April 8, 1983

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION
BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of UNITED STATES DEPARTMENT OF ENERGY PROJECT MANAGEMENT CORPORATION TENNESSEE VALLEY AUTHORITY (Clinch River Breeder Reactor Plant)	)	Docket No. 50-537

APPLICANTS' NINTH SET OF
INTERROGATORIES TO INTERVENORS,
NATURAL RESOURCES DEFENSE COUNCIL, INC.
AND THE SIERRA CLUB

Pursuant to 10 C.F.R. § 2.740(b), the United States Department of Energy and Project Management Corporation, for themselves and on behalf of the Tennessee Valley Authority (the Applicants), submit the following interrogatories to Intervenors, Natural Resources Defense Council, Inc. and the Sierra Club. These interrogatories must be answered fully, within 14 days, in writing and under oath, by one or more representatives of NRDC or the Sierra Club who have personal knowledge of the matters herein.

Unless otherwise indicated the interrogatories relate to the Clinch River Breeder Reactor Plant design and/or analyses.

In addition to providing the direct answer to each interrogatory, where applicable, please provide the following:

(a) Identify all documents and studies, and the particular parts thereof, relied upon by Intervenors, now or in the past, which serve as the basis for the answer. In lieu thereof, at Intervenors' option, a copy of such document and study may be attached to the answer.

(b) Identify principal documents and studies, and the particular parts thereof, specifically examined but not cited in (a). In lieu thereof, at Intervenors' option, a copy of each such document and study may be attached to the answer.

(c) Identify by name, title and affiliation the primary Intervenor employee(s) or consultant(s) who provided the answer to the question.

(d) Identify the expert(s), if any, which Intervenors intend to have testify on the subject matter questioned, and state the qualifications of each such expert. This answer may be provided for each separate question or for a group of related questions. This answer need not be provided until Intervenors have in fact identified the expert(s) in question or determined that no expert will testify, as long as such answer provides reasonable notice to Applicants.

INTERROGATORIES

Contentions 1, 2 and 3

1. Identify and describe in detail all statements, analyses and conclusions in Chapter 15 of the PSAR with which Intervenors disagree. The response to this interrogatory must

include a detailed description or explanation of all bases for Intervenors' disagreement.

a. As to each such statement, analysis or conclusion, describe all analyses performed by Intervenors which support Intervenors' position.

b. Identify all documents which support Intervenors' response to this interrogatory.

2. Identify all statements, analyses and conclusions in Chapter 15 of the SER with which Intervenors disagree. The response to this interrogatory must include a detailed description or explanation of all bases for Intervenor's disagreement.

a. As to each such statement, analysis or conclusion, describe all analyses performed by Intervenors which support Intervenors' position.

b. Identify all documents which support Intervenors' response to this interrogatory.

3. State whether Intervenors agree that all potential reactor accidents involving the core must involve either reduced heat removal or excessive heat generation or both.

a. If Intervenors disagree, describe in detail the basis for the disagreement and provide a list of all additional conditions other than reduced heat removal or excessive heat generation involved in all potential reactor accidents related to the core.

b. For each category of condition identified above, describe the physical principles which lead Intervenors to conclude that the condition is involved in all potential reactor accidents related to the core.

c. Identify all documents which support Intervenor's response to this interrogatory.

4. State whether Intervenors agree that reduced whole core heat removal could occur in only two ways: (1) reduced primary coolant flow through the core; and/or (2) increased primary coolant temperature at the core inlet. If Intervenors disagree, describe in detail the basis for the disagreement including a description of any additional causes of reduced whole core heat removal.

a. Identify all documents which support Intervenors' response to this Interrogatory.

5. State whether Intervenors agree that the bounding loss of pumping power design basis accident (DBA) is the simultaneous failure of all three pump motors and the subsequent coastdown of all three primary pumps.

a. If Intervenors disagree, describe in detail the basis for the disagreement.

b. If Intervenors disagree, describe in detail the bounding loss of pumping power DBA.

c. Identify all documents which support Intervenors' response to this interrogatory.

