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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

Before the Atomic Safety and Licensing Board

In the Matter of)	
)	
Philadelphia Electric Company)	Docket Nos. 50-3520 L
)	50-3530 L
(Limerick Generating Station,)	
Units 1 and 2))	

APPLICANT'S TESTIMONY RELATING TO LEA
OFFSITE EMERGENCY PLAN CONTENTIONS

Panel - Robert Bradshaw, John Cunnington and Robin Hoffman Wenger.

Introduction

1. In 1982, Applicant Philadelphia Electric Company ("Applicant") was advised by the Pennsylvania Emergency Management Agency ("PEMA") that local governments within the Emergency Planning Zone ("EPZ") for Limerick required additional resources in order to prepare adequate emergency plans. Accordingly, Applicant retained the firm of Energy Consultants ("EC") to assist these county, municipal and school district authorities in preparing their respective radiological emergency response plans. This testimony addresses the following contentions by Limerick Ecology Action: LEA-11, LEA-12, LEA-13, LEA-14(a), LEA-14(b), LEA-15, LEA-22, LEA-26, LEA-27, LEA-28(a) and LEA-28(b).

Background

2. The basic source of planning policy and procedures in the event of a radiological emergency in the Commonwealth

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of Pennsylvania is the Commonwealth's Disaster Operations Plan - Annex E - Fixed Nuclear Facility Incidents ("Annex E"). Planning purposes, assumptions, operational concepts, and a statement of the primary and support responsibilities of the various Commonwealth agencies, departments and bureaus are delineated. The responsibilities of the county and municipal governments as well as federal government support are also described. These portions comprise the Basic Plan of Annex E. Annex E also contains 25 separate appendices which address specific topics and functions important to effective implementation of the Basic Plan.
(R. Bradshaw)

3. Annex E requires in Section VII.B.1.a and VII.C.2 that each county and municipality within the EPZ is required to develop and maintain a comprehensive site-specific Radiological Emergency Response Plan. These are known as "risk counties" and "risk municipalities." Each county plan must be in consonance with Annex E, and each municipal plan must support the county plan. Plans are also prepared for counties outside the EPZ which provide support personnel and resources to assist in an emergency. Those are known as "support counties." (R. Bradshaw)

4. Under Annex E, the Commonwealth, county and local emergency management system is structured to support emergency operations at the lowest possible level. County emergency management coordinators work with municipal coordinators in resolving problems and fulfilling unmet

needs for particular resources. Commonwealth emergency management officials work with county coordinators in supporting their operations and providing requested resources in the same manner. (R. Bradshaw)

5. When requested capabilities exceed those of the supporting agency, the agency passes the unmet portion of the requirement to the parent organization. Where unmet needs exceed the capabilities of departments or agencies, they are forwarded by either the department, agency or county coordinator to the Commonwealth. The Commonwealth will fulfill the unmet need or, if appropriate, pass on the requirement to the federal level. This mechanism for addressing unmet needs is also utilized by local and county governments surrounding the four other fixed nuclear facility sites in the Commonwealth of Pennsylvania. (R. Bradshaw)

6. EC is an engineering, project management and support organization specializing in the fields of energy and heavy industry. The firm has eleven years experience in providing technical and professional services to utilities, private industry, and government. Through its Emergency Management Services Department, EC has provided a broad range of services encompassing emergency plan/procedures development; training; drill and exercise preparation and conduct; emergency preparedness program audit and upgrade; licensing assistance; warning and communications system study and design; scenario development; computerized program implementation and maintenance; public education and

information programs; and various other technical services. Since 1980, EC has had extensive experience in preparing emergency response organizations to manage radiological emergencies. These services have been provided in support of over fifteen different fixed nuclear facilities throughout the United States. (R. Bradshaw)

7. EC developed a project planning approach for Limerick consistent with offsite planning for the Commonwealth's four other fixed nuclear facility sites and Annex E. EC drafted prototype municipal and school district plans for PEMA's review and comment. County plan format was based upon a standard consistently used by all other Pennsylvania counties and approved by PEMA. EC assigned a staff of fourteen emergency management professionals to the Limerick project, three of whom provide this testimony. These individuals have developed a close working relationship with county, municipal, and school emergency planning personnel in refining the plans through a series of personal visits and draft development. This interaction provided for the development of plans specific to the needs of each facility/governmental entity, and also provided a mechanism for assuring that the plans are consistent with each other and conform to appropriate planning standards. (R. Bradshaw)

LEA-11

The draft Chester and Montgomery County and School District RERP's are deficient in that there is insufficient information available to reasonably assure that there will be enough buses to evacuate the schools, both public and private, in one lift.

