

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

Nunzio J. Palladino, Chairman
Victor Gilinsky
John F. Ahearne
Thomas M. Roberts
James K. Asselstine

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In the Matter of

UNITED STATES DEPARTMENT OF ENERGY
PROJECT MANAGEMENT CORPORATION
TENNESSEE VALLEY AUTHORITY

(Clinch River Breeder Reactor
Plant)

Docket No. 50-537
(Exemption request
under 10 CFR 50.12)

MEMORANDUM AND ORDER
(CLI-82-22)

On July 14, 1982, Intervenors Natural Resources Defense Council, Inc. and the Sierra Club (Intervenors) filed a "Petition For Investigation" with the Commission.^{1/}

Intervenors' Petition contains allegations which if true, would bear on the Applicants' application for a license.^{2/} In view of the seriousness of Intervenors' allegations, the Commission on July 21, 1982 issued an order which directed the Department of Energy (DOE) for itself and on behalf of its co-applicants, to respond to the Intervenors'

^{1/} Intervenors Natural Resources Defense Council, Inc. and the Sierra Club, Petition For Investigation, July 14, 1982 ("Intervenors' Petition").

^{2/} The Applicants are the United States Department of Energy, Project Management Corporation and the Tennessee Valley Authority.

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allegations and to specific questions. The Commission has received DOE's response.^{3/} The Commission's order also directed the staff to respond to certain questions and that response has been received.^{4/} The Commission has also received a response from the Intervenor^s on its July 21, 1982 Order.^{5/}

Intervenor^s allege that there was "a concerted effort to conceal crucial safety information in a manner that calls into question the character of the CRBR Applicants" and "the Applicants' deliberate omissions call into question the fundamental reliability of the information which the Commission is using to assess the safety, environmental impact, and site suitability of the CRBR."^{6/} Two documents which Intervenor^s obtained in the course of discovery for the

^{3/} DOE's letter of July 28, 1982, to the Commissioners ("DOE's Response").

^{4/} William J. Dircks' letter, "Staff Responses to Commission Questions - Order dated July 21, 1982," July 23, 1982 ("Staff's Response").

^{5/} Response of Natural Resources Defense Council, Inc. and Sierra Club dated July 26, 1982 ("Intervenor^s' Response").

The conclusions reached in the text (*infra*) on the Intervenor^s' Petition, also dispose of the proposal in Intervenor^s' Response that the Commission ask the Applicants and the staff to respond to additional questions.

^{6/} Intervenor^s' Petition at pp. 1-2.

CRBR licensing proceeding are cited as the basis for these allegations.^{7/}

Since Intervenors' allegations have their origins in and are based solely upon these two documents, obviously the Commission must initially focus on them, the context in which they were written, and on their ultimate use by DOE, in reviewing the Intervenors' Petition. The Commission, having reviewed the responses, has concluded that the Intervenors' allegations, when viewed in the totality of the circumstances relevant to the two documents, are without foundation. Therefore, the Commission concludes that no further inquiry is warranted and that the Petition For Investigation must be denied.

^{7/} The first document is a memorandum from the then Chief of the Applicants' Licensing Branch to its Assistant Director for Public Safety dated April 6, 1977 ("the April 6, 1977 TLTM memorandum"). The acronym "TLTM" refers to "third level thermal margins."

Intervenors quote certain excerpts from this memorandum (Intervenors' Petition at 3) as a "rather shocking attempt by the CRBR Chief of Licensing deliberately to omit crucial evidence concerning inadequacies and inconsistencies in its core melt safety analysis," and that they have "been unable to unearth any attempt by Applicants to correct the situation." (Id. at 4).

The second document is a memorandum from the Applicants' then Assistant Director for Engineering to its Assistant Director for Public Safety, May 27, 1977 ("the May 27, 1977 Argonne Report Memorandum"). Quoting excerpts from this memorandum (id. at 5-6), Intervenors assert that it "calls unambiguously for the systematic deletion from the Argonne report of 'negative' information that would presumably interfere with the licensing of the facility." (Id. at 5).

DISCUSSION

The Commission's initial task in responding to the Intervenor's Petition is to determine whether there are any credible grounds to support the allegations. If there are, the Commission would then have to consider the appropriate course of action to resolve the matter. The information requested by the Commission's July 21, 1982 order was designed to assist it in establishing whether the allegations have any credible foundation and, if so, in determining an appropriate course of action to resolve the matter. On the other hand, if the DOE and staff responses to that order demonstrate that the allegations are without any credible foundation, then that would be the end of the matter.