6. Describe in detail any failure mode of which Intervenors are aware which would result in the simultaneous seizure of more than one pump in the primary heat transport system.

a. As to each failure mode described above, state whether Intervenors believe that such failure mode is credible.

b. As to any failure mode which Intervenors believe is credible, describe in detail any analysis, testing, or operating experience, or any other data which supports Intervenors' position that such failure mode is credible.

c. Identify all documents which support Intervenors' response to this Interrogatory.

7. State whether Intervenors agree that the CRBRP design basis leak represents loss of a very small fraction of the total core flow and thus does not represent a significant reduction of heat removal capability.

a. If Intervenors disagree, describe in detail the basis for the disagreement.

b. Identify all documents which support Intervenors' response to this interrogatory.

8. State whether Intervenors agree that the bounding DBA for whole core heat removal due to increased core inlet temperature is the complete and instantaneous stoppage of all heat removal from one intermediate heat exchanger (IHX) while the reactor is operating at full power.

a. If Intervenors disagree, describe in detail the basis for the disagreement including a description of any alternative design basis accident due to increased core inlet temperature.

b. As to any alternative design basis accident identified by Intervenors, state whether Intervenors believe such design basis accident is credible and identify any analyses, tests, prior experience or any other data which support Intervenors' position that such design basis accident is credible.

c. State whether Intervenors agree that instantaneous stoppage of intermediate heat transport system (IHTS sodium flow is not physically possible. If Intervenors disagree, describe in detail the basis for Intervenors' disagreement.

d. Identify all documents which support Intervenors' response to this Interrogatory.

9. State whether Intervenors agree that simultaneous mechanical failures of components (pumps, pipes and steam generators) in more than one IHTS loop are not credible.

a. If Intervenors disagree, describe in detail the basis for the disagreement.

b. If Intervenors disagree, describe any analyses, tests, prior experience or any other data which support Intervenors' position that simultaneous mechanical failures of components in more than one IHTS loop are credible.

c. Identify all documents which support Intervenors' response to this interrogatory.

10. State whether Intervenors agree that excessive heat generation requires a reactivity insertion to the reactor.

a. If Intervenors disagree, describe in detail the basis for the disagreement, including a description of any other causes of excessive heat generation.

b. Identify all documents which support Intervenors' response to this interrogatory.

11. State whether Intervenors agree that reactivity can be inserted in only two significant ways: (1) control rod withdrawal and (2) compaction of fuel geometry.

a. If Intervenors disagree, describe in detail the basis for the disagreement, including a description of all other ways in which reactivity can be inserted.

b. Identify all documents which support Intervenors' response to this interrogatory.

12. State whether Intervenors agree that the bounding design basis accident which envelops all fuel movement resulting in excessive heat generation is the instantaneous insertion of the maximum possible reactivity from subassembly duct compaction.

a. If Intervenors disagree, describe in detail the basis for the disagreement, including a description of any alternative design basis accident enveloping all fuel movement resulting in excessive heat generation.

b. Describe in detail all analyses, tests, prior experience or any other data which support Intervenors' alternative design basis accident.

c. Identify all documents which support Intervenors' response to this interrogatory.

13. State whether Intervenors agree that because the core former ring and fuel assembly ducts are passive devices located inside the reactor vessel, human interaction cannot modify or interfere with the behavior of these components during plant operation.

a. If Intervenors disagree, describe in detail the basis for the disagreement, including the ways in which human interaction could modify or interfere with the behavior of these components.

b. Identify all documents which support Intervenors' response to this interrogatory.

14. State whether Intervenors agree that all core-related accidents result from an imbalance between heat removal and heat generation.

a. If Intervenors disagree, describe in detail the basis for the disagreement, including a description of any other ways in which accidents relating to the core could be caused.

b. Describe in detail any analyses, tests, prior experience or any other data which support Intervenors' alternative causes of core-related accidents.

c. Identify all documents which support the Intervenors' response to this interrogatory.

