

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

NRC STAFF'S UPDATED ANSWERS TO NATURAL RESOURCES
DEFENSE COUNCIL, INC. AND THE SIERRA CLUB NINTH SET OF
INTERROGATORIES TO NUCLEAR REGULATORY COMMISSION STAFF

Pursuant to the Licensing Board's Prehearing Conference Order of February 11, 1982, the Nuclear Regulatory Commission Staff (Staff) hereby updates its June 15, 1976 response to Intervenor's Natural Resources Defense Council, Inc., and the Sierra Club Ninth Set of Interrogatories to the Nuclear Regulatory Commission Staff filed on May 7, 1976.

Attached hereto are the Staff's answers to NRDC's and the Sierra Club's interrogatories, together with the affidavit of Mr. Jerry J. Swift.^{1/}

On March 4, 1982, the parties in this proceeding developed a Protocol for Discovery. NRDC has requested that answers to interrogatory questions be provided in six parts. The following six parts are:

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

^{1/} The affidavit of Mr. Jerry Swift is unsigned. However, a copy of his signed, notarized affidavit will be filed shortly.

- C) Identify principal documents and studies, and the particular parts thereof, specifically examined but not cited in (b). In lieu thereof, at Staff's option a copy of each such document and study may be attached to the answer.
- D) Identify by name, title and affiliation the primary Staff employee(s) or consultant(s) who provided the answer to the question.
- E) Explain whether the Staff is presently engaged in or intends to engage in any further, ongoing research program which may affect the Staff's answer. This answer need be provided only in cases where the Staff intends to rely upon ongoing research not included in Section 1.5 of the PSAR at the LWA or construction permit hearing on the CRBR. Failure to provide such an answer means that the Staff does not intend to rely upon the existence of any such research at the LWA or construction permit hearing on the CRBR.
- F) Identify the expert(s), if any, which the Staff intends 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 the Staff has in fact identified the expert(s) in question or determined that no expert will testify, as long as such answer provides reasonable notice to Intervenor.

For all the responses to interrogatories in this set the following are the answers to the requested parts in the Protocol for Discovery.

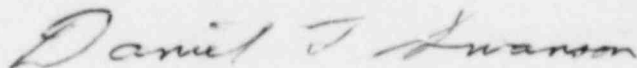
- B) All documents and studies, and the particular parts thereof, relied upon by the Staff now or in the past which serve as the basis for the answer are mentioned in the direct answer to the question unless otherwise noted.
- C) There were no principal documents and studies specifically examined but not cited in (b) unless otherwise noted.
- D) The name, title and affiliation of the Staff employee(s) or consultant(s) who provided the answer to the question are available in the affidavits.
- E) The Staff is not presently engaged in nor intends to engage in any further, on-going research program

which may affect Staff's answer unless otherwise noted.

- F) At this time, the Staff has not determined who will testify on the subject matter questioned. Reasonable notice will be given to all parties after the Staff has made this determination. At that time, a statement of professional qualifications will be provided for each witness.

In the April 14, 1982 Order Following Conference with Parties, the Licensing Board renumbered NRDC's contentions. When an old contention number appears in the interrogatory question or answer, the new contention number will be indicated in parentheses.

Respectfully submitted,

A handwritten signature in cursive script that reads "Daniel T. Swanson".

Daniel T. Swanson
Counsel for NRC Staff

Dated at Bethesda, Maryland
this 27 day of April, 1982

NRC STAFF'S ANSWERS TO NRDC'S
AND THE SIERRA CLUB'S INTERROGATORIES

The following interrogatories are related to Contention 6
(renumbered as 5):

Interrogatory 8

In a letter of October 31, 1974 from R.P. Denise to P. S. Van Nort, Mr. Denise stated:

"Based on our experience with other reactor types of this size, we anticipate that it will be difficult to meet calculated dose limits with the design presented in the Reference Design Report because of the poor meteorological conditions and the site size."

a) Does the Staff believe this statement is still valid when applied to the current designs (Reference and Parallel) described in the PSAR? Explain in detail the basis for the answer.

b) Does the Staff still believe the meteorological conditions at the site are poor?

Response

A) The staff does not believe the statement is still valid, because the proposed design of the CRBR containment has been changed significantly since the statement was written. Although the staff will be continuing its review of the design for some time, it is the staff's preliminary judgment that the currently proposed design has the potential for appreciably better containment of airborne radioactivity than the design to which Mr. Denise referred in his letter of October 31, 1974.

As indicated in NRC's responses to the Interrogatories 1. through 7. of this Ninth Set, more recent meteorological data have shown conditions

to be more favorable than believed when the October 31, 1974 letter was written. The conditions at the CRBR site are better than some where LWRs have already been permitted or licensed, and are comparable to those of LWR sites in the general region.

Interrogatory 10

In an August 27, 1975 letter from Themis Speis to P. Van Nort, the following statement is made:

"It appears from these comparisons that the CRBP site will be acceptable from a radiological dose standpoint only if a considerably smaller source than has been used for water reactors, FFTF and HTGRs can be justified, or if engineered safety features are incorporated to attenuate the source."

- a) Does the Staff still agree with this conclusion based on more recent comparisons? Explain fully the basis for the answer.
- b) Compare in the context of the statement above the CRBR source term currently considered by the Staff with that of the FFTF and HTGR.
- c) What unusual engineering safety features are being considered to attenuate the source?

Response

A) The conclusion was reasonable when it was written in August 1975. Since then the proposed CRBR plant design has been modified to incorporate engineered safety features (for better containment) to attenuate the source. Therefore, the staff considers the quoted statement no longer appropriate.

The CRBR source term currently considered by the Staff is that designated the Site Suitability Source Term in the Final Environmental Statement, NUREG-0139, 1977. It is comparable in percentage of core inventory of radionuclides to those for LWRs, FFTF and HTGRs. With the

currently proposed engineered safety features, it appears that the CRBR site will be acceptable from a radiological dose standpoint. The currently proposed CRBR containment design has no engineered safety features that are particularly unusual.

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My Commission expires: _____