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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. 50-352
	)	50-353
(Limerick Generating Station,	)	
Units 1 and 2)	)	

APPLICANT'S FIRST SET OF INTERROGATORIES AND  
REQUEST FOR PRODUCTION OF DOCUMENTS TO LIMERICK  
ECOLOGY ACTION REGARDING ITS ONSITE EMERGENCY  
PLANNING CONTENTIONS

Pursuant to the Rules of Practice of the Nuclear Regulatory Commission ("NRC"), 10 C.F.R. §2.740(b), and the Atomic Safety and Licensing Board's Memorandum and Order Confirming Rulings Made at Hearing (January 20, 1984) (slip op. at 3), Philadelphia Electric Company ("Applicant") hereby propounds the following interrogatories to Limerick Ecology Action ("LEA") to be answered fully in writing, under oath, in accordance with the definitions and instructions below.

Additionally, pursuant to 10 C.F.R. §2.741, Applicant requests that intervenors produce for inspection and copying (or provide copies of) those documents designated by intervenors in their respective answers below.

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Definitions and Instructions

1. For each interrogatory, please state the full name, work address, and title or position of each person providing information for the answer to the interrogatory.

2. The following definitions shall apply:

- a. "Intervenor" shall refer to LEA or any officer, member, employee or consultant thereof.
- b. "Document" shall mean any written, printed, typed or other graphic matter of any kind or nature, and all mechanical and electronic sound recordings or transcripts thereof, in the possession, custody, or control of intervenor, or its officials, employees, or agents; it shall also mean all copies or drafts of documents by whatsoever means made.
- c. "Date" shall mean the exact day, month and year, if ascertainable, or, if not ascertainable, the best approximation (including the event's relationship to other events in the relevant context of the interrogatory).
- d. "NRC" or "Commission" shall mean either the Atomic Energy Commission or the Nuclear Regulatory Commission, as appropriate, including its regulatory staff and adjudicatory boards, as indicated by the context of the interrogatory.

- e. "Specify", when referring to a proceeding before the Nuclear Regulatory Commission, means that the answer shall set forth the proceeding, applicant, docket number, relevant date, and any other descriptive information appropriate to the request.
- f. "Specify" or "identify", when referring to an individual, corporation, or other entity, means that the answer shall set forth the name, present or last known work address, and, if a corporation or other entity, its principle place of business or, if an individual, his or her title or titles and employer. Once an individual corporation or other entity has been thus identified in answer to an interrogatory, it shall be sufficient thereafter when identifying that individual, corporation or other entity to state merely his, her or its name.

3. These interrogatories request all knowledge and information in intervenor's possession and/or knowledge and information in the possession of intervenor's agents, representatives, consultants, and unless privileged, attorneys.

4. In each instance in which an interrogatory requests a statement of intervenor's assertion, contention, view or

opinion, the answer shall also contain a full discussion of the factual basis for the assertion or opinion.

5. In accordance with 10 C.F.R. §2.740(e), these interrogatories are continuing in nature and require prompt supplemental answers should LEA obtain or identify supplemental information or documents.

Contention VIII-1

1. Define "the spectrum of credible accidents for which emergency planning is required," and explain the source of such definition and the regulatory basis for its application to the Limerick Emergency Plan.

2. Specify each "credible accident" which intervenor contends must be encompassed within Section 4.2 of the Limerick Emergency Plan.<sup>1/</sup>

Contention VIII-2

3. Specify each postulated accident in the Limerick FSAR which intervenor contends should not have been omitted from Section 4.2 of the Limerick Emergency Plan. As to each such postulated accident, state the basis for its applicability to Limerick.

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<sup>1/</sup> Unless otherwise indicated, all references herein relate to the Limerick Emergency Plan.

4. Specify the respects, if any, in which EP-101 fails to address example initiating condition 10 of the "Alert" classification of Appendix 1, NUREG-0654.<sup>2/</sup>

5. Explain why example initiating condition 16 cannot be adequately addressed in Applicant's Security Plan.

6. Explain in detail why a flood, low water, or tsunami, hurricane surge or seiche near design levels is a credible event at Limerick, requiring its inclusion in the Limerick Emergency Plan as an example initiating condition in the "Alert" classification.

