UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of	)	
	)	
DUKE POWER COMPANY, et al.	)	Docket Nos. 50-413
	)	50-414
(Catawba Nuclear Station,	)	
Units 1 and 2)	)	

APPLICANTS' INTERROGATORIES AND REQUESTS TO PRODUCE DOCUMENTS DIRECTED TO INTERVENORS' EXPERT WITNESS (ROBERT ANDERSON)ON NEWLY ADMITTED (FORMERLY BOARD) CONTENTION CONCERNING CERTAIN CATAWBA DIESEL GENERATOR ENGINE PROBLEMS

In its Partial Initial Decision of June 22, 1984, p. 273, n. 50, the Board has stated, with respect to the diesel generator contention:

> As we have made clear in the past, we do not believe the present Intervenors can make a substantial contribution to these technical issues unless they are prepared to present expert testimony or at least have expert assistance in their cross-examination. The Intervenors have repeatedly indicated that they will be able to produce experts; so far, however, they have not done so. Now that the Intervenors have in hand the Applicants' report on site-specific problems at Catawba, they should be in a position to move quickly

> to obtain the appropriate expert assistance. In these circumstances, our admission of this late contention is conditioned upon the Intervenors' serving by July 6, 1984 their designation of a named diesel generator expert or experts, along with a description of qualifications (resume). Failure to meet this condition will result in dismissal of this contention.

Intervenors Palmetto Alliance (PA) and Carolina Environmental Study Group (CESG) have named Robert Anderson as their expert in their July 6, 1984 letter to the Board.

Applicants assert that in responding to discovery requests such as this, Intervenors, as a condition of the continued litigation of this contention, must make use of such expertise. Default in the use of diesel generator engine expertise constitutes grounds for dismissal of the contention.

Accordingly, pursuant to 10 C.F.R. §§2.740b and 2.741 and in accordance with the Licensing Board's Ruling in its Partial Initial Decision, dated June 22, 1984, and the discovery schedule established by the Board in the conference call of the Board and parties held July 16, 1984, Duke Power Company, et al. ("Applicants") hereby serve these Interrogatories and Requests to Produce on the newly admitted Intervenor contention (formerly Board contention) concerning certain problems experienced by the

Catawba diesel engines upon Intervenors' expert witness, Robert Anderson. These interrogatories involve the contention on reliability of the engine portion of the Catawba diesel generators in light of problems which Applicants have reported to the Board.

Each interrogatory shall be answered in writing, under oath or affirmation, and each response shall include all pertinent information known to Mr. Anderson. In answering each interrogatory and responding to each request, please recite the interrogatory or request preceding each answer or response. Also, please identify the person providing each answer or response.

These interrogatories and requests shall be continuing in nature. Thus, any time Mr. Anderson obtains information which renders any previous response incorrect or indicates that a response was incorrect when made, Mr. Anderson should supplement his previous response to the appropriate interrogatory or request to produce. Furthermore, any time Intervenors obtain information which renders any previous response incorrect or indicates that a response was incorrect when made, Intervenors should supplement such response to the appropriate interrogatory or request to produce. Intervenors should also supplement their prior responses as necessary with respect to identification of each person expected to be called at the hearing as an expert witness, the area of expertise of such witness, the subject matter of his

or her testimony, and the substance of that testimony. Each identification of such witnesses is necessary if Applicants are to be afforded adequate time to depose them.

REQUESTS FOR DOCUMENTS

Pursuant to 10 C.F.R. §2.741, Applicants request CESG and PA by and through their attorneys to make available for inspection and copying at a time and location to be designated, any and all documents, of whatsoever description, identified in Mr. Anderson's responses to the Applicants' interrogatories below, including but not limited to:

(1) any written record of any oral communication between or among Intervenors, their advisors, consultants, agents, attorneys and/or any other persons, including but not limited to the NRC Staff, the Applicants and their advisors, consultants, agents, attorneys and/or any other persons; and

(2) any documents, correspondence, letter, memorandum, notes, diagrams, reports, charts, graphs, drawings, photographs, data compilations or any other writing of whatsoever description, including but not limited to work papers, prior drafts, and notes of meetings.

If CESG or PA maintains some documents should not be made available for inspection, it should specify the documents and explain why such are not being made available. This request extends to any such document, described above, in the possession of CESG or PA, its advisors, consultants, agents or attorneys.

