

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

OFFICE OF NUCLEAR REACTOR REGULATION  
William T. Russell, Director

In the Matter of	)	Docket No. 50-289
GPU NUCLEAR CORPORATION	)	License No. DPR-50
(Three Mile Island Nuclear Station, Unit 1)	)	(10 CFR 2.206)

DIRECTOR'S DECISION UNDER 10 CFR 2.206

1. INTRODUCTION

By letter dated July 10, 1992, Robert Gary, on behalf of the Pennsylvania Institute for Clean Air (Petitioner or PICA), submitted a Petition pursuant to Section 2.206 of Title 10 of the Code of Federal Regulations (10 CFR 2.206) to Ivan Selin, Chairman, U.S. Nuclear Regulatory Commission (NRC or staff), requesting that the NRC take action with respect to GPU Nuclear Corporation (GPUN or Licensee). The Petitioner requested that as soon as possible (preferably within 5 working days) (1) the Federal Emergency Management Agency (FEMA) examine certain alleged transportation-related discrepancies in the Dauphin County Radiological Emergency Response Plan (RERP), and (2) the NRC order GPUN to "power down" Three Mile Island Nuclear Station, Unit 1 (TMI-1) and not permit the plant to generate power until the discrepancies are corrected and a valid, workable emergency evacuation plan is in place. Dauphin County is one of five risk counties that lie partially or wholly within the 10-mile plume exposure pathway emergency planning zone (EPZ) for TMI-1.

The Petition alleged a number of deficiencies in the Dauphin County RERP. The Petitioner raised three major areas of concern, as follows:

1. The Dauphin County emergency operations center (EOC) fails to adequately maintain letters of intent for the county's transportation providers.
2. The Dauphin County RERP lists out-of-date names and telephone numbers for the bus providers and lacks after-hours telephone numbers for those providers, and fails to account for approximately 60 of the 450 required buses.
3. The Pennsylvania Emergency Management Agency (PEMA) and the Dauphin County RERPs fail to provide for the use of military vehicles in the event of a radiological emergency.

## II. BACKGROUND

Because the concerns raised by the Petitioner relate to State and local emergency response plans, the staff requested assistance from FEMA in a letter dated July 22, 1993, in accordance with 10 CFR 50.47(a)(2), as well as the memorandum of understanding (MOU) between the NRC and FEMA, as updated on June 17, 1993, see Federal Register at 58 FR 47996 (September 14, 1993). FEMA is the Federal agency with primary responsibility for offsite emergency planning for nuclear power plants. Executive Order No. 13657 (see 53 FR 47513) reprinted in 50 U.S.C.A. § 2251 app. at p.199 (1988).

By letter dated August 5, 1992, to Mr. Gary, the staff acknowledged receipt of the Petition and informed the Petitioner of the NRC's request for assistance from FEMA.

Mr. Gary submitted information supplementing the Petition in letters to the NRC dated December 2, 1992, January 15, 1993, February 14, 1993, and

October 7, 1993. Mr. Gary also provided supplemental information in a telephone call to the staff on July 10, 1992 as documented in a letter to Mr. Gary dated October 28, 1992. The staff forwarded this correspondence to FEMA to consider in evaluating the concerns raised in the Petition.

In two letters to the NRC, one undated letter received on July 18, 1993, and one dated January 6, 1994, the Petitioner submitted additional information supplementing the Petition which did not require further assistance from FEMA to evaluate, and which has been considered in this Decision.

On February 2, 1994, Mr. Gary made additional requests on behalf of PICA at a public meeting with the NRC staff.

#### FEMA Interim Report

By letter dated October 27, 1992, FEMA provided the NRC with an interim report of the actions that FEMA had taken to date in response to the Petition. On September 4, 1992, FEMA Region III staff met with representatives of FEMA and the Dauphin County Emergency Management Agency to discuss the issues raised by the Petitioner. As a result of the meeting and FEMA's initial review of the Dauphin County plans, FEMA found that:

1. The letters of intent at the Dauphin County emergency operations center were not current. However, in early August 1992, Dauphin County sent out new letters of intent to the county transportation providers for their signatures. FEMA reviewed the content of these letters and determined that they did not include pertinent information on the number and capacity of transportation vehicles available. Amended letters requesting the number and capacity of

vehicles were sent to these transportation providers, but these letters had not yet been signed and returned.

2. A review of the Dauphin County RERP indicated that all groups (general and special populations) requiring transportation had been identified and were current as of September 1992. However, there were discrepancies between sections of the Dauphin County RERP which concerned the number of buses available for general population evacuation. PEMA and Dauphin County were revising the Dauphin County RERP to include more accurate, up-to-date numbers concerning buses.
3. Both the State and Dauphin County RERPs contained provisions for the deployment of the Pennsylvania Army National Guard (PAARNG) to Dauphin County, if necessary, during a radiological emergency. However, FEMA requested further information from PEMA regarding (1) the general type and amount of resources that are available to the county through the PAARNG during such an emergency, and (2) the extent to which PAARNG personnel have been trained and exercised in responding to radiological emergencies.

FEMA informed the NRC that additional time would be required to (1) give PEMA and Dauphin County adequate time to complete the activities that were undertaken to address the Petitioner's concerns, and (2) allow FEMA time to review the plan revisions, signed letters of intent, and other materials to ensure that the Petitioner's concerns had been adequately addressed and alleviated.

By letter dated November 24, 1992, the NRC forwarded FEMA's initial findings to Mr. Gary.

Letter from R. Gary to T. Murley, Director, Office of Nuclear Reactor Regulation, dated December 2, 1992

By letter dated December 2, 1992, to the NRC, the Petitioner acknowledged receipt of FEMA's interim report and submitted the following additional questions:

- If there is a plan for use of the PAARNG to evacuate people using military trucks, where is it?
- What are the names and telephone numbers of the PAARNG Commanding Officers or Duty Officers who would be called to activate the evacuation trucks? On what page of the Dauphin County RERP can that information be found?
- What military units are tasked with responding to an evacuation need involving those trucks? Are there designated drivers and company commanders? What kind of briefings have these people had? Where is a list of their names?
- Are there any particular military trucks that are designated for the task of evacuating Harrisburg or any other area of Dauphin County?
- Are there routes and staging areas for these trucks? Does deployment of the PAARNG intend an evacuation procedure or a law and order keeping mission?