8. The school profile form contained in the attachments to the school district plans provide information on the number of students and the number of buses available through the school district or private schools. (R. Bradshaw, J. Cunningham)

9. Unmet bus needs at the school district level are passed onto the county. Any unmet transportation need reported by the counties will be addressed by PEMA through other Commonwealth resources. (R. Bradshaw)

10. In Montgomery County, the Office of Emergency Preparedness has assigned resources from outside the EPZ to those schools reporting unmet transportation needs. Those assignments are provided in the Montgomery County Plan, Annex I, Appendix I-2, Tab 3. The Montgomery County Transportation Group Implementing Procedures state in Sections V.B.4 and V.B.7 that the Group Chief will obtain school district transportation needs and contact all Montgomery County transportation resources to determine the number of vehicles and drivers available. Assignment of transportation resources will be reviewed at the site emergency stage as provided in the Implementing Procedures, Section V.C.10.

Assignment of buses to Montgomery County schools is provided in the Montgomery County Plan, Annex I, Appendix I-1 and the Transportation Coordinator Implementing Procedure, Sections V.B.4, V.C.7 and V.D.7. All other assignment of drivers will be made by the company, service, or school district employing those individuals in accordance with company or school district procedures. Montgomery County has requested PEMA to develop a back-up list of buses and drivers available to respond to a radiological emergency at Limerick. (R. Bradshaw, J. Cunningham)

11. Although the school district and county plans do not rely upon other than the existing pool of drivers for planning purposes, Section 6108 of the Commonwealth of Pennsylvania Vehicle Code permits the Governor to modify provisions of the code in emergencies. Sections of the Code pertaining to classification of licenses and qualifications for a school bus license could therefore be modified to permit other than certified bus drivers to operate school buses in the event of an actual emergency. (R. Bradshaw)

12. Assignment of county buses to school needs appears in the Montgomery County Plan, Annex I, Appendix I-2, Tab 3 and Appendix I-3, Tab 4, and in the Chester County Plan, Annex I, Appendix I-1 and Annex N, Appendix 3. Attachment 11-A below compiles bus data as it appears in these school district and county plans. (R. Bradshaw)

13. The number of school buses needed are conservatively stated in the plans because: (1) needs were calculated

on total enrollment, with no allowance for student absentees; (2) many high school students drive to school and are permitted to use their own vehicles for transportation during an emergency. (R. Bradshaw, J. Cunningham)

14. Since all unmet needs for buses have been satisfied, sufficient buses exist within the three counties to implement evacuation of schools in one lift. (R. Bradshaw)

15. The number of buses needed from the three counties to meet school district unmet needs is far less than the number of buses available to the counties overall. Chester County has identified over 200 buses and drivers available to assist with a county evacuation. Montgomery County has identified 475 buses and drivers available to assist with a county evacuation. These figures are obtained by totalling the available buses identified in Annex I of the county plans. (R. Bradshaw)

16. In addition to the conservatism in calculating school bus needs, the overall transportation needs for these counties have been conservatively estimated because school children of parents without private transportation are double-counted as being in school and as members of the general public requiring transportation. (R. Bradshaw)

17. Bus companies have signed written agreements with Montgomery County to provide transportation services upon request. These agreements commit the bus companies to provide buses and drivers, to the maximum extent possible, for transportation of individuals should an evacuation be

required due to any man-made or natural disaster, including an incident at Limerick. (R. Bradshaw, J. Cunnington)

18. Chester County has obtained the same basic agreements in principle by oral commitment and is in the process of reducing them to writing on the same basis as the Montgomery County agreements. (R. Bradshaw)

19. The counties do not rely upon the contractual enforceability of their agreements with private bus companies for their implementation. Rather, 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 willingness and ability to provide the requested support. On prior occasions, a number of these companies have promptly furnished the required buses and drivers upon request by the counties under emergency circumstances even in the absence of prior agreements. There has been no indication that these companies will be unable or unwilling to fulfill their commitments. (R. Bradshaw)

20. In obtaining commitments for school buses and drivers from school districts outside the EPZ, Montgomery County limited its requests to less than half the total resources available to those school districts. For example, the Montgomery County Plan, Annex I, Appendix 2, Tab 3 at page I-2-9, indicates that the North Penn School District has committed only 42 of its 84 available vehicles to evacuate schools within the EPZ. This avoids any possible

conflict between school districts for buses and drivers. Thus, because supporting school districts have limited their commitment of resources, buses and drivers would be made available to assist in an evacuation ever. in the event of an early dismissal of the supporting school districts. Based upon identified needs, Montgomery County has determined that it would require only about 30 percent of the total driver force of companies outside the EPZ utilized for school evacuation. (R. Bradshaw, J. Cunningham)

ATTACHMENT 1-A

SCHOOL BUS RESOURCES
FOR MONTGOMERY AND CHESTER COUNTIES

<u>School District</u>	<u>Buses Needed</u>	<u>District Owned</u>	<u>District Contracted</u>	<u>School Unmet Need</u>	<u>County to Supply</u>	<u>Unmet Need</u>
Methacton	33	33	0	0	N/A	0
Perkiomen Valley	61	19	29	13	13	0
Pottsgrove	72	36	0	36	36	0
Pottstown	97	13	20	64	64	0
Souder n	8	0	8	0	N/A	0
Spring-Ford	79	8	46	25	25	0
Upper Perkiomen	5	0	5	0	N/A	0
Owen J. Roberts	57	4	29	24	24	0
Phoenixville	94	0	40	54	54	0
Great Valley	0	0	0	0	N/A	0
Downingtown	0	0	0	0	N/A	0
Ursinus College	16	0	0	16	16	0
Valley Forge Christian College	16 —	7 —	0 —	9 —	9 —	0 —
TOTAL	538	120	177	241	241	0

