

June 18, 1982

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

Before Administrative Judges:
Marshall E. Miller, Chairman
Gustave A. Linenberger, Jr.
Dr. Cadet H. Hand, Jr.

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

RESPONSE OF INTERVENORS, NATURAL RESOURCES
DEFENSE COUNCIL, INC. AND THE SIERRA CLUB,
TO APPLICANTS' REQUEST FOR ADMISSIONS AND INTERROGATORIES
DATED JUNE 4, 1982

Pursuant to 10 CFR §2.740b, and in accordance with the Board's Prehearing Conference Order (Schedule) of February 11, 1982, Intervenor, Natural Resources Defense Council, Inc. and the Sierra Club, hereby respond to Applicants' Request for Admissions and Interrogatories, dated June 4, 1982.

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A. REQUEST FOR ADMISSIONS

1. The only portion of the PSAR which Intervenors believe constitutes a concession that the containment design is insufficient if conservative estimates are used in CDA analyses is the "existence of the Parallel design (since withdrawn)." See Intervenors' Update to Applicants' First Set of Interrogatories at 8.

RESPONSE

Intervenors admit this statement based upon our review to date. Intervenors note that it is the information in the Parallel design, not just the existence of the Parallel design, that Intervenors believe constitutes a concession that the confinement design is insufficient if conservative estimates are used in the CDA analysis. There are many assumptions in the PSAR and referenced documents that Intervenors believe are not conservative or not sufficiently conservative. While we believe the containment design would be demonstrated to be insufficient if these more conservative assumptions were made, we are not aware that the Applicants would concede this.

2. Intervenors can identify no specific accident initiators, sequences or events which should be included within the spectrum of design basis accidents.

RESPONSE

Intervenors deny this statement. Applicants and Staff have identified initiators which Intervenors believe should be within the design basis. CRBPP-1 and CRBRP-3 also identify initiators that should be within the design basis, such as unprotected LOF and TOP events. We would also include station blackout, sabotage, and earthquakes as major contributors to the overall probability of CDA initiation. Intervenors are presently reviewing responses to discovery, PSAR, and ACRS transcripts to complete their analysis. Intervenors cannot be more specific in part because the Board has disallowed discovery on CRBRP-1.

3. Intervenors cannot identify, and have no knowledge of the specific meteorological parameters for CRBRP, including wind speed, inversion conditions, frequency and other pertinent meteorological parameters, which Intervenors consider to be sufficiently unfavorable that an alternative site should be selected.

RESPONSE

Intervenors deny this statement. The meteorological parameters specified by Applicants in the ER and by the Staff in the FES are sufficiently unfavorable.

4. Intervenors cannot identify and have no knowledge of the specific value of each particular meteorological parameter for CRBRP, including wind speed, inversion conditions, frequency, and other pertinent meteorological parameters which Intervenors consider to be minimally acceptable for CRBRP.

RESPONSE

Intervenors cannot admit or deny this statement. This statement implies that Intervenors view their Contention 5 as requiring a minimally acceptable level for each meteorological parameter. Intervenors believe that the doses to individuals at each site should be compared, not individual meteorological parameters.

5. There is an extensive base of LMFBR design, construction and operating experience which has been developed over the last 28 years, both in the U.S. and in other countries, which is available for use in the safety evaluation of CRBRP technology.

RESPONSE

Intervenors deny this statement. Intervenors do not believe the LMFBR design, construction and operating experience is extensive, particularly in the U.S. Intervenors deny that all foreign LMFBR experience is available for use in the safety evaluation of CRBRP technology, since much of it is proprietary.

6. It can be safely concluded that HCDAs can be excluded as design basis events considering this extensive LMFBR technological base in conjunction with the preventive design features included in the CRBRP.

RESPONSE

Intervenors deny this statement. Intervenors do not believe the LMFBR technological base is extensive and do not believe the CRBRP preventive design features are sufficient to exclude CDAs as design basis events.