- What about coordination between the PAARNG and local officials?

Licensee Response

By letter dated December 30, 1992, the Licensee responded to the Petition. GPUN contends that PICA failed to proffer any evidence of a violation of NRC regulations or of a substantial health and safety issue warranting institution of an enforcement proceeding against GPUN. Additionally, GPUN asserts that the relevant issue for the NRC is whether there is reasonable assurance that adequate protective steps can and will be taken in the event of a radiological emergency, not whether continued improvements in offsite emergency planning could be made.

In addition, GPUN contests three of the Petitioner's allegations. GPUN disputes that emergency preparedness in Dauphin County is substandard because of a lack of letters of agreement with transportation providers. GPUN states that three bus companies have participated in biennial emergency preparedness exercises which FEMA has consistently approved, and GPUN submitted "Statements of Understanding" between the Dauphin County Emergency Management Agency and the Capital Area Transit Bus Company, the Hegins Valley Lines, Inc. Bus Company, and the Capitol Bus Company, all executed in September and October 1992. Secondly, GPUN disagrees that the name and telephone numbers of contact personnel at the bus companies must be in the Dauphin County RERP, (the plan). GPUN states that the names and telephone numbers of contact personnel are in the implementing procedures, which is the appropriate location, and that the names and telephone numbers are updated quarterly. Thirdly, GPUN contends that although PEMA has the authority to use military vehicles in radiological

emergencies, PEMA does not presently contemplate doing so because of the excessive time required to mobilize military vehicles.

Letter from R. Gary to I. Selin, Chairman, U.S. Nuclear Regulatory Commission, dated January 15, 1993

By letter dated January 15, 1993, to the NRC, the Petitioner provided a "rejoinder" to the Licensee's response to the Petition and expressed the following concerns:

- PICA's position is that scheduled bus drills show only that walkie-talkies work and that people can be directed to go through a choreography when everyone has been notified prior to the drill. These bus drills would not meet military standards.
- Names and phone numbers of emergency response personnel and organizations should be placed in the RERP for ease of reference by responders in an emergency. Placing this information in implementing procedures may take it out of the public domain in which it could be reviewed by public interest organizations.
- In addition, the Petitioner posed several questions directed at PEMA:
  - Why aren't the letters of intent for private bus companies on file at PEMA where they are supposed to be?
  - What is PEMA doing to supervise the counties and to ensure that they are in compliance with standard procedures for emergency readiness?

- Why does PEMA feel that its role is confined to communications, coordination, and liaison?
- Is PEMA in violation of its founding statute which calls for it to:
  - (a) backstop the counties
  - (b) build two warehouses and stock them with emergency supplies?
- What are the names and telephone numbers of current executives at the bus companies and are there any other deficiencies in the county plans that PEMA doesn't know about, and if there are such deficiencies, what steps are being taken to screen these plans for adequacy?
- Why is Dauphin County 50 school buses short?
- Why hasn't PEMA aggressively sought more resources from the Pennsylvania General Assembly? Why doesn't PEMA obtain more resources from the General Assembly or the nuclear utility licensees to make distributions to the counties that would be commensurate with their task in the event an evacuation was required?
- Does the Dauphin County RERP meet the standards in terms of its goal of evacuating those persons within the 10-mile EPZ?
- Is a 10-mile EPZ reasonable for Three Mile Island, considering that a highly populated area, the City of Harrisburg, is just outside the 10-mile limit and is, therefore, excluded from PEMA's evacuation plans?



- Are school bus drills, conducted in the middle of workdays when everyone involved has been put on notice ahead of time, adequate tests of emergency preparedness? What standard does PEMA seek to meet its emergency preparedness drills? Are the drills purporting to test the equipment or the emergency responders? If the drills are to test the responders, then they should be unannounced and held at various times of the day and night and, therefore, more closely approximate an actual emergency event.

Letter from R. Gary to I. Selin, Chairman, U.S. Nuclear Regulatory Commission, dated February 14, 1993

By letter dated February 14, 1993, to the NRC, the Petitioner supplemented his rejoinder of the Licensee's response to the Petition. This supplement included a letter from Stephen R. Reed, Mayor, City of Harrisburg, Pennsylvania, to Mr. Gary, dated February 8, 1993. The following concerns were presented or reiterated in Mr. Gary's and Mayor Reed's letters:

- PEMA should request more funding from the General Assembly, at least \$5 million dollars per year, not \$500,000, to protect all the citizens in the Commonwealth of Pennsylvania in the event of a radiological emergency.
- It is appropriate to use Department of Defense (DOD) equipment to evacuate people from the EPZ, and from the other 90% of Harrisburg as well.

- Mayor Reed states that the City of Harrisburg "remains of the strong view" that the Dauphin County Emergency Management Plan must include specific details for the use of military vehicles from the New Cumberland Army Depot and Indiantown Gap and vehicles and personnel from Mechanicsburg Ships Parts and Control Center.
- The City of Harrisburg opposes the removal of "critical operational data" from the Dauphin County RERP. The data referred to are the names and phone numbers of emergency response personnel and organizations which appear in the implementing procedures.
- Mayor Reed's position is that the entire City of Harrisburg should be included in the 10-mile EPZ around Three Mile Island.

#### PEMA's Response

By letter dated July 12, 1993, from Mr. Joseph LaFleur, Director, PEMA, to Mr. Robert Adamcik, Chief, Natural and Technological Hazards Division, FEMA Region III, PEMA provided its response to FEMA regarding the concerns raised in the Petition and supplements to the Petition. PEMA has also engaged in direct dialogue and correspondence with Mr. Gary to answer his questions and concerns. PEMA's response is discussed below in addressing Petitioner's concerns.