INTERROGATORIES

Pursuant to 10 C.F.R. §2.740b, the Applicants request Robert Anderson, the designated Intervenor expert on diesel generators to answer separately and fully in writing under oath or affirmation, the following interrogatories.

Questions 1 to 88 are directed to the Transamerica Delaval, Inc. ("TDI") DSRV-16-4 model diesel generators installed at Catawba. These questions refer to the June 1, 1984 Duke Power report submitted to the NRC Staff, entitled "Catawba Nuclear Station Diesel Engine 1A Component Revalidation Inspection Report" (hereinafter the "June 1 report"), and the June 29, 1984 Duke Power report submitted to the NRC Staff, entitled "Catawba Nuclear Station Diesel Engine 1A Component Revalidation Inspection Final Report" (hereinafter, the "June 29 report").

1. As reported in the June 1 and June 29 reports, a turbocharger lube oil prelube line failure has occurred. What fixes or modifications do you believe should be undertaken for the lube oil prelube line and why? Describe each such fix or modification in detail and provide the basis for your conclusion.

2. What is the effect of the rupture of the turbocharger lube oil prelube line on the operation of the Catawba diesel generator during an emergency? Do you believe such a failure would prevent the diesel generator from performing its requisite task during an emergency? If so, explain how such a failure would prevent the diesel generator from performing its task during an emergency and provide the basis for your conclusion.

3. Do you agree with the proposed inspection to resolve the turbocharger lube oil prelube line problem presented in Applicants' June 1 and June 29, 1984 reports submitted to the NRC Staff? If the answer is in the negative, state the basis for such conclusion.

4. As reported in the June 1 and June 29 reports, leaks have occurred in the turbocharger lube oil drain line. What fixes or modifications do you believe should be undertaken for the turbocharger lube oil drain line and why? Describe each such fix or modification in detail and provide the basis for your conclusion.

5. What is the effect of the leakage from the turbocharger lube oil drain line on the operation of the Catawba diesel generator during an emergency? Do you believe such a failure would prevent the diesel

generator from performing its requisite task during an emergency? If so, explain how such a failure would prevent the diesel generator from performing its task during an emergency and provide the basis for your conclusion.

6. Do you agree with the analysis and resolution of the lube oil drain line leak presented in Applicants' June 1 and June 29, 1984 reports submitted to the NRC Staff? If your answer is in the negative, state the basis for your conclusion.

7. As reported in the June 1 and June 29 reports, cylinder head water jacket leaks have occurred. What fixes or modifications do you believe should be undertaken for the Catawba diesel generator cylinder head? Describe each such fix or modification in detail and provide the basis for your conclusion.

8. Given a jacket water leakage rate of approximately 5 gallons/day, what is the effect of the cylinder head crack on the operation of the Catawba diesel generator during an emergency? Do you believe such a failure would prevent the diesel generator from performing its requisite task during an emergency? If so, explain how such a failure would prevent the diesel generator from performing its task during an emergency and provide the basis for your conclusion.

9. Do you agree with the inspection methods and results for cylinder heads presented in Applicants' June 1 and June 29, 1984 reports submitted to the NRC Staff? If your answer is in the negative, state the basis for your conclusion.

10. Do you agree with the analysis of the inspection results for cylinder heads presented in Applicants' June 1 and June 29, 1984 reports submitted to the NRC Staff? If your answer is in the negative, state the basis for your conclusion.

11. Do you agree with the resolution, including any attendant modifications or fixes, of the cylinder head problems presented in Applicants' June 1 and June 29, 1984 reports submitted to the NRC Staff? If your answer is in the negative, state the basis for your conclusion.

12. As reported in the June 1 and June 29 reports, a fuel oil injection pump nozzle valve holder cracked. What fixes or modifications do you believe should be undertaken for the fuel oil injection pump nozzle valve holder and why? Describe each such fix or modification in detail and provide the basis for your conclusion.

13. What is the effect of the cracking of the fuel oil injection pump nozzle valve holder on the operation of the Catawba diesel generator during an emergency? Do you believe such a failure would prevent the diesel generator from performing its requisite task during an emergency? If so, explain how such a failure would prevent the diesel generator from performing its task during an emergency and provide the basis for your conclusion.

