the fire plugs at these locations, or, they will bring water with them in tank trucks, depending on the location. The water pressure attained will serve to decontaminate vehicles. Decontamination of vehicles will be accomplished in a nearby field to allow for the containment of material in one area, and to facilitate removal of it at a later time, if necessary.

Radiological Defense monitors will be present to monitor for decontamination, assisted by Michigan Department of Public Health."

e. In attachment F to Annex Q (Department of Public Health) of the Michigan Radiological Emergency Response Plan, it is stated, "There is no known Federal guidance for drinking water contamination in an emergency. Because of the nature of the source, contamination of a groundwater source is very unlikely, but a nuclear incident could easily result in contamination of a surface water source of drinking water."

f. Radiological decontamination involves either isolation throughout the period of natural decay of the radioactive materials or removal of the radioactive particles. In the care of vehicles, removal of the particles from the vehicle is the most expeditious and, therefore, preferable. When the particles are removed, by whatever method, the problem of containment must be addressed. Driving the vehicles and allowing air currents and the natural elements to remove the particles is undesirable because of lack of control to prevent the spread of the radioactive contaminants. Other methods result in the particles becoming airborne, which diminishes control and enhances potential for inhalation or ingestion. Washing the particles from the vehicle reduces the possibility of the particles becoming airborne, and through selection of the site at which the washing is accomplished, permits a greater degree of control of the particles. Use of swabs, brushes and other material generates additional radioactive waste materials. Use of commercial car washes may allow the particles into the sewage system resulting in uncontrolled spread and possible creation of "hotspots." Although sub-freezing weather is a factor, hosing down the vehicles is usually the preferred method for decontamination. When this method is used care must be exerted to assure collection and containment of the "runoff" water. Following the cessation of decontamination operations, residual contaminated water can be removed, if necessary. Water escaping through evaporation would be purified by the evaporation process itself and the radioactive particles would remain in the containment. Water escaping through absorption into the ground would be purified by the filtering effect of the ground. Finally, when all the water is gone, the radioactive particles remaining on and in the ground could be removed, if necessary, by removing the ground itself. Removal of the ground is an extreme and improbable remedial action. Isolation of the area for a relatively short period of time is more realistic when consideration is given to the characteristics of the source.

CONCLUSION: FEMA Region V contends that the waterhosing is an adequate method for radiological decontamination of vehicles. Although we agree that water runoff is a factor for consideration, methodology exists for containment and, if necessary, eventual disposal of any collected radioactive materials. It is noted, these activities will be accomplished under the supervision of the Michigan Department of Public Health. We note the statement by the Michigan Department of Public Health, in their plan, that contamination of a groundwater source is very unlikely.

## CITIZENS CONCERNS RAISED BY

Michael Barrett and Joan Mumaw

1. Evacuation of the Stoney Point area was previously addressed as Contention 8 heard by the Atomic Safety and Licensing Board on April 4, 1982. Further discussion of this specific issue is inappropriate at this time. Related points concerning evacuation were raised to the Atomic Safety and Licensing Appeals Board by Monroe County in it's petition to intervene. Please see our discussion of Assertion #4 in Attachment 1.

2. It is true that, in a slow moving situation, implementation of the evacuation process is dependent upon a decision by the Governor, as stipulated in Michigan Public Act 390, when the Governor has declared existence of a state of disaster. It is also true that the Chairperson of the Monroe County Board of Commissioners is responsible for implementing the necessary protective actions and for directing the disaster relief forces in the county, as stated in the Monroe County Plan. In the event of a nuclear incident where off-site releases have occurred or there is imminent threat thereof, the Chairperson can declare a State of Emergency, thereby activating the Monroe County Emergency Operations Plan. Based upon urgency and recommendations from the utility, the Chairperson can recommend evacuation to the public, although he cannot order them to evacuate. In the forthcoming revision to the Monroe County Plan, the Michigan Emergency Management Division expects provision for the Monroe County Warning Entry Point to be delegated this authority of the Chairperson in very urgent situations. It must be recognized that the County Chairperson can only recommend a protective action. Compliance by the public would be on an individual voluntary basis. Protective actions can only be issued by the governor and once issued, local residents are compelled to comply under law.

3. The length of time required to mobilize command officials is a factor raised by Monroe County to the Atomic Safety and Licensing Appeals Board. Please see our discussion of Assertion #4 in Attachment 1.

4. The intervenor alludes that the EOC facility may be insufficient for the staff it must accommodate. In contrast, during the full-scale exercise involving Fermi II on February 2, 1982, Monroe County demonstrated an adequate capability to operate within this facility. Federal observers noted that the EOC was crowded, but this did not interfere with the performance of the primary mission.

5. Concerning the dependence upon the plant operator to determine when a nuclear incident has occurred, the Monroe County plan is consistent with the requirements of NUREG-0654/FEMA REP-1, Revision 1. The periodic monitoring by the Michigan Department of Public Health exceeds these requirements and exemplifies their conservative approach to radiological emergency response planning. There is no requirement for moment by moment independent monitoring of the plant's perimeter.

6. Radiological training for emergency workers is a concern shared by FEMA, NRC, the ASLAB and the Michigan Emergency Management Division. This concern was raised by Monroe County to the ASLAB in their petition to intervene and also by the NRC in their letter of April 13, 1983, to FEMA following their review of FEMA Region V's Supplemental Interim Report in which the Regional Assistance Committee identified training as a deficiency to the State of Michigan. Please refer to our earlier discussion of this concern in Assertion #2 in Attachment 1 and our response to question 4 in Attachment 2.

7. The intervenor raises points concerning the decontamination centers that were discussed during the Monroe County public meeting of June 16, 1982, and were posed to the Atomic Safety and Licensing Appeals Board in Monroe County's petition to intervene. Please see our discussion of Assertion #5 in Attachment 1. We also note that intervenor's point concerning an insufficient number of decontamination centers is based on evacuation of the entire EPZ, which is not a foreseeable requirement.

8. The intervenor raises points that were discussed in the Monroe County meeting of June 16, 1982, and were posed to the ASLAB in Monroe County's petition to intervene. Please see our earlier discussion of Assertion #8 in Attachment 1.

9. The intervenor raises points related to discussions during the Monroe County public meeting of June 16, 1982, and which were posed to the ASLAB in Monroe County's petition to intervene. Please see our earlier discussion of Assertion #8 in Attachment 1.

10. The intervenor raises points related to discussions during the Monroe County public meeting of June 16, 1982, and which were posed to the ASLAB in Monroe County's petition to intervene. Please see our earlier discussion of Assertion #8 in Attachment 1.

11. The intervenor recognizes the substantial responsibilities of local law enforcement agencies and alludes to a depletion of the number of personnel available due to exposure to radiation. FEMA Region V believes there is an incorrect inference that the few law enforcement personnel who might be exposed to radiation could not return to duty following decontamination, in a capacity where they would receive no additional radiation exposure. More important, however, is the fact that local law enforcement shares responsibilities with Sheriff's officers and Michigan State Police. The need to augment personnel through use of National Guard troops is unlikely, although, the National Guard is considered an available resource. Total replacement of duly appointed law enforcement agencies by National Guard troops is not contemplated. The National Guard, if employed, would be integrated into the total coordinated effort.

12. The intervenor raises points related to distribution of potassium iodide which were posed to the ASLAB in Monroe County's petition to intervene. Please see our earlier discussion of Assertion #6 in Attachment 1.