Letter from R. Gary to I. Selin, Chairman, U.S. Nuclear Regulatory Commission, received July 18, 1993 (undated)

The NRC received a letter from the Petitioner (undated) on July 18, 1993, requesting, "at a minimum, ... the NRC to take over the investigation

and complete it with dispatch" due to the length of time that had expired since submittal of the original Petition. The Petitioner's request for the NRC and/or independent counsel or commission to conduct an independent investigation of the concerns raised in the Petition was reiterated in letters to the NRC dated October 7, 1993 and January 6, 1994. The Petitioner also made this request during a February 2, 1994, meeting with the NRC and FEMA.

Letter from R. Gary to I. Selin, dated October 7, 1993

By letter dated October 7, 1993, to the NRC, the Petitioner reiterated several concerns that had been forwarded to the NRC in previous correspondence. Specifically:

- It makes sense to include the residents of Harrisburg in the 10-mile EPZ around TMI-1 because they would have to evacuate anyway.
- The use of trains and military trucks from New Cumberland and Indiantown Gap should be fully integrated into the county, State, and Federal plans for evacuation of the population around TMI-1.
- Emergency preparedness drills should be conducted on an unscheduled basis.
- The evacuation plan based on schoolbuses and private buses is 50 buses short.

FEMA's Final Report

FEMA issued its final report evaluating the State of Pennsylvania and Dauphin County RERPs on December 16, 1993, in response to the concerns raised in the Petition and the supplements to the Petition. FEMA's December 16, 1993, report is discussed below in addressing the Petitioner's concerns.

Letter from R. Gary to I. Selin, Chairman, U.S. Nuclear Regulatory Commission, dated January 6, 1994

By letter dated January 6, 1994, to the NRC, the Petitioner commented on FEMA's findings and requested that the comments be considered as a supplement to the Petition. The Petitioner's comments are as follows:

- Military vehicles could be activated much faster than buses and much more reliably. The NRC should obtain a "certificate" from the PAARNG stating that they could not respond in less than 6 hours. The NRC should also confirm that there are no other military forces of any kind that could contribute to an emergency evacuation of Harrisburg. A "certificate" from the Secretary of Defense would be appropriate evidence to indicate that DOD has no forces that could respond in less than 6 hours. A military unit that can respond in one hour should be found.
- NRC should determine whether PEMA has complied with Pennsylvania law by stockpiling emergency supplies at Torrence State Hospital and Pike Center, rather than building two warehouses. Lack of funds is not an excuse for PEMA's failure to comply.

- PEMA's conclusion that \$500,000 per year is adequate for radiological emergency preparedness for the entire State of Pennsylvania is unjustified. The NRC should determine the needs and resources for emergency preparedness.
- The NRC should investigate PEMA assertions of the availability of emergency supplies at Torrence State Hospital and Pike Center. The NRC should inventory those stockpiles and prepare a "certificate" stating that PEMA is in compliance with Pennsylvania statutory requirements regarding emergency supplies.
- Both PICA and the Mayor of Harrisburg propose that the size of the plume exposure pathway EPZ for TMI-1 be 20 miles in radius, rather than 10 miles.
- Congress relied on witnesses who promised military standards of preparedness in authorizing the civilian nuclear power program. PEMA's use of unannounced drills only once every 6 years does not meet military standards.
- Although no deficiencies were identified during the May 19, 1993, full-participation exercise for TMI-1, it cannot be said that there are no deficiencies in overall emergency preparedness; GPUN was cited by the NRC for a delay in staffing of their emergency response facilities during an unauthorized intrusion event at TMI-1 on February 7, 1993.

Meeting with Mr. Gary on February 2, 1994

At the request of the Petitioner, the NRC and FEMA held a meeting with the Petitioner on February 2, 1994. This meeting was open to the public and was also attended by representatives from GPUN, PEMA, the Nuclear Management and Resources Council, the Union of Concerned Scientists, and the Associated Press. Mr. Gary discussed four concerns at the meeting and stated that he believed that all "other matters raised by PICA are either dependent on these ... main issues, or they have already been satisfactorily dealt with ... ." The four issues were:

- Evacuation planning for the City of Harrisburg should be in place. To this end, a contingency planning area (CPA) could be established for Harrisburg that would allow for a layered response if the City would be required to be evacuated.
- Use of military vehicles to evacuate the EPZ and the balance of Harrisburg is an option and should not be rejected without a study on its efficacy.
- The \$500,000 per year budget for the State and local radiological emergency preparedness programs is inadequate. The Petitioner believes \$5 million to be a more appropriate amount, or an assessment of \$1 million per year for each nuclear power facility in the State.
- The RERP for Dauphin County should be limited to 100 pages, tabbed, water-proofed, color-coded and in large type for ease of use in an

emergency. Additionally, the RERP should include the implementing procedures.

Petitioner requested that the NRC perform a "de novo" investigation to resolve these issues. Specifically, Petitioner requested that the NRC should contact the appropriate military authorities and investigate the availability and type of military vehicles and personnel, and military response times. Petitioner also suggested a survey of county executives and mayors to determine the level of funding appropriate to meet their emergency preparedness needs.

### III. DISCUSSION

The Commission's regulation governing emergency plans for nuclear power reactor applicants seeking operating licenses, states in 10 CFR 50.47(a)(1) that no operating license for a nuclear power reactor will be issued unless a finding is made by the NRC that there is reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency. In accordance with 10 CFR 50.47(a)(2), the NRC will base its finding, in part, on a review of FEMA's findings and determinations as to whether State and local emergency plans are adequate and whether there is reasonable assurance that they can be implemented. FEMA, in making its determinations, evaluates the State and local plans against the criteria established in NUREG-0654/FEMA-REP-1, Rev. 1, November 1980, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," in accordance with 44 CFR 350.5(a).

By memoranda to the NRC dated June 16, 1981, and September 18, 1981, FEMA provided its interim findings and determinations relating to the status of State and local emergency preparedness around TMI-1. FEMA concluded that State and local plans possess an adequate "capability to protect the public in the event of a radiological emergency."

