



In the Matter of)	
)	
The Cincinnati Gas & Electric)	Docket No. 50-358
Company, et al.)	
)	
(William H. Zimmer Nuclear)	
Power Station))	

APPLICANTS' STATEMENT OF MATERIAL FACTS AS TO WHICH
THERE IS NO GENUINE ISSUE TO BE HEARD

Contention 1

1. The description of the storage of spent fuel, including the design of the spent fuel pool and associated components as contained in FSAR §§9.1.2, 9.1.3 and 9.1.4 is correct.

2. For purposes of calculating the dose due to the storage of spent fuel at the Zimmer Station, it is conservative to assume that the fuel pool is full and that approximately one fourth of the elements are added on an annual basis.

3. In assessing the dose due to the storage of spent fuel at the Zimmer Station, the use of the meteorological methodology for dose calculation contained in NRC Regulatory Guide 1.111 is appropriate.

4. In assessing the dose due to the storage of spent fuel at the Zimmer Station, the use of the methodology and assumptions for dose calculation contained in NRC Regulatory Guide 1.109 is appropriate.

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5. Using conservative assumptions and methodology, a skin dose of 0.0005 mrem will result from release of Kr-85 based on a full pool of spent fuel.

6. Using conservative assumptions and methodology, the thyroid dose from I-131 released from fuel during its first year of storage is 0.0001 mrem/yr.

7. Using conservative assumptions and methodology, doses from the release of all other noble gases (aside from Kr-85) are 0.00003 mrem/yr. skin and 0.0003 mrem/yr. whole body.

8. The design objectives contained in Section II A-C of 10 C.F.R. Part 50, Appendix I are orders of magnitude above the doses resulting from the storage of spent fuel from the Zimmer Station.

9. The dose resulting from the direct radiation emitted by the pool completely filled with spent fuel elements is less than 0.000006 mrem/yr., an insignificant value.

Contention 2

10. A continuous monitoring station for measurement of airborne particulates and iodine and direct radiation was installed adjacent to the Moscow Elementary School and has been operational since May 8, 1976.

11. Two years of direct background radiation monitoring at this Station shows a background level of approximately 66.8 mrem/yr.; the measurements taken at this Station will continue to be taken through the preoperational, power

ascension and operational phases of the environmental monitoring program.

12. CG&E sought permission to locate an air monitoring station at the Moscow Elementary School early in 1976, but such permission was denied by the New Richmond School Board.

13. Plans for monitoring radioactive releases from the Zimmer Nuclear Power Station, are described in the ER §6.2.

14. Monitoring requirements will be a part of the operating license for the Station in the form of Technical Specifications.

15. The plans for monitoring radioactive release are designed in conformance with NRC's Regulatory Guides 1.21 and 4.8 regarding the measuring, evaluating and reporting of station radioactivity releases, and environmental radiation levels.

16. The release of radioactive materials will be governed by the Technical Specifications which are, in turn, based upon the requirements of 10 C.F.R. Part 20 and the guides on technical specifications for limiting condition for operation found in Section II of Appendix I to 10 C.F.R. Part 50.

17. Releases of radioactivity are continuously monitored by radioactivity measuring and release control devices; these devices determine radioactivity releases at levels which would exceed the Technical Specifications release limits.

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18. The operator in the control room is provided with continuous release information as well as alarm and remote control devices for terminating releases, and release rates are also continuously recorded.

19. Information concerning the type and quantities of radioactive material released are reported to the NRC at intervals specified in the Technical Specifications, and these reports are reviewed by the NRC to ascertain whether regulatory requirements and limiting conditions of operation have been met.

20. The environmental radiological monitoring program described in §11.6 of the FSAR, the results of which are similarly reported to the NRC, verifies the adequacy of operational controls.

21. The NRC's Office of Inspection and Enforcement performs regular inspections, involving announced and unannounced inspections of all station activities including review and verification of records pertaining to the release of radioactive materials, as well as observation of ongoing operations.

22. NRC inspection activities may also include verification of the accuracy of the measurement devices used as a basis for reporting releases of radioactive materials which utilize a comparison of the results of split samples analyzed separately by the Applicants and by the NRC on its equipment.

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23. Aside from the cooperation of citizens in obtaining environmental samples, there is no way that further involving the citizenry in the vicinity of the site would assist in the monitoring of the plant.

24. The Applicants' Environmental Radiological Monitoring Program meets or exceeds all NRC regulations and requirements.

25. The Environmental Radiological Monitoring Program is fully described in FSAR Section 11.6 and this monitoring program has been designed and carried out in accordance with Regulatory Guides 4.1 and 4.8.