LEA-12

The draft Montgomery, Chester, and Berks County RERP's and the School District RERP's are not capable of being implemented because there is not reasonable assurance that there will be sufficient numbers of teachers and staff required to stay at school during a radiological emergency if sheltering is recommended as a protective measure, or that there will be sufficient numbers of school staff available to evacuate with children in the event of a radiological emergency. Therefore, children are not adequately protected by the draft RERP's.

21. The basic responsibility of assigned school teachers and staff to accompany evacuated students and remain with them at host schools until relieved is described in each School District Plan, Section V.D.2.d. No special training for this basic responsibility is necessary because teachers routinely supervise students in similar situations. (R. Bradshaw, J. Cunningham)

22. Nonetheless, training for teachers and staff in the form of general orientation has been provided and is available on an ongoing basis for school staff assigned to perform this function, as explained in the County Plans, Annex R, Section III.A and the School District Plans, Section III. As stated in the County Plans, Annex R, Sections III.D and E, annual retraining of school staff will be offered. (R. Bradshaw, R. Hoffman Wenger)

23. This training will familiarize school staff with nuclear plant operations, radiation hazards and related emergency planning concepts. As a result of this training,

school staff will be informed as to the likely risks involved in an actual emergency and prepared to perform their limited escort function without unrealistic fears or apprehension. (R. Hoffman Wenger)

24. The training program has been offered to all public and private school personnel within the EPZ. Training continues to be available on an ongoing basis. With one exception discussed below, no school district has indicated that its staff would be unwilling or unable to accompany students and remain with them in the event of an evacuation for personal or other reasons. (R. Bradshaw, R. Hoffman Wenger)

25. At training sessions, instructors have 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 under the various plans provide reasonable assurance to school personnel and their families that family members will be protected in the event of a radiological emergency. (R. Bradshaw, R. Hoffman Wenger)

26. The expected conduct of school personnel as reasonable adults, certified by the Commonwealth for the instruction of school children, reasonably assures that such personnel will remain with the children during an evacuation

or sheltering until relieved. Accordingly, there has been no need to conduct a survey of teachers regarding the performance of this function. (R. Bradshaw)

27. The school district plans can be implemented with less than the full school staff. School administrators in the EPZ have generally indicated that staff/student ratios in an emergency could be significantly higher than for classroom instruction. For example, an appropriate ratio could provide the equivalent of study hall or field trip supervision. There would be no difference in the appropriate staff/student ratio for evacuation or sheltering scenarios. Therefore, school plans adequately account for human response and other factors which may unexpectedly reduce usual staff/student ratios. (R. Bradshaw, J. Cunningham)

28. Inasmuch as radiation is not a tangible, visible hazard, the mere escorting of students to buses and transportation to other locations during an evacuation presents no likelihood that students will be psychologically traumatized or unruly. In any event, school staff is sufficiently prepared to handle any possible disruption as they would under any other circumstances involving the movement of large numbers of students. (R. Bradshaw)

29. At the Owen J. Roberts School District, the number of staff identified by a survey as unwilling to remain with students in the event of a radiological emergency has been passed onto Chester County as an unmet need. This school district has determined that about 60 to 65 teachers would

be willing to remain with students in an actual radiological emergency. Based upon last year's student enrollment of 3256, a teacher/student ratio of about 1 to 50 or 55 would exist. Inasmuch as this ratio is consistent with the level of supervision during similar activities such as field trips and study halls, it would be adequate to facilitate evacuation or sheltering of students. In any event, Chester County will respond to needed additional staff requested by the school district as an unmet need. (R. Bradshaw, J. Cunningham)

30. Given the limited responsibilities of teachers in accompanying students during an evacuation, there is no need to conduct post-training surveys to evaluate the effectiveness of the program. Nor is there a need to conduct special drills for evacuation, since this merely involves escorting students out of school buildings, which occurs normally during fire drills, and transporting them by bus to other locations. Staff supervision of students during an evacuation would therefore be similar to supervision of large student groups during any number of other outside activities and would not be enhanced by drills. (R. Bradshaw)

31. Under Annex E, the Commonwealth does not make any determination as to the adequacy of particular buildings within the EPZ for sheltering. As this protective action is discussed in Annex E, Appendix 12, Section 10.2.2.2, an appropriate shelter may be one's home, a commercial building, or a public building. This provision further states

that, in the general climate of the Commonwealth, any building which is reasonably winter worthy will suffice for sheltering, with windows and doors tightly closed. (R. Bradshaw)