For operating reactors, the conditions of the license are delineated in 10 CFR 50.54. Concerning emergency planning and preparedness, 10 CFR 50.54(s)(2)(ii) in part, requires the following:

If ... the NRC finds that the state of emergency preparedness does not provide reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency ... and if the deficiencies ... are not corrected within four months of that finding, the Commission will determine whether the reactor shall be shut down until such deficiencies are remedied or whether other enforcement action is appropriate. In determining whether a shutdown or other enforcement action is appropriate, the Commission shall take into account, among other factors, whether the licensee can demonstrate to the Commission's satisfaction that the deficiencies in the plan are not significant for the plant in question, or that adequate interim compensating actions have been or will be taken promptly, or that there are other compelling reasons for continued operation.

In accordance with 10 CFR 50.54(s)(3), the NRC will base this finding, in part, on a review of FEMA's findings and determinations as to whether State and local emergency plans are adequate and capable of being implemented. In accordance with 44 CFR 350.13(a), FEMA may withdraw its approval of State or local emergency plans if it finds that the State or local plan is no longer adequate to protect public health and safety by providing reasonable assurance that appropriate protective measures can be taken, or is no longer capable of being implemented. The basis for FEMA's withdrawal of approval is the same basis used for making its initial determinations. i.e., the criteria in NUREG-0654/FEMA-REP-1. Subsequent to its interim findings of June and September



1981, FEMA has continued to confirm, through exercise observations and plan reviews, its reasonable assurance finding for the offsite emergency plans and preparedness around Three Mile Island.

A. The July 10, 1992, Petition

Summarized below for each of the three major areas of concern raised in the original Petition is NRC's evaluation of those concerns, based upon FEMA's final report dated December 16, 1993 and PEMA's response to FEMA in a letter dated July 12, 1993.

1. The Dauphin County EOC failed to maintain letters of intent for the county's transportation providers.

PEMA has begun to place more emphasis on such documentation and to obtain letters of intent, in the form of statements of understanding (SOUs), from their resource providers. PEMA provided FEMA with SOUs dated September 1992 and October 1992 between Dauphin County and the three bus transportation providers. FEMA finds that these SOUs meet the requirement of demonstrating the provider's intent to respond to emergencies.

In subsequent correspondence the Petitioner questioned why these SOUs were not on file at PEMA. In a letter to Mr. Gary, dated July 15, 1992, PEMA answered this by stating that the SOUs are negotiated and maintained by the cognizant risk county where the resources are to be used. There is no Federal requirement to maintain copies of agreements between local governmental jurisdictions and private resource providers

at the State level. Accordingly, Petitioner has neither raised a substantial safety concern, nor demonstrated that the RERP fails to provide reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency.

2. The Dauphin County RERP lists out-of-date names and telephone numbers for the bus providers, lacks after-hours telephone numbers for those providers, and does not account for some buses required by the RERP.

The Dauphin County RERP has been revised as of February 1993. Contact names and telephone numbers for bus providers have been updated. Because telephone numbers are not needed or intended to be shown in the Dauphin County RERP, PEMA moved them to the standard operating procedures (SOPs) for the applicable county staff personnel.

FEMA Region III staff telephoned the three bus providers listed for Dauphin County and verified the names and telephone numbers of the contacts, including the phone numbers for off-hours. The FEMA Region III staff subsequently reviewed this information in the SOPs and verified its accuracy. In addition, during the May 1993 exercise, FEMA observed the Dauphin County transportation staff make actual telephone calls to the three bus companies. The FEMA staff ascertained the number of buses available from these companies and notified the municipalities that their unmet needs would be met. According to the plan, 56 buses would be needed to fill the municipalities' unmet needs, in addition to the 96 buses already available from county resources. PEMA was apprised

of the county's unmet need of 56 buses and demonstrated that 56 buses could be supplied from State resources.

In subsequent correspondence the Petitioner questioned the removal of contact names and phone numbers from the Dauphin County RERP and their relocation into the SOPs; thus, according to the Petitioner, taking them out of the public domain. The Petitioner also presented a letter from Mayor Reed of Harrisburg supporting the position that this type of information should remain in the RERP.

The Dauphin County RERP is intended to provide a broad perspective of its objectives and of the organization's concept of operations, including a description of the emergency response organization, facilities, responsibilities and authorities, and inter-organizational relationships. It is not intended to contain details that are subject to change such as names, phone numbers, step-by-step procedures, etc. These details are maintained in procedures (SOPs) that are used by specific response organization personnel to implement the plan objectives. Therefore, it is reasonable and appropriate to place information such as names and phone numbers in the applicable SOPs.

Petitioner has not raised a substantial safety concern or demonstrated that the RERP fails to provide reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency.

3. The PEMA and the Dauphin County RERPs fail to provide for the use of military vehicles for evacuation in the event of a radiological emergency.

In a letter to Mr. Gary dated September 23, 1992, Stephen R. Reed, Mayor of Harrisburg, Pennsylvania, supported the "view that military vehicles, of which there are plenty in the immediate Harrisburg area, be a part of the Dauphin County Plan." In subsequent correspondence with the NRC, the Petitioner submits that military trucks could also be used to evacuate the balance of Harrisburg that is outside the established 10-mile EPZ.

PEMA states in its letter dated July 12, 1993, that Pennsylvania's emergency response plans do not rely upon military vehicles for the initial response during an emergency, because to do so would be more time-consuming than the process currently outlined in emergency response plans. Rather, the PAARNG will support counties on a contingency basis for radiological and other emergencies. The PAARNG provides a battalion to assist each risk and support county. Dauphin County is actually supported by one primary battalion with backup, as necessary, by a second specified battalion. The units are directed to forward assembly areas (to be determined 2 hours after notification). Each battalion takes approximately 6 hours to assemble and be prepared to move from their armories. The specific tasks of each battalion will be determined when the units become available and the needs of the county emergency management agency are solidified in light of the events as they unfold. The PAARNG is equipped with combat, combat support, combat service

support vehicles, and aircraft that do not lend themselves to the safe and orderly movement of civilians. According to PEMA, the depots referenced by the Petitioner and Mayor Reed do not have assigned to them Table of Organization and Equipment truck companies. Instead, they rely primarily on commercial trucking companies and, occasionally, U.S. Army Reserve truck companies using flatbed trailers. Therefore, PEMA does not plan to utilize National Guard trucks to evacuate civilians. Moreover, PEMA states that it has identified sufficient civilian bus assets to evacuate that portion of the population that may not have a method of personal transportation.