15. Identify and describe all initiators, sequences, and/or events not enveloped by Applicants' design basis accidents that Intervenors believe are: 1) credible and 2) could lead to reduced heat removal from the core or excess heat generation in the core.

a. Describe in detail the basis for any additional initiators, sequences, and/or events which Intervenors believe are credible and which could lead to reduced heat removal from the core or excess heat generation in the core.

b. As to each initiator, sequence, or event described above, state the basis for Intervenors' belief that such initiator, sequence or event is credible.

c. Identify and describe all analyses, tests, prior experience or any other data which support Intervenors' position that such additional initiator, sequence, or event is credible.

d. Identify all documents which support Intervenors' response to this interrogatory.

16. State whether Intervenors agree that the following four (4) categories of design features are necessary and sufficient to prevent initiation of an hypothetical core disruptive accident (HCDA): (1) the reactor shutdown systems; (2) the shutdown heat removal systems; (3) means to prevent primary heat

transport system (PHTS) pipe leaks larger than the design basis leak; and (4) features to prevent local imbalance between heat generation and heat removal.

a. If Intervenors disagree, describe in detail the basis for Intervenors' disagreement, including a description of any additional or alternative design features which Intervenors believe are necessary to prevent initiation of an HCDA.

b. As to each design feature described above, describe in detail the HCDA initiator which the particular feature is meant to prevent.

c. Identify and describe any analyses, tests, or prior experience or any other data which support Intervenors' response to this interrogatory.

d. Identify all documents which support Intervenors' response to this interrogatory.

17. State whether Intervenors agree that the reactor shutdown systems consist of two redundant, diverse, independent, fast-acting shutdown systems.

a. If Intervenors believe that the reactor shutdown systems are not redundant, describe in detail the basis for Intervenors' belief.

b. If Intervenors believe that the reactor shutdown systems are not diverse, describe in detail the basis for Intervenors' belief.

c. If Intervenors believe that the reactor shutdown systems are not independent, describe in detail the basis for Intervenors' belief.

d. If Intervenors believe that the reactor shutdown systems are not fast acting, describe in detail the basis for Intervenors' belief.

e. Describe in detail any criticisms which Intervenors have of the reactor shutdown systems designed for Clinch River.

f. Identify all documents which support Intervenors' response to this interrogatory.

18. State whether Intervenors agree that either of the reactor shutdown systems is capable of shutting down the reactor and preventing HCDA initiation, assuming any single failure within the operable system (including the assumption that the most reactive control rod in the operable system does not insert.)

a. If Intervenors disagree, describe in detail the basis for the disagreement.

b. Identify all documents which support Intervenors' response to this interrogatory.

19. State whether Intervenors agree that the reactor shutdown systems rely on proven technology.

a. If Intervenors disagree, describe in detail the basis for the disagreement, including a description of the technology which Intervenors believe is not already proven.

b. Identify all documents which support Intervenors' response to this interrogatory.

20. State whether Intervenors agree that any one of the four overall Shutdown Heat Removal Systems paths has the capability to independently reject the reactor decay heat.

a. If Intervenors disagree, describe in detail the basis for the disagreement.

b. Identify all documents which support Intervenors' response to this interrogatory.

21. State whether Intervenors agree that anyone of the heat transport system, paths in conjunction with the normal feedwater system or AFWS adequately removes reactor decay heat without the use for operator action.

a. If Intervenors disagree, describe in detail the basis for the disagreement.

b. Identify all documents which support Intervenors' response to the interrogatory.

22. State whether Intervenors agree that the thermal centers of the reactor, the IHXs, the steam generators, and the protected air cobled condensers (PACCs) are at successively increasing elevations.

a. If the Intervenors disagree, describe in detail the basis for the disagreement.

b. Identify all documents which support Intervenors' response to this interrogatory.

