

RAS 7560

RELATED CORRESPONDENCE

March 31, 2004

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

In the Matter of

DUKE ENERGY CORPORATION

(Catawba Nuclear Station, Units 1 and 2)

Docket No's. 50-413-OLA,
50-414-OLA

DOCKETED
USNRC

April 6, 2004 (9:13AM)

OFFICE OF SECRETARY
RULEMAKINGS AND
ADJUDICATIONS STAFF

**BLUE RIDGE ENVIRONMENTAL DEFENSE LEAGUE'S
FIRST SET OF DISCOVERY REQUESTS TO NRC STAFF**

Pursuant to the schedule established by the Atomic Safety and Licensing Board's ("ASLB's") Order of March 30, 2004, Blue Ridge Environmental Defense League ("BREDL") hereby answer the following interrogatories and admission requests separately, fully, in writing, and under oath, and produce the documents requested below within the schedule established by the ASLB. These discovery requests pertain to Contentions I, II, and III, as admitted by the ASLB in LBP-04-04 (March 5, 2004).

Pursuant to 10 C.F.R. § 2.744, BREDL directs its documents production requests in Sections III.B and III.C below to the Executive Director for Operations. As required by 10 C.F.R. § 2.744, the categories of document requests in those sections are described with reasonable particularity. The requested documents are relevant to the litigation of Contentions I and II, because they seek information regarding the Staff's evaluation of the behavior of MOX fuel under LOCA and severe accident conditions, and the Staff's position on the type of severe accident analysis that is required for use of MOX fuel at the Catawba nuclear power plant.

Template = SECY-035

SECY-02

I. INSTRUCTIONS

A. Scope of Discovery. These discovery requests cover all information in the possession, custody and control of the U.S. Nuclear Regulatory Commission ("NRC") Staff, including information in the possession of employees, agents, servants, representatives, attorneys, or other persons directly or indirectly employed or retained by the NRC, or anyone else acting on Duke's behalf or otherwise subject to its control. The discovery sought by this request encompasses material contained in, or which might be derived or ascertained from, the personal files of Staff employees, representatives, investigators, and agents.

B. Lack of Information. If you currently lack information to answer any Interrogatory completely, please state:

1. The responsive information currently available;
2. The responsive information currently unavailable;
3. Efforts which you intend to make to secure the information currently unavailable; and
4. When you anticipate receiving the information currently unavailable.

C. Supplemental Responses. Each of the following requests is a continuing one pursuant to 10 C.F.R. § 2.740(e) and BREDL hereby demands that, in the event that at any later date the Staff obtains or discovers any additional information which is responsive to these interrogatories and request for admissions and production of documents, the Staff shall supplement its responses to this request promptly and sufficiently.

Such supplementation shall include, but not be limited to:

1. the identity and location of persons having knowledge of discoverable

matters;

2. the identity of each person expected to be called as an expert witness at any hearing, the subject matter on which she/he is expected to testify, and the substance of her/his testimony; and

3. new information which makes any response hereto incorrect.

D. Objections. If you object to or refuse to answer any interrogatory or document request under a claim of privilege, immunity, or for any other reason, please indicate the basis for asserting the objection, privilege, immunity or other reason, the person on whose behalf the objection, privilege, immunity, or other reason is asserted, and describe the factual basis for asserting the objection, privilege, immunity, or other reason in sufficient detail so as to permit the administrative judges in this matter to ascertain the validity of such assertion.

If you withhold any document covered by this request under a claim of privilege, immunity, or for any other reason, please furnish a list identifying each document for which the privilege, immunity, or other reason is asserted, together with the following information: date, author and affiliation, recipient and affiliation, persons to whom copies were furnished and the job title and affiliation of any such persons, the subject matter of the documents, the basis for asserting the privilege, immunity, or other reason, and the name of the person on whose behalf the privilege, immunity, or other reason is asserted.

E. Estimates. Interrogatories calling for numerical or chronological information shall be deemed, to the extent that precise figures or dates are not known, to call for estimates. In each instance that an estimate is given, it should be identified as such together with the source of information underlying the estimate.

II. DEFINITIONS

Each of the following definitions, unless otherwise indicated, applies to and shall be a part of each interrogatory and request for production which follows:

1. "NRC Staff," "Staff," "you," and "your" refers to the Staff of the NRC, including its employees, agents, servants, representatives, attorneys, or other persons directly or indirectly employed or retained by the Staff, or anyone else acting on its behalf or otherwise subject to their control.