The NRC has no requirements that specify the precise means and methods to be used in carrying out prompt protective actions for the public, including evacuation, in the event of a radiological emergency. The choice of such means and methods is at the discretion of the cognizant State and local authorities. Once such means and methods have been selected and proceduralized, FEMA will review and evaluate their adequacy. FEMA's evaluation of the State and local plans is based upon the criteria established in NUREG-0654/FEMA-REP-1, in accordance with 44 CFR 350.5. FEMA has evaluated the offsite emergency plans for the 10-mile EPZ surrounding Three Mile Island Nuclear Station, including the provisions for evacuating the EPZ, and found them to be adequate. Accordingly, Petitioner has failed to raise a substantial safety concern or to provide evidence that offsite emergency preparedness does not provide reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency.

B. Additional Questions Raised by Mr. Gary

As discussed in Section II, *supra*, Mr. Gary supplemented the July 10, 1992, Petition in subsequent correspondence to the NRC. The NRC forwarded this supplemental information to FEMA for its consideration in reviewing Mr. Gary's concerns. FEMA provided its response in a report to the NRC, dated December 16, 1993.

1. Why is Dauphin County 50 school buses short and what does this mean for the affected residents?

The February 1993 Dauphin County plan reflects an overall unmet need for 56 buses. The county plan states that unmet county needs will be reported to PEMA. The State plan requires the Pennsylvania Department of Transportation to develop and maintain an inventory of statewide transportation assets for use in evacuating risk counties. PEMA states that information about transportation providers is maintained in computerized data banks at the State EOC and that procedures for meeting the unmet county needs are part of the State and county SOPs. During the May 19, 1993, biennial radiological emergency preparedness (REP) exercise, FEMA observed that the procedures for reporting and meeting the unmet county transportation needs for Dauphin County were successfully exercised. Accordingly, Petitioner has neither raised a substantial safety concern, nor demonstrated that the RERP fails to provide reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency.

2. What are the telephone numbers of the PAARNG commanding officer and/or duty officers who would be called to activate the evacuation trucks? Where in the Dauphin County RERP can this information be found? Which military units are tasked with supplying vehicles for evacuation? Are designated drivers and company commanders designated by name? What type of briefings have these personnel received? Have specific trucks been designated for use in evacuating Harrisburg or other Dauphin County jurisdictions? Have staging area locations and evacuation routes for these trucks been delineated on Dauphin County maps?

PEMA concluded that since Pennsylvania plans rely entirely upon civilian vehicles for evacuation in the event of a radiological emergency, and military vehicles are only used if the PAARNG has been activated and evacuation assistance is specifically requested, it is not necessary for the Dauphin County plan to include this type of information. FEMA agrees.

With concern to training, PEMA concluded that due to the PAARNG's limited mission in radiological emergency response, their full training schedule and turnover rate, PAARNG personnel need not receive "civilian radiological" training beyond that provided in their Army annual training program. FEMA agrees. This training satisfies NRC requirements for radiological emergency response training of personnel who may be called upon to assist in an emergency. See 10 CFR 50.47(b)(15).

Accordingly, Petitioner has not raised a substantial safety concern or demonstrated that there is a lack of reasonable assurance that

adequate protective measures can and will be taken in the event of a radiological emergency.

3. Has a mechanism been set up to coordinate the activation and use of the PAARNG with local officials?

FEMA's review of the State plan identified two different procedures to be followed when a county requests PAARNG's assistance; however, the plan fails to clearly identify the circumstances for triggering each procedure. In addition, the Dauphin County plan does not reference a specific procedure to be followed by the County when requesting PAARNG assistance. The State plan calls for a Department of Military Affairs (DMA) representative to be dispatched to each of the risk counties to coordinate requests for PAARNG assistance. However, the Dauphin County plan does not reiterate this requirement. Instead, the County plan specifies that, after PAARNG activation, the PAARNG will send liaison personnel to the County EOC. FEMA concluded that the Dauphin County RERP should be revised to specify greater detail regarding county requests for PAARNG assistance and PAARNG response.

While FEMA continues to work with PEMA in resolving this issue, FEMA has concluded that the State and county plans are adequate and continue to provide reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency.

In view of the above, the NRC staff concludes that the State and county plans make adequate provision for coordinating with the PAARNG,



and provide reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency.

4. Are there any maps which indicate that the PAARNG will be activated for evacuation purposes, rather than for peace-keeping purposes?

FEMA reports that Appendix 8 of the February 1993 Dauphin County plan states that the PAARNG, once activated, will provide direct support to Dauphin County by performing a variety of radiological emergency response missions as a supplement to the County's resources. Most of these missions, such as traffic control, emergency transportation, emergency fuel on evacuation routes, and emergency clearing of roads, are evacuation-related, not peace-keeping, missions. A specific PAARNG battalion is assigned to Dauphin County for these potential missions.

5. What is PEMA doing to supervise the counties and to ensure that they are in compliance with standard procedures for emergency readiness? Is PEMA in violation of its founding statute (Title 35, Pennsylvania Consolidated Statutes, Section 101) which calls for PEMA to backstop the counties and build two warehouses and stock them with emergency supplies?

PEMA's letter dated July 12, 1993, states that during an October 2, 1992, meeting attended by Mr. Gary, Senator Schumaker of the Pennsylvania General Assembly, Commissioner Scheaffer (Chairman of the Dauphin County Board of Commissioners), and Mr. Joseph LaFleur, (Director, PEMA), the level of supervision by PEMA of the counties, and

PEMA's actions to provide supplies and equipment to the counties during emergencies, were discussed with Mr. Gary.

