

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of )  
 )  
Philadelphia Electric Company )  
 )  
(Limerick Generating Station) )  
Units 1 and 2) )

Docket Nos. 50-352 P2:48  
50-353

OFFICE OF SECRETARY  
DOCKETING & SERVICE

APPLICANT'S ANSWER TO LIMERICK ECOLOGY ACTION'S SECOND SET OF  
INTERROGATORIES AND REQUEST FOR PRODUCTION OF DOCUMENTS  
TO THE PHILADELPHIA ELECTRIC COMPANY ON  
LEA'S ADMITTED "OFF-SITE" EMERGENCY PLANNING CONTENTIONS

DISCOVERY 35  
8/2/84  
Revised

Interrogatory No. 1

WITH REGARD TO LEA 14: (AND LEA-12) Please discuss "training" provided for school personnel. Has all school training been completed? If not, please provide a schedule indicating when outstanding training is to be completed. Please clarify the role played in such "training" by representatives from PEMA, ECI, and the County Offices of Emergency Preparedness.

Answer

With regard to the training of school personnel, See Answer to Discovery 34, Interrogatory No. 25.

PEMA reviewed course plans of instruction and met with Applicant to discuss the proposed training program (November 17, 1983 with Dr. Donald Taylor, PEMA Director of Training and Education). Energy Consultants developed the course plans of instruction, lesson plans, training aids and conducted the training sessions.

Lesson plans developed by Energy Consultants were submitted to the county emergency management agencies for their review and approval. In many instances, county emergency management personnel accompanied and introduced Energy Consultants' training staff. The Chester County Department of Emergency Services distributed and compiled results of a training evaluation program designed to measure the knowledge gained by trainees.

Plans of instruction for the school training program were previously provided to LEA's representative and are being made available for inspection and copying in Discovery 35, Item 1. Bus Driver and School Teacher and Staff Lesson Plans were previously provided. (See Discovery 34, Items 27 and 28.)

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Interrogatory No. 2

Does PECO or ECI have any information or knowledge about whether or not such training covers roles and responsibilities assigned to school personnel during a radiological emergency, especially in regards to sheltering and/or multiple trip evacuation scenarios?

Answer

The training programs for school officials, school teachers and staff, and bus drivers describe the roles and responsibilities of school personnel.

The Bus Driver Lesson Plan describes the roles and responsibilities of drivers in Section VIII, with specific information regarding sheltering in Sections VI.A.I and VIII.D.3

The School Officials Training Lesson Plan describes roles and responsibilities in Section VIII, with specific information regarding sheltering in Sections V.A.1 and VIII.D.8.

The School Teachers and Staff Lesson Plan describes roles and responsibilities in Section XI, with specific information on sheltering in Sections VIII.A and XI.E.

Copies of the bus drivers and school teachers lesson plans were provided in Discovery 34, Items 2 through 4. The School Officials Training Lesson Plan was previously provided to LEA's



representative and is being made available for inspection and copying as Discovery 35, Item 2.

Because school planning is based on the premise that schools would be evacuated in one lift, the training program did not discuss multi-trip evacuation scenarios for schools. Bus drivers were instructed, however, as described in Sections VIII.D.4.c and VII.D.4.d of the Bus Driver Lesson Plan, that drivers could be asked to enter or reenter the EPZ to evacuate members of the general public.

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Interrogatory No. 3

Would adequate supplies of KI, dosimetry, and communications equipment be available during a sheltering and/or a multiple trip scenario? How and when would these be distributed?

Answer

In context, Applicant construes this interrogatory to relate to school personnel.

School personnel are not designated as emergency workers (See Annex M, Section II.N. of the County plans) and, therefore, are not routinely designated to receive dosimetry or KI supplies.

County plans, however, recognize the possible need to provide dosimetry and KI to drivers in some circumstances, i.e., for reentry to evacuate the general public. Annex M, Appendix 3, Section A.18 of the Chester County plan provides an allotment of dosimetry and KI for transportation staging areas, as does the Montgomery County plan in Annex M, Appendix 3, Section A.29.

In a telephone conversation between John Long of Energy Consultants and Robert L. Reber, Director of Berks County Emergency Management Agency, on July 10, 1984, Mr. Reber confirmed the Berks County policy that if circumstances develop so as to require bus drivers to reenter the EPZ, Berks County would make the county reserve supply of dosimetry and KI (Annex

M, Appendix 4, Section A.1) available at its transportation staging areas.

Distribution of dosimetry to emergency workers occurs at a Site Emergency classification and is described in Annex M, Appendix M-2, Section II.A of the Montgomery County Plan; Annex M, Appendix 3, Section II.A of the Berks County Plan; and Annex M, Appendix 2, Section II.A of the Chester County Plan.

In a sheltering scenario, school children and supervisory school personnel would be treated like any other member of the general public who do not receive dosimetry or KI.

Primary communications between the counties and school districts is by commercial telephone.

Radio communications (RACES or ARES) are established with school district offices at a Site Emergency classification as a back-up to telephones (Montgomery County Plan, Basic Plan, Section VII.D.3.j and Annex N, Section VI.C.8; Chester County Plan, Annex B, Appendix 3, Section II.B and Annex N, Section V.C.7; and Berks County Plan, Annex B, Section IV.I.3.c)

County plans also call for the assignment of at least one radio-equipped vehicle to each school in the event evacuation is required. This is described in Annex N, Section VI.D.3 in the Berks and Montgomery County Plans and Annex N, Section V.D.3 in the Chester County Plan.

Copies of these documents were previously provided. (See  
Discovery 34, Items 1, 2 and 3.)