7. Explain why the designation "[t]ornado striking power block" in Table 4-2 and the further designation of tornado impacts in EP-101, App. 2, fail to adequately address example initiating condition 17(c) under the "Alert" classification.

8. Explain why the designation of "[s]ustained winds greater than 70 mph" in Table 4-2 and EP-101 is an inadequate description of "hurricane winds near design basis level" under example initiating condition 17(d) of the "Alert" classification, and why "[s]ustained winds greater than 90 mph" in Table 4-2 and EP-101, App. 2, is not an adequate designation of example initiating condition 15(c) under the "Site Area Emergency" classification.

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<sup>2/</sup> Further references herein to emergency action levels are similarly derived from Appendix 1, NUREG-0654.

9. Explain why the description in Table 4-2, Item Xb is an inadequate designation of example initiating conditions 18a, b, c, and e under the "Alert" classification.

10. Explain why the description in EP-101, App. 13, is not an adequate designation of initiating condition 8 under the "Site Area Emergency" classification.

11. Explain why the description in EP-101, App. 8, is an inadequate designation of example initiating condition 9 under the "Site Area Emergency" classification.

12. Explain why the description in Table 4-2, Item XIII, and EP-101, App. 2, do not adequately designate example initiating condition 15 under the "Site Area Emergency" classification.

13. Explain why the events described in example initiating condition 15(b) under the "Site Emergency" classification are credible events at Limerick.

14. Explain why the description in Table 4-2, Items III(d) and IV(d), and EP-101, App. 6, 8, is an inadequate designation of example initiating condition 2 under the "General Emergency" classification.

15. Explain why example initiating condition 3 under the "General Emergency" classification cannot be adequately addressed in the Security Plan.

16. Explain why example initiating conditions 4(a)-(d) of the "General Emergency" classification have not been adequately designated under Table 4-2, Item IV, per the protective action recommendations in EP-317.

17. Explain why Items 6 and 7 under the "General Emergency" classification cannot be adequately addressed in the Transient Response Implementation Procedures.

18. Explain why the description in EP-101, App. 11 is not an adequate designation of example initiating condition 6(a) under the "General Emergency" Classification.

Contention VIII-3

19. Explain why the onsite monitoring systems identified in Sections 6.2, 7.3.1, Tables 7-3 and 7-4, and EP-101 are inadequate.

20. As to each onsite monitoring device which intervenor believes is necessary for a proper implementation of the Limerick Emergency Plan, specify:

- a. the precise component or device, designated by manufacturer and model number;
- b. the intended function of such component or device;
- c. the appropriate location of such component or device at Limerick;
- d. the initiating event(s) for such component or device.

Contention VIII-5

21. Explain why, if so, intervenor contends that the Bureau of Radiation Protection regulatory guidelines on protective actions for the plume exposure pathway, as referenced in Section 6.4.1.2(c) and incorporated in EP-317,

fail to set forth adequate bases for a choice of recommended protective actions for the plume exposure pathway.

22. Specify any further information, including its source, which intervenors contend must be obtained by Applicant in order to make recommended protective actions for the plume exposure pathway.

Contention VIII-6

23. Specify each procedure within the Limerick Emergency Plan for notifying response organizations which augment onsite capabilities which intervenor contends to be inconsistent and explain the inconsistency.

24. Explain why follow-up messages would be necessary where Applicant maintains an open line with offsite authorities.

25. Explain why Section 6.1.1 fails to meet the "15 minute" notification requirements of NUREG-0654, Appendix 1.

Contention VIII-7

26. Specify the levels of succession for the Interim Emergency Director and Emergency Director which intervenor contends to be necessary under the Limerick onsite emergency plan.

27. As regards Figure 5-2 of the Limerick Emergency Plan, specify each position for which intervenor contends that augmentation and timing of augmentation is inadequately shown, and specify as to each such position the augmentation which intervenor contends to be required.