32. Under Annex E, sheltering is used as a protective action when dose projections are expected to exceed the lower Protective Action Guidelines provided by EPA, when the release will occur too soon to allow an evacuation, and when the release does not involve significant fractions of the core particulate inventory. Also, if evacuation would normally be recommended but cannot be effected because of adverse weather or other conditions, sheltering is the only alternative and would be implemented. Under Annex E, sheltering would therefore be implemented only if needed protection cannot be achieved by evacuation. Evaluation of the protection afforded by structures within the EPZ will not make those buildings more suitable for sheltering or affect the choice of a sheltering option. Thus, evaluation of the effectiveness of such structures for sheltering would be meaningless. (R. Bradshaw)

33. In the training of school staff described above, instructors explain the circumstances under which sheltering would be the preferred protective action and instruct as to the procedures for implementing this option. Accordingly, school staff will have the necessary information to be assured that sheltering, if implemented, provides the

greatest level of protection for staff and students under the circumstances. (R. Bradshaw, R. Hoffman Wenger)

LEA-13

There must be specific and adequate plans for children in day care, nursery and pre-school programs in order to provide reasonable assurance that this particularly sensitive segment of the population is adequately protected.

34. Arrangements for transporting children in day care, nursing and pre-school facilities have been made by means of a general survey within the EPZ conducted in the fall of 1983. This survey, which was prepared in consultation with the risk counties, was mailed to each address within the EPZ. Each respondent was asked to identify transportation, medical, or other special needs for all persons at that address. Responses were forwarded to the appropriate County Emergency Management Agency. Accordingly, the survey covered all day care, nursing, and pre-school facilities in the area. (R. Bradshaw)

35. Day care centers which are located within kindergarten or nursery schools using public school transportation have been included in the transportation needs of those kindergartens or nursery schools. This information is provided in applicable Private School Plans, Attachment 1. (R. Bradshaw, J. Cunningham)

36. Reported needs from the general survey have been compiled by each municipality to determine overall bus needs. These data have been incorporated in the Municipal

Plans, Attachment G and in the Municipal Implementing Procedures. Accordingly, each day care, nursery and pre-school facility with reported transportation needs beyond its own capacity has been identified and provided planned assistance. (R. Bradshaw)

37. A model plan for day care facilities prepared by the Pennsylvania Department of Education, Department of Public Welfare and PEMA provides that children will remain the responsibility of the directors of the facility until the children are picked up by their parents or authorized persons. See Model Plan, Section IV.G. Parents or authorized custodians will be permitted to re-enter the EPZ to pick up children from day care centers and nursery schools. Appendix 2 of the Model Plan provides a sample letter to parents informing them of emergency procedures, including the location of host facilities. Thus, except in the most extreme emergencies involving rapidly developing scenarios, parents would themselves transport their children from the facility. (R. Bradshaw)

38. The expected conduct of reasonable adults with responsibility for the care of children in day care/nursery school facilities reasonably assures that staff will remain with the children until they are picked up. There is no indication that the staff at any of these facilities is unable or unwilling to remain with children during this period. The participation and commitment of facility staff in this regard will therefore protect the well-being of very young

children entrusted to their care in the event of an actual emergency. (R. Bradshaw)

39. As explained in response to LEA-12, any decision to shelter by the Commonwealth is made on the basis of its evaluation of the prevailing circumstances at the time of an actual emergency. Selective evacuation of pregnant women and pre-school children within the EPZ is one option, as indicated in the County Plans, Annex D, Appendix D-2. There is no reason, however, for the plans to distinguish between pre-school children attending day care/nursery school facilities and pre-school children in general. Accordingly, there is no different decision-making process as to sheltering children in those particular facilities. (R. Bradshaw)

LEA-14(a)

The School District RERP's and the Chester, Berks, and Montgomery County RERP's are deficient because there are inadequate provisions of units of dosimetry-KI for school bus drivers, teachers, or school staff who may be required to remain in the EPZ for prolonged periods of time or who may be required to make multiple trips into the EPZ in the event of a radiological emergency due to shortages of equipment and personnel.

40. For the reasons discussed in response to LEA-11, enough buses will be available to implement an evacuation of schools within the EPZ in a single lift. Even if some buses were required to re-enter the EPZ for some unforeseen reason, Chester and Montgomery counties will retain a supply of dosimetry and KI at transportation staging areas. No bus

will re-enter the EPZ for these counties without first stopping at a transportation staging area for those supplies. See Montgomery and Chester Counties Plans, Annex I, Section IV.B. (R. Bradshaw)

41. If bus drivers were required to re-enter the EPZ because a single lift was not effectuated, the driver's dosimetry and KI supplies will provide sufficient protection for any school staff. If necessary, drivers who would be re-entering the EPZ can be easily instructed within a few minutes as to the proper use of their dosimetry. (R. Bradshaw)