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Interrogatory No. 4

Does PECO plan to present any witnesses regarding the willingness of teachers and school staff to perform their assigned roles in sheltering, evacuation or multiple trip evacuation scenarios? Does PECO have any information regarding the willingness of school staff to remain with school children while at a host school or mass care center?

Answer

See Answer to Discovery 34, Interrogatory No. 1.

Information regarding school staff willingness to remain with students at host schools or mass care centers is based upon the plans developed by the school districts which outline that procedure. This is described in Section V.D. of the school district plans (Sections D.1.i, pages 6114.4 (o) and (p) and D.2.d, page 6114.4 (r) of the Owen J. Roberts Plan).

Copies of these documents were previously provided (Discovery 34, Items 4 through 16).

Applicant is aware of a school staff survey conducted by the Owen J. Roberts School District which suggested not enough staff would be available for that purpose. Applicant's knowledge of this survey is based upon correspondence provided in Discovery 34, Item 30. Additional correspondence is provided for inspection and copying as Discovery Item 35, Item 3.



To Applicant's knowledge no other school district, or school, has indicated school staff "unwillingness" to remain with students at host schools or mass care centers until relieved of that responsibility. All school districts and private schools drafted plans outlining this procedure, and they intend to implement the plans in accordance with the plan procedures.

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Interrogatory No. 5

How have teachers been informed of their responsibilities at school in the event of a radiological emergency? Provide the results of any surveys that PECO or ECI has knowledge of that indicate the number of school staff willing to participate and remain on duty in the event of a radiological emergency? What arrangements have been made for the families of teachers who are willing to remain on duty during a radiological emergency? If such arrangements have not been made, what assurance is there that teachers will remain on duty rather than leave to pick up their own children or family members?

Answer

School teachers participating in the training program offered by the Applicant have been informed of responsibilities and procedures in the event of a radiological emergency. See Answer to Interrogatory No. 2. Applicant has no knowledge of additional arrangements of each school district or private school to inform their teachers of such responsibilities.

See Answer to Interrogatory No. 4 with regard to surveys of school staff.

At all training sessions, Energy Consultants training staff advised persons involved in emergency response activities that they should discuss family arrangements during an emergency. Members of families of school personnel remaining on duty during a radiological emergency are members of the general public and are evacuated on that basis. Arrangements for evacuation of the general public provide reasonable assurance to school personnel

and their families that family members will be protected in the event of a radiological emergency. Additionally, conduct of school personnel as reasonable adults, certified by the Commonwealth for the instruction of school children, assures that such personnel will remain with the children until relieved.

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Interrogatory No. 6

Provide a list of teachers and school staff willing to remain on duty with children in the event of a radiological emergency. Provide a description of the information provided to these teachers at the time the commitment was made to remain on duty during a radiological emergency.

Answer

See Answer to Interrogatory No. 4 with regard to school staff survey conducted by the Owen J. Roberts School District. A list of teachers responding in that survey is not available to the Applicant nor is the Applicant aware of any other such lists.

The school staff of the Owen J. Roberts School District received training from Energy Consultants, which is described in the Answers to Interrogatories No. 1 and No. 2.

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Interrogatory No. 7

What procedure is used if a teacher changes his/her mind about volunteering, or for some reason decides to leave the area? (and no longer works at the same school) Who do they notify if they no longer want to be considered a volunteer? Is the teacher or school staff member expected to find a replacement volunteer or does that slot remain open?

Answer

It is Applicant's understanding that school evacuation would be implemented with whatever minimum staffing requirements were identified by a particular school at the time of emergency. School plans are drafted to implement evacuation using a minimum of school and staff. This "emergency staffing" requirement is determined at the Alert stage of the emergency, as described in the Concept of Operation section of school plans, for school in session (Section V of all plans except Owen J. Roberts which is Section B.2.h on page 6114.4(m)). Copies of the school district plans have been previously provided. (See Discovery 34, Item 4 through 16.) Therefore, no pre-identification of volunteer teachers is required. Applicant understands that this approach is being taken by all schools except the Owen J. Roberts School District. The Owen J. Roberts School District has chosen to survey staff to estimate the number that would be available in a radiological emergency, has identified an alleged shortfall of teachers, and passed this staffing shortfall to the Chester County Department of Emergency Services to be satisfied from

other county sources. Chester County is in the process of addressing this issue.

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Interrogatory No. 8

Describe the nature of the contact with the teacher/staff person when asked to volunteer and the date of commitment. Did they have to give an answer "on the spot."?

Answer

See Answers to Interrogatories No. 4, 6 and 7.

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Interrogatory No. 9

What is the staff/student ratio considered to be adequate to remain with children in the event of a radiological emergency. Please differentiate between a sheltering and evacuation scenario.

Answer

The staff/student ratio adequate for emergency situations, such as a radiological emergency at Limerick, is an assessment to be made by the administration of each school or school district.

Information furnished to Energy Consultants in the course of the planning process by school administrators generally has indicated that any ratio that results in effective group management is considered adequate and would be similar to ratios maintained for large study halls, assemblies, or field trips. There is no difference in staff/student ratios for evacuation or sheltering scenarios.

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Interrogatory No. 10

Are teachers who are being asked to stay behind with the children being offered overtime pay, and if not, was this information provided to them at the time that they volunteered to participate?

Answer

See Answer to Discovery 34, Interrogatory No. 28.

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Interrogatory No. 11

Provide a list of the responsibilities the teachers/staff who remain with the children take on if they volunteer. Are these same volunteers trained and expected to shelter children? What information is being used to train staff/teachers about what to do in a sheltering situation.

Answer

Responsibilities of all school staff are described in Section V of all school district plans, except Owen J. Roberts, in which they are provided on pages 6114.4(h) through 6114.4(s).