14. During an emergency situation, is it possible for the diesel generator to continue to operate with the linkage disconnected from the injection pump which has a failed nozzle valve holder and without detrimental effects to the diesel generator's operation? If your answer is in the negative, state the basis for your conclusion. Do you believe that such a failure would prevent the diesel generator from performing its requisite task during an emergency? If so, explain how such a failure would prevent the diesel generator from performing its task during an emergency and provide the basis for your conclusion.

15. Do you agree with the inspection methods and results for the fuel injection pump nozzle valve holders presented in Applicants' June 1 and June 29, 1984

reports submitted to the NRC Staff? If your answer is in the negative, state the basis for your conclusion.

16. Do you agree with the analysis of the inspection results for the fuel injection pump nozzle valve holders presented in Applicants' June 1 and June 29, 1984 reports submitted to the NRC Staff? If your answer is in the negative, state the basis for your conclusion.

17. Do you agree with the resolution, including any attendant modifications or fixes, of the fuel injection pump nozzle valve holder cracking presented in Applicants' June 1 and June 29, 1984 reports submitted to the NRC Staff? If your answer is in the negative, state the basis for your conclusion.

18. As reported in the June 1 and June 29 reports, cracks have been detected in the pushrod ball to tube welded joint. What fixes or modifications do you believe should be undertaken for the pushrod and why? Describe each such fix or modification in detail and provide the basis for your conclusion.

19. What is the effect of the crack in the pushrod on the operation of the Catawba diesel generator during an emergency? Do you believe such a failure would prevent the diesel generator from performing its

requisite task during an emergency? If so, explain how such a failure would prevent the diesel generator from performing its task during an emergency and provide the basis for your conclusion.

20. Do you agree that the pushrod cracks are due to welding incompatibility between the pushrod ball and the pushrod tube?

    a. If your answer is in the affirmative, do you contend that either welding standards or design standards were violated? If so, identify any such standards which you believe are applicable and were violated. Identify and specify with particularity the basis for your response, and explain in detail the basis for your response.

    b. If your answer is in the negative, explain in detail the basis for your conclusion, citing any applicable design or welding standards and explaining why you believe any such standard should apply.

21. Given that the connector pushrods for which weld cracks developed consist of a tubular steel body fillet welded to carbon steel ball bearings, given that for pushrods of this design weld defects have resulted from lack of penetration of the fillet weld with the tubing, given that destructive examination

of the ball and weld of such defective pushrod revealed additional cracks in the heat-affected-zone of the ball bearing, and given that the welds exhibited a lack of penetration and slag inclusions in the crevice area behind the weld, do you agree with the metallurgical conclusion that the ball material in such pushrods is difficult to weld? If your answer is in the negative, state and explain the basis for your conclusion.

22. Given the design characteristics of the pushrods as described in question 21, do you agree that there is a design deficiency and that the design deficiency which has resulted in the cracked welds has been identified? If your answer is in the negative, state the basis for your conclusion and explain with particularity what you believe to be the design deficiency, if any, in the pushrods of such design.

23. Given a connector pushrod design ("new design") consisting of a tubular steel shaft which is friction welded to cylinders of alloy steel on each end, following which such ends are machine finished and hardened, do you agree that pushrods of such design and fabrication will not be susceptible to the weld cracking which has been experienced by pushrods of the design described in question 21? If your answer

is in the negative, state the basis for your conclusion, explaining why pushrods of such new design and fabrication are susceptible to such weld cracking.

24. Do you agree with the inspection methods and results for the pushrods presented in Applicants' June 1 and June 29, 1984 reports submitted to the NRC Staff? If your answer is in the negative, state the basis for your conclusion.

25. Do you agree with the analysis of the inspection results for the pushrods presented in Applicants' June 1 and June 29, 1984 reports submitted to the NRC Staff? If your answer is in the negative, state the basis for your conclusion.

26. Do you agree with the resolution, including any attendant modifications or fixes, of the pushrod issue presented in Applicants' June 1 and June 29, 1984 reports submitted to the NRC Staff? If your answer is in the negative, state the basis for your conclusion.

