

2

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

DOCKETED
USNRC

83 SEP - Aug 31 1983

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

OFFICE OF SECRETARY
SERVICE
BRANCH

Glenn O. Bright
Dr. James H. Carpenter
James L. Kelley, Chairman

In the Matter of

CAROLINA POWER AND LIGHT CO. et al.
(Shearon Harris Nuclear Power Plant,
Units 1 and 2)

Dockets 50-400 OL
50-401 OL

Wells Eddleman's General Interrogatories and Interrogatories on
to Applicants Carolina Power & Light et al. Contentions
(Fifth Set) 8F1+8F2

Under 10 CFR 2.740, 2.741 and the Board's 8-18-83 + 3-10-83 +
9-22-82 Memorandum(s)
and Order^(s), Wells Eddleman requests Applicants to answer separately
and fully in writing, under oath or affirmation, each of the
following interrogatories, and to produce a permit inspection and
copying of the original or best copy of all documents identified
in response to interrogatories a set forth below.

These interrogatories are intended to be continuing in nature,
and I request each answer to be promptly supplemented or amended as
appropriate under 10 CFR 2.740(e), should CP&L, NCEMPA, any other
or any contractor or consultant to any, some or all of those,
Applicant, or any employee of any or some or all of them, or any
individual acting on behalf of any or some of all of them, obtain
or create any new or differing information responsive to these
(where "Them" refers to the preceding listing(s))
general interrogatories. The request for production of documents
is also continuing and requests Applicants to produce promptly if
not immediately any additional documents the Applicants and others
acting on their behalf or employed by them, as listed in the previous

8309070142 830831
PDR ADOCK 05000400
G PDR

sentence, obtain which are responsive to the request(s) for production of documents below.

Where identification of a document is requested, please briefly describe the document (e.g. book, notebook, letter, memo, report, notes, transcript, minutes, test data, log, etc.) and provide the following information as applicable: document name, title, number, author(s), date of writing or of publication or both, addressee, date approved, by whom approved, and the name and address of the persons having normal custody of the document, and name and address of any person other than the preceding having actual possession of the document. When identifying documents in response to these interrogatories and requests, please state the portion or portions of the document (e.g. sections, chapters, pages, lines) upon which Applicants rely or which Applicants swear or affirm is/are responsive to the applicable interrogatory or request.

DEFINITIONS herein:

"Harris", "Harris Plant", "SHNPP", or "plant" where not specified otherwise, all mean the Shearon Harris Nuclear Power Plant.

"Applicants" means all of the persons, employees, consultants, contractors and corporations as listed in the first sentence of the second paragraph on page 1 of this document, above.

"FSAR" means the Harris Final Safety Analysis Report.

"ER" means the Harris Environmental Report.

"Document(s)" means all writings and records of every type, including electronic and computer records, in the possession, control or custody of Applicants or any individual(s) acting on Applicants' behalf, including, but not limited to: reports, books, memoranda, correspondence, notes, minutes, pamphlets, leaflets, magazines, articles, surveys, maps, bulletins, photographs, speeches, transcripts,

voice recordings, computer printouts, information stored in computers or computer peripheral devices such as disks, drums, etc., voice recordings, microfilm, microfiche and all other writings or recordings of any kind(s); and copies of any of the preceding even though the original(s) are not in the possession of Applicants or in their custody or control. Document(s) shall be deemed to be within the control of Applicants or ^{any} individual(s) acting on their behalf if they have ownership, possession, or custody of the document(s) or a copy thereof, or have the right to secure the document(s) or a copy thereof, from any person or public or private entity having physical possession thereof.

Each definition given above applies within all other definitions above.

GENERAL INTERROGATORIES

G1 (a) Which contentions of Wells Eddleman do Applicants agree are now admitted in this proceeding, NDC Dockets 50-400/401 O.L.?

(b) for each such contention, provide for any answers to interrogatories by Wells Eddleman which Applicants have previously or presently received (except those suspended by Board order, if any), the following information:

(c) Please state the name, present or last known address, and present or last known employer of each person whom Applicants believe or know (1) has first-hand knowledge of the facts alleged in each such answer; or (2) upon whom Applicants relied (other than their attorneys) in making such answer.

(d) please identify all facts concerning which each such person identified in response to G1(c)(1) above has first-hand knowledge.

(e) please identify all facts and/or documents upon which each person identified in response to G1(c)(2) above relied in providing information to respond to the interrogatory, including the parts of such documents relied upon.

(f) Please identify any other document(s) used ^{or relied upon} by Applicants in responding to the interrogatory.

(g) Please state which specific fact each document, identified in response to G1(e) and G1(f) above, supports, in the opinion or belief of Applicants, or which Applicants allege such document supports.