2. The term "documents" means the originals as well as copies of all written, printed, typed, recorded, graphic, photographic, and sound reproduction matter however produced or reproduced and wherever located, over which you have custody or control or over which you have the ultimate right to custody or control. By way of illustration, but not limited thereto, said term includes: records, correspondence, telegrams, telexes, wiring instructions, diaries, notes, interoffice and intra-office communications, minutes of meetings, instructions, reports, demands, memoranda, data, schedules, notices, recordings, analyses, sketches, manuals, brochures, telephone minutes, calendars, accounting ledgers, invoices, charts, working papers, computer tapes, computer printout sheets, information stored in computers or other data storage or processing equipment, microfilm, microfiche, meeting minutes, blueprints, drawings, contracts and any other agreements, rough drafts, and all other writings and papers similar to any of the foregoing, however designated by you. If the document has been prepared and several copies or additional copies have been made that are not identical (or are no longer identical by reason of the subsequent addition of notations or other modifications), each non-identical copy is to be construed as a separate document.

3. "All documents referring or relating to" means all documents that in whole or in part constitute, contain, embody, reflect, identify, state, interpret, discuss, describe, explain, apply to, deal with, evidence, or are in any way pertinent to a given subject.

4. The words "describe" or "identify" shall have the following meanings:

(a) In connection with a person, the words "describe" or "identify" mean to state the name, last known home and business address, last known home and business telephone number, and last known place of employment and job title;

(b) In connection with a document, the words "describe" or "identify" mean to give a description of each document sufficient to uniquely identify it among all of the documents related to this matter, including, but not limited to, the name of the author of the document, the date, title, caption, or other style by which the document is headed, the name of each person and entity which is a signatory to the document, the date on which the document was prepared, signed, and/or executed, the person or persons having possession and/or copies thereof, the person or persons to whom the document was sent, all persons who reviewed the document, the substance and nature of the document, the present custodian of the document, and any other information necessary to adequately identify the document;

(c) In connection with an entity other than a natural person (*e.g.*, corporation, partnership, limited partnership, association, institution, etc.), the words "describe" or "identify" mean to state the full name, address and telephone number of the principal place of business of such entity.

(d) In connection with any activity, occurrence, or communication, the words "describe" or "identify" mean to describe the activity, occurrence, or communication, the date of its occurrence, the identify of each person alleged to have had any involvement with or

knowledge of the activity, occurrence, or communication, and the identity of any document recording or documenting such activity, occurrence, or communication.

5. "Date" shall mean the exact day, month, and year, if ascertainable, or if not, the best approximation thereof (including by relationship to other events), and the basis for such approximation.

6. The word "discussion" shall mean communication of any kind, including but not limited to, any spoken, written, or signed form of communication.

7. The word "person" shall include any individual, association, corporation, partnership, joint venture, or any other business or legal entity.

8. Words herein of any gender include all other genders, and the singular form of words encompasses the plural.

B. The words "and" and "or" include the conjunctive "and" as well as the disjunctive "or" and the words "and/or."

III. GENERAL DISCOVERY

A. GENERAL INTERROGATORIES

GENERAL INTERROGATORY NO. 1. State the name, business address, and job title of each person who was consulted and/or who supplied information for responding to each of the interrogatories, requests for admission, and requests for the production of documents posed by BREDL herein. Specifically note for which interrogatories, requests for admissions and requests for production each such person was consulted and/or supplied information.

If the information or opinions of anyone who was consulted in connection with your response to an interrogatory or request for admission differs from your written answer to the discovery request, please describe in detail the differing information or opinions, and indicate

why such differing information or opinions are not your official position as expressed in your written answer to the request.

GENERAL INTERROGATORY NO. 2. For Contentions I, II, and III, give the name, address, profession, employer, area of professional expertise, and educational and scientific experience of each person whom the Staff expects to call as a fact or expert witness at the hearing. For expert witnesses, provide a list of all publications authored by the witness within the preceding ten years and a listing of any other cases in which the witness has provided fact and/or expert testimony and/or submitted affidavit(s) or declaration(s) within the preceding four years. For purposes of answering this interrogatory, the educational and scientific experience of expected witnesses may be provided by a resume of the person attached to the response. Fact and expert witnesses should be distinguished.