23. State whether Intervenors agree that by placing thermal centers of the heat exchanging components at successively increasing elevations in the plant, the three heat transport system paths can remove shutdown decay heat using natural circulation.

a. If Intervenors disagree, describe in detail the basis for the disagreement, including a detailed description of the physical principles which would preclude natural circulation.

24. State whether Intervenors agree that by using the natural circulation capability, along with the turbine driven auxiliary feed water pump, battery-powered instrumentation and control, the shutdown heat removal system capability can be maintained even in the event of loss of all offsite power and loss of all three on-site diesel generators.

a. If Intervenors disagree, describe in detail the basis for the disagreement.

b. Identify all documents which support Intervenors' response to this interrogatory.

25. State whether Intervenors agree that due to the high boiling point of sodium, the use of guard vessels around the primary heat transport system components and elevated piping

outside the guard vessels, the Primary Heat Transport Systems (PHTS) design precludes loss of coolant from the core as the result of PHTS leaks and assures shutdown cooling even if leaks should occur.

a. If Intervenors disagree, describe in detail the basis for the disagreement.

b. Identify all documents which support Intervenors response to this interrogatory.

26. State whether Intervenors agree that the core inlet design precludes the occurrence of an accident similar to that which occurred at Fermi.

a. If Intervenors disagree, describe in detail the basis for the disagreement, including a description of the sequence of events which could lead to a Fermi-type accident at CRBRP.

b. Identify all documents which support Intervenors' response to this interrogatory.

27. State whether Intervenors agree that the direct heat removal system is capable of removing shutdown heat in the event the three heat transport system paths are simultaneously incapable of removing the shutdown heat.

a. If Intervenors disagree, describe in detail the basis for the disagreement.

b. Identify all documents which support Intervenors' response to this interrogatory.

28. State whether Intervenors agree that the four shutdown heat removal system (SHRS) paths are redundant, diverse, and independent.

a. If Intervenors disagree, describe in detail the basis for Intervenors' disagreement that the four SHRS paths are redundant.

b. If Intervenors disagree, describe in detail the basis for Intervenors' disagreement that the four SHRS paths are diverse.

c. If Intervenors disagree, describe in detail the basis for Intervenors' disagreement that the four SHRS paths are independent.

d. Identify all documents which support Intervenors response this Interrogatory.

29. State whether Intervenors agree that because the sodium coolant is maintained during operation at near atmospheric pressure, there is reduction of the internal force acting on the PHTS piping, thus reducing the mechanism that could cause a small piping flaw to grow to become a crack and cause a small crack to develop into a major leak.

a. If Intervenors disagree, describe in detail the basis for Intervenors' disagreement. The response to this interrogatory must include a detailed description of the ways in which Intervenors believe a double-ended pipe rupture could occur.

b. Identify all documents which support Intervenors' response to this interrogatory.

30. State whether Intervenors agree that due to the toughness and ductility of the PHTS stainless steel piping, if a large initial flaw were to exist, there would not be any significant growth of the flaw.

a. If Intervenors disagree, describe in detail the basis for the disagreement.

b. Identify all documents which support Intervenors' response to this interrogatory.

31. State whether Intervenors agree that the leak detection system monitoring the PHTS piping and the cells in which the piping is located can detect leaks as small as 100 grams per hour.

a. If Intervenors disagree, describe in detail the basis for the disagreement.

b. Identify all documents which support Intervenors' response to this interrogatory.

32. State whether Intervenors agree that if a small leak is not detected and corrective action taken, the toughness and ductility of the stainless steel piping, along with the low coolant operating pressure, would limit the maximum crack length and would not result in a double-ended pipe rupture.

a. If Intervenors disagree, describe in detail the basis for the disagreement.

b. Identify all documents which support Intervenors' response to this interrogatory.