27. What would the effect of turbocharger bearing failure be on the operation of the Catawba diesel generator during an emergency? Do you believe such a failure would prevent the diesel generator from performing its requisite task during an emergency? If so,

explain how such a failure would prevent the diesel generator from performing its task during an emergency and provide the basis for your conclusion.

28. What fixes or modifications do you believe should be undertaken for the turbocharger bearing lubrication system and why? Describe each such fix or modification in detail and provide the basis for your conclusion.

29. Do you agree that the diesel generator operability and reliability would not have been compromised by a turbocharger bearing failure? If your answer is in the negative, state the basis for your conclusion.

30. Do you agree with the inspection methods and results for the turbocharger bearings presented in Applicants' June 1 and June 29, 1984 reports submitted to the NRC Staff? If your answer is in the negative, state the basis for your conclusion.

31. Do you agree with the analysis of the inspection results for the turbocharger bearings presented in Applicants' June 1 and June 29, 1984 reports submitted to the NRC Staff? If your answer is in the negative, state the basis for your conclusion.

32. Do you agree with the resolution, including any attendant modifications or fixes, of the turbocharger bearing wear presented in Applicants' June 1 and June

29, 1984 reports submitted to the NRC Staff? If your answer is in the negative, state the basis for your conclusion.

33. As reported in the June 1 and June 29 reports, a crack at the turbocharger to intercooler adaptor flange weld has occurred. What fixes or modifications do you believe should be undertaken for the turbocharger to intercooler adaptor flange weld and why? Describe each such fix or modification in detail and provide the basis for your conclusion.

34. What is the effect of a crack at the turbocharger to intercooler adaptor flange weld on the Catawba diesel generator during an emergency? Do you believe such a failure would prevent the diesel generator from performing it's requisite task during an emergency? If so, explain how such a failure would prevent the diesel generator from performing its task during an emergency and provide the basis for your conclusion.

35. Do you agree with the inspection methods and results for the turbocharger to intercooler adaptor presented in Applicants' June 1 and June 29, 1984 reports submitted to the NRC Staff? If your answer is in the negative, state the basis for your conclusion.

36. Do you agree with the analysis of the inspection results for the turbocharger to intercooler adaptor presented in Applicants' June 1 and June 29, 1984 reports submitted to the NRC Staff? If your answer is in the negative, state the basis for your conclusion.

37. Do you agree with the resolution, including any attendant modifications or fixes, of the turbocharger to intercooler adaptor flange weld crack presented in Applicants' June 1 and June 29, 1984 reports submitted to the NRC Staff? If your answer is in the negative, state the basis for your conclusion.

38. As reported in the June 1 and June 29 reports, failures of the lube oil and jacket water thermocouples have occurred. What fixes or modifications do you believe should be undertaken for these components and why? Describe each such fix or modification in detail and provide the basis for your conclusion.

39. What is the effect of failures of the lube oil and jacket water thermocouples on the Catawba diesel generators during an emergency? Do you believe such failures would prevent the diesel generator from performing it's requisite task during an emergency?

If so, explain how such failures would prevent the diesel generator from performing its task during an emergency and provide the basis for your conclusion.

40. Do you agree with the analysis and resolution of the lube oil and jacket water thermocouples failures presented in Applicants' June 1 and June 29, 1984 reports submitted to the NRC Staff? If your answer is in the negative, state the basis for your conclusion.

41. As reported in the June 1 and June 29 reports, failures of crankcase and camshaft cover capscrews have occurred. What fixes or modifications do you believe should be undertaken for these components and why? Describe each such fix or modification in detail and provide the basis for your conclusion.

42. What is the effect of failure of crankcase and camshaft cover capscrews on the Catawba diesel generator during an emergency? Do you believe such a failure would prevent the diesel generator from performing its requisite task during an emergency? If so, explain how such a failure would prevent the diesel generator from performing its task during an emergency and provide the basis for your conclusion.

43. Do you agree with the analysis and resolution of the crankcase and camshaft cover capscrew failures presented in Applicants' June 1 and June 29, 1984 reports submitted to the NRC Staff? If your answer is in the negative, state the basis for your conclusion.

44. As reported in the June 1 and June 29 reports, failures in rocker box (subcover) subassemblies have occurred. What fixes or modifications do you believe should be undertaken for these components and why? Describe each such fix or modification in detail and provide the basis for your conclusion.