GENERAL INTERROGATORY NO. 3. For each witness identified in response to General Interrogatory No. 2 above, describe the facts and opinions to which each witness is expected to testify, including a summary of the grounds for each opinion, and identify the documents (including all pertinent pages or parts thereof), data or other information which each witness has reviewed and considered, or is expected to consider or to rely on for his or her testimony.

B. GENERAL DOCUMENT PRODUCTION REQUESTS

Please produce the following documents:

REQUEST NO 1. All documents in your possession, custody or control that are identified, referred to or used in any way in responding to all of the above general interrogatories and the following interrogatories and requests for admissions relating to specific contentions.

REQUEST NO. 2. All documents in your possession, custody or control relevant to each BREDL admitted contention, and to the extent possible, segregated by contention and separated from already produced documents.

REQUEST NO. 3. All documents (including experts' opinions, workpapers, affidavits, and other materials used to render such opinion) supporting or otherwise relating to testimony or evidence that you intend to use in the hearing on each BREDL admitted contention.

IV. SPECIFIC DISCOVERY

A. SPECIFIC INTERROGATORIES

1. Contention I

INTERROGATORY NO. 1: Duke has requested that MOX LTA burnups be approved to a maximum peak rod average burnup of 60 GWd/MTHM. Duke has utilized the COPERNIC code in its license amendment application for design-basis LOCA analysis. However, NRC has approved use of the COPERNIC code for MOX use only up to a peak rod average burnup of 50 GWd/MTHM. In light of this limitation, please explain the Staff's approach to reviewing the safety of Duke's application for fuel burnups beyond 50 MWd/MTHM.

B. SPECIFIC REQUESTS FOR ADMISSIONS

Please admit or deny. If you deny, explain the basis for your denial.

REQUEST FOR ADMISSION NO. 1: In the Revised Safety Evaluation by the Office of Nuclear Reactor Regulation for Topical Report BAW-10227P, "Evaluation of Advanced Cladding and Structural Material (M5) in PWR Reactor Fuel," Framatome Cogema Fuels, Inc. (February 4, 2000), the NRC Staff did not take into account all issues known today to be associated with the complex behavior of zirconium-niobium alloys, i.e., M5 cladding, as discussed in a memorandum from William D. Travers, Executive Director for Operations, to NRC

Commissioners, re: Updated Program Plan for High-Burnup Light Water Reactor Fuel at 10 (August 21, 2003). These issues were first brought to the attention of the public through release of a memorandum from Ralph Meyer to Farouk Eltawila entitled "Embrittlement of Zr-1%Nb Cladding During a LOCA," dated December 15, 2000.

C. SPECIFIC DOCUMENT REQUESTS:

Please produce the following documents:

1. Contention I

REQUEST NO. I-1. Any and all documents reviewed or prepared by the Staff in connection with the Staff's evaluation of the behavior and performance of irradiated M5 cladding under Loss of Coolant Accident ("LOCA") conditions.

REQUEST NO. I-2. Any and all documents which discuss the appropriateness of applying the cladding embrittlement criteria in 10 C.F.R. § 50.46 to M5 cladding.

REQUEST NO. I-3. Any and all documents which discuss the appropriateness of applying the safety evaluation models in 10 C.F.R. Part 50, Appendix K to M5 cladding.

REQUEST NO. I-4. Any and all documents which discuss the appropriateness of applying the cladding embrittlement criteria in 10 C.F.R. § 50.46 to M5-clad uranium fuel that has been irradiated to the expected peak pin burnup for LTA use at Catawba (60 GWd/MTHM).

REQUEST NO. I-5. Any and all documents which discuss the appropriateness of applying the cladding embrittlement criteria in 10 C.F.R. § 50.46 to M5-clad plutonium (MOX) fuel that has been irradiated to the expected peak pin burnup for LTA use at Catawba (60 GWd/MTHM).

REQUEST NO. I-6. Any and all documents which discuss the appropriateness of applying the safety evaluation models in 10 C.F.R. Part 50, Appendix K to M5-clad uranium fuel that has been irradiated to the expected burnup for LTA use at Catawba (60 GWd/MTHM).