42. Annex E does not include school staff within the definition of "emergency workers." See Annex E, Appendix 16, Section II.M. Nor are school staff treated as "emergency workers" in the county plans. See County Plans, Annex M, Section II.N. If sheltering were implemented, school staff would be treated as any other sheltered member of the general public. In such circumstances, the dose commitment to the general public would be determined on the basis of overall monitoring provided by Bureau of Radiation Protection ("BRP") and Federal Radiological Monitoring and Assessment Plan ("FRMAP") survey teams. See Annex E, Appendix 12, Sections 1-3. (R. Bradshaw)

43. The number of buses available for Berks County so vastly exceeds the number needed that it is inconceivable that buses would be required to re-enter the EPZ. Berks County has 252 buses and drivers available to meet a total

of 97 buses for all county needs, including county schools and all other unmet transportation needs. Nonetheless, Berks County has enough reserved dosimetry and KI to provide these supplies to transportation staging areas if necessary. See Berks County Plan, Annex M, Appendix 4, Section A.1. (R. Bradshaw)

44. More than ample supplies of dosimetry and KI will be available at these areas in order to meet the needs of any bus drivers re-entering the EPZ, as indicated in the Chester County Plan, Annex M, Appendix 3, page M-3-3 and Montgomery County Plan, Annex M, Appendix M-3, page M-3-9. (R. Bradshaw)

LEA-14(b)

The Chester, Berks, and Montgomery County School District RERP's fail to provide reasonable assurance that school bus drivers, teachers or other school staff are properly trained for radiological emergencies.

45. As stated in response to LEA-14(a), school staff are not considered "emergency workers" and are therefore not provided with training or responsibilities for attending to contaminated individuals and equipment. Similarly, no specialized training is required for bus drivers. Applicant has nonetheless prepared and provided a training program for school teachers as explained in response to LEA-12, and has also provided a similar program to orient bus drivers to overall planning concepts and to alleviate any concerns regarding radiation risk in the event of a radiological

emergency at Limerick. This training program will be offered to all bus companies with support functions. (R. Bradshaw, R. Hoffman Wenger)

46. Further training for school staff and bus drivers regarding risk of exposure to radiation and proper use of any necessary equipment, beyond the level of general familiarity with radiation risk as discussed above, is unnecessary. As discussed in response to LEA-14(a), school bus drivers re-entering the EPZ will be instructed in the proper use of their dosimetry, which will be adequate to determine the dose commitment of other individuals on the bus. (R. Bradshaw)

47. Sheltered individuals in schools, including school staff, will be encompassed within the general public for which dose projections and measurements are made by BRP and FRMAP survey teams, as discussed in response to LEA-14(a). (R. Bradshaw)

48. For the reasons also discussed in response to LEA-12, there is no need to instruct school staff in the adequacy of school buildings for sheltering because individualized decisions on sheltering for particular schools will not be made. Nonetheless, specific information regarding sheltering is contained in the Bus Driver Lesson Plan, Sections VI.A.1 and VIII.D.3, the School Officials Lesson Plan, Sections V.A.1 and VIII.D.8, and in the School Teacher and Staff Lesson Plan, Sections VIII.A. and XI.E. (R. Bradshaw, R. Hoffman Wenger)

49. There are no plans to train school staff in dealing with children under "stress conditions" because, as explained in response to LEA-12, radiation is not a tangible, visible hazard, and the mere escorting of students to buses and transportation to other locations in the event of an actual emergency is unlikely to create any particularly stressful conditions. Teachers are prepared to handle such situations in any event by virtue of their general background and experience in the teaching profession. Post-training surveys are also unnecessary for the reasons discussed in response to LEA-12. (R. Bradshaw, R. Hoffman Wenger)

50. As explained in response to LEA-14(a), school staff are not deemed "emergency workers" under Annex E or the county plans. Thus, school staff are neither trained nor assigned responsibilities for the decontamination of individuals or equipment. Depending upon information from BRP, monitoring and decontamination of the public, if necessary, will be undertaken at mass care centers located within the county outside the EPZ. Individuals evacuated to support counties will be decontaminated there. See County Plans, Annex M, Section V.B. Accordingly, there is no need for school staff to have any particular training or knowledge for decontamination because this responsibility has been assigned to designated emergency workers. (R. Bradshaw)

LEA-15

The Chester and Montgomery County RERP's and the School District RERP's are not capable of being implemented because the provisions made to provide bus drivers who are committed to being available during a radiological emergency, or even during preliminary stages of alert are inadequate.