45. What is the effect of failures in rocker box (subcover) subassemblies on the Catawba diesel generator during an emergency? Do you believe such a failure would prevent the diesel generator from performing its requisite task during an emergency? If so, explain how such a failure would prevent the diesel generator from performing its task during an emergency and provide the basis for your conclusion.

46. Do you agree with the inspection methods and results for the rocker box (subcover) subassembly presented in Applicants' June 1 and June 29, 1984 reports submitted to the NRC Staff? If your answer is in the negative, state the basis for your conclusion.

47. Do you agree with the analysis of the inspection results for the rocker box (subcover) subassembly presented in Applicants' June 1 and June 29, 1984 reports submitted to the NRC Staff? If your answer is in the negative, state the basis for your conclusion.

48. Do you agree with the resolution, including any attendant modifications or fixes, of the rocker box (subcover) subassembly failures presented in Applicants' June 1 and June 29, 1984 reports submitted to the NRC Staff? If your answer is in the negative, state the basis for your conclusion.

49. As reported in the June 1 and June 29 reports, failures of turbocharger exhaust gas inlet bolts have occurred. What fixes or modifications do you believe should be undertaken for these components and why? Describe each such fix or modification in detail and provide the basis for your conclusion.

50. What is the effect of failures of turbocharger exhaust gas inlet bolts on the Catawba diesel generator during an emergency? Do you believe such a failure would prevent the diesel generator from performing its requisite task during an emergency?

If so, explain how such a failure would prevent the diesel generator from performing its task during an emergency and provide bases for your conclusion.

51. Do you agree with the inspection methods and results for the turbocharger exhaust gas inlet bolts presented in Applicants' June 1 and June 29, 1984 reports submitted to the NRC Staff? If your answer is in the negative, state the basis for your conclusion.

52. Do you agree with the analysis of the inspection results for the turbocharger exhaust gas inlet bolts presented in Applicants' June 1 and June 29, 1984 reports submitted to the NRC Staff? If your answer is in the negative, state the basis for your conclusion.

53. Do you agree with the resolution, including any attendant modifications or fixes, of the turbocharger exhaust gas inlet bolt failures presented in Applicants' June 1 and June 29, 1984 reports submitted to the NRC Staff? If your answer is in the negative, state the basis for your conclusion.

54. As reported in the June 1 and June 29 reports, cracking in the rocker arm adjusting screw swivel pads has occurred. What fixes or modifications do

you believe should be undertaken for these components and why? Describe each such fix or modification in detail and provide the basis for your conclusion.

55. What is the effect of cracking in the rocker arm adjusting screw swivel pad on the Catawba diesel generator during an emergency? Do you believe such a failure would prevent the diesel generator from performing its requisite task during an emergency? If so, explain how such a failure would prevent the diesel generator from performing its task during an emergency and provide the basis for your conclusion.

56. Do you agree with the inspection methods and results for the rocker arm adjusting screw swivel pad presented in Applicants' June 1 and June 29, 1984 reports submitted to the NRC Staff? If your answer is in the negative, state the basis for your conclusion.

57. Do you agree with the analysis of the inspection results for the rocker arm adjusting screw swivel pad presented in Applicants' June 1 and June 29, 1984 reports submitted to the NRC Staff? If your answer is in the negative, state the basis for your conclusion.

58. Do you agree with the resolution, including any attendant modifications or fixes, of the rocker arm adjusting screw swivel pad cracking presented in Applicants' June 1 and June 29, 1984 reports submitted to the NRC Staff? If your answer is in the negative, state the basis for your conclusion.

59. As reported in the June 1 and June 29 report, fuel line fitting failures have occurred. What fixes or modifications do you believe should be undertaken for these fittings and why? Describe each such fix or modification in detail and provide the basis for your conclusion.

60. What is the effect of the fuel line fitting failures on the Catawba diesel generator during an emergency? Do you believe such a failure would prevent the diesel generator from performing its requisite task during an emergency? If so, explain how such a failure would prevent the diesel generator from performing its task during an emergency and provide the basis for your conclusion.

61. Do you agree with the planned inspections of the fuel line fittings presented in Applicants' June 29, 1984 report submitted to the NRC Staff? If your answer is in the negative, state the basis for your conclusion.