Copies of these documents were previously provided. (See Discovery 34 Items 4 through 16.)

Responsibilities of teachers, including sheltering and evacuation responsibilities, are also outlined in Section XI of the School Teacher Lesson Plan previously provided. (See Discovery 34, Item 28.)

For training information regarding sheltering, See Answer to Interrogatory No. 2.

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Interrogatory No. 12

How will school districts determine which buildings are suitable for use sheltering students during a radiological emergency?

Answer

See Answer to Discovery 34, Interrogatory 43.

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Interrogatory No. 13

Discuss PECO or ECI's response to the concerns raised by Upper Perkiomen School District about whether or not "training" was adequate.

Answer

Training as described in Discovery 34, Interrogatory 25, was provided to the school staff of the Upper Perkiomen School District on February 17, 1984. Some time after this training, Alton W. Frey, Coordinator of Upper Perkiomen High School telephoned Energy Consultants and was directed to Robin Hoffman-Wenger, Training Coordinator. Mr. Frey requested information on training requirements and questioned whether training conducted at the High School was adequate. Ms. Wenger responded initially by telephone and later by a followup letter, providing a copy of appropriate pages from "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," NUREG-0654, FEMA-REP-1, Rev. 1. Ms. Wenger noted that the same program had been presented and found adequate by the other school districts in the Limerick EPZ and schools within the EPZ of other fixed nuclear facility sites.

Energy Consultants also brought the matter to the attention of the Montgomery County Office of Emergency Preparedness, which subsequently met with representatives of the Perkiomen School District to discuss the matter.



A copy of the correspondence with Mr. Frey was previously provided to representatives of LEA and is being made available for inspection and copying (See Discovery 35, Item 4.)

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Interrogatory No. 14

WITH REGARD TO LEA-27:

Please provide any information available to PECO or ECI about the status of emergency response planning for Spring Mountain House, Camp Hill Village School (West Vincent Twp.), and Camp Hill Special School (East Nantmeal Twp.).

Are these facilities included in their respective municipal plans or are separate plans being developed for them?

Please provide any information available about arrangements for:

- (a) training of personnel
- (b) transportation assistance in the event an evacuation is called for
- (c) suitability of these facilities for sheltering, including the length of time under various possible scenarios that sheltering would provide adequate protective action
- (d) arrangements for communications with these facilities during a radiological emergency (especially with the county and/or the municipality involved)

With regard to (b) above, please describe the number of vehicles necessary where they will be dispatched from, how long it will take those vehicles to arrive at their designation, and who will provide drivers for these vehicles.

Answer

Notification of the three facilities is covered in their respective municipal plan implementing procedures. The Spring Mountain House receives notification from Upper Salford Township as provided in Annex A, Section 6, of the Implementing Procedures on page A-3. The Camp Hill Village School receives notification from West Vincent Township as provided in Annex A, Section 5 of the Implementing Procedures on page A-3. The Camp Hill Special School receives notification from East Nantmeal Township as provided in Annex A, Section 4 of the Implementing Procedures on

page A-3. Copies of these documents have been previously provided to LEA's representative and are being made available for inspection and copying in Discovery 35, Item 5.

A request for training was forwarded to Energy Consultants through the municipal emergency management coordinator of West Vincent Township for Camp Hill Village School on July 2, 1984. Energy Consultants contacted both the Camp Hill Village School and Camp Hill Special School to discuss training the same day. Training as requested was conducted on July 13, 1984. A school administrator/school teacher training program appropriate for the facility was presented in which the instructor discussed nuclear power plant technology, radiation, emergency planning principles, and school staff responsibilities.

Mr. Bernard Wolf of the Camp Hill Special School stated that training would not be requested by his facility at that time.

A survey for transportation requirements was conducted of the three facilities. Spring Mountain House has not indicated any transportation requirements. For the other two, transportation assistance is being arranged through the respective municipal emergency management agencies. Residents from Camp Hill Village School and Camp Hill Special School have responded to the public needs surveys distributed by the counties and are included on the lists of residents requiring transportation assistance. As stated in Attachment G the West Vincent Township and East National Township municipal plans. The names of the individuals making up

those lists are on file at the municipal EOCs and are not provided in circulated plan drafts. Specific names, addresses and telephone numbers of individuals making up the lists are considered confidential by West Vincent Township. Any individual who needs transportation may request that his name be added to the list.

The number of vehicles to evacuate those without required transportation is tabulated for the entire township, not just these facilities. This information is provided in Attachment P of the municipal plans. Copies of these documents have been previously provided to LEA's representative and are being made available for inspection and copying in Discovery 35, Item 6.

Vehicles will be dispatched from the transportation provider. For the Camp Hill Schools, Chester County has not yet assigned specific resources to its townships. This information will be provided when available.

In Montgomery County, Annex I, Appendix I-2, Tab 3 assigns two buses to Upper Salford Township from Transportation Services, Inc.

Current responses from Spring Mountain House to the public needs survey do not indicate that any ambulances will be required. If an ambulance were required, however, for the Spring Mountain House, an ambulance would be assigned at the time of emergency through the Emergency Medical Service Mutual Aid system

in Montgomery County, as provided in Annex I, Appendix I-2, Tab 3. Ambulance resources are listed in Annex I, Appendix I-2, Tab 1.

As to travel time to destination, See Answer to Discovery 34, Interrogatory No. 12.

The companies providing the vehicles will also provide the drivers per agreements currently in Annex T of the Berks and Montgomery County Plans previously provided. (See Discovery 34, Items 1 and 3.)

Communications between these three facilities and their municipal emergency operations center will be by commercial telephone.