26. The isotopes and pathways that were selected for monitoring were based upon Regulatory Guides 4.1 and 4.8 and extensive experience gained at other operating levels.

27. The number, location and sampling frequency of monitoring provides a high degree of assurance that data will be provided on measurable levels of radiation and radioactive materials in the environment in order to evaluate the relationship of quantities of radioactive material released in effluents and resultant radiation doses to individuals from probable pathways of radiation.

28. The Environmental Radiological Monitoring Program described in §11.6 of the FSAR provides for a continuous sampling station at the raw water intake to the City of Cincinnati Water Works.

29. The sample at the raw water intake will be analyzed on a monthly basis to determine the radioactive isotopes and their concentration contained in the water.

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30. The raw water intake station has been operational for the past 26 months as part of the preoperational environmental radiological monitoring program and will be continued throughout the operating life of the Station.

31. There are no on-line monitors presently available which are capable of detecting radioactivity in the order of the numerical guides contained in 10 C.F.R. Part 50, Appendix I.

32. The referenced statement "as comprehensive as possible" appears in FSAR Section 11.6.3, and characterizes the Environmental Monitoring Program as presented in FSAR Tables 11.6-5 and 11.6-6 (which are referenced in FSAR Section 11.6.3).

33. Applicants' proposed Environmental Technical Specifications discusses the continuation of the operational monitoring program through the life of the facility.

34. Depending on experience gained as a result of plant operation and of the operational program phase of the implementation after the first several years of plant operation, the monitoring program can be adjusted, after receiving NRC approval, if radiological levels in the environment are sufficiently low and if correlation exists between predicted and actual levels in the environment.

35. The Zimmer Nuclear Power Station Environmental Radiological Monitoring Program does indeed include requirements

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for periodic isotopic evaluation of foodstuffs including green leafy vegetation, domestic meat, fish, poultry and milk, and the methods of analysis include gamma spectrometric analysis, radioiodine and strontium -89 and -90 analysis, as appropriate.

36. Requirements for sampling of foodstuffs were based upon operating experience at other facilities, surveys and contacts done by the Applicants as part of the preoperational programs and knowledge of the limiting pathways gained by extensive operating experience at other nuclear power plants.

37. The Environmental Radiological Monitoring Program for the Zimmer Station, including the number and location of monitoring stations, will assure that data will be provided on measurable levels of radiation and radioactive material in the environment in order to evaluate the relation of quantities of radioactive material released in effluent and resulting radiological dose to individuals from probable pathways of exposure.

38. The liquid and gaseous release paths from the Zimmer Station are continuously monitored to assure that all regulatory requirements are met.

Contention 4

39. The Zimmer Emergency Plan fully meets all applicable regulatory requirements including those contained in 10 C.F.R. Part 50, Appendix E.

40. The Emergency Plan for the Zimmer Station is based on consideration of conceivable consequences of potential

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situations ranging from incidents where effects on the plant are negligible to highly unlikely major releases of radioactivity which could affect members of the public.

41. Each classification of emergency situations, of which there are three major categories, Personnel Emergency, Station Emergency and ZPS-1 General Emergency, incorporates a specific emergency organization alerting and mobilizing procedure and a set of predetermined preliminary actions to be taken by designated emergency organization personnel.

42. The classification scheme includes the criteria for recognizing and declaring each class, including specific emergency action levels.

43. Table F-2 of the Emergency Plan contains a classification of emergency conditions and specifies the notifications that must be made for each.

44. Table F-5 contains a listing of the primary and alternate communications links with each emergency plan support agency as required to implement the Plan.

45. The Emergency Plan, particularly Tables F-2 and F-5, fully specifies the requirements for notification depending on the type and severity of the incident and contains sufficient guidance for the emergency response team to deal with the spectrum of incidents, including requirements for notification of outside agencies.

46. There are specific criteria set forth in the Emergency Plan for notifying offsite agencies and the classification

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system promotes early notification of public authorities when a situation is developing which could lead to an emergency possibly affecting offsite areas.

47. In every emergency situation potentially involving offsite consequences, the appropriate offsite authorities would be notified.

48. A Station Emergency incorporates physical occurrences within the unit such as a fire, an explosion or rupture of a cooling water system which require the response of the Station's emergency organization but, for which, the initial information and assessment indicates it is very unlikely that an offsite hazard will be created.

49. The Plan requires that there must be positive observation that effluent and other radiological monitors do not indicate the possibility of changes in radiological conditions which could result in an offsite hazard; otherwise the event would be required to be categorized as a ZPS-1 General Emergency with the appropriate offsite notifications made.