REQUEST NO. I-7. Any and all documents which discuss the appropriateness of applying the safety evaluation models in 10 C.F.R. Part 50, Appendix K to M5-clad plutonium (MOX) fuel that has been irradiated to the expected burnup for LTA use at Catawba (60 GWd/MTHM).

REQUEST NO. I-8. Any and all documents which discuss the status of Generic Safety Issue 92 as it relates to the issue of fuel crumbling and relocation. This request includes but is not limited to any and all documents that respond to or discuss the contents of a memorandum from Ralph Meyer, Senior Technical Advisor, Safety Margins and Systems Analysis Branch, Division of Systems Analysis and Regulatory Effectiveness, Office of Nuclear Regulatory Research to John Flack, Assistant Branch Chief, Regulatory Effectiveness and Human Factors Branch, Division of Systems Analysis and Regulatory Effectiveness, Office of Nuclear Regulatory Research (February 8, 2001).

2. Contention II

REQUEST NO. II-1. Any and all documents reviewed or prepared by the Staff in connection with the Staff's evaluation of the relevance of the revised source term in NUREG-1465 to MOX fuel under severe accident conditions.

REQUEST NO. II-2. Any and all documents reviewed or prepared by the Staff in connection with the Staff's evaluation of the behavior of plutonium (MOX) fuel under severe accident conditions.

REQUEST NO. II-3. All documents reviewed or prepared by the Staff in connection with the Staff's evaluation of the relevance of the revised source term in NUREG-1465 to MOX fuel under severe accident conditions.

REQUEST NO. II-4. Any and all documents discussing the technical rationale for your determination that the MOX LTA license amendment application does not meet the criteria of Standard Review Plan Chapter 19 Appendix D criteria for risk-informed review of the application, for example why use of this novel fuel, for which the experimental database of its performance under severe accident conditions is extremely limited, does not create "special circumstances" that would warrant consideration of risk impacts.

Respectfully submitted,



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March 31, 2004

CERTIFICATE OF SERVICE

I hereby certify that on March 31, 2004, copies of the foregoing BLUE RIDGE ENVIRONMENTAL DEFENSE LEAGUE'S FIRST SET OF DISCOVERY REQUESTS TO NRC STAFF, INCLUDING REQUEST FOR AN ORDER DIRECTING NRC STAFF TO ANSWER CERTAIN DISCOVERY REQUESTS and BLUE RIDGE ENVIRONMENTAL DEFENSE LEAGUE'S FIRST SET OF DISCOVERY REQUESTS DIRECTED TO DUKE ENERGY CORPORATION were served on the following by e-mail and/or first-class mail, as indicated below:

<p>Ann Marshall Young, Chair Administrative Judge Atomic Safety and Licensing Board U.S. Nuclear Regulatory Commission Mail Stop: T-3F23 Washington, D.C. 20555 E-mail: AMY@nrc.gov</p> <p>Anthony J. Baratta Administrative Judge Atomic Safety and Licensing Board U.S. Nuclear Regulatory Commission Mail Stop: T-3F23 Washington, D.C. 20555 E-mail: AJB5@nrc.gov</p> <p>Office of Commission Appellate Adjudication U.S. Nuclear Regulatory Commission Mail Stop: O-16C1 Washington, D.C. 20555</p> <p>Thomas S. Elleman Administrative Judge Atomic Safety and Licensing Board 4760 East Country Villa Drive Tucson, AZ 85718 E-mail: elleman@eos.ncsu.edu</p>	<p>Susan L. Uttal, Esq. Antonio Fernandez, Esq. Kathleen A. Kannler, Esq. Office of the General Counsel Mail Stop - O-15 D21 U.S. Nuclear Regulatory Commission Washington, D.C. 20555-0001 E-mail: slu@nrc.gov axf2@nrc.gov, KAK1@nrc.gov</p> <p>Mary Olson Southeast Office, Nuclear Information and Resource Service P.O Box 7586 Asheville, NC 28802 E-mail: nirs.se@mindspring.com</p> <p>Lisa F. Vaughn, Esq. Legal Dept. (PBO5E) Duke Energy Corporation 526 South Church Street (EC11X) Charlotte, NC 28201-1006 E-mail: lfvaughn@duke-energy.com</p> <p>Janet Marsh Zeller, Executive Director Blue Ridge Environmental Defense League P.O. Box 88 Glendale Springs, NC 28629 E-mail: BREDL@skybest.com</p>
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