28. Specify all non-delegable duties and responsibilities of the Interim Emergency Director which intervenor contends should be delegated to other responsible individuals under the Limerick Emergency Plan, and specify, in each instance, the position to which such duties should be delegated and the reasons why such position is the most logical to perform the delegated duty.

29. Explain why Section 5.2.1.1 and EP-102, 103, 104 and 105 do not provide an adequate line of succession for the (Interim) Emergency Director and why Section 5.2.1.3 does not provide an adequate line of succession for the Site Emergency Coordinator.

30. Explain why Table I-1, Figures 5-1, 5-2, 5-5 and EP-291 do not comply with 30 minute and 60 minute augmentation requirements for minimum staffing.

Contention VIII-8

31. Explain why Sections 6.2.1, 6.2.2, 7.1.2, 7.1.3, 7.1.4, 8.1.2 and 8.3, and EP-201, EP-202, and EP-203 are inadequate to (1) describe the Limerick Emergency Plan's equipment, supplies and facilities; (2) enable meaningful assessment of compliance with NRC regulations regarding such emergency equipment, supplies and facilities; and (3) provide for maintenance of emergency facilities to preclude degradation of facility effectiveness.

32. Describe and quantify all emergency equipment, supplies and facilities not listed in the Limerick Emergency

Plan and implementing procedures which intervenor contends to be necessary for compliance with the NRC's regulations.

Contention VIII-9

33. Explain why Sections 7.2.6, 7.2.8, 7.2.9, 7.2.10, 7.2.11, 7.2.12, and Figure 7.2 of the Limerick Emergency Plan fail to establish a reliable means of communication between the Applicant and principal response organizations.

Contention VIII-10

34. Specify each parameter of authority, responsibility and limits on actions by contractors/agencies described in the Limerick Emergency Plan which intervenor contends that the Plan must address, but has not addressed.

35. Explain why Sections 2.2.4, 5.3.2.1 and 6.5.4, and Appendix A inadequately provide for requests for offsite medical assistance.

Contention VIII-11

36. Define what is meant by "the entire range of fires which may occur at the [Limerick] facility" as used in this contention. Explain, with reference to the FSAR, why such a range of fires present a credible scenario at Limerick.

37. Specify the fire protection resources which intervenor contends must be available at Limerick in an emergency which are not already identified in the Limerick Emergency Plan, including EP-260. As to each such resource identified, specify the local fire department or other authority from which Applicant should obtain an agreement for such resource.

Contention VIII-12

38. Specify all medical services and facilities not already described in the Limerick Emergency Plan (e.g., Sections 5.3.1.1 to 5.3.2.5, 6.5.3 and EP-252) which are necessary for "the potential number of persons contaminated by the spectrum of credible accident scenarios" cited in this contention. Specify the number of potential contaminants and the services and facilities which must be made available for them in the event of the most serious credible accident scenario at Limerick.

39. Specify the maximum number of contaminated, injured persons for whom adequate transportation to medical support facilities will be required, and specify all transportation services not already described in the Limerick Emergency Plan (e.g., Sections 5.3.2.1 to 5.3.2.4, 6.5.3 and EP-252) which intervenor contends to be necessary for adequate transportation of such persons.

Contention VIII-13

40. Specify all federal response capabilities which intervenor contends not to have been incorporated in the Limerick Emergency Plan, and further specify each specific licensee, State and local resource which intervenor deems necessary to support the respective federal response capability. As to each such federal response capability, explain the reasons, including applicable statute or regulation, which necessitate its incorporation in the Limerick Emergency Plan.

41. Explain why the Limerick Emergency Plan (e.g., Section 7.3.2 and EP-230) does not sufficiently identify the radiological laboratory capabilities and availabilities for augmented response to emergencies.

42. Specify each laboratory capability and each availability for augmented response to emergencies not already identified in the Limerick Emergency Plan which intervenor contends to be necessary.