50. The General Emergency is divided into three categories according to its severity and the appropriate offsite notification is in accordance with Table F.2 of the Emergency Plan.

51. The Notification subcategory would be declared when the actual release of radioactive material in liquid or gaseous effluents exceeds those NRC reportable values specified

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in the Station Technical Specifications but is below that required for the second category, a Mobilization Alert, to be declared.

52. The Mobilization Alert is in turn triggered by higher short-term releases and Offsite General Emergency would result if doses would exceed the protective action guides established by the U.S. Environmental Protection Agency. In accordance with the Emergency Plan, should higher than normal releases be seen, and yet be at a level substantially below those which would require offsite action, the Emergency Plan would be set into operation.

53. State and local authorities have formulated plans to notify residents of the surrounding area in the remote event that protective actions become necessary, as in the case of any type of emergency which might affect the public.

54. Pre-planning in this regard includes the use of local emergency response organizations such as police and fire departments.

55. The Company will respond to inquiries from the public concerning notification plans to be used in the remote event of an accident.

56. The Clermont County Disaster Plan, which includes responses to postulated incidents involving the Zimmer Station, is complete, integrated into the state plan, and has been included as Appendix to the ZPS-1 Emergency Plan.

57. Sections F.7.1 and F.7.2 of the Emergency Plan, Organizational Preparedness, include provisions for training

and drills of local safety officials and agencies to enable them to cope with emergencies relating to the release of radioactive materials from the Zimmer Station.

58. Coordinated training for local services personnel is to be conducted periodically to assure the agreed response is workable and to make any necessary improvements.

59. Medical support personnel at the Radioisotope Laboratory at the Cincinnati General Hospital have a training program in effect which will be continued during the operating life of the facility with regard to their participation in any emergency situation resulting from the operation of Zimmer.

60. At least annually, announced drills will be conducted; the drills will be preplanned simulations of accidents to test the adequacy of training and content of specific implementing procedures and to test emergency equipment.

61. All drills will be critiqued by the Station Review Board or a subcommittee appointed by the Station Superintendent.

62. Coordinating drills will be made annually with participating agencies, testing as a minimum the communication links.

63. An initial coordinated drill will be conducted and analyzed with offsite agencies and local support services before the initial fuel loading.

64. A notification authentication scheme will be devised and tested prior to fuel loading and thereafter in conjunction with the annual test of the offsite communication network.

65. An annual review of the Emergency Plan will be conducted by the Station Review Board or a subcommittee of the Board appointed by the Station Superintendent.

66. The Emergency Plan is updated and procedures are improved, based upon training, drills, and changes onsite or in the environs; all coordinate elements of the total emergency organization including consultants of the Company will be contacted at least annually or when changes or revisions to the plan are implemented which affect their responsibilities.

67. CG&E has a written agreement to provide selected offsite emergency personnel such as local fire and rescue squads with initial and, as necessary, refresher indoctrination in the proper techniques for handling and transporting radiation accident victims.

68. CG&E's medical consultant will also be participating in the pre-planning, observation and critique of the medical portion of the Emergency Plan drills.

69. Assessment action of emergency situations involving the possible release of radioactive material exists in accordance with emergency plan procedures utilizing control room instrumentation, including the process and effluent radiological monitoring systems and containment atmosphere monitoring systems, the meteorological monitoring system and the safety related and power generation display instrumentation; these readouts are logged periodically to note developing

trends which have not reached the alarm set points and are used to anticipate possible hazardous conditions and to initiate timely protective or corrective action.

70. Primary containment integrity is monitored utilizing the primary containment isolation system.

71. In-plant radiological and station boundary surveys are performed as necessary and assessed to determine the status of the station boundary and projected offsite radiological status.

72. As specified in the Emergency Plan, radiological surveys and monitoring of the offsite environs are coordinated by the Clermont County Disaster Service in Ohio and the Radiological Health Program in Kentucky.

73. Plume and other surveillance information will be provided by CG&E to the appropriate agencies for short term assessment.

74. The techniques for assessing the offsite consequences of the accidental release of radioactive material for a variety of situations are described in Section F.10 of the Emergency Plan.

75. The State of Ohio Disaster Services Agency has equipped local fire and rescue squads with low and high range portable radiation detection instruments.

76. Training in the care, use and interpretation of instruments and their readings has been administered by the Agency, to over 100 Clermont County personnel; the Agency

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exchanges instruments and provides calibration and preventative maintenance services.

77. As shown in Table F.2 of the Emergency Plan, the provisions for notification of offsite agencies including local safety officials for various categories of emergency situations are clearly defined.