7. ANL-RDP-23; ANL Monthly Progress Reports, December 1973; SAND76-0273; NUREG-766501, July 1976; and the Applicants' computed results provide evidence that fuel axial expansion occurs even during power transients.

RESPONSE

Intervenors cannot admit or deny this statement. Intervenors have not reviewed the ANL and Sandia progress reports. NRC Publications has no record of NUREG-766501. In any case, even if axial fuel expansion is discussed, Intervenors believe these documents would provide evidence only that fuel axial expansion may occur during some power transients. See answer to Request for Admission #9 below.

8. There are relatively slow power changes occurring during the initial period of an LOF event.

RESPONSE

Intervenors admit this statement if by "initial period" Applicants mean "first few seconds," and if the LOF event is unprotected (failure to scram).

9. During an LOF event, the early fuel axial expansion is a prompt negative feedback that can alter the energetics of the event as documented in Section 7.2.3 in CRBRP-GEFR-00523 and Section 7.2.2.3 in CRBRP-GEFR-00103.

RESPONSE

Intervenors deny this statement. Early fuel axial expansion is not documented in Section 7.2.3 of CRBRP-GEFR-00523. See also Section 3.1.4.1.1 of NUREG-0122, which states that "[t]he axial expansion process has not been studied thoroughly enough to justify its full utilization in accident analysis at the present time."

10. Intervenors have no evidence that axial fuel expansion will not occur on the time scales required to alter the energetics of an LOF event.

RESPONSE

Intervenors admit this statement as phrased. Intervenors, however, do not believe that Applicants should take credit for axial fuel expansion in their accident analysis since Applicants and Staff cannot predict with high confidence that it will significantly affect the course of events. See NUREG-0122.

11. In terms of the pressure pulse applied to the head under an HCDA load, the upper internals structure would attenuate the loads.

RESPONSE

Intervenors admit this statement without admitting that the degree of attenuation would be significant or that Applicants should take credit for attenuation in their accident analyses.

12. In light of Admission 11, neglecting the upper internal structure provides a conservative representation of the loads on the reactor closure head.

RESPONSE

Intervenors admit this statement to the extent that neglecting the upper internal structure may make calculations of loads smaller than otherwise, but do not admit that Applicants' accident analyses are conservative or that neglecting the upper internal structure would provide a significant conservatism.

13. The shear ring is capable of retaining the reactor vessel head for the 661 megajoule HCDA case with a substantial margin to failure.

RESPONSE

Intervenors deny this statement. See letter from Bunl to Boyd, dated Aug. 16, 1976; letter from Thomas P. Speis to Dr. Dade W. Moeller, dated Dec. 7, 1976; and letter from Paul S. Check to John R. Longenecker, dated June 9, 1982.

14. All changes in reactor vessel and core design relevant to accident modeling have been included in Applicants' accident modeling.

RESPONSE

Intervenors cannot admit or deny this statement. Intervenors do not understand what Applicants mean by "accident modeling." For example, CRBRP-1 and CRBRP-3 are based upon analyses of the homogenous core.

15. The only technical bases for Intervenors' contention that HCDAs are credible events are those listed in Intervenors' response to Interrogatory 3(f) of Applicants' Fourth Set of Interrogatories.

RESPONSE

Intervenors deny that the technical bases referred to are the only technical basis for Intervenors' contention that CDAs

are credible. With the exception of sabotage, which should also be included, they state the broad outlines of Intervenor's case, which will be fleshed out with further technical arguments and reasoning. Intervenor also note that their contention refers to CDAs, not HCDAs, since Intervenor are referring to credible accidents as well as hypothetical ones.

16. Intervenor have not performed any analysis which substantiates the claim that Applicants have not adequately considered in the radiological source term analysis the environmental conditions in the reactor containment building created by the release of substantial quantities of sodium.