In a letter to Mr. Gary dated July 15, 1992, PEMA's General Counsel stated that the legislature had not allocated funds for the construction and stockpiling of two regional warehouses, and that such expensive facilities would be ill-advised because PEMA has adequate stockpiles of emergency supplies at other departmental facilities located at Torrence State Hospital and Pike Center. Although Petitioner requested that the NRC examine stockpiles at Torrence State Hospital and Pike Center, Petitioner presented no evidence to question the validity of PEMA's conclusion regarding the adequacy of those stockpiles. Accordingly, Petitioner's request for an NRC audit of emergency stockpiles at Torrence State Hospital and Pike Center is denied. The NRC requires that emergency response plans provide for maintenance of adequate emergency equipment and supplies. See 10 CFR 50.47(b)(8). Based upon FEMA's review of emergency stockpiles maintained by Dauphin County and the Commonwealth of Pennsylvania, the NRC staff concludes that the offsite emergency response plans for TMI-1 are in compliance with 10 CFR 50.47(b)(8), and that offsite emergency plans and preparedness for TMI-1 provide reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency.

In regard to Petitioner's concern as to whether PEMA is in compliance with Pennsylvania State law, the NRC and FEMA do not make determinations of compliance by State and local emergency response plans

with State requirements. This is a matter Petitioner must raise with appropriate State authorities.

6. Are there deficiencies in the county plans, similar to the failure to maintain current information on bus company contacts, which PEMA does not know about? If there might be such deficiencies, what steps are being taken to review these plans for adequacy?

As a result of the Petitioner's inquiries, FEMA reviewed the February 1993 Dauphin County plan and identified some omissions and discrepancies with respect to the plan's transportation and ambulance resource numbers. However, given the nature of emergency plans as living documents that are continuously being revised and updated, FEMA concluded that these discrepancies do not adversely impact the adequacy of the county plan.

PEMA explained the cycle of plan reviews and updates to Mr. Gary at the October 2, 1992, meeting. FEMA also reviews annual plan revisions to identify areas of required and recommended plan improvements. In addition, FEMA will thoroughly review all the plans related to TMI-1, including the Dauphin County RERP, when they are submitted to FEMA for formal plan review and administrative approval under 44 CFR 350.

7. In order to assist the counties in planning for and executing evacuation logistics, why does PEMA not obtain more resources from the General Assembly or nuclear licensees and make distributions of these resources to the counties?

At the October 2, 1992, meeting, the Director of PEMA explained to Mr. Gary that there is insufficient justification from the counties to ask the utility rate payers to assume the cost of the total \$5 million annual expenditure advocated by Mr. Gary to support county radiological emergency response activities. Senator Schumaker of the Pennsylvania General Assembly, also in attendance at the meeting, stated that he would not place such a burden on the rate payers due to the State's economic situation.

Mr. Gary, in subsequent correspondence with the NRC, and at the February 2, 1994, meeting with representatives of the NRC and FEMA, reaffirmed his claim that additional monies to support offsite emergency planning are necessary. During the February 2, 1994, meeting the Petitioner proposed that the NRC require that GPUN remit \$1 million per year to the Commonwealth of Pennsylvania to be earmarked for emergency planning around TMI-1. The Petitioner requested that in the alternative the NRC federalize the collection and distribution of these funds.

The NRC has no requirements concerning the size and allocation of budgets for offsite emergency response organizations. Since FEMA has evaluated offsite planning and preparedness for TMI-1 and concluded that they are adequate, there is no basis under NRC regulations to address the funding of State and local radiological emergency preparedness

programs. Moreover, the Petitioner has not presented any information to demonstrate that current funding is inadequate. Accordingly, Petitioner's request for NRC action to require additional funding through the Commonwealth of Pennsylvania's statutory mechanism or a Federal scheme is denied. The NRC has no statutory authority to implement such a request.

8. Is a strictly delineated 10-mile emergency planning zone (EPZ) reasonable for Three Mile Island, considering that a highly populated area, the capital city of Harrisburg, is just outside the 10-mile limit?

In PEMA's letter dated July 12, 1993, PEMA states that the 10-mile EPZ for TMI-1 is based upon NRC and EPA studies in NUREG-0396, "Planning Basis for the Development of State and Local Government Radiological Emergency Response Plans in Support of Light Water Nuclear Power Plants," December 1978. When evacuation is called for, the Commonwealth of Pennsylvania will direct the immediate evacuation of the entire 10-mile EPZ. PEMA also states that the emergency response organization within 10 miles of TMI-1 can be expanded beyond 10 miles if conditions warrant. FEMA is in agreement with PEMA's interpretation of the requirements governing the size of the 10-mile EPZ.

In a letter from Stephen R. Reed, Mayor of Harrisburg, to Mr. Gary, dated February 8, 1993, Mayor Reed agreed with Mr. Gary's concern that the City of Harrisburg should be included in evacuation plans for TMI-1. To this end the Mayor noted that although the city is not "officially recognized" as part of the 10-mile EPZ, the city has identified, and

would be able to mobilize, sufficient resources to support evacuation of both Harrisburg's portion of the 10-mile EPZ and the contiguous areas of Harrisburg to the north.

In the February 2, 1994, meeting, Mr. Gary suggested that a "contingency planning area" could be established for the City of Harrisburg to provide for a preplanned layered response that would not require rulemaking for an expansion of the established EPZ around TMI-1. Mr. Gary did not explain how a contingency planning area differs from expansion of the 10-mile EPZ, nor is any difference apparent.

The size of the EPZ for a commercial nuclear power plant is established by the NRC in 10 CFR 50.33(g) and Appendix E to 10 CFR Part 50. The choice of the size of the EPZs (about 10 miles in radius for the plume exposure pathway and about 50 miles in radius for the ingestion pathway), as discussed in NUREG-0396, represents a judgment that a 10-mile EPZ provides sufficiently detailed planning which must be performed to ensure an adequate emergency response. In a particular emergency, protective actions might well be restricted to a small part of the planning zones. On the other hand, the response measures established for the 10-mile and 50-mile EPZs can and will be expanded if the conditions of a particular accident warrant it. Although an EPZ is generally circular in shape, the actual shape is established based on local factors such as demography, topography, access routes, and governmental jurisdictional boundaries.