33. Identify any instance of which Intervenors are aware of a double-ended pipe rupture in a nuclear power plant using a sodium coolant system.

a. As to any instance described above, identify the nuclear power plant which experienced a double-ended pipe rupture and describe the sequence of events which led to the double-ended pipe rupture and whether the double-ended pipe rupture resulted in any core damage.

b. Identify all documents which support Intervenors' response to this interrogatory.

34. Describe in detail any local imbalance between heat generation and heat removal which Intervenors believe could result in the initiation of an HCDA at CRBRP.

a. Identify all documents which support Intervenors response to this interrogatory.

35. Describe in detail the sequence of events other than an HCDA which Intervenors believe could challenge the containment at CRBRP.

a. As to each such sequence of events, describe in detail the controlling parameter (e.g., temperature, pressure).

b. Identify all documents which support Intervenors' response to this interrogatory.

36. Describe all local fuel faults which Intervenors believe could propagate to whole core involvement.

a. As to each local fuel fault identified above, describe in detail any previous experience in which such a local fuel fault propagated to whole core involvement.

b. Identify all documents which support Intervenors' response to this interrogatory.

37. State whether Intervenors agree that the control rods will react in sufficient time and with sufficient worth to achieve a balance between heat generation and heat removal.

a. If Intervenors disagree, describe in detail the basis for disagreement.

b. Identify all documents which support Intervenors' response to this Interrogatory.

38. State whether Intervenors are aware of any initiators, sequences, or events not included in or enveloped by Applicants' design basis accidents other than HCDAs.

a. Identify all documents which support Intervenors' response to this interrogatory.

39. Describe in detail any inadequacies in Applicants' analysis of core meltthrough following loss of core geometry.

a. Describe any analyses, tests or any other data of which Intervenors are aware which demonstrate that Applicants' analysis is inadequate.

b. Identify all documents which support Intervenors' response to this interrogatory.

40. Describe in detail any inadequacies in Applicants' analysis of the ways in which human error can initiate, exacerbate, or interfere with the mitigation of CRBRP accidents.

a. Identify and describe in detail all human errors which can initiate accidents at CRBRP and which have not been adequately analyzed by Applicants.

b. Identify and describe in detail all human errors which can exacerbate accidents at CRBRP which have not been adequately analyzed by Applicants.

c. Identify all human errors which can interfere with the mitigation of accidents at CRBRP which Applicants have not adequately analyzed.

d. Identiy all documents which support Intervenors' response to this interrogatory.

41. Define the term "reliable data" as used in Intervenors' Contention 1.a.

42. Define the term "sufficiently low" as used in Intervenors' Contention 1.a.

43. Identify and describe all analyses, statements and conclusions contained in Appendix A of the SER with which Intervenors are in disagreement. The response to this interrogatory must include a detailed description or explanation of all bases for Intervenors' disagreement.

a. As to each such analysis, statement, or conclusion, describe all analyses performed by Intervenors which support Intervenors' position.

b. Identify all documents which support the Intervenors' response to this interrogatory.

44. Identify and describe in detail all analyses, statements, and conclusions contained in CRBRP 3, Vol. 1 and Vol. 2 with which Intervenors are in disagreement. The response to this interrogatory must include a detailed description or explanation of all bases for Intervenors' disagreement.

a. As to each such analysis, statement or conclusion, describe all analyses performed by Intervenors which support Intervenors' position.

b. Identify all documents which support the basis for Intervenors' disagreement.

45. Identify all models and computer codes used by Applicants in their analysis of CDAs and their consequences which Intervenors believe have not been adequately documented.

a. As to each computer code identified above, describe in detail the additional categories of the documentation which Intervenors believe would be sufficient.

b. Identify all documents which support Intervenors' response to this interrogatory.

46. Identify all models and computer codes used by Applicants in their analysis of CDAs and their consequences which Intervenors believe have not been adequately verified.

a. Describe in detail the additional experimental data which Intervenors believe are necessary to verify the models or computer codes.

b. Identify all documents which support Intervenors' response to this interrogatory.