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Interrogatory No. 15

What are the reception centers and mass care center arrangements that have been made for these facilities? If none have been completed, who is responsible for seeing that these arrangements are completed?

Answer

Hosting arrangements for both Camp Hill Schools have been completed by the Chester County Department of Emergency Services with the Deveraux School, a facility for the mentally handicapped located in Chester County. An agreement has been executed and is on file at the Chester County Department of Emergency Services. A copy has not been furnished to Applicant.

A mass care center for residents of Spring Mountain House requiring such temporary accommodations would be assigned at the time of emergency, the same as other members of the general public, at the designated reception center for evacuees of Upper Salford Township, County Line Plaza in Montgomery County.

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Interrogatory No. 16

What is the resident population that is being planned for at the facilities discussed in LEA-27? Provide any information about special transportation needs for the handicapped or those requiring ambulance assistance. If ambulances are involved, where will they be coming from? Who is responsible for assigning and dispatching ambulances for these facilities? Have letters of agreement been completed? If not, why not?

Answer

Based upon information provided by a representative of the Camp Hill Special School, an evacuation population of 157 individuals is expected, including 92 residents, 40 staff, and 25 children of staff.

Based upon information provided by a representative of the Camp Hill Village, an evacuation population of 110 residents plus 40 staff for a total of 150 is expected.

Based upon information provided by a representative of the Spring Mountain House an evacuation population is estimated at 27.

Follow-up telephone calls to public needs survey returns conducted by Energy Consultants in February and March of 1984 indicate no requirement for special vehicles or ambulances for any of these three facilities.

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Interrogatory No. 17

WITH REGARD TO LEA-28:

How many vehicles are available for use by the Pa. National Guard for providing fuel supplies and towing services in the Limerick Plume EPZ? Please provide a description of the type of vehicles available for use by the National Guard, their approximate location, where they will be dispatched from, and any other information available to PECO or ECI. Have letters of agreement been provided for the use of these vehicles? Are letters of agreement necessary for the use of these vehicles? If not, why not? If yes (and they have not been completed) when will these letters of agreement be completed?

Answer

All information furnished to Applicant regarding Pennsylvania National Guard resources and operations is contained in Annex H of the Berks, Chester, and Montgomery County Plans previously provided (See Discovery 34, Items 1, 2 and 3).

No letter of agreement with the National Guard is required. The Guard would be activated at the command of the Governor. Annex H, Appendix 1 of the Berks, Chester and Montgomery County Plans contains the radiological emergency operations plans developed by the assigned National Guard unit for each county emergency management agency indicating a formal commitment of support. Annex E of the Commonwealth Disaster Operations Plan in Sections VII.A.17.h, VII.A.22.c, and VII.a.22.d relates to the use of National Guard resources for fuel dispensing and road clearance (Discovery 34, Item 19).



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Interrogatory No. 18

Please provide the same information about the availability of vehicles for provision of fuel supplies and towing services that would be applicable for use on non-state roads. (question 17 refers to state roads)

Answer

Fuel and towing resources will be provided for all main evacuation routes regardless of whether those roads are state or non-state roads. See Answer to Interrogatory No. 17.

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Interrogatory No. 19

Provide a list by township or municipality of:

- (a) tow trucks that are available during a radiological emergency
- (b) locations of gasoline supplies, including a listing of gas stations that will remain open during a radiological emergency

Answer

Information on county roadway clearance and fuel resources are contained in Annex K, Appendix K-3 of the Berks and Montgomery County Plans.

Chester County maintains a Resource Manual with similar information, which has not been furnished to the Applicant. Copies of the Berks and Montgomery County Plans were previously provided. (See Discovery 34, Items 1 and 3).

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Interrogatory No. 20

Have letters of agreement been completed for the use of tow trucks and provision of gasoline supplies (as discussed in question 19) for

(a) state roads (b) non-state roads

If not, which ones are still outstanding? Please provide copies of all completed letters of agreement.

Answer

Letters of agreement for towing and fuel resources provided by PennDot and the National Guard are not required.

It is Applicant's understanding that the counties do not intend to seek written agreements for towing services with which they have working relationships and which they dispatch on a daily basis.

Fuel suppliers listed in Annex K, Appendix K-3 of the Berks and Montgomery County Plans have been contacted and verbally agreed to remain open during an evacuation emergency, including a radiological emergency at Limerick (See Discovery 34, Items 1 and 3).

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Interrogatory No. 21

Who is responsible for snow removal on state roads during a radiological emergency? Provide any information that will be used by PECO to demonstrate that this responsibility has been assigned and will be carried out in the event of a radiological emergency. If state employees are involved, does their contract require them to carry out their regular work duties in the event of a radiological emergency? If yes, please be specific. If not, how can it be determined that there will be adequate personnel to assure that snow removal will not impede any evacuation.

Answer

The Pennsylvania Department of Transportation (PennDot) is generally responsible for snow removal on state roads. During a radiological emergency, PennDot provides clearance of obstacles, including snow, on main evacuation routes, regardless of whether or not they are state roads, as provided in Annex E, Section VII.A.22.c, page E-29, of the Commonwealth of Pennsylvania Disaster Operations Plan. (See Discovery 34, Item 19.)

Applicant has no knowledge of PennDot's contractual arrangements with its employees.

The State has a vast inventory of such snow removal equipment and personnel in southeastern Pennsylvania, and even more statewide, which could be used on a priority basis in the event of a radiological emergency. Severe winter weather conditions would be considered by PEMA in determining whether evacuation of the plume exposure EPZ would be undertaken.