The Commission reaffirmed the reasonableness of the 10-mile EPZ in 1989. The Commission stated:

Implicit in the concept of "adequate protective measures" is the fact that emergency planning will not eliminate in every conceivable accident, the possibility of serious harm to the public. Emergency planning can, however, be expected to reduce any public harm in the event of a serious but highly unlikely accident. Given these circumstances, it is entirely reasonable and appropriate for the Commission to hold that the rule precludes adjustments on safety grounds to the size of an EPZ that is "about 10 miles in radius." In the Commission's view, the proper interpretation of the rule would call for adjustment to the exact size of the EPZ on the basis of such straightforward administrative considerations as avoiding EPZ boundaries that run through the middle of schools or hospitals, or that arbitrarily carve out small portions of governmental jurisdictions. The goal is merely planning simplicity and avoidance of ambiguity as to the location of the boundaries.

Long Island Lighting Company (Shoreham Nuclear Power Station, Unit 1), CLI-89-12, 26 NRC 383, 384, 385 (1987).

The 10-mile EPZ for the TMI-1 facility has been determined to satisfy NRC requirements. Metropolitan Edison Company, et al. (Three Mile Island Nuclear Station, Unit No. 1), LBP-81-59, 14 NRC 1211, 1553-1569 (1981), aff'd ALAB-697, 16 NRC 1265 (1982), aff'd CLI-83-22, 18 NRC 299 (1983). Moreover, the City of Harrisburg, Pennsylvania filed a petition under 10 CFR 2.206 on May 30, 1984, to include the city in evacuation plans for TMI-1. The Director's Decision in response to that petition concluded that "the currently configured plume exposure pathway EPZ is in conformance with emergency planning requirements and is adequate to provide a basis for emergency response efforts including evacuation in the event of an emergency at the TMI-1 facility," and denied the request to include the City of Harrisburg in the 10-mile EPZ. Metropolitan Edison Company, et al., (Three Mile Island Nuclear Station,

Unit 1), DD 84-18, 20 NRC 243 (1984). Petitioner has presented no information to justify disturbing these decisions.

9. What standard does PEMA seek to meet in its emergency preparedness drills? Are the drills purporting to test the equipment or the emergency responders? If the drills are to test the responders, then they should be unannounced and held at various times of the day and night and, therefore, more closely approximate an actual event.

FEMA-REP-14, "Radiological Emergency Preparedness Exercise Manual," and FEMA-REP-15, "Radiological Emergency Preparedness Exercise Evaluation Methodology," outline the standards that should be met by State and local emergency response organizations, including PEMA, during full-scale emergency preparedness exercises. Those standards apply to personnel and equipment.

During an October 2, 1992, meeting, PEMA explained to Mr. Gary that, due to funding limitations, the State relies heavily on volunteers to staff the county and municipal EOCs, and schedules the biennial REP exercises in the late afternoon to accommodate these volunteers. Although the volunteers would be willing to respond to an actual emergency at any time, they cannot afford to leave their regularly scheduled work activities for an exercise. In its July 12, 1993, letter to FEMA Region III, PEMA states that military standards, as suggested by the Petitioner, cannot be applied to a civilian system that relies to any significant degree on volunteers. FEMA agrees with the reasonableness of PEMA's position and notes that under FEMA-REP-14, all



offsite response organizations are required to demonstrate their emergency response capabilities in an unannounced mode and in an off-hours mode once every 6 years through an unannounced and off-hours exercise or drill. TMI-1 last conducted an unannounced, off-hours exercise with State and local participation on June 26, 1991.

Petitioner has presented no evidence to contradict FEMA's conclusion that the scheduled biennial emergency exercise and the unannounced drill or exercise every 6 years are adequate and provide reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency. The NRC staff concludes that the Petitioner has presented no evidence that the standard of 10 CFR 50.47(b)(14) is not being met. Accordingly, Petitioner has not demonstrated any substantial safety concern.

10. PICA requests an inquiry to DOD about the use of military vehicles -- is it possible? What would be the response time? How many people could be moved? What other services could be provided?

The DOD is a participating agency in the Federal Radiological Emergency Response Plan (FRERP). The FRERP was developed by FEMA and 11 other Federal agencies, including DOD, pursuant to Executive Order 12241, for use in responding to peacetime radiological emergencies. The FRERP outlines the Federal government's concept of operations and responsibilities for providing assistance to State and local governments with jurisdiction in an emergency. Under the FRERP, DOD will provide assistance in accordance with DOD policies subject to essential

operational requirements. DOD may provide assistance in the form of manpower, logistics, and telecommunications, including airlift services. However, DOD is not intended to be a first responder and, therefore, would not be called upon for such immediate protective measures as evacuation of the 10-mile EPZ. Further information on the FRERP is provided at 50 FR 46559 (November 8, 1985). Petitioner has presented no evidence to justify disturbing this multi-agency Federal scheme for emergency response. (See also Section III.A.3, *supra*).

11. The population numbers in the Dauphin County plan do not reflect current (1990 census data) population figures.

The Dauphin County plan was updated with 1990 census data in February 1993.

12. Evacuation time estimates have not been revised since the early 1980s.

Revised evacuation time estimates, based upon 1990 census data, were recently completed by a contractor to the Licensee and have been approved by PEMA. The new evacuation time estimates will be incorporated in the 1994 update of the TMI-1 plans and procedures.

13. It is misleading to cite the success of the May 19, 1993, exercise and conclude that the plant is in great shape. TMI was given a violation based on taking too long to mobilize its emergency response organization during a security event in early 1993.

A notice of violation was issued to the Licensee following the security event of February 7, 1993, specifically relating to onsite planning and preparedness, and is unrelated to the issues raised by the Petitioner concerning offsite emergency preparedness. The violation does not in any way demonstrate any inadequacy in offsite emergency preparedness. Additionally, the Severity Level III violation was issued to the Licensee due to a delay in staffing of its emergency response facilities, and the violation was self-identified by the Licensee and prompt corrective actions were taken. The NRC did not conclude, as a result of this enforcement action, that the Licensee's onsite emergency response plans were inadequate.