78. The Nuclear Regulatory Commission is the agency responsible for the review of all safety-related matters involving design, construction and operation of the William H. Zimmer Nuclear Power Plant and for inspecting the facility to assure that its high standards and requirements as reflected in its operating license are maintained over the life of the facility.

79. It is contemplated that a resident inspector will be located at the Station.

80. With regard to emergency planning, pursuant to the requirements of Appendix E to 10 C.F.R. Part 50, numerous meetings with state and local officials have take place during the course of the preparation of the Zimmer Emergency Plan and its implementing procedures.

81. CG&E has obtained agreements with and the cooperation of all necessary governmental agencies to assure that emergency preparedness will remain at a high level during the operation of the Station.

82. The Company is required by the Emergency Plan to maintain a continuing liaison with State and local units to

assure that emergency plan preparedness remains at a high level.

83. An annual review of the Emergency Plan will be conducted with the Emergency Plan, updated, and procedures improved based upon training drills and changes offsite or in the environs.

84. Pre-planned exercises, which include state and local agencies, followed by drill critique, provide for periodic assessment of the adequacy of the emergency plan procedures.

85. Agreement letters with offsite agencies and local support groups will be updated every two years or whenever changes or revisions to the Plan are implemented which could affect their responsibilities.

86. Access to the Zimmer Nuclear Power Station and management personnel has been provided to emergency planning groups for the purpose of orientation to the facility and viewing plant safety features.

87. Coordinated training for local services personnel will be conducted periodically to assure that their response is workable and to remove any deficiencies.

88. Annual site familiarity training will be made available to local fire departments, ambulance services or other groups whose response may require site access.

Contention 5

89. Design and construction of shipping containers such as those used to ship spent fuel in accordance with the re-

quirements of 10 C.F.R. Part 71 assure their ability to withstand severe transportation accidents without leakage, minimize the danger or threat from radiation and make the likelihood of a release of any radioactive material in a transportation accident so small as to be considered negligible.

90. With regard to the shipment of radioactive materials from the Zimmer Station, CG&E is the shipper and responsible for complying with all applicable Department of Transportation and NRC regulations regarding packaging, labeling, marking and otherwise preparing such material for transport.

91. It is highly probable that any release from an accident involving radioactive material from a nuclear power reactor would be highly localized.

92. Should an accident occur involving radioactive material in transport, the carrier has the responsibility for notification of the proper authorities including, Department of Transportation, state and local authorities, the shipper and the driver's own management.

93. State and local police and emergency units are responsible for emergency action and have the responsibility for protecting the health, safety and welfare of the citizens.

94. The carrier has the basic responsibility for containing or confining any threat associated with his cargo.

95. Under a radiological assistance program administered by the Department of Energy, radiological emergency assistance

teams, advice and information are available in any incident believed to involve a radiological hazard.

96. Should an emergency situation arise in transport, the shipper is only required to provide whatever details about his shipment that are necessary and helpful.

97. There is no requirement under NRC rules, regulations regulatory guides or standard review plans that an applicant for an NRC operating license submit an emergency plan for transportation of radioactive waste once it has left a nuclear power reactor site.

98. The NRC has never, as a requirement for the issuance of an operating license, required that the facility licensee develop and be responsible for emergency plans for radioactive waste shipped from that facility.

Contention 6

99. The calculated doses resulting from operation of the William H. Zimmer Nuclear Power Station to a maximum individual are presented in Table 5.1 of the FES for the Zimmer Station.

100. Calculational models used in dose calculations by the Applicants and NRC Staff are similar.

101. The calculated dose at the Moscow Elementary School is not critical for any pathway.

102. In calculating doses at the Moscow Elementary School, the use of meteorological methodology contained in NRC Regulatory Guide 1.111 is appropriate.

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103. In calculating doses at the Moscow Elementary School, the use of data and methodology for dose calculations contained in NRC Regulatory Guide 1.109 are appropriate.

104. For calculating doses to school children at the Moscow Elementary School, an occupancy factor of 0.25 is conservative.

105. In calculating doses to school children at the Moscow Elementary School, it is conservative to neglect the shielding afforded by the school building.

106. The annual doses at the Moscow Elementary School that result from the release of airborne effluents from the Zimmer Station are calculated to be 0.035 mrem/yr. whole body, 0.058 mrem/yr. skin and 0.009 mrem/yr. thyroid inhalation.

107. Annual doses for school children at the Moscow Elementary School, as conservatively calculated by the Applicants, are well within the design objectives contained in Section II A-C of Appendix I to 10 C.F.R. Part 50.

108. The dose at the Moscow Elementary School resulting from direct and scattered radiation at the plant is 0.2 mrem/yr.

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