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Interrogatory No. 22

Provide the same information requested in #21 above as it relates to arrangements for snow removal on non-state roads. Provide any letters of agreements that have been completed to cover arrangements for snow removal. If none are required, please explain why.

Answer

As provided in the Answer to Interrogatory No. 21, PennDot resources are not restricted to state roads in a radiological emergency, but will provide snow removal on all main evacuation routes.

See Answer to Interrogatory No. 20 with regard to letters of agreement.

PennDot resources will supplement existing municipal contract arrangements for snow removal.

It is Applicant's understanding that such contracts do not distinguish between radiological emergencies and non-radiological emergencies.

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Interrogatory No. 23

When will training be offered to tow truck drivers, gas station attendants, and personnel involved in snow removal during a radiological emergency? If not, why won't it be? Are these personnel considered emergency workers? If there any length of time that they would be expected to carry out their assigned duties during a radiological emergency? Have they been told this? When and by whom? (For example, if a gas station agrees to remain open to provide fuel supplies, how long do they have to remain in the EPZ before they can evacuate?)

Answer

Tow truck drivers, gas station attendants and snow removal personnel are not emergency workers as defined in Annex M, Section II.N of the County Plans. Therefore, special training is not required. They are not considered emergency workers because any task that they might perform on a voluntary basis would be conducted within the same time frame as an evacuation of the general public, that is, they would not be required to remain in the EPZ any longer than the evacuating public, or to perform any task which would expose them to a radiation condition that is not applicable to other members of the general public (See Discovery 34, Items 1, 2 and 3).

Applicant has made no contact in this regard with any tow truck drivers, gas station attendants, or snow removal personnel within the EPZ.

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Interrogatory No. 24

If a gas station agrees to remain open but for some reason is not able to do so during a radiological emergency, are there any penalties or liabilities to the gas station owner or manager (or the person who made the written or verbal commitment to provide these services during a radiological emergency?)

Answer

The primary purpose of support agreements for the provision of services and resources in the event of a radiological emergency is to identify sources as accurately as possible and to confirm an organization's or agency's willingness and ability to provide that support.

None of the agreements purports to impose liabilities on support organizations or agencies for failure to provide a service. No agreements drafted to date in Annex T of each county plan provide penalty or liability clauses. (See Discovery 34, Items 1, 2 and 3.)

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Interrogatory No. 25

For gas stations expected to remain open during a radiological emergency, provide any information available to PECO or ECI about the amount of gasoline available at each gas station at any given time? How will arrangements be made to insure that gas tanks are kept full at all times at these stations? Have these stations agreed to keep a certain reserve available at all times? If yes, what is it (by gas station)?

Answer

Applicant has no information regarding quantities of gasoline available from gas stations listed in Annex K, Appendix K-3 of the Berks and Montgomery County Plans. (See Discovery 34, Items 1 and 3).

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Interrogatory No. 26

Provide any information available to indicate how much gasoline is needed to supply an evacuation of the Limerick EPZ? Have any studies been done? (or surveys of any kind)

Answer

Applicant has no knowledge of studies, surveys, or estimates of any kind indicating how much gasoline would be needed to effect an evacuation of the Limerick EPZ.

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Interrogatory No. 27

What assurance is there that employees at gas stations will remain on duty during a radiological emergency? What happens if they don't?

Answer

Gas station employees within the EPZ are not being requested to remain on duty during a radiological emergency.

If needed, fuel could be obtained from National Guard and/or PennDot sources to be located along major evacuation routes, as described in Sections VII.A.17.h and VII.A.22.d of Annex E of the Commonwealth's Disaster Operations Plan (See Discovery 34, Item 19).

Any person lacking transportation for any reason would be considered members of the general public without transportation. Such an individual would call the published transportation assistance telephone number and obtain bus transportation through the municipal emergency management agency.



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Interrogatory No. 28

Provide a description of the equipment available for use by the Pa. National Guard. Please be specific about the number and type of vehicles available, their location, and any information available to PECO or ECI about the time necessary to dispatch and mobilize this equipment.

Answer

See Answer to Interrogatory No. 17.

Annex H, Section IV.A of each County Plan provides mobilization and deployment times for the county's assigned National Guard units. In Berks County, mobilization and deployment times average eight to twelve hours; in Chester and Montgomery Counties, six to eight hours. Copies of these plans were previously provided (See Discovery 34, Items 1, 2 and 3).

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Interrogatory No. 29

How many National Guard members can be mobilized by each of the Battalions assigned to cover the Limerick EPZ? In what length of time? Provide the basis for all information supplied? If additional personnel and/or equipment is needed, where will it come from? How much mobilization time is involved? Provide information specific to each Battalion that will be involved when answering the above.

Answer

Applicant has no knowledge of National Guard manpower strengths. See Answers to Interrogatories No. 17 and 28.

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Interrogatory No. 30

Does PECO intend to provide any expert or factual witnesses on LEA-28? If not previously identified in response to LEA's first set of interrogatories, please identify PECO's witnesses, and provide answers to questions 1-7 as stated in LEA's First Set of Interrogatories.

Answer

See Answer to Discovery 34, Interrogatory No. 1.

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Interrogatory No. 31

Is there a direct telephone line between PEMA and the National Guard? Provide any information available to PECO or ECI about communications equipment and capabilities of the National Guard.

Answer

Applicant has no knowledge of whether there is a direct telephone line between PEMA and the National Guard.

Annex H, Appendix 1 of the Chester County Plan describes National Guard communications in Section 5.a.

It is Applicant's understanding, as described in Section 5.a, that all National Guard communications would be via commercial telephone prior to deployment and tactical FM radio after deployment (See Discovery 34, Item 2).