Contention VIII-14

43. Specify any inadequacy in the plant system and effluent parameter values for off-normal conditions contained in EP-101, App. 6.

44. Specify any inadequacy in the procedures for analysis of offsite dosimetry and procedures describing methodology for calculating offsite doses under EP-316.

45. Explain why Sections 6.1.5.2 and 6.2 of the Environmental Report - Operating License Stage, Appendix E of the Limerick Emergency Plan and ST-7-EPP-351 fail to describe the specific kinds and capabilities of monitoring instruments.

46. Explain why Sections 6.2.1 to 6.2.3, Response to Question 810.48, and EP-316 fail to provide adequate onsite capability and resources to provide initial values and continuing assessment of radioactive releases.

47. Explain why Sections 11.5.2.3.1 and 11.5.5 of the FSAR and Section 6.2, Response to Question 810.40, Appendix B, EP-316 and EP-325 of the Limerick Emergency Plan fail to

provide adequate methods and techniques for determining the source term of radioactive releases and the magnitude of such releases based on plant system parameters and effluent monitors.

48. Specify in which respects EP-316 is inadequate to provide specific capability and resources for field monitoring within the plume exposure pathway.

49. Explain why Section 6.2.1 and EP-316 are inadequate to provide capability to acquire and evaluate meteorological information and data as required.

50. Explain why Section 6.2.3, Appendix B and EP-231 to EP-240 are inadequate for determining release rate and projected doses if instruments are off-scale or inoperable.

51. Explain why Sections 5.2.2.2.1, 6.2.4, 7.3.2 and EP-222 fail to provide capability and field resources for field monitoring within the plume exposure pathway EPZ.

52. Explain why Section 6.2, EP-316, EP-317, and Response to Question 810.48 are inadequate for (1) relating various measured parameters to dose rates for key isotopes and gross radioactivity measurements; and (2) estimating integrated dose from projected and actual dose rates; and (3) comparing those estimates with protective action guides.

Contention VIII-15

53. Explain any deficiency in the arrangements for evacuation of plant personnel from the Limerick site as discussed in Section 6.4.1.1.c, Tables 6-2 and 7-1, EP-254, and EP-303 to 306.

54. Explain any deficiency in Section 6.4.1.1.e, EP-221 and EP-254 for adequate radiological monitoring of site evacuees.

55. Explain why Section 6.4.1.1.c, EP-110 and EP-305 provide inadequate guidance for distinguishing "essential" and "non-essential" personnel and administering this distinction.

56. Explain why Sections 6.4.1.1.e, 6.5.2, EP-254, and EP-305 inadequately describe the decontamination capabilities at the point of radiological monitoring for site evacuees.

57. Explain why Section 6.4.1.1.d and EP-110 fail to demonstrate a capability to account for onsite personnel within 30 minutes.

58. Explain why Sections 6.4.2, 7.1.3 and EP-313 fail to adequately provide for individual respiratory protection, use of protective clothing, and individual thyroid protection for individuals remaining or arriving onsite during an emergency.

Contention VIII-16

59. Explain why Section 6.4.2.3, the Response to Question 810.53 and EP-313 fail to provide adequate procedures for distribution of KI.

60. Explain why Section 6.4.1.1.f, Section 6.5.1, Table 6-1, EP-202, EP-401, and EP-LP-17 fail to provide adequate guidance and procedures for permitting onsite volunteers to receive radiation exposure in the course of carrying on life saving and other emergency activities.

61. State whether intervenor contends that any applicable regulation prohibits any onsite volunteer from receiving more than a given maximum dose and, if so, specify the dose and provide its basis.

62. Explain why Section 6.4.1.1.f, Table 6-1, EP-401, LP-EP-17, and FSAR Section 13.2.1.4 are inadequate to provide emergency workers with sufficient information concerning radiation risks.

63. Explain why Section 6.5.1 and EP-221 are inadequate to provide full-time capability to determine the doses received by onsite emergency workers at Limerick, provide for distribution of sufficient dosimeters, ensure that dosimeters are read at appropriate frequencies, and ensure that dose records are properly maintained.