RESPONSE

Intervenor deny this statement. Intervenor have analyzed the PSAR and many technical documents involved in this case. Intervenor do not believe that 1,000 pounds of sodium is an adequate design basis assumption for CDAs.

17. Intervenor cannot identify and have no knowledge of any environmental conditions in the reactor containment building created by the release of substantial quantities of sodium which were not adequately considered in the radiological source term analysis.

RESPONSE

Intervenors deny this statement. Those environmental conditions include sodium spray and pool fires, combined with sodium-concrete interactions. See FES, p. 7-7. Intervenors do not believe Applicants will sufficiently protect against these conditions unless CDAs are included within the design basis envelope.

18. Intervenors have no factual basis for the claim that Applicants have not adequately considered in the radiological source term analysis the environmental conditions in the reactor containment building created by the release of substantial quantities of sodium.

RESPONSE

Intervenors deny this statement. Intervenors' factual basis for this claim is that Applicants have not considered these environmental conditions in their site suitability source term accident analysis at all.

19. Intervenors agree with the leak rate assumptions appearing on III-19 of the SSR for the assumed core fraction released to the containment.

RESPONSE

Intervenors have not performed an analysis which would lead them to accept or challenge the leak rate assumptions for the

assumed source term utilized in SSR Table III-19. As Intervenors have previously stated, however, we believe that the source term should be larger and include environmental conditions associated with the release of substantial quantities of sodium. These sodium quantities would affect the leak rate due to overpressurization and could also reduce the filter efficiencies.

20. Intervenors have no technical basis for concluding that "filters will [not] perform at the stated efficiencies in an environment where large quantities of sodium have been released and sodium and hydrogen combustion have taken place." Intervenors' Response to Interrogatory 3(j) of Applicants' Fourth Set of Interrogatories.

RESPONSE

Intervenors deny this statement. The accidental fires at the Rocky Flats Plant in 1957 and 1969 resulted in filter efficiency failures (see FES - Rocky Flats Plant Site, DOE/EIS-0064, Vol. 1 of 3, April 1980, p. 3-53). Intervenors recall seeing other documentation on this issue but have not yet been able to retrieve such documents.

21. Intervenors have no technical basis for concluding that venting is an unacceptable method of accommodating HCDAs.

RESPONSE

Intervenors deny this statement. Intervenors believe the unacceptability of venting is one of the lessons learned from the TMI-2 accident, including the controversy over venting of Kr-85 from the TMI-2 containment and the Commission's proposed rule on interim hydrogen control (45 Fed. Reg. 62281, Dec. 23, 1981) (Cf., Kendall, et al., "Statement of Union of Concerned Scientists on the Three Mile Island Krypton Gas Venting," May 14, 1980).

22. Intervenors' sole basis for concluding that Applicants have not adequately analyzed all accidents associated with core meltthrough following loss of core geometry and sodium-concrete interactions is that Applicants have not treated HCDAs as DBAs.

RESPONSE

Intervenors deny this statement. Intervenors do not believe the behavior of sodium concrete interactions, coolant boiling, sodium (e.g., spray) fires, and aerosol behavior are sufficiently well understood (Cf., Transcript of ACRS Meeting, May 25, 1982); Breitung, et. al., "Foreign Attaches Quarterly Progress Report," May 1-Aug. 31, 1981. Intervenors do not believe current models and understanding are sufficient to confidently predict events in these areas. Intervenors do not believe CRBR should be built with limestone concrete from the Clinch River area.

23. Intervenors cannot identify and have no knowledge of any population characteristics of the CRBR site which Intervenors believe are sufficiently unfavorable that an alternative site should be selected.

RESPONSE

Intervenors deny this statement. Intervenors are aware from discussions in the ER and FES that other sites (e.g., Hanford, INEL, and NTS) have more favorable population characteristics. See generally Intervenors' Answers to Interrogatories related to NRDC Contention 5 (formerly NRDC 6) of NRC Staff First Round of Discovery to NRDC, et. al.