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Interrogatory No. 32

WITH REGARD TO LEA-26

What is the basis for assigning fire company personnel to the task of "route alerting"? Have firemen been surveyed to determine how many are willing to participate during a radiological emergency?

Answer

Fire company personnel are emergency workers thoroughly familiar with their local fire protection jurisdiction and already have the notification, communications, and mobilization procedures and equipment needed for prompt, effective response to emergencies. This is demonstrated on a daily basis.

As the preferred unit to perform this function, fire company personnel are used throughout the Commonwealth for route alerting during a radiological emergency. Should there not be enough fire company personnel to perform this function, police or emergency management personnel would be assigned.

No formal survey of fire company personnel has been conducted by Applicant. However, Energy Consultants planning staff (accompanied by county emergency management personnel in many instances) have met with fire companies to discuss their assigned route alerting responsibility, to review proposed route alert sectors and receive their input and concurrence. At these meetings, only one fire company indicated unwillingness to

perform route alerting in a radiological emergency. A mutual aid fire company outside the EPZ would perform route alerting in this instance, if necessary. Applicant is also aware that LEA surveyed fire companies within the EPZ. The survey results have not been made available to Applicant.

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Interrogatory No. 33

If no survey has been done of the firemen (as discussed above) what is the basis for determining that there will be sufficient personnel available to carry out route altering during a radiological emergency?

Answer

See Answer to Interrogatory No. 32.

Further, firefighters in the EPZ's of Pennsylvania's other four fixed nuclear facility sites have not only agreed to perform this service, they have successfully demonstrated their capability to do so in numerous exercises. There is no reason to believe that the firefighters within the Limerick EPZ would perform less capably.

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Interrogatory No. 34

What other responsibilities have been assigned to firemen during a radiological emergency. Provide specifics by municipality, as well as for firemen coming in to assist from outside the EPZ. In the event a municipality finds that it does not have sufficient personnel for route alerting, how will additional assistance be provided? By who?

Answer

In addition to route alerting, some fire company personnel, as stated in Annex O of the municipal plans, are requested by municipalities or counties to assist with traffic control and to conduct radiological monitoring. Fire company jurisdictions do not always follow municipal jurisdictional boundaries, hence route alerting assignments will be provided according to fire company, not municipality. When available this information will be provided in Annex O of the municipal plans. (Discovery 35, Item 6)

Assignment of fire company personnel to decontamination monitoring stations and centers appears in Annex M, Appendix 2 of the Berks County Plan. (See Discovery 34, Item 1)

Similar assignments in Chester and Montgomery Counties will be added to their plans. Fire personnel from fire companies outside the EPZ have no designated route alert or traffic control responsibilities.

Any shortages in route alert personnel would be handled through the county communications centers by dispatching mutual aid fire companies per standard county communications center procedures.

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Interrogatory No. 35

What equipment is necessary to have available for "route alerting"? Be specific by providing resource listing by municipality.

Answer

Route alert equipment would include a map of route alert sectors (Attachment E, Tab 1 of the municipal plans) a message card (Attachment E, Tab 2 of municipal plans) and a vehicle which would be equipped with a means of public address. Copies of the municipal plans have been previously provided to LEA's representative, and are being made available for inspection and copying as Discovery 35, Item 6.

Route alert sector and resource information will be provided when available.

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Interrogatory No. 36

Provide any information that will be relied upon by PECO to demonstrate the amount of time necessary to carry out route alerting as a notification procedure in the event of siren failure. Be specific as to whether the information refers to coverage of the entire EPZ (such as might occur in the event of a loss of power) or isolated siren failure.

Answer

The proposed route alert sectors are based upon siren location and the ability of a vehicle to cover the entire sector at a speed of 10 to 15 miles per hour within a 45 minute period. The proposed sectors are being discussed with the respective fire companies to confirm that sectors are appropriate to these standards. As noted in the Answer to Interrogatory No. 35, the designated sectors will be made available as Attachment E of the municipal plans.

Vehicle assignments are based upon a postulated failure of all sirens, resulting in the need to perform route alerting for the entire EPZ.

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Interrogatory No. 37

Provide any information to document the extent of communications links to be tested during the July 25 'test drill'. Provide any written information that PECO has any knowledge of. Discuss the minimum standards that are required for each link to remain useful and viable during a radiological emergency with regard to notifications and communications with emergency workers, both within and outside of the Plume EPZ for Limerick. If PECO has no evaluation of what it considers the minimum standards needed to successfully be implemented during a radiological emergency, explain its basis for making a determination that communications capabilities with emergency workers are adequate.

Answer

As related to notification of response organizations and emergency workers, communication links were tested during the July 25, 1984 exercise. These included commercial telephone lines, RACES/ARES, county fire, police and ambulance radio network. These systems are addressed Annex B of the County Plans (See Discovery 34, Items 1, 2 and 3.)

The "minimum standards" for the provision of communication links with response organizations and emergency workers are contained in the evaluation criteria and planning standards of NUREG-0654, Criterion F.

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Interrogatory No. 38

Provide any additional information about arrangements for 24 hour EBS coverage to each "Risk" and Support County. Are letters of agreement necessary? Have they been completed? If yes, please provide copies.

Answer

24-hour EBS coverage has been arranged by agreement for the three risk counties. (See Annex C of the Risk County Plans, Discovery 34, Items 1, 2 and 3) Copies of written agreements will be provided when available. Although not required, Lehigh and Bucks Counties have also obtained such agreements. Copies have not been furnished to Applicant.

