

RELATED CORRESPONDENCE

December 6, 2002

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

**DOCKETED
USNRC**

December 12, 2002 (2:28PM)

**Before Administrative Judges:
Thomas S. Moore, Chairman
Charles N. Kelber
Peter S. Lam**

**OFFICE OF SECRETARY
RULEMAKINGS AND
ADJUDICATIONS STAFF**

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|------------------------------------|--------------------------|
| _____) | |
| In the Matter of) | |
| DUKE COGEMA STONE & WEBSTER) | Docket No. 0-70-03098-ML |
| (Savannah River Mixed Oxide Fuel) | ASLBP No. 01-790-01-ML |
| Fabrication Facility)) | |
| _____) | |

**GEORGIANS AGAINST NUCLEAR ENERGY
SECOND SET OF INTERROGATORIES TO
DUKE COGEMA STONE & WEBSTER**

Pursuant to the Atomic Safety and Licensing Board's ("ASLB's") order dated April 30, 2002, Georgians Against Nuclear Energy ("GANE") hereby submits its second set of interrogatories to Duke Cogema Stone & Webster ("DCS") regarding DCS's proposed construction of a Mixed Oxide ("MOX") fuel facility at the Savannah River Site. GANE and BREDL request that DCS answer the following Interrogatories separately, fully, in writing, and under oath by December 20, 2002.

I. INSTRUCTIONS

1. Scope of Discovery. These interrogatories cover all information in the possession, custody and control of DCS, including information in the possession of officers, employees, agents, servants, representatives, attorneys, or other persons directly or indirectly employed or retained by them, or anyone else acting on DCS's behalf or

otherwise subject to its control. The discovery sought by this request encompasses information known by DCS employees, representatives, investigators, and agents, and information that may be derived from all documents in their possession.

2. 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.

3. Supplemental Responses. Each of the following requests is a continuing one pursuant to 10 C.F.R. § 2.740(e) and GANE hereby demands that, in the event that at any later date DCS obtains or discovers any additional information which is responsive to these interrogatories, DCS 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.

4. Objections. If you object to or refuse to answer any interrogatory 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.

5. 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 which follows:

1. "DCS," "Applicant," "you," and "your" refers to Duke Cogema Stone & Webster and its officers, employees, agents, servants, representatives, attorneys, or other persons directly or indirectly employed or retained by DCS, 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 intraoffice 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, corporate 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.

9. The words “and” and “or” include the conjunctive “and” as well as the disjunctive “or” and the words “and/or.”

10. The word “physical” means of or pertaining to that which is material.

III. INTERROGATORIES

A. Contention 1 (Materials Control & Accounting or MC&A)

INTERROGATORY NO. 1: Please provide your analysis of impurities from feed materials originating from sources other than the Pit Disassembly and Conversion Facility (PDCF), as described in Section 9.1.3.1 of the Revised Construction Authorization Request (CAR).

INTERROGATORY NO. 2: Please provide your analysis of impurities from feed materials originating from the PDCF.

INTERROGATORY NO. 3: Please provide your analysis of the impurity content of the items described in Table 11.3-36.

INTERROGATORY NO. 4: Do you agree that the average plutonium content of the fuel produced at the proposed MOX Facility will be 4.37%?

a. If you disagree, please provide the average plutonium content that you assume, and explain the basis for the figure.

INTERROGATORY NO. 5: According to Section 11.2.6 of the revised CAR, the throughput of the proposed MOX Facility will be 70 MT of MOX fuel. In making this statement, what did you assume would be the average plutonium content of the fuel?

INTERROGATORY NO. 6: In Section 1.1 of the Environmental Report, Rev. 2, DCS states that the throughput of the proposed MOX Facility will be 3.5 MT of plutonium per year. In making this statement, what did you assume would be the average plutonium content of the fuel?

INTERROGATORY NO. 7: Please explain the reason(s) for any discrepancy between your answers to Interrogatories 5 and 6 above.

INTERROGATORY NO. 8: Do you agree that for feed material containing impurities, non-destructive MC&A analysis may not be able to make precise measurements in an initial inventory?

INTERROGATORY NO. 9: If your answer to Interrogatory No. 8 is yes, how does the MC&A design basis for the proposed MOX Facility provide for initial inventory of impure feed material?

B. Contention 2 (Physical Security)

INTERROGATORY NO. 10: Did DCS design the MOX Facility to comply with classified NRC regulatory guidance documents that were sent from NRC to DCS on March 13, 2000, under cover of a letter from Michael F. Weber to Peter Hastings?