24. The only alternative sites which Intervenors believe have population densities which are more favorable than the population density of the CRBR are Hanford Reservation and Idaho National Engineering Laboratory.

RESPONSE

Intervenors deny this statement. Amchitka and other sites also have more favorable population densities. It is not Intervenors' responsibility to conduct an adequate alternative site review. We attempted to list as alternatives DOE sites we wished to have considered and which we believe represent preferred sites to the CRBR site.

25. Intervenors have not analyzed and have no knowledge of the population densities of Hanford Reservation or Idaho National Engineering Laboratory.

RESPONSE

Intervenors deny this statement. See FES, p. 9-11. See also Final Environmental Statement, Waste Management Operations, Hanford Reservation, Richland, Washington, Sec. II.3.2 (Dec. 1975); Final Environmental Impact Statement, Waste Management Operations, Idaho National Engineering Laboratory, Idaho, Sec. II.C.2 (Sept. 1977).

26. The only "new knowledge" referred to in Contention 11 (Old 8) is contained ICRP26, ICRP30, 40 CFR Section 190.10 and EPA 520/4-77-016.

RESPONSE

Intervenors deny this statement. These were cited as examples only. Other new knowledge can be expected to be identified as we continue to prepare our case.

27. The only "recently discovered omissions" referred to in Contention 8 (Old 14) are the analyses of Nickel-59 and Niobium-94.

RESPONSE

Intervenors deny this statement. These are the only "recently discovered omissions" currently known to the Intervenors. There may be others, however.

28. The only neutron activation products referred to in Contention 8 (Old 14) are Nickel-59 and Niobium-94.

RESPONSE

Intervenors deny this statement. We refer to "all neutron activation products" in Contention 8d, not just Nickel-59 and Niobium-94.

29. Intervenors have not analyzed and have no knowledge of the environmental conditions which they believe should be considered in the radiological source term analysis.

RESPONSE

Intervenors deny this statement. Intervenors are generally aware of the environmental conditions that would occur following an energetic CDA that breached the reactor vessel (e.g., through head seal leakage), or following a whole core fuel melt CDA that would melt through the reactor vessel. These conditions are generally described in documents such as CRBRP-1 and CRBRP-3 and in testimony before the ACRS. (See Transcript of ACRS Subcommittee on CRBR, May 24 - 25, 1982.)

30. Intervenors have no basis for the conclusion that any relevant or necessary environmental conditions were not considered in the radiological source term analysis.

RESPONSE

Intervenors deny this statement. See NUREG-0786, Site Suitability Report in the Matter of Clinch River Breeder Reactor Plant (Revision to March 4, 1977 Report).

31. Intervenors have not analyzed and have no knowledge of the maximum credible sodium release following a HCDA.

RESPONSE

Intervenors deny this statement. The maximum credible sodium release is approximately 1-1.2 million pounds of sodium. (See generally CRBRP-1 and CRBRP-3).

32. Intervenors' sole objection to Applicants' and Staff's accident analysis is that HCDAs are not included as DBAs.

RESPONSE

Intervenors deny this statement. The contentions speak for themselves.

33. Intervenors agree with Applicants' analysis of accidents which are included within the design base.

RESPONSE

Intervenors deny this statement. Intervenors believe that some of the accidents analyzed by Applicants as within the design basis could lead to CDAs, e.g., LOF initiators, loss of AC power, and earthquakes. Intervenors of course do not agree with Applicants' definition of the DBA envelope.

34. Intervenors have not developed and cannot identify the specific acceptance criteria which Intervenors contend must be utilized to assure that core meltthrough accidents are adequately analyzed.

RESPONSE

Intervenors deny this statement. One criterion would be to treat CDAs as design basis accidents. For example, Applicants should modify General Design Criterion 41 to include "CDAs involving full core melt with reactor vessel melthrough and CDAs involving energetics in excess of the reactor vessel design basis" as examples of the "postulated accidents" referred to on line 8 of Criterion 41.