(h) Please state specifically what information each person identified in response to G1(c)(1) or G1(c)(2) above provided to or for Applicants' affiant in answering the interrogatory. If any of this information is not documented, please identify it as "undocumented" in responding to this section of General Interrogatory G1.

G2.(a) Please state the name, present or last known address, title (if any), and present or last known employer, and economic interest (shareholder, bondholder, contractor, employee, etc.) if any (beyond expert ^{or other} witness fees) such person holds in Applicants or any of them, for each person you intend ^{or expect} to call as an expert witness or a witness in this proceeding, if such information has not previously been supplied, or has changed since such information was last supplied, to Wells Fiddleman. This applies to Fiddleman and Joint Contentions as admitted, or stipulated by Applicants.

(b). Please identify each contention regarding which each such person is expected to testify.

(c) Please state when you first contacted each such person with regard to the possibility of such person's testifying for Applicants, if you have contacted such person.

(d) Please state the subject matter, separately for each contention as to which each such person is expected to testify, which each such person is expected to testify to.

(e) Please identify all documents or parts thereof upon which each such witness is expected to, plans to, or will rely, in testifying or in preparing testimony.

G3(a) Please identify any other source(s) of information which Applicants have used to respond to any interrogatory identified under G1 above, stating for each such source the interrogatory to which it relates, and what information it provides, and identifying where in such source that information is to be found.

(b) Please identify any other source(s) of information not previously identified upon which any witness identified under G2 above, or other witness, has used in preparing testimony^{or exhibits}, or expects to use in testimony or exhibits, identifying for each such source the witness who is expected to use it, and the part or part(s) of such source (if applicable) which are expected to be used, and, if not previously stated, the fact(s) or subject matter^(or both) to which such source relates.

G4(a) please identify all documents, ^{and which} pages or sections thereof Applicants intend or expect to use in cross-examination of any witness I call in this hearing. For each such witness, please provide on a timely basis (ASAP near or during hearings) a list of all such documents, the subject matter Applicants believe they relate to, and make the document(s) available for inspection and copying as soon as possible after Applicants decide or ^{form intent} ~~intend~~ to use such document in cross-examination.

(b) please identify any undocumented information Applicants intend to use in cross-examination of each such witness for me.

G5 (a) for each contention Applicants state or admit is an admitted Eddleman contention under G1(a) above, or an admitted joint intervenor contention, please state whether Applicants have available to them experts, and information, on the subject matter of the contention.

(b) If the answer to (a) above is other than affirmative, state whether Applicants expect to be able to obtain expertise in the subject matter, and information on it, and if not, why not.

G-6(a) for each document identified in response to any interrogatory herein, or referenced in response to any interrogatory herein, please supply all the following information which has not already been supplied:

- (i) date of the document
 - (ii) title or identification of document
 - (iii) all authors of the document, or the author
 - (iv) all qualifications (professional, technical) of each author of the document
 - (v) the specific parts, sections or pages, if any, upon which Applicants rely of the document,
 - (vi) the specific information each part, section or page identified in response to (v) above contains.
 - (vii) identify all documents used in preparing the document, to the extent known (and also to the extent not identified in the document itself)
 - (viii) state whether Applicants possess a copy of the document
 - (ix) state all expert opinions contained in the document, upon which Applicants rely, or identify each such opinion.
 - (x) identify the contention(s) with respect to which Applicants rely upon (a) the expert opinions (b) the facts identified ~~which~~ ~~are~~ in the document
 - (xi) state whether Applicants now employ any author(s) of the document, identifying each such person for each document.
 - (xii) state whether Applicants have ever employed any author(s) of the document, identifying each such person for each document.
 - (xiii) identify all sources of data used in the document.
- Answers to all the above may be tabulated or grouped for efficiency.

G-7(a) Please identify all documents which Applicants plan, expect or intend to offer as exhibits (other than for cross-examination) with respect to each Eddleman contention admitted in this proceeding which (i) is included in your current response to G1(a), or (ii) is the subject of interrogatories in this set; please state for which contention or contentions each exhibit will be or is expected to be offered.

(b) Please identify all documents which Applicants plan, expect or intend to use in cross-examination of any other parties' witnesses or joint intervenor witness in this proceeding, with respect to (i) Eddleman contentions identified under G-7(a)(i) (or G1-(a)) above, or any other Eddleman contention which is the subject of interrogatories in this set; (ii) each Joint contention now admitted in this proceeding; (iii) per our agreement of 4-8-83, each contention of each other party to this proceeding which is currently admitted. Please identify for each such document the witnesses, or witness, and all contentions with respect to whom (or which) that document is planned, expected, or intended to be offered or used.

(c) Please identify which of the documents identified in response to (b) above ⁽¹⁾ will be offered into evidence by Applicants, and (ii) which of the same documents Applicants expect to offer into evidence or intend to offer as evidence or exhibits in this proceeding.