51. The number of buses and drivers identified by the Chester and Montgomery County plans are based upon discussions with bus company operators and reflect the minimum number each company stated that would be readily available in an emergency rather than the company's entire complement of buses and drivers. Bus companies are providing equipment and personnel as a public service. The commitment of companies to provide these resources has been addressed in response to LEA-11. Drivers are strictly volunteers. Therefore, their employment contracts are irrelevant. Pools of back-up drivers are also being formed. (R. Bradshaw)

52. Agreements with bus companies are general and do not specify buses and drivers for a particular use or assignment. See, e.g., Berks County Plan, Annex T, App. T-23 through T-27. Assignments may or may not be made in practice. In any event, bus drivers entering the EPZ obtain maps at transportation staging areas. Drivers within the EPZ may or may not be sent to the staging area, depending on their familiarity with the area. (R. Bradshaw)

53. Assignment of bus companies to specific schools by Berks and Montgomery Counties is based upon the proximity of

the companies to those schools. Eight school districts have preassigned vehicles to specific schools (Boyertown, Phoenixville, Daniel Boone, Methacton, Perkiomen Valley, Pottsgrove, Pottstown, and Spring-Ford). Three school districts will make bus assignments at the time of an actual emergency (Owen J. Roberts, Upper Perkiomen and Souderton area). Procedures for making or adjusting assignments at the time of an emergency are outlined in the School District Plans, Section V.B and Attachment 3, except for the Owen J. Roberts School District Plan, page 6114.4(K) and Attachment 6. (R. Bradshaw)

54. Similar procedures have been utilized by the counties in other emergencies in which bus companies have provided their services promptly upon request during an emergency. The ad hoc assignment of bus drivers therefore raises no particular concern. (R. Bradshaw)

55. Transporting students from host schools to mass care centers is a very simple procedure occurring at least five hours after an evacuation notice and requiring transport of only a small number, if any, of the total number of students evacuated. There is no reason to assume that bus drivers would be unwilling to do this. Information relevant to this procedure is contained in the School District Plans, Section V.D.1.i.3, and in the Bus Driver Training Lesson Plan, Section VIII.D.4.e. (R. Bradshaw)

56. Basic responsibilities and procedures for bus drivers are described in the bus driver training program.

As discussed in response to LEA-11, almost half of the bus resources are from companies outside the EPZ where protective action recommendations would not affect a driver's family arrangements. The training program offered bus drivers provides general information on nuclear technology and terminology, radiation measurement and effects, emergency planning, and response operations. This encourages drivers to plan ahead for emergency contingencies in order to eliminate conflicts between volunteer and family responsibilities. (R. Bradshaw, R. Hoffman Wenger)

57. Multiple-trip contingencies are not part of the bus driver training presentation because evacuation in one lift is a basic planning principle. As stated in response to LEA-11, multiple lifts are not anticipated, but training for bus drivers provides a sufficient foundation for ad hoc instructions in the use of dosimetry and KI in the unlikely event that drivers reenter the EPZ. (R. Bradshaw)

LEA-22

The State, County, and Municipal RERP's are inadequate because farmers who may be designated as emergency workers in order to tend to livestock in the event of a radiological emergency have not been provided adequate training and dosimetry.

58. County Plans, Annex O, contain provisions to designate farmers as emergency workers. In addition, the County Plans, Annex M, designate a quantity of dosimetry and KI reserved for use by farmers, and specifies where and how supplies will be distributed to farmers at the time of the

emergency. The number of farmers was obtained from the three offices of the County Agricultural Agents. The terms "farmer" and "livestock" are not narrowly interpreted by county personnel and would not preclude owners or operators of farms having fowl, horses, cows, or sheep from obtaining emergency worker certification and dosimetry. In the remote event that dosimetry/KI supplies proved insufficient, the counties have reserves which could be used for this purpose, as indicated in the Berks County Plan, Annex M, App. M-4, and the Montgomery and Chester County Plans, Annex M, App. M-3. (R. Bradshaw)

59. A Pennsylvania Department of Agriculture brochure will provide farmers information about remaining with their livestock or re-entering the EPZ in the event of an emergency and related information for the protection of their well-being. In addition, a training program has been developed for farmers which provides information on emergency planning and procedures for farmers in a radiological emergency. The program has been offered to farmers in three counties and will be re-offered regularly. (R. Bradshaw, R. Hoffman Wenger)

LEA-26

The Draft County and Municipal RERP's are deficient in that they do not comply with 10 C.F.R. § 50.47(b)(5) because there is no assurance of prompt notification of emergency workers who must be in place before an evacuation alert can be implemented, and there is no assurance of adequate capability to conduct route alerting.

60. Upon receipt of notification from PEMA activating the emergency plan, the County Emergency Management Director/Coordinator or his designate activates the county-wide notification system. Under this system, each predesignated county and municipal EOC staff personnel is notified by a prerecorded message. Four lines in each county EOC are operated simultaneously to provide prompt notice to all predesignated personnel. (R. Bradshaw)

61. Adequate capability to perform route alerting in the event of a failure of the siren system or for those individuals who for some reason cannot hear the siren signal is assured by assignment of this function to fire company personnel within local jurisdictions. In implementing route alerting procedures, firemen will travel throughout predesignated sectors in their municipalities and, by using loud speakers or going door-to-door if necessary, will ensure that all persons receive notification of the protective action to be taken. (R. Bradshaw)

62. As stated in the County Plans, Annex C, Appendix C-5, and in the Municipal Plans, Basic Plan, Section II.D.2.b, the responsibility for route alerting rests with

the municipality and is accomplished by means of pre-designated route alert teams traveling along pre-designated routes delivering the emergency notification message. As further stated, each municipality has been divided into separate and distinct route alert zones. The zone, location and configuration of each zone is based upon population density, existing roadways and traffic flow, municipal boundaries, fire service jurisdictions and the location and number of sirens. Route alert teams will be assigned to specific sectors at the time of mobilization based upon availability lists maintained in each township EOC. See Municipal Plans, Attachment E. Sufficient trained personnel are available on these lists to assure the capability to implement route alerting if needed. (R. Bradshaw)

LEA-27

There must be specific and adequate plans to protect Camp Hill Village Special School, Inc. in East Nantmeal Twp., Chester County and for Camp Hill Village School in West Vincent Twp., Chester County.