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Interrogatory No. 39

WITH REGARD TO LEA-24/FOE-1:

Provide any information that will be relied upon by PECO to demonstrate the impact of traffic congestion in the following areas:

(a) Valley Forge National Park and King of Prussia area

(b) Marsh Creek State Park (c) Route 100 South from Pottstown to Exton Mall

Answer

The impact of traffic congestion resulting from evacuation through the above-mentioned areas was evaluated in the Applicant's evacuation time estimate study. The report, "Evacuation Time Estimates for the Limerick Generating Station Plume Exposure Emergency Planning Zone" (Final Draft, HMM Associates, May 1984) (See Discovery 34, Item 20), summarizes the estimated EPZ evacuation time under various scenarios required by NUREG-0654, Rev. 1.

(a) Traffic generated within the Valley Forge National Park and King of Prussia areas was not specifically considered in the evacuation time estimate study for the following reasons:

- o King of Prussia and all but a small portion of Valley Forge National Park lie outside of the plume exposure emergency planning zone. Traffic



generated within that portion of the Park in the EPZ is negligible.

- o Vehicles evacuating from the EPZ through the Valley Forge National Park and King of Prussia areas would travel along Route 363 south, to County Line Expressway, to Route 202 (DeKalb Pike) north to I-76 west, to Route 276 east. South of Trooper Road in West Norriton, this roadway corridor is a limited-access facility. Access to and from this corridor is only available at Route 23 (Valley Forge Road), 1st Avenue, Route 202, Warner Road, and I-76. For the evacuation time estimate study, it was assumed that traffic control would be provided to control access at these intersections.
- (b) Peak traffic volumes associated with the Marsh Creek State Park were included in the evacuation time estimate study. Accordingly, the impact of traffic congestion in this area has been evaluated in the Applicant's evacuation time estimate study. The Marsh Creek State Park was specifically considered in Analysis Areas 10, 12 and 14 of the evacuation time estimate study.
- (c) Traffic congestion along Route 100, from Pottstown to the Exton Mall was included in the evacuation time estimate study. Accordingly, the impact of this congestion has been evaluated in the Applicant's



evacuation time estimate study in Analysis Areas 10, 12  
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Interrogatory No. 40

If PECO does not anticipate any traffic congestion in these areas, please provide all information to be relied upon as a basis for PECO's position. Be specific.

Answer

As indicated in Applicant's Answer to Interrogatory No. 39, Applicant does, in fact, anticipate traffic congestion in those three areas, which were analyzed in the evacuation time estimate study, as indicated.

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Interrogatory No. 41

1. A part of Upper Merion Township is within the 10 mile zone. Was Upper Merion offered an opportunity to be included in Emergency Planning for the township? County?
2. If no, why not? Will Upper Merion be included in emergency planning now? How such?
3. Has there been contact with U.M.'s township manager? The emergency planning officer?
4. If there has not been contact, how soon will this be initiated?
5. Has the present traffic study by U.M. been considered in evacuation plans?
6. How many vehicles daily travel into the King of Prussia area?
7. How many vehicles (and people) terminate there for work, school, etc.?
8. How many commuting vehicles travel through King of Prussia daily?
9. What are the peak travel hours? What are the times and peak number of vehicles, people?
10. What are the peak shopping days and hours for King of Prussia? Number of vehicles, people?
11. What is the peak number of vehicles and people to be evacuated on maximum/shopping work day?
12. Since U.M. is partly in the 10-mile zone, will emergency planning be made for these people?
13. Will emergency planning be made for all the residents of U.M.?
14. Is the Schuylkill Expressway partly closed for repairs? For how many years, months?
15. What is the record of blocked traffic on Schuylkill Expressway? Daily? How long? Number of vehicles?
16. PEMA 6/83 Evacuation Map shows no evacuation south on the Schuylkill Expressway. Will it be blocked?
17. Evacuation Route south on #363 is routed to #202 and #76 onto the turnpike (276) east. How will this traffic enter the

turnpike, through the toll booths? Will all vehicles pick up cards? Will there be detours through and around booths?

18. Why no evacuation east on #202? Will it be blocked?
19. Why no evacuation west on Pennsylvania Turnpike (76)? Will it be blocked?
20. How often are there blockages at Valley Forge exit on turnpike? For how long?
21. How often are there commuter blockages on #202, 252? What are daily slowdown hours?
22. Evacuation plan from Valley Forge Park on the map is via #252 and #202 to West Goshen. How will parents of school children in the Park be notified of whereabouts?
23. Map shows 4222 autos in (r) hours passing a point on #252. Is this auto total derived from PennDot average traffic counts? Are there counts based on normal mph rate rather than the estimated passing of 4222 autos in (4) hours in evacuation?
24. How does the estimate of 9499 autos passing on #363 in (6) hours contrast with normal rate?
25. Is there an evacuation plan for Valley Forge Park?
26. Have Park officials been consulted? If not, when will they be? If there is no present evacuation plan for the Park, when will there be one?
27. Has a U.S. Department of Commerce November 1984 report, "Industrial Impacts of Hypothetical Accidents at the Limerick Nuclear Reactor" been used in Emergency Planning?  
  
Have industries in King of Prussia area been consulted on Emergency Planning? Industries in 10-mile zone?
28. How will gasoline/diesel fuel supply be assured for evacuation?
29. Will gas stations on evacuation routes be designated for evacuation emergency?
30. Have any shopping malls and centers in King of Prussia been consulted regarding evacuation plan?
31. If not, when will they be?