G8 (a) Please identify, for each Eddleman contention which is the subject of this or an earlier set of interrogatories, all information not previously identified which was (i) used or relied on in preparation of Applicants' responses to that contention and all contentions superseded by it (per transcript of July 1982 special prehearing conference, the Board's September 1982 order admitting contentions, or stipulation by Applicants or W.E.^{or otherwise}), with respect to any facts alleged therein, identifying for each such fact the specific source(s) of information used or relied upon.

G-8(b) Please identify all persons who supplied information relied on or used in Applicants' response to each contention for which information is requested in G -8(a) above. (ii) Please identify for each such person what information was supplied, and with respect to which contention(s) ~~that~~ ^{each item of} information supplied was used. (iii) Please state all known qualifications of each such person with respect to the subject matter of the ~~XXXXXXXXXX~~ each contention for which that person supplied information.

G-9(a) Please identify all information not identified in response to the above general interrogatories, including all documents, which Applicants rely on or ^{intend} to use in making their case or carrying their burden of proof in this proceeding, _____ with respect (i) to each Eddleman contention which is the subject of this or an earlier set of Eddleman interrogatories to Applicants; (ii) with respect to each joint contention on which discovery is now open under the Board's March ¹⁰ 1983 order, or on which discovery has been open under said order establishing a discovery schedule. (The phrase "or on which discovery has been open" is intended to keep this interrogatory current and continuing for information and documents which Applicants rely on or form intent to use after the formal close of discovery. I interpret Applicants' continuing interrogatories to apply continuously from their date of submission to me, and I intend these to apply likewise.)

and/or specific interrogatories below,
G-10(a) Where the above general interrogatories, or any of them, call for identification of documents, (i) and no documents are identified, is that the same as Applicants stating that there are no documents responsive to this general interrogatory, in each case where no documents are identified? (ii) and documents are identified, is that the same as Applicants stating that the identified

documents are the only ones presently known which are responsive to the interrogatories? (iii) If your answer to G-10(a)(ii) is other than affirmative, please state all reasons for your answer. (iv) If your answer to G-10(a)(i) above is other than affirmative, please state all reasons for your answer.

(b) Where any interrogatory, general or specific, herein, calls for factual information (i) and an opinion is stated in response, is that the expert opinion of any person(s) identified as having contributed information to that response? (ii) and facts are given or identified (or a fact is) in response, but no documents are identified, does that mean Applicants have no documents containing such fact(s)?

(iii) If your answer to (i) above is affirmative, please state for each such response all qualifications of ^{each} expert upon whom Applicants rely for each such answer. The qualifications need be stated only once for each such person if they are clearly referenced in other answers. (iv) If your answer to (i) above is other than affirmative, please state which opinions, if any, given in response to interrogatories (general or specific) herein is the opinion of an expert, identify each expert whose opinion you used in response to each interrogatory, and state in full the qualifications of each such expert. (v) If your answer to (i) above is other than affirmative, please identify all opinions of non-experts used in your responses, and identify each non-expert whose opinion is included in each answer herein.

(vi) If your response to (ii) above is other than affirmative, please identify each document which contains a fact not previously documented in your response(s), stating what the fact is, and at what page, place, chapter or other specific part the document contains such fact.

G-11 For each answer to each interrogatory herein (or any subpart or part thereof), please identify each item of information in possession of Applicants (including facts, opinions of experts, and documents) which (a) contradicts the answer you made, (i) in whole (ii) in part (please identify each such part for each item of information identified); (b) casts doubt on your answer (i) in whole (ii) in part (please identify each such part for each item of information identified). (c) Please identify all documents not already identified in response to parts (a) and (b) above (and their subparts) which contains any item of information asked for in (a) or (b) above. Please identify for each such document what information item(s) it contains and what answer(s) each such item is related to.

INTERROGATORIES ON EDDLEMAN 15AA : The first ~~two~~ will include those agreed to be OK from January 1989 and others to follow. None are here.

INTERROGATORIES ON 8 F 1:

*8F1-1 (a) What do Applicants believe are the health effects of the coal emissions given in Table S-3? PLEASE state them in detail and explain the basis of your belief, identifying all documents, expert opinions and other information you rely on.

(b) Have Applicants (i) made any study (ii) had made for them any study (iii) participated in any study (iv) received any studies, of the health effects of coal-fired power plant emissions?

(c) For each part of (b) above for which your answer is affirmative, please identify each such study, its authors, title, date and all documents containing it.

(d) Are Applicants aware of any other studies of the health effects of coal pollution for which they do not possess a copy of the study?

(e) If answer to (d) is affirmative, please identify each such study and give as complete a citation of it as you have (e.g. name, author(s), title, date, publisher, source, who commissioned it or sponsored it).