63. In accordance with the basic policy of the Commonwealth as set forth in Annex E, particularized written plans are not prepared for private facilities such as the Camp Hill Village Special School in East Nantmeal Township, Chester County and the Camp Hill Village School in West Vincent Township, Chester County. Rather, any special needs of such facilities are incorporated in the municipal and

county plans. For example, those plans provide special notification through the respective Municipal Emergency Management Agency, transportation coordinated with the Municipal and County Emergency Management Agencies, and relocation to an agreed upon host facility. (R. Bradshaw)

64. The Camp Hill Special School and Camp Hill Village School are facilities for the mentally retarded. Both schools receive notification from their respective Municipal Emergency Management Agencies in the event of an actual emergency. In accordance with these procedures, such notification will be given as early as the alert classification. (R. Bradshaw)

65. Both schools responded to the public needs survey conducted by Chester County to determine the needs of any transportation-dependent individuals. Accordingly, their particular needs have been incorporated into their respective municipal plans along with other identified transportation needs, as indicated in the West Vincent Township and East Nantmeal Township Plans, Attachment G. The Chester County Department of Emergency Services has designated the Deveraux School (also a facility for the mentally retarded) as a host facility for both schools. The Deveraux School has agreed in writing to serve as a host in the event of an emergency. Accordingly, the special notification, transportation and host facility needs for these schools have been met, thereby providing adequate planning consideration for these facilities. (R. Bradshaw)

66. Training in the form of orientation as provided to teaching staff, and discussed in response to LEA-12, has been offered to the administrative personnel and operating staff of both the Camp Hill Special School and Camp Hill Village School. For the reasons discussed in response to LEA-12, no special expertise or training is required by staff in order to perform the basic tasks of remaining with school residents and escorting them on buses to the host facility. Nonetheless, the orientation offered as training will alleviate any unjustified fear or apprehension which might otherwise interfere with the fulfillment of these responsibilities. As with teachers charged with the responsibility for their assigned students, the administrators and staff of these two schools can be expected to conduct themselves as responsible adults charged with the care and custody of intellectually and physically impaired individuals in the event of any emergency. (R. Bradshaw)

67. Because the special needs and concerns of these facilities have been identified and met through the planning process, there is no reason why school staff or officials should have any particular reservation regarding the adequacy of planning for these schools. County and municipal planners in Chester County have demonstrated their sensitivity to the particular needs and concerns of these facilities and have expressed a willingness to meet with school administrators at any time to discuss and resolve any possible problem. For example, at the time of the joint

exercise for Limerick on July 25, 1984, a representative of West Vincent Township visited the Camp Hill Village School to explain the conduct of the exercise as well as emergency planning considerations being given to the school, and to solicit additional input from the school administrator. (R. Bradshaw)

68. Because Commonwealth law^{*/} requires the Camp Hill Special School to develop emergency plans for any contingency requiring an emergency response, it should be a simple matter for the Camp Hill Special School to provide any further details necessary to implement or supplement existing planning provisions as regards a possible emergency at Limerick. It should likewise be simple for the Camp Hill Village School to adopt the same plan or modify it appropriately. In particular, the existence of such plans for other emergencies should resolve any outstanding issue of coordination or participation of school personnel. (R. Bradshaw)

69. For the reasons previously discussed in response to LEA-12 and LEA-13, no special evaluation is required or anticipated as to the adequacy of the Camp Hill Special Hill or Camp Hill Village School facilities for sheltering. Under Annex E, such individuals would be treated as members

*/ Section 6400.194 of the Regulations for Community Residential Mental Retardation Facilities, 55 Pa. Code §6400.194.

of the general public and decisions to shelter would be made on the same basis as for the general populace within the EPZ. (R. Bradshaw)

LEA-28(a)

There is no assurance in the County or Municipal RERP's that the National Guard will have time to mobilize to carry out its responsibilities with regard to towing and providing emergency fuel supplies along state roads.