INTERROGATORY NO. 11: If your response to Interrogatory No. 10 is yes, were the elements of the MOX Facility design that were intended to comply with the above-identified regulatory guidance submitted to the NRC Staff for its review?

a. If so, when were they submitted?

b. If so, identify any statements or documents issued by the NRC Staff in which you have received approval of those design elements.

C. Contention 3 (Seismic)

INTERROGATORY NO. 12: In your evaluation of the probability of an earthquake at the Savannah River Site, have you considered the following paper: Chapman, M.C., G.A. Bollinger, M.S. Sibol, D.E. Stephensen, The influence of Coastal Plain Sedimentary wedge on strong ground motions from the 1886 Charleston, South Carolina, Earthquake, *Earthquake Spectra*, Vol. 6 No. 4, 617-640 (1990)? If so, explain how it has affected your analysis.

INTERROGATORY NO. 13: In your evaluation of the probability of an earthquake at the Savannah River Site, have you attempted to learn about any updates to the Chapman paper mentioned in Interrogatory No. 12 above? In particular, have you considered the following paper: Chapman, M.C., Ground motion attenuation in the Atlantic Coastal Plain near Charleston, South Carolina, submitted to *Bulletin of the Seismic Society of America* (2002)? If so, explain how it has affected your analysis.

INTERROGATORY NO. 14: Have the following sites been ruled out as potential epicenter for a Charleston-like earthquake?

a. Bowman, South Carolina;

b. Reidsville, Georgia;

- c. The offshore location of the March 12, 1960 earthquake;
- d. The offshore location of the November 8, 2002 earthquake.

INTERROGATORY NO. 15: For those sites that have been ruled out in response to Interrogatory No. 14, please explain on what technical basis each site was ruled out. For each site that was not ruled out, please explain how you considered the site.

INTERROGATORY NO. 16: What level of certainty do you attribute to the uniqueness of the Charleston location as the only epicenter of a Charleston-like earthquake?

INTERROGATORY NO. 17: In Section 1.3.6.3.4 of the Construction Authorization Request, you state that EPRI and LLNL hazard spectra were used to estimate the probability of exceedance of the spectra. Did you rely on the EPRI and LLNL hazard spectra alone, or did you consider any other factors? If you relied on other factors, please identify them and explain how they affected your analysis.

INTERROGATORY NO. 18: In estimating the probability of exceedance of the spectra as discussed in Section 1.3.6.3.4 of the Construction Authorization Request, did you consider any studies or data regarding the attenuation relationships specific to the path from Charleston to the Savannah River Site? If so, please identify those studies or data and explain how they affected your analysis.

INTERROGATORY NO. 19: Do you agree that the Summerville-Middleton Place epicenter of the Charleston earthquake is active? If not, please explain your reasoning.

INTERROGATORY NO. 20: Do you agree that the Summerville-Middleton Place epicenter of the Charleston earthquake has been active for at least 6,000 years? If not, please explain your reasoning.

INTERROGATORY NO. 21: Does your characterization of the Charleston earthquake differ in any way from the characterization in the LLNL and EPRI studies? If so, describe each way in which your characterization of the Charleston earthquake differs from the characterization in the LLNL and EPRI studies, and how the difference affects your computation of the probabilistic seismic hazard acceleration.

INTERROGATORY NO. 22: In Section 1.3.6.6.3.2 of the Construction Authorization Request, DCS discusses the use of LLNL and EPRI values to obtain soil response values at the surface. Please explain whether DCS used a 0.2g value at the base of the Coastal Plain sediments and propagated it to the surface, or whether another value was scaled to a value of 0.2g at the surface? If another value was scaled to a value of 0.2g at the surface, what was the value at the base of the Coastal Plain?

Respectfully submitted,



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Dated December 6, 2002
in Decatur, Georgia

¹ This pleading was prepared with substantial assistance from GANE's legal adviser, Diane Curran.

CERTIFICATE OF SERVICE
by Georgians Against Nuclear Energy
(Docket # 70-3098, ASLBP # 01-790-01-ML)

I hereby certify that copies of GANE's 2nd Round of Interrogatories re the MOX facility
were e-mailed to the following with hard copies served by First Class U.S. Mail.

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Respectfully submitted,


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December 6, 2002 in Decatur, Georgia