47. Identify all models and computer codes used by Applicants in their analysis of CDAs and their consequences which Intervenors believe have not been adequately validated.

a. Describe in detail the additional experimental data which Intervenors believe are necessary to validate the models and/or computer codes.

b. Identify all documents which support Intervenors' response to this interrogatory.

48. Describe in detail the basis for Intervenors' statement in Contention 2.f) that "Applicant's and Staff's safety analyses did not establish that the models accurately represent the physical phenomena and principles which control the response of a CRBR to CDAs".

a. Describe the precise "physical phenomena" referred to in Intervenors' Contention 2.f).

b. Describe the precise "principles" referred to in Intervenors' Contention 2.f).

c. Identify all documents which support Intervenors' contention that the models do not accurately represent the physical phenomena and principles which control the response of CRBRP to CDAs.

d. Identify all documents which support Intervenors' response to this interrogatory.

49. Identify and describe in detail all input data for the computer models and codes used by Applicants which Intervenors believe are not adequately documented.

a. Describe in detail the additional documentation which Intervenors believe is necessary.

b. Identify all documents which support Intervenors' response to this interrogatory.

50. Describe in detail the assumptions for the computer models and codes which Intervenors believe are not adequately documented.

a. Describe in detail the additional documentation which Intervenors believe is necessary.

b. Identify all documents which support Intervenors' response to this interrogatory.

51. Identify all input data for the computer models and codes used by Applicants which Intervenors believe are not adequately verified.

a. Describe in detail the additional data necessary to verify the input data.

b. Identify all documents which support Intervenors' response to this interrogatory.

52. State whether Intervenors agree that the coolant boundary can withstand dynamic loads equivalent to an energetic release of 661 MJs.

a. If Intervenors disagree, describe in detail the basis for the disagreement. The answer to this interrogatory must include a detailed description of the accident sequence which would successfully challenge the coolant boundary at 661 MJs or less.

b. Identify all analyses, tests, or any other data which support Intervenors' response to this interrogatory.

c. Identify all documents which support Intervenors' response to this interrogatory.

53. Identify and describe all sodium/concrete interactions as noted in contention 3.c) which Intervenors believe have not been adequately analyzed.

a. Describe in detail the basis for this contention.

b. Identify all documents which support Intervenors' response to this interrogatory.

54. State whether Intervenors believe that a loss-of-flow (LOF) accident will result in an energetic event.

a. If so, provide the precise sequence of events which will occur during the initiation of such an accident.

b. If so, describe the precise sequence of events which will occur during the meltout phase of the accident.

c. If so, describe the precise sequence of events which will occur during the pool phase of the accident.

d. Describe all analyses, tests, or any other data which support Intervenors' response to this interrogatory.

e. Identify all documents which support Intervenors' response to this interrogatory.

55. State whether Intervenors believe that a transient over power (TOP) accident will result in an energetic event.

a. If so, describe the precise sequence of events of such an accident during the initation phase.

b. If so, describe the precise sequence of events which will occur during the meltout phase of such an accident.

c. If so, describe the precise sequence of events which will occur during the pool phase of such an accident.

d. Identify and describe all analyses, tests, or any other data which support Intervenors' response to this interrogatory.

e. Identify all documents which support Intervenors' response to this interrogatory.

56. Other than an LOF or TOP accident, are Intervenors aware of any other accident sequence which could potentially result in an energetic event?

a. If so, describe the precise sequence of events during the initiation phase of such an accident.

b. If so, describe the precise sequence of events during the meltout phase of such an accident.

c. If so, describe the precise sequence of events during the pool phase of such an accident.

d. Identify all analyses, tests or any other data of which support Intervenors' response to this interrogatory.

e. Identify all documents which support Intervenors' response to this interrogatory.

57. Identify any structural data and/or analyses contained in CRBRP 3 Vol. 1, with which Intervenors disagree.

a. As to any such data or analysis identified above, describe in detail the basis for Intervenors' disagreement.

b. Identify any analyses, tests, or any other data which support Intervenors' position.

c. Identify all documents which support Intervenors' response to this interrogatory.