64. Explain why Section 6.4.3 and the Response to Question 810.57 fail to specify action levels for determining the need for decontamination of onsite workers, or has failed to establish adequate means for radiological decontamination of emergency personnel wounds, supplies, instruments, equipment and for waste disposal.

65. Explain why Section 6.4.3 and EP-208, EP-254, and EP-303 to 305 are inadequate to establish procedures for, and capability for, onsite contamination control measures, including area access control, drinking water and food supplies and criteria for permitting return of areas and items to normal use.

66. Explain why Sections 6.4.2, 6.4.3, Response to Question 810.59, and Appendix E fail to demonstrate that the Applicant has established the capability for decontamination of relocated onsite personnel, including the provision of extra clothing and decontaminants suitable for expected contamination, including radioiodine contamination of the skin.

Contention VIII-17

67. Explain why Sections 5.4, 6.4.1.1.g and 9 are inadequate for recovery and re-entry following a radiological emergency at Limerick.

68. Explain why Section 6.4.1.1.g, Section 9, EP-101 and EP-317 fail to describe the means by which decisions to relax protective measures will be reached.

69. Explain why EP-316 fails to specify the methodology for periodically estimating cumulative population dose.

Contention VIII-18

70. Explain why Section 8.1.1, Table 8-1 and EP-307, as well as the various emergency response training materials provided to intervenor to date, fail to demonstrate that adequate radiological emergency response training will be provided to those who may be called upon to assist in an onsite emergency.

Contention VIII-19

71. Explain why Section 8.2.1 and EP-500 are insufficient to demonstrate that (1) organizations or persons responsible for annual review of emergency preparedness are



independent; (2) results of review and recommendations will be reported to all involved federal, State and local organizations; and (3) results of reviews will be retained for five years.

Contention VIII-20

72. Explain why the agreement by FEMA to assume responsibility for quarterly testing of communications with States within the ingestion pathway is inadequate to discharge this responsibility.

73. Explain why Section 8.1.2.6 and ST-7-EPP-554 do not provide adequately for semiannual health physics drills, in addition to the annual exercise, which involve response to, and analyses of, simulated elevated airborne and liquid samples and direct radiation measurements in the environment.

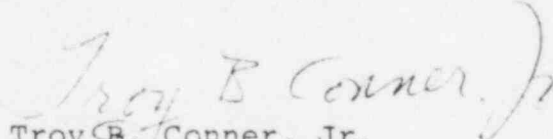
74. Specify each isotope and actual level of elevated radiation which intervenor contends that Applicant should include in its inplant liquid samples as part of its semi-annual health physics drill.

75. Explain the basis upon which it is asserted, if so, that ST-7-EPP-470 is invalid if it does not require Limerick Emergency Plan to contain details as to whether local emergency response organizations will be required to be activated, or merely notified by the licensee, during an annual exercise.

Document Request

Please attach to your answers to the interrogatories listed above a copy of all documents identified in the answers above, or upon which you otherwise intend to rely in the presentation of your direct case or in the cross-examination of other witnesses. Alternatively, state that all such documents will be produced at a reasonable time and place to be agreed upon by the Applicant for inspection and copying.

Respectfully submitted,  
CONNER & WETTERHAHN, P.C.

  
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Counsel for the Applicant

February 2, 1984

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

In the Matter of )  
 )  
Philadelphia Electric Company ) Docket Nos. 50-352  
 ) 50-353  
(Limerick Generating Station, )  
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CERTIFICATE OF SERVICE

I hereby certify that copies of "Applicant's First Set of Interrogatories and Request for Production of Documents to Limerick Ecology Action Regarding Its Onsite Emergency Planning Contentions," dated February 2, 1984 in the captioned matter, have been served upon the following by deposit in the United States mail this 2nd day of February, 1984:

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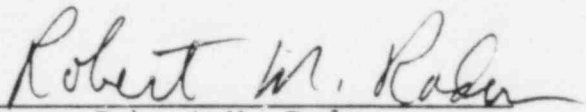
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