62. As reported in the June 1 and June 29 reports, cracking in type AN piston skirts has occurred. What fixes or modifications do you believe should be undertaken for the piston skirts and why? Describe each such fix or modification in detail and provide the basis for your conclusion.

63. What is the effect of cracking in piston skirts on the Catawba diesel generator during an emergency? Do you believe such a failure would prevent the diesel generator from performing its requisite task during an emergency? If so, explain how such a failure would prevent the diesel generator from performing its task during an emergency and provide the basis for your conclusion.

64. Do you agree with the inspection methods and results for the piston skirts presented in Applicants' June 1 and June 29, 1984 reports submitted to the NRC Staff? If your answer is in the negative, state the basis for your conclusion.

65. Do you agree with the analysis of the inspection results for the piston skirts presented in Applicants' June 1 and June 29, 1984 reports submitted to the NRC Staff? If your answer is in the negative, state the basis for your conclusion.

66. Do you agree with the resolution, including any attendant modifications or fixes, of the piston skirt cracking presented in Applicants' June 1 and June 29, 1984 reports submitted to the NRC Staff? If your answer is in the negative, state the basis for your conclusion.

67. As reported in the June 1 and June 29 reports, chipping and cracking of edges of rocker arm sockets has occurred. What fixes or modifications do you believe should be undertaken for these components and why? Describe each such fix or modification in detail and provide the basis for your conclusion.

68. What is the effect of chipping and cracking of edges of rocker arm sockets on the Catawba diesel generator during an emergency? Do you believe such a condition would prevent the diesel generator from performing its requisite task during an emergency? If so, explain how such a condition would prevent the diesel generator from performing its task during an emergency and provide the basis for your conclusion.

69. Do you agree with the analysis and resolution of the inspection results for the chipping and cracking of edges of rocker arm sockets presented in Applicants'

June 1 and June 29, 1984 reports submitted to the NRC Staff? If your answer is in the negative, state the basis for your conclusion.

70. As reported in the June 1 and June 29 reports, chipping and loss of valve stem chrome plating has occurred. What fixes or modifications do you believe should be undertaken for these components and why? Describe each such fix or modification in detail and provide the basis for your conclusion.

71. What is the effect of chipping and loss of valve stem chrome plating on the Catawba diesel generator during an emergency? Do you believe such a condition would prevent the diesel generator from performing its requisite task during an emergency? If so, explain how such a condition would prevent the diesel generator from performing its task during an emergency and provide the basis for your conclusion.

72. Do you agree with the analysis and resolution of the inspection results for the chipping and loss of valve stem chrome plating presented in Applicants' June 1 and June 29, 1984 reports submitted to the NRC Staff? If your answer is in the negative, state the basis for your conclusion.

73. As reported in the June 1 and June 29 reports, jamming of the air start valve adjusting nut and loss of a roll pin have occurred. What fixes or modifications do you believe should be undertaken for these components and why? Describe each such fix or modification in detail and provide the basis for your conclusion.

74. What is the effect of air start valve adjusting nut jamming and loss of a roll pin on the Catawba diesel generator during an emergency? Do you believe such a condition would prevent the diesel generator from performing its requisite task during an emergency? If so, explain how such a condition would prevent the diesel generator from performing its task during an emergency and provide the basis for your conclusion.

75. Do you agree with the inspection methods and results for the air start valve adjusting nuts and roll pins presented in Applicants' June 1 and June 29, 1984 reports submitted to the NRC Staff? If your answer is in the negative, state the basis for your conclusion.

76. Do you agree with the analysis of the inspection results for the air start valve adjusting nuts and roll pins presented in Applicants' June 1 and June

29, 1984 reports submitted to the NRC Staff? If your answer is in the negative, state the basis for your conclusion.

77. Do you agree with the resolution, including any attendant modifications or fixes, of the air start valve adjusting nuts and roll pins conditions presented in Applicants' June 1 and June 29, 1984 reports submitted to the NRC Staff? If your answer is in the negative, state the basis for your conclusion.

78. As reported in the June 1 and June 29 reports, broken bolts on the fuel/lube oil triple clamps have occurred. What fixes or modifications do you believe should be undertaken for these components and why? Describe each such fix or modification in detail and provide the basis for your conclusion.