Representations in DOE's Response and in the Staff's Response which are corroborated by documents which are attached to each response convince the Commission that the Intervenor's allegations lack any credible foundation.^{8/} The discussion which follows demonstrates that neither of the two documents relied on by Intervenor, as far as the Commission has been able to determine, reveals, in the totality of its context, any effort on the Applicants' part to conceal crucial safety information or to cover up anything. Other relevant documents which were actually filed with the NRC in the CRBR proceeding reveal that even if intentions of the authors of the two documents are viewed in the

^{8/} We have also considered the Intervenor's Response. It does not, however, provide any additional basis for the allegations in Intervenor's Petition.

worst possible light, ultimately the Applicants did not withhold substantive information from the NRC.

A. The April 6, 1977 "TLTM Memorandum"

Intervenors' Petition does not reveal either the overall context in which this memorandum was written or the response which the Applicants eventually filed with the NRC. Generally, however, on its face, this memorandum reveals recommendations by a former Chief of Applicants' Licensing Branch: (1) to keep third-level thermal margin (TLTM) evaluations from becoming a Design Basis Accident (DBA); (2) to refuse to answer an NRC question explicitly or to report sensitivity studies; and (3) to refuse to comment on NRC's "24-hour" criteria.^{9/}

The general areas discussed in this memorandum concern core-disruptive accidents.^{10/} The staff asserts it had decided on May 6, 1976 that it would not consider core-disruptive accidents to fall within the design basis accident and that continues to be the staff's

^{9/} The letter appears in full as Attachment A to Intervenors' Petition.

The author of the letter departed from the CRBR Project Organization on September 29, 1977 (DOE's Response at p. 1).

^{10/} Staff's Response at p. 1.

position.^{11/}

For its part, the DOE in its response provides specific documents which reveal: the NRC staff's request to which the April 6, 1977, memorandum related; the Applicants' actual response to the staff; and the ultimate resolution of the matter.^{12/} On March 30, 1977, the staff requested additional information from the Applicants and it is that request, according to DOE's Response, which prompted the April 6, 1977 memorandum.^{13/}

The April 6, 1977 memorandum leaves little doubt that its author objected to responding to the staff's request and to the form in which it was asked to be provided. But the documents provided by DOE and the Staff's Response show us that: the Applicants on May 9, 1977 informed the staff of their objections with regard to providing the information and the format of the response; that the staff in a May 27, 1977 letter to the Applicants adhered to its position on the need for information and for it to be in the format requested; and that eventually the

^{11/} Id. at 2. This position is stated in a letter dated May 6, 1976, from Richard Denise, who at the time was the Assistant Director for Special Projects in the Division of Project Management to Mr. Caffey, who at that time was the Director of the CRBR Project. The letter is attached in its entirety to the Staff's Response.

^{12/} DOE's Response at p. 2.

^{13/} DOE's Response at p. 3.

Applicants provided the answers to the staff's questions.^{14/}

These documents demonstrate that there is no foundation for Petitioners' allegation that the Applicants intended to conceal information.^{15/} Rather, the documents show that the Applicants objected to, but finally acceded to, the NRC's request for information and the requested format. We find nothing here that warrants further inquiry or other action.

B. The May 27, 1977 Argonne Report Memorandum

The document referred to in this memorandum is ANL/RAS 77-15 dated May 1977 entitled "An Analysis of the Unprotected Loss-of-Flow Accident in the Clinch River Breeder Reactor with an End-of-Equilibrium - Cycle Core."^{16/} The memorandum expressed the views of the Applicants' then Assistant Director for Engineering to their then Assistant Director of

^{14/} See Enclosures (A) through (E) to DOE's Response. DOE also explains that in November 1977 the staff suspended its review of the CRBR application. This suspension was not lifted until last year. On February 13, 1981, Applicants filed Amendment 60 to the PSAR which provided answers to the questions raised by the March 30, 1977 staff letter to the Applicants.

^{15/} The staff asserts in its response that its current documentation indicates that the Applicants apparently did not implement the recommendations of the April 6, 1977 memorandum. Staff's Response at p. 2. In particular, Applicants provided sensitivity studies and answers to NRC questions.

^{16/} Staff's Response at p. 2.