35. The only meteorological parameters or factors which must be utilized in evaluating site meteorology are wind speed and inversion conditions.

RESPONSE

Intervenors deny this statement. One must evaluate all the parameters necessary to conservatively predict the movement of radionuclides from the reactor to the points on the site boundary and beyond. For example, wind and particle motion must be treated as vector rather than scalar quantities.

36. Intervenors cannot identify and have no knowledge of any sites with more favorable wind speed and inversion conditions than the CRBR site.

RESPONSE

Intervenors deny this statement. Staff has indicated that the atmospheric dispersion of the three alternative sites

(Hanford, Savannah River, and INEL) are superior to that at the Clinch River site (FES p. 9-11). A reasonable inference from this statement is that the wind speed and inversion conditions at such sites are superior to the Clinch River site.

37. Intervenors have not analyzed and cannot identify any meteorological disadvantages of the CRBR site.

RESPONSE

Intervenors deny this statement. See answer to Request for Admission 36.

B. INTERROGATORIES

1. For each statement in the foregoing Request for Admissions which you deny, provide the following information: the specific portion of the statement which is not admitted and the documents (if any) and witnesses (if any) which provide the basis for your disagreement with the statement.

RESPONSE

The answer to this Interrogatory is provided under each Request for Admission above that Intervenors deny.

2. For each statement in the foregoing Request for Admissions which you can neither admit nor deny, provide the following information:

- a. The portion of the statement which is not admitted, and the basis for your inability to either admit or deny the statement.
- b. If the basis is that you have not completed your analysis, please describe in detail the nature of the analysis being undertaken, the person(s) performing the analysis, the preliminary results of the analysis, if any, and the date when you expect to complete your analysis.

RESPONSE

The answer to this Interrogatory is provided under each Request for Admission above that Intervenors can neither admit nor deny.

3. If not provided in response to Interrogatory 2.c. above, please provide the following information with regard to the "analysis" referred to by NRDC in response to Interrogatory 3(c) of Applicants' Fourth Set of Interrogatories to Intervenor: a detailed description of the nature of the analysis, any preliminary results of the analysis, the person(s) performing the analysis, the date when Intervenor expects the analysis to be completed, and if the analysis is complete, provide the results of the analysis including all assumptions made in performing the analysis, all data or information used in performing the analysis and identify all documents relating to or referring to such analysis.

RESPONSE

The nature of Intervenor's analysis is a review of the PSAR and other documents forming a part of this case, to the extent they are not outside the limits of discovery according to the Board's Order. The preliminary results of our analysis have been set out in Intervenor's response to Interrogatory 3(c) of Applicants' Fourth Set of Interrogatories to Intervenor. Dr. Cochran is performing the analysis. Intervenor is attempting to complete their analysis in accordance with the Board's Order of February 11, 1982.

4. In response to Interrogatory 3(d) of Applicants' Fourth Set of Interrogatories, Intervenor make the following statement:

Intervenors believe such bounding releases would lead to very different assumptions regarding the environmental conditions in the reactor building, primarily due to the assumptions that substantially more than 1000 lbs. of sodium would be released.

With regard to this statement, please provide the following information:

- a. a detailed description of the "very different assumptions" referred to in the statement, and with regard to each such assumption, state the technical and/or factual basis for the assumption, and identify all documents which Intervenor believe support each assumption.
- b. Describe in detail the basis for the "assumption that substantially more than 1000 lbs. of sodium would be released", and identify all studies, analyses, reports or any documents which support the statement.

RESPONSE

4.a. Applicants' and Staff's site suitability source term analysis does not consider the pressure, temperature, and aerosol conditions in the containment that would be associated with releases of substantial quantities of sodium from the reactor vessel as could occur in CDAs. These conditions are generally, although not necessarily accurately, completely, or conservatively, described in CRBRP-1 and CRBRP-3.