58. State whether Intervenors agree that, assuming no failure of containment during the initiating phase of an HCDA, containment integrity without venting would be maintained for more than a day following penetration of the reactor vessel and guard vessel.

a. If Intervenors disagree, describe in detail the basis for this disagreement. The answer to this interrogatory must include a detailed description of the sequence of events which would lead to failure of containment integrity after the initiating phase of the accident.

b. Identify and describe all analyses, tests or any other data which support Intervenors' position.

c. Identify all documents which support Intervenors' response to this interrogatory.

59. State whether Intervenors agree that, assuming no failure of containment during the initiating phase of an HCDA, containment capability above the base mat would be maintained indefinitely by controlled venting and purging.

a. If Intervenors disagree, describe in detail the basis for the disagreement. The response to this Interrogatory must include a detailed description of the sequence of events which would lead to the failure of containment integrity.

b. Identify all documents which support Intervenors' response to this interrogatory.

60. State whether Intervenors disagree with any of the equipment qualification requirements described in CRBRP III, Volume 2.

a. If so, describe in detail the basis for Intervenors' disagreement.

b. Describe any alternative requirements which Intervenors believe should be adopted and the basis for the alternative.

c. Identify all documents which support Intervenors' response to this interrogatory.

61. State whether Intervenors believe that any of the features of the Applicants' thermal margin beyond design base clean-up system are inadequate.

a. If so, identify the precise features which Intervenors believe are inadequate and describe in detail the basis for Intervenors' position.

b. Identify and describe any alternative features which Intervenors believe should be incorporated in Clinch River in order to accommodate thermal margins beyond the design base accidents and state the basis for such alternatives.

c. Identify all documents which support Intervenors' response to this interrogatory.

62. Describe in detail any criticisms which Intervenors have of Applicants' analysis of HCDA energetics.

a. As to any criticism identified above, identify and describe any analyses, tests, prior experience, or any other data which support Intervenors' criticism.

b. Identify all documents which support Intervenors' response to this Interrogatory.

63. Describe in detail any criticism which Intervenors have of Applicants' analysis of sodium concrete reaction contained in CRBRP III, Vol. 2.

a. As to any such criticism, identify and describe any analyses, tests, prior experience, or any other data which support Intervenors' criticism.

b. Identify all documents which support Intervenors' response to this Interrogatory.

64. Describe in detail any criticisms which Intervenors have of Applicants' analysis of the radiological consequences resulting from an HCDA at CRBRP containe din CRBRP 3, Vol. 2.

a. As to any such criticism, describe in detail any analyses, tests, prior experience, or any other data which support Intervenors' criticism.

b. Identify all documents which support Intervenors' response to this interrogatory.

65. Describe any criticisms which Intervenors have of Applicants' aerosol behavior calculations contained in CRBRP 3 Vol. 2.

a. As to any such criticism, describe in detail any analyses, tests, prior experience or any other data which support Intervenors' criticism.

b. Identify all documents which support Intervenors' response to this interrogatory.

66. Describe the term "environmental conditions" as used in Intervenors' contention 10.

a. Describe the precise environmental conditions which Intervenors' believe will prevent the CRBRP from maintaining safe cold shut-down and containment integrity.

67. Identify any experts Intervenors intend to call as witnesses in support of Contentions 1, 2, 3.

a. As to each such expert, provide the following information: (1) educational background; (2) employment background; (3) a listing of all hearings in which the expert has testified as a witness concerning accident analysis of nuclear power plants; (4) a listing of all articles, books, studies or other documents prepared by the expert on accident analysis at nuclear power plants.

68. With regard to Dr. Thomas Cochoran, provide the information requested in Interrogatory 66.

69. Identify all documents which Intervenors intend to introduce into evidence at the construction permit hearings.

George L. Edgar
Attorney for
Project Management Corporation

William D. Luck
Attorney for
Department of Energy