Public Safety on a draft of the report being prepared by the Argonne National Laboratory.^{17/}

The staff asserts that the specific issue in the memorandum concerns recommendations in the draft Argonne report regarding a certain computer code and its application to core-disruptive accidents.^{18/} Apparently the staff does not have a copy of the draft Argonne report in its records and was thus unable to make a direct check to determine if the recommendations in the May 27, 1977 memorandum were actually implemented by the Argonne National Laboratory.^{19/} The staff, however, informs us that it has performed a check of the recommendations which in its judgment are susceptible to verification by use of the May 27

^{17/} The then Assistant Director for Engineering departed the CRBR Project Organization on December 11, 1981. DOE's Response at p. 1. He did, however, participate in a review of Applicants' Site Preparation Activities Report submitted in support of their November 30, 1981 exemption request to the Commission. (Id. at 6). According to DOE, his comments primarily related to material quantities and costs. (Ibid.). The memorandum was actually signed by another individual whose present position is Chief, Reactor Plant Components Branch, CRBR Office. (DOE's Response at p. 1). In any event, these matters are without significance in view of our conclusion in the text (infra) that Intervenor's allegations based upon the May 27, 1977 memorandum are without foundation.

^{18/} Staff's Response at p. 2.

^{19/} Id. at 2.

memorandum and the final report.^{20/} The results of the check are included in the Staff's Response. They indicate that only one recommendation in the May 27 memorandum appears to have been followed and that recommendation was to add some additional technical detail.^{21/}

For its part, DOE first provided general background on the memorandum such as: the Argonne National Laboratory's role in DOE's Liquid Metal Fast Breeder Reactor Safety Base Program Activities; the report's focus on the area of Hypothetical Core Disruptive Accidents; and the lead management responsibility of the Public Safety Division for that area within the CRBR Project Office.^{22/} The Director (at that time) of that office received advice and assistance from the Engineering Division (from which the May 27, 1977 memorandum originated) to help him, according to DOE's Response, carry out his overall responsibilities.^{23/} In this regard, DOE asserts in its response that

^{20/} Ibid.

^{21/} Staff's Response at pp. 2-3. According to the Staff, the recommendation which was apparently followed concerned "adding a description of Henry's experiments following its reference [in the Argonne Report] in support of Fauskes 'sloshing theory.'"

^{22/} DOE's Response at p. 4.

^{23/} Ibid. It is apparent from the face of the May 27, 1977 memorandum (paragraph 1, p. 1) that it was written in response to a specific request for comments on the report from the Public Safety Division.

differences in understanding and objectives concerning requirements for "beyond design basis accident analysis" and for developing the relevant research specification were resolved within the Project Office prior to commenting to outside organizations.^{24/} DOE asserts that, when viewed in this context, the May 27, 1977 memorandum "does not represent the concern portrayed by the intervenors."^{25/}

Although the memorandum was used by the Public Safety Division in developing the Project Office's comments to Argonne, apparently neither its author nor representatives of the Engineering Division met with Argonne representatives on its recommendations.^{26/} DOE also states that the final Argonne report was issued in July 1977, with "essentially no substantive change."^{27/} DOE also included in its response a letter dated July 20, 1982 from the individual at Argonne under whose supervision and direction the report was prepared in which he states,

^{24/} DOE's Response at p. 4.

^{25/} DOE's Response at p. 4. Enclosure F, general comments 1 and 2 explicitly address the sections of the memorandum focused on by Petitioners.

^{26/} Id. at 4.

^{27/} Id. at 5.

among other things:^{28/}

"I do not recall any substantive changes being made between the draft and the final form of the report.

"I believe that this report reflected ANL's best technical judgment in the areas of LMFBR safety technology discussed in the report.

"I further believe that the report clearly states what the authors intended it to state.

"I reiterate that the comments in the referenced memorandum in question are not improper, but they did not in any way influence the technical judgment of the authors in what was ultimately presented in ANL/RAS 77-15."

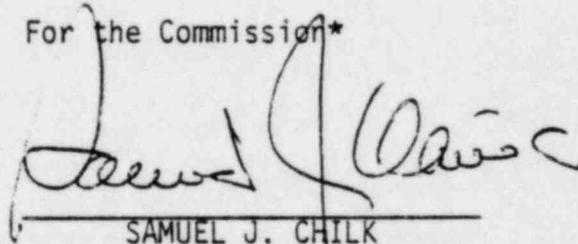
Considering all of the foregoing, there is no foundation for the Intervenors' allegation based on the May 27, 1977 memorandum.

CONCLUSION

The serious allegations raised by the Intervenors on the basis of the April 6, 1977 and the May 27, 1977 memoranda are without foundation for the reasons we have considered at some length. In view of our conclusion in that regard, the petition must be denied.

It is so ORDERED.

For the Commission*



SAMUEL J. CHILK
Secretary of the Commission

Dated at Washington, DC,
this 12th day of August, 1982.

^{28/} DOE's Response, Enclosure H.

*/ Commissioner Gilinsky did not participate in this decision.