79. What is the effect of broken bolts on the fuel/lube oil triple clamp bolts on the Catawba diesel generator during an emergency? Do you believe such a failure would prevent the diesel generator from performing its requisite task during an emergency? If so, explain how such a failure would prevent the diesel generator from performing its task during an emergency and provide the basis for your conclusion.

80. Do you agree with the analysis and resolution of the fuel/lube oil triple clamp bolt failures presented in Applicants' June 1 and June 29, 1984 reports submitted to the NRC Staff? If your answer is in the negative, state the basis for your conclusion.

81. As reported in the June 1 and June 29 reports, a turbocharger bracket capscrew failure has occurred. What fixes or modifications do you believe should be undertaken for these components and why? Describe each such fix or modification in detail and provide the basis for your conclusion.

82. What is the effect of a turbocharger bracket capscrew failure on the Catawba diesel generator during an emergency? Do you believe such a failure would prevent the diesel generator from performing its requisite task during an emergency? If so, explain how such a failure would prevent the diesel generator from performing its task during an emergency and provide the basis for your conclusion.

83. Do you agree with the analysis and resolution of the turbocharger capscrew failure presented in Applicants' June 1 and June 29, 1984 reports submitted to the NRC Staff? If your answer is in the negative, state the basis for your conclusion.

84. Do you agree that the Duke Power test and inspection program described in the handouts and meeting notes of Applicants' March 21, 1984 meeting with NRC Staff as well as the April 5, 1984 report submitted to the NRC Staff, entitled "Catawba Nuclear Station Extended Operation Tests and Inspections of Diesel Generation" is adequate to assure that the Catawba diesels are capable of performing their intended function? If the answer is in the negative, state the basis for such a conclusion, specifying the particular aspects of the program which are asserted to be inadequate.

85. Do you agree with the inspection program for the Catawba 1B diesel engine outlined in Applicants' July 6, 1984 letter from Hal B. Tucker to Harold Denton? If the answer is in the negative, state the basis for your conclusion.

86. Do you agree that operation of a piece of equipment for 10 million cycles is equivalent to the operating lifetime of the equipment? If the answer is in the negative, state the basis for your conclusion and the proper number of cycles, if any.

87. Do you agree that after more than 750 hours of operation, the inspection results which indicate no failed crankshaft, no cracked connecting rod-crankpin beaning shells, no connecting rod box cracks, or no

cracked cylinder blocks, also indicate that the Catawba diesels have been demonstrated to be adequate as to these critical components? If your answer is in the negative, state the basis for your conclusion.

88. Do you agree that resolution of the problems experienced during the 10 million cycle extended run of the Catawba diesel generator results in a reliable diesel? If your answer is in the negative, state the basis for your conclusion.

89. Will you testify at the hearing?

90. Will you assist Palmetto Alliance and Carolina Environmental Study Group in the cross examination of Applicants' and the NRC Staff's expert witnesses?

91. Describe your role in this proceeding. Specifically describe how you will assist Palmetto Alliance and Carolina Environmental Study Group.

92. Have you read the meeting notes of Applicants' March 21 meeting of the NRC Staff, Applicants' reports of April 5, June 1 and June 29 and Applicants' letter of July 6, 1984? If not, do you intend to do so prior to the scheduled hearing of August 27, 1984?

93. It has been represented that you are involved in the Shoreham proceeding; have the specific diesel generator engine failures which have occurred at

Catawba occurred at Shoreham? If so please identify the specific items. Are you competent to speak to each such failure? Do you plan to assist Palmetto Alliance and Carolina Environmental Study Group with regard to these items?

94. As to those problems which have occurred at Catawba but have not occurred at Shoreham have you done any evaluation of the Catawba specific problems? If so, please explain. Do you plan to assist Palmetto Alliance and Carolina Environmental Study Group with regard to these matters?

Respectfully submitted,

J. Michael McGarry, III by MDW

J. Michael McGarry, III

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July 18, 1984

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CERTIFICATE OF SERVICE

I hereby certify that copies of "Applicants' Interrogatories and Requests to Produce Documents Directed to Intervenors' Expert Witness (Robert Anderson) on Newly Admitted (Formerly Board) Contention Concerning Certain Catawba Diesel Generator Engine Problems" in the above captioned matter have been served upon the following by deposit in the United States mail this 18th day of July, 1984.

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Washington, D.C. 20555

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