70. Under Annex E, Basic Plan, Sections VII.A.17.h, VII.A.22.c and VII.A.22.d as well as the County Plans, Annex H, Section III, the National Guard has the capability to assist, inter alia, with towing and providing emergency fuel supplies. As stated in the plans, this assistance would be furnished on a minimum essential basis in coordination with and supplementary to the capabilities of municipal and county governments and other state agencies. (R. Bradshaw)

71. As stated in Annex E, Basic Plan, Sections VII.A.22.c and VII.A.22.d and the County Plans, Annex K, Section III, the Pennsylvania Department of Transportation ("PennDOT") has shared responsibility for clearance of obstacles to traffic flow, including disabled vehicles on main evacuation routes, and for establishing emergency fuel distribution points on such routes. Fuel and towing resources will be provided by the National Guard and PennDOT for all main evacuation routes regardless of whether they are State or non-State roads. Under Annex E, major arteries are used as main evacuation routes to assure, to the maximum

extent possible, that those routes will remain usable and unrestricted in the event of an actual evacuation. (R. Bradshaw)

72. As stated in Annex E, Basic Plan, Sections VII.A.19.b and VII.A.19.e, the Pennsylvania State Police is responsible for coordinating with PEMA, PennDOT, and the National Guard to control the orderly evacuation of the EPZ and, particularly, to conduct traffic surveillance to ensure that roads and highways designated as major evacuation routes are open and capable of handling the projected and actual traffic loads. (R. Bradshaw)

73. The Pennsylvania State Police have developed access and traffic control plans for the Limerick EPZ, designating and monitoring access and traffic control points. Municipalities have supplemented the State Police plans by designating additional traffic control points at key local intersections, which will be manned by county and local authorities. Accordingly, the State and local police will maintain an orderly traffic flow by the avoidance of bottlenecks. (R. Bradshaw)

74. PennDOT maintains several facilities in each of the three risk counties. Each of these facilities may be promptly activated during non-business hours by means of a 24-hour emergency telephone number available to PEMA and the county emergency management agencies. Accordingly, the PennDOT facilities could be activated and deployed rapidly,

if needed, independent of and prior to National Guard mobilization. (R. Bradshaw)

75. The mobilization times for the National Guard stated in the County Plans, Annex H, Section IV.A, relate to mobilization and deployment of the entire unit for each county. Discrete elements of each unit could be deployed when mobilized. Moreover, the National Guard could prepare for mobilization and deployment upon notice by PEMA, rather than awaiting a formal order by the Governor, thereby reducing overall mobilization time. (R. Bradshaw)

LEA-28(b)

There is no assurance provided in the Municipal, or County RERP's that there are sufficient resources available to provide towing, gasoline, and snow removal along non-state roads. According to PEMA, the National Guard has neither the resources for snow removal nor the responsibilities for it, according to the Commonwealth's Disaster Operations Plan.

76. As stated in Annex E, Basic Plan, Section VII.A.22, PennDOT has responsibilities for clearance of disabled vehicles and snow from evacuation routes and for providing emergency fuel distribution points on such routes. In describing PennDOT's responsibilities, Annex E does not distinguish between state and non-state roads. Rather, these provisions encompass all evacuation routes listed in the Municipal Plans, Section II.B.2.d, and as referenced on the evacuation maps in the Municipal Plans, Attachments J and Q (maps of entire EPZ and municipality). (R. Bradshaw)

77. Personnel from the National Guard, PennDOT or other support organizations providing tow truck, snow removal or emergency fuel services will be performing the same functions for which they have already been trained with regard to non-radiological emergencies and will be performing those tasks on a voluntary basis within the same time frame as an evacuation of the general public. Thus, they would not be required to remain in the EPZ any longer than the evacuating public. Accordingly, no special training is required for such individuals. (R. Bradshaw)

78. It is unnecessary for the counties to obtain agreements with tow truck operators because tow trucks are routinely dispatched by the counties on a daily basis. Towing resources are extensive and listed in the resource manuals of the County Communications Centers. The several hundred tow trucks available in the three counties greatly exceed the number which might be needed. Additionally, as noted, PennDOT will provide its own equipment to assist in the removal of disabled vehicles and other road obstacles. (R. Bradshaw)

79. In many instances, it would be unnecessary to provide gas or towing services for stranded or disabled vehicles. Persons having vehicles without enough fuel to travel out of the EPZ would be included as members of the general public without transportation. The public information brochure will instruct residents in the EPZ as to how to obtain publicly provided transportation. As a practical

matter, most persons in disabled or stranded vehicles will obtain assistance from friends, relatives, neighbors, or passers-by. Most disabled vehicles obstructing traffic could be pushed to the side of the road rather than dispatching a tow truck for that purpose. (R. Bradshaw)

80. Under Municipal Plans, Section II.B.2.k(2), snow and other debris on evacuation routes shall be removed by the municipality and PennDOT. Each municipality either has its own snow removal resources or has contracted for such services. Those contracts encompass all snow emergencies and make no distinction as regards other possible circumstances such as a radiological emergency at Limerick. Moreover, PennDOT would be available to provide back-up snow removal services to the municipalities for non-evacuation routes, if needed. The Commonwealth has a vast inventory of snow removal equipment and personnel in southeastern Pennsylvania that could be used on a priority basis in the event of a radiological emergency. Unusually severe snow storm conditions would be considered by the Commonwealth in determining whether evacuation of the EPZ would be undertaken. (R. Bradshaw)