4.b. CRBRP-1 and CRBRP-3, Vol. 2, contain analyses assuming a much greater release of sodium than 1000 pounds. See Transcript of Deposition of Applicants, June 16, 1982.

5. In response to Interrogatory 3(h) of Applicants' Fourth Set of Interrogatories, Intervenors make the following statement:

The principal issue is the percentage of fission product and fuel (other than noble gases and halogens) that should be considered as part of the source term.

With regard to this statement, please provide the following information:

- a. State the percentage of fission product and fuel (other than noble gases and halogens) that Intervenors believe should be considered as part of the source term.
- b. Describe in detail the technical and/or factual basis for the percentage including any analysis undertaken by Intervenors to arrive at this percentage and the person(s) who performed this analysis.
- c. Identify all studies, analyses or reports which support the percentage.

RESPONSE

5.a. Approximately 20% of the fuel and nonvolatile fission products.

5.b. A review of CRBRP-1 and CRBRP-3 provides some of the basis for this percentage. EBR-II Hazards Summary Report provides an even greater percentage of plutonium (i.e., 50%). Intervenors believe 20% of fuel and nonvolatile fission products provides a sufficient margin of conservatism. Dr. Cochran performed the analyses.

5.c. See answer to 5.b. above.

6. In response to Interrogatory 3(j) of Applicants' Fourth Set of Interrogatories, Intervenors make the following statement:

To date Intervenors have not performed any analyses that would lead them to challenge the leak rate assumptions appearing on p. III-19 of the SSR for the assumed core fraction released to containment.

With regard to this statement, please provide the following information:

- a. State whether Intervenors intend to challenge the leak rate assumptions referred to in the statement and if so, provide the basis for the challenge to the leak rate assumptions including any analyses, reports, or studies supporting Intervenors' challenge.

RESPONSE

6.a. Intervenors do intend to challenge these assumptions. The primary basis for this challenge is that these assumptions are not valid under environmental conditions associated with the release of substantial quantities of sodium. Supporting documents include CRBRP-1 and CRBRP-3.

7. In response to Interrogatory 3(j) of Applicants' Fourth Set of Interrogatories, Intervenors make the following statement:

We question whether Staff/Applicants have demonstrated that the filters will perform at the stated efficiencies in an environment where large quantities of sodium have been released and sodium and hydrogen combustion have taken place. Intervenors believe that venting is an unacceptable method of accommodating severe CDAs.

With regard to this statement, please provide the following information:

- a. Describe in detail the technical and/or factual bases which lead Intervenors to question whether "the filters will perform at the stated efficiencies ..." including a description of any analysis undertaken by Intervenors which leads you to question the efficiency

- of the filters and the identity of the person(s) who performed such an analysis.
- b. Identify any studies, reports, or analyses which lead Intervenors to question the efficiency of the filters.
 - c. Describe in detail the technical and/or factual basis for Intervenors' belief "that venting is an unacceptable method of accommodating severe CDAs" including a description of any analysis undertaken by Intervenors which supports your belief that "venting is an unacceptable method of accommodating severe CDAs," and the identity of the person(s) performing such analysis.
 - d. Identify all analyses, studies, or reports which support Intervenors' belief that "venting is an unacceptable method of accommodating severe CDAs."
 - e. Define the phrase "severe CDAs."

RESPONSE

7.a. Technical and/or factual bases for this statement include the fact that Applicants have provided no evidence to support their claim that the filters will perform at the stated efficiencies given a core disruptive accident.

7.b. See Transcript of Meeting, ACRS Subcommittee on CRBR, May 25, 1982, p. 452. Intervenors also believe that Applicants' proposed venting of the containment is a concession that the filters will not perform at the stated efficiencies.

7.c. See response to Request for Admission #21.

7.d. See response to Request for Admission #21.