14. Petitioner requested an independent investigation of Petitioner's concerns by the NRC staff, or an independent commission, rather than reliance upon FEMA.

NRC regulations require that the NRC will base its finding of whether offsite emergency planning and preparedness provide reasonable assurance that adequate protective measure can and will be taken in the event of a radiological emergency upon a review of the FEMA findings concerning offsite emergency planning and preparedness. See 10 CFR 50.47(a)(2) and 10 CFR 50.54(s)(3). Moreover, although Petitioner has

claimed in various submissions that FEMA is either biased or unable to conduct an adequate review, Petitioner has presented no evidence to warrant such a conclusion. Accordingly, Petitioner's request for an investigation by some entity other than FEMA is denied. The NRC, however, is not precluded from considering information in addition to the FEMA review, before reaching a decision regarding the adequacy of offsite emergency planning and preparedness for TMI-1, and the NRC has considered the additional information submitted by Petitioner.

15. Petitioner requested that the NRC require that the RERP for Dauphin County be limited to 100 pages, tabbed, water-proofed, color-coded and in large type for ease of use in an emergency. Additionally, Petitioner requested that the RERP should physically include all implementing procedures and that implementing procedures should be publicly available.

There are no NRC requirements concerning the size, organization, typeface, tabbing, or impermeability of offsite emergency response plans. Nor are there any requirements concerning physical organization of implementing procedures for offsite emergency response plans.

The RERP is a publicly available document providing a broad overview of the emergency response organization's concept of operations. The implementing procedures provide detailed instructions to emergency response personnel who need not and do not use the publicly available RERP. Accordingly, there is no reason to require offsite emergency response organizations to maintain the RERP and implementing procedures

together physically. Additionally, NRC regulations require that the Licensee submit the emergency response plans of cognizant State and local entities. See 10 CFR 50.33(g). There is no NRC requirement to submit implementing procedures for offsite emergency plans or to make them publicly available. Accordingly, Petitioner's requests are denied.

#### FEMA's findings and conclusions

Recognizing that (1) RERPs are dynamic, living documents which are always being changed and updated through the annual review process to reflect changes in the EPZ, emergency management policies, and organizational relationships, and (2) PEMA is actively engaged in the development and refinement of RERPs for all of its sites in compliance with established FEMA/NRC planning standards, FEMA reports that the offsite emergency planning issues raised by Mr. Gary are being satisfactorily addressed. FEMA concluded in its report, dated December 16, 1993, that "the offsite radiological emergency response plans and preparedness for TMI-1 are adequate to provide reasonable assurance that appropriate measures can be taken offsite to protect the public health and safety." FEMA based its conclusion on the following factors:

1. PEMA's continuing efforts in the development, revision, and refinement of the RERPs for TMI-1,
2. FEMA's review of the concerns identified in the 10 CFR 2.206 Petition, related correspondence, and PEMA's response to those concerns, and

3. the results of the May 19, 1993, TMI-1 exercise in which FEMA did not identify any deficiencies but did identify some areas recommended for improvement, areas requiring corrective action, and planning issues that were unrelated to the concerns raised by the Petition. The Commonwealth of Pennsylvania received a copy of the FEMA draft report for the May 19, 1993, exercise and responded to the inadequacies identified in the report. FEMA Region III staff will monitor the State and local governments' correction of all exercise inadequacies.

Petitioner has presented no evidence to prevent the NRC from concluding, as did FEMA, that the offsite emergency response plans and preparedness for TMI-1 provide reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency.

#### IV. CONCLUSION

The institution of proceedings pursuant to 10 CFR 2.206 is appropriate only if substantial health and safety issues have been raised. See, Consolidated Edison Company of New York (Indian Point Units 1, 2, and 3), CLI 75-8, 2 NRC 173, 175 (1975) and Washington Public Power Supply System (WPPSS Nuclear Project No. 2), DD-84-7, 19 NRC 899, 924 (1984). This is the standard that has been applied to the concerns raised by the Petitioner to determine whether the action requested by the Petitioner, or other enforcement action, is warranted.

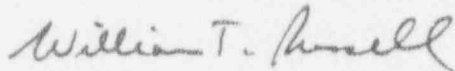
FEMA, as the Federal agency primarily responsible for oversight of offsite emergency planning for nuclear power plants, has evaluated the

concerns raised by the Petitioner and concluded, for the reasons discussed above, that the emergency response plans for the Commonwealth of Pennsylvania and Dauphin County continue to be adequate and that there is reasonable assurance that adequate protective measures can and will be taken offsite in the event of a radiological emergency at TMI-1.

Based upon the above, the NRC staff concludes that Petitioner has not raised any substantial health or safety concern. After review of FEMA's findings and conclusions and the material submitted by the Petitioner, the NRC staff also concludes that there is reasonable assurance that adequate offsite protective measures can and will be taken to protect the health and safety of the public in the event of a radiological emergency at TMI-1. Accordingly, based on the above, Petitioner's requests for an independent de novo investigation of Petitioner's concerns, for a shutdown of TMI-1, for the inclusion of the City of Harrisburg in the 10-mile EPZ or its addition to the 10-mile EPZ as a contingency planning area, for NRC action to require \$5 million annual expenditure for radiological emergency preparedness in the Commonwealth of Pennsylvania or to determine the needs and resources of the Commonwealth regarding emergency planning, for NRC to impose specifications upon the physical characteristics and length of the Dauphin County RERP, and inclusion of implementing procedures in the publicly available RERP, are denied.

A copy of this Decision will be filed with the Secretary for the Commission to review as provided in 10 CFR 2.206(c). The Decision will become the final action of the Commission 25 days after issuance unless the Commission, on its own motion, institutes review of the Decision in that time.

FOR THE NUCLEAR REGULATORY COMMISSION



William T. Russell, Director  
Office of Nuclear Reactor Regulation

Dated at Rockville, Maryland  
this 31st day of March, 1994