Answer

- 41.1 Upper Merion Township is not within the EPZ to the best of Applicant's knowledge or to the knowledge of the Montgomery County Office of Emergency Preparedness based upon a telephone conversation with Mr. Sam Tabak of that office in July 1984.
- 41.2 See Answer to Interrogatory No. 41.1.
- 41.3 See Answer to Interrogatory No. 41.1.
- 41.4 See Answer to Interrogatory No. 41.3.
- 41.5 To Applicant's knowledge, the Upper Merion traffic study has not been considered in evacuation plans. See Answer to Interrogatory No. 41.1.
- 41.6 The Applicant has no information on how many vehicles travel daily into the King of Prussia area.
- 41.7 Applicant has no information on the number of vehicles terminating in the King of Prussia area for work or school.
- 41.8 Applicant has no information on the number of commuting vehicles that travel through the King of Prussia area daily.
- 41.9 Discussions between HMM Associates, the Pennsylvania Department of Transportation and the Montgomery County Planning Commission indicate that peak hours of traffic in



the area occur from 7:00-9:00 am and 3:00-6:00 pm. The peak hour flows in the area are not relevant to the evacuation time estimate analysis for the reasons summarized and stated in Answer to Interrogatory No. 39.

41.10 Discussions between HMM, the Pennsylvania Department of Transportation and the Montgomery County Planning Commission indicate that the peak shopping days are typically Fridays and Saturdays.

41.11 Evacuation of the Limerick EPZ would not necessitate evacuation of the King of Prussia area.

41.12 See Answer to Interrogatory No. 41.1. Any emergency planning done would be a municipal decision and prerogative.

41.13 See Answer to Interrogatory No. 41.1.

41.14 The Schuylkill Expressway is partly closed for repairs. Applicant has no knowledge as to the schedule for completion of repairs.

41.15 Applicant has no data on traffic blockages for the Schuylkill Expressway.

41.16 The map does not indicate evacuation east on the Schuylkill Expressway because no reception centers or mass care centers are located along that route. It is not



anticipated that the Schuylkill Expressway will be blocked to evacuation traffic.

41.17 Traffic will enter the Turnpike through the toll booth areas. Vehicles will not be required to pick up toll cards. Some traffic may be routed around booths to promote traffic flow (based upon a conversation between Robert Bradshaw of Energy Consultants and Mr. Ted Charney, PEMA Bureau of Plans and Preparedness on or about October 19, 1983).

41.18 Chester County evacuation routes direct evacuees to reception and mass care facilities established by Chester County which are reached by Route 202 south. There is no intent, to Applicant's knowledge, to block Route 202 north.

41.19 No reception or mass care facilities are located along the turnpike. To Applicant's knowledge, the Turnpike west will not be blocked.

41.20 Applicant has no data regarding blockages at the Valley Forge exit of the Turnpike.

41.21 Applicant has no data on commuter blockages on Route 202 or Route 252.

41.22 There is no evacuation planned for Valley Forge National Park along Route 252. Only a small portion of the park, which lies within the EPZ, would be evacuated. School plan procedures for non-classroom activities, such as field

trips which may be conducted by the risk schools in areas outside of the EPZ, call for notification of activity supervisors to take students to the designated host school during a sheltering or evacuation advisory, as described in Section V of the school district plans (page 6114.4(p) and (r) of the Owen J. Roberts plan). Parents would pick their children up at the designated host school. Schools outside the EPZ would return students to their regular schools.

(See Discovery 34, Items 4 through 16.)

41.23 It is Applicant's understanding that the vehicle numbers (4222) are not based on PennDot traffic counts, but on the population of the risk area, assuming three persons per vehicle. It is also the Applicant's understanding that the four-hour rate is based on the maximum capacity of the particular highway to handle a certain number of vehicles per hour.

41.24 Applicant has no knowledge of how the 9499 figure contrasts to normal traffic rates.

41.25 See Answer to Interrogatory No. 41.22. The small strip of the Park in Lower Providence Township, within the EPZ, has been included in planning, has siren coverage and will be route alerted by the township in the event of siren failure.

41.26 Park officials have been consulted by Energy Consultants planning staff. Applicant understands that both Montgomery and Chester Counties have contacted Park officials on radiological emergency planning subjects.

41.27 Applicant did not consider the report. Applicant has not consulted industries within the King of Prussia area. Industries within the EPZ were consulted.

41.28 See Answer to Interrogatory No. 27.

41.29 For gas stations, See Answer to Interrogatory No. 27 and Annex W of the county plans. (See Discovery 34, Items 1, 2 and 3.

41.30 The operators of the King of Prussia Mall have been requested to serve as a transportation staging area for Montgomery County emergency operations.

41.31 See Answer to Interrogatory No. 41.30.

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COMMONWEALTH OF PENNSYLVANIA

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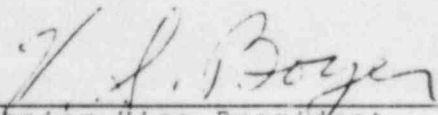
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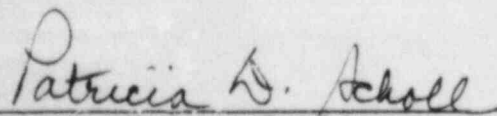
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V. S. Boyer, being first duly sworn, deposes and says:

That he is Senior Vice President of Philadelphia Electric Company, the Applicant herein; that he has read the foregoing revised Applicant's Answer to Limerick Ecology Action's Second Set of Interrogatories and Request for Production of Documents to the Philadelphia Electric Company on LEA's Admitted "Off-Site" Emergency Planning Contentions and knows the contents thereof; and that the statements and matters set forth therein are true and correct to the best of his knowledge, information and belief.

  
Senior Vice President

Subscribed and sworn to  
before me this 3rd day  
of August, 1984.

  
Notary Public

PATRICIA D. SCHOLL  
Notary Public, Philadelphia, Philadelphia Co.  
My Commission Expires February 10, 1986