7.e. "Severe CDAs" in the context of our response to Interrogatory 3(q) means CDAs involving the release of substantial quantities of sodium that would in turn result in pressure, temperature, or other conditions which would exceed the design capability of the containment in the absence of venting.

8. In response to Interrogatory 4(c) of Applicants' Fourth Set of Interrogatories, Intervenors state that "our analysis is incomplete. ..." With regard to this statement, please provide the following information.

- a. Describe in detail the nature of the analysis you are conducting, including all assumptions made in performing the analysis, all data or information used, any preliminary results of the analysis, the person(s) performing the analysis, and the date when Intervenors expect the analysis to be completed.
- b. If the analysis is complete, provide the results of the analysis and identify any documents which describe the analysis or the final results.

RESPONSE

8.a. Intervenors' analysis consisted of reviewing CRBRP-1 and other probabilistic risk assessments performed by Applicants and Staff. This review and associated discovery has been deferred until the CP stage by the Board's Order of April 22, 1982. Our preliminary results are that a CDA should be within the design basis spectrum.

8.b. Not applicable.

9. In light of Intervenors' response to Interrogatory 3-3.c. of NRC's 1st Round of Discovery in which Intervenors state that they have not yet developed scientific acceptance criteria to be used in judging the adequacy of core meltthrough accident analyses, explain the basis for Intervenors' Contention 3c which states that accidents associated with core meltthrough following loss of core geometry and sodium-concrete interactions have not been adequately analyzed.

RESPONSE

9. Intervenors have developed such criteria in a preliminary manner. See response to Request for Admission #34.

10. In response to Interrogatory 6(a) of Applicants' Fourth Set of Interrogatories, Intervenors make the following statement:

On the basis of additional analysis, Intervenor would modify the conclusion on p. 13 of that document in the following respects.

With regard to this statement, please provide the following information:

- a. Describe in detail the "additional analysis" referred to in the statement, including a description of any assumptions made, any data or information used, identify any documents relied upon and identify the person(s) who performed the analysis.

RESPONSE

10.a. The additional analysis includes a review of the documents cited in response to Interrogatory 6(a) of Applicants' Fourth Set of Interrogatories to Intervenor. Dr. Cochran performed the analysis. Intervenor have also analyzed the comments of the NRC Staff and DOE.

11. In response to Interrogatory 6(a) of Applicants' Fourth Set of Interrogatories, Intervenor make the following statement:

Regarding the ICRP Publication 26 approach, Intervenor currently believe the weighting factors and organ dose limits ("caps" to prevent non-stochastic effects) recommended by EPA should be used rather than those recommended by ICRP 26.

With regard to this statement, please provide the following information:

- a. Describe in detail all factors leading intervenors to believe that the EPA weighting factors and organ dose limits should be used rather than those recommended by ICRP 26. The answer to this interrogatory should identify all reports, studies, or analyses which support intervenors' belief.
- b. Identify all documents relating to or referring to the weighting factor or organ dose limits recommended by EPA and those recommended by ICRP 26.

RESPONSE

11.a. The Environmental Protection Agency is responsible for Federal radiation protection guidance, not the ICRP. Intervenors' preliminary view is that EPA's weighting factors represent more conservative assumptions more in line with the NRC's reactor safety philosophy. EPA's organ dose "caps" to prevent non-stochastic effects are clearly more conservative.

11.b. These documents include Letter from Nunzio J. Palladino to Ms. Ann McGill Gorsuch, dated July 24, 1981, (enclosing NRC comments on the proposed "Federal Radiation Protection Guidance for Occupational Exposure" (46 Fed. Reg. 7836)); Department of Energy Testimony at EPA Public Hearings, April 20-23, 1981, presented by David E. Patterson; Letter from Stephen H. Greenleigh, DOE, to Director, Criteria and Standards Division (ANR-490), EPA, dated July 10, 1981, (re: Docket No. A-79-46).

Respectfully submitted,

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