(f) Do Applicants have anyone working for them (i) as an employee (ii) as a consultant (iii) in any other capacity, whom they believe is an expert in the health effects of coal-fired power plant emissions (such as given in Table S-3)?

(g) Please identify each such person for which your answer to any part of (f) above is affirmative, giving name, address, phone, title, and professional qualifications if known

(h) Have Applicants participated in other proceedings in which the health effects of coal pollution were at issue, i.e. the health effects of emissions from coal-fired power plants?

(j) If answer to (h) is affirmative, please identify each such proceeding in which Applicants or any of them (E.g. CP&L) presented any (i) statement of position (ii) evidence (iii) submissions for the record (iv) expert testimony (v) expert witness, on the subject of health effects of coal pollution as defined in this contention, or as you define them.

(k) Please identify each document, statement, witness, item of evidence and testimony submitted in each proceeding identified in response to (j) above.

*8F1-2(a) Do Applicants believe the health effects of the coal-fired power plant emissions given in Table S-3 of 10 CFR 51.20 are proper to include in the NEPA cost-benefit balance for the Harris plant?

(b) Please give a full explanation of your answer to (a) above and fully cite any authority on which you rely for it.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the matter of CAROLINA POWER & LIGHT CO. Et al.)
Shearon Harris Nuclear Power Plant, Units 1 and 2)

Dockets 50-400
and 504401 O.L.

CERTIFICATE OF SERVICE

I hereby certify that copies of Amendment to Motion to Compel on 4/16/83
Security Experts, Joint I Intervenor's Response to Board 8-24 Order re Spent Fuel,
of 6-30-83; 5 Factors re Site E Plan & ORDER Request for Clarification &
Reconsideration of 8-18-83 ORDER; update re 373 by wgs; Joint Intervenor's Response to
HAVE been served this 31 day of August 1983, by deposit in NK

the US Mail, first-class postage prepaid, upon all parties whose Inter
names are listed below, except those whose names are marked with
an asterisk, for whom service was accomplished by (** see below left)

JI →
Response
to
Discovery
on
Joint II
↑

* Hand delivered to CP&L HQ Legal Dept 8-31
for Samantha Flynn and or Hill Carrow

Judges James Kelley, Glenn Bright and James Carpenter (1 copy each) **
Atomic Safety and Licensing Board
US Nuclear Regulatory Commission
Washington DC 20555

* George F. Trowbridge (attorney for Applicants)
Shaw, Pittman, Potts & Trowbridge
1800 M St. NW
Washington, DC 20036

Ruthanne G. Miller
ASLB Panel
USNRC Washington DC 20555

Office of the Executive Legal Director **
Attn Dockets 50-400/401 O.L.
USNRC
Washington DC 20555

Phyllis Lotchin, Ph.D.
108 Bridle Run
Chapel Hill NC 27514

Docketing and Service Section (3x)
Attn Dockets 50-400/401 O.L.
Office of the Secretary
USNRC
Washington DC 20555

Dan Read
CHANGE/FLP
5707 Wavcross
Raleigh, NC 27606

John Runkle
CCNC
307 Granville Rd
Chapel Hill Nc 27514

Karen E. Long
Box 991
Raleigh NC 27602

Dr. Linda W. Little
Governor's Waste Mgt. Bd.
513 Albemarle Bldg.
325 N. Salisbury St.
Raleigh, NC 27611

Travis Payne
Edelstein & Payne
Box 12607
Raleigh NC 27605

Bradley W. Jones **
USNRC Region II
101 Marietta St.
Atlanta GA 30303

Richard Wilson, M.D.
729 Hunter St.
Apex NC 27502

Certified by

W. E. Eddleman

**
Only
Judge
Kelley &
CA Barth
(DELD)
for
interrogatory
responses.

*8F2-3(a) Do Applicants have any opinion as to what the health effects of the radiological effluents given in Table S-3 are?

(b) If so, please state that opinion and give the identification of any documents or work papers containing it.

(c) Please fully cite all basis, expert opinions, or authorities on which you rely in holding the opinion inquired about in (a) above.

(d) If you had an opinion (in response to (a)), do you know if NRC Staff shares that opinion or not?

(e) If answer to (d) is affirmative, what is your understanding of NRC Staff's position on the health effects of these radiological effluents? Is it the same as your position? If not, how do the two differ?

(f) Do Applicants agree that the health effects of the effluents (radiological) as given in Table S-3 should be ~~xxx~~ considered in the cost-benefit balance for Harris licensing under NEPA (operating license state)?

(g) Please state in full the basis for your answer to (f) above including any expert opinions or documents on which you rely, any authority on which you rely, and any other basis for your answer.

8F2-4(a) Applicants agreed that 8F2 (as admitted in your rewording) was an admissible contention, didn't you?

(b) Do you agree with any part of the contention 8F2?

(c) If answer to (b) is affirmative, please state which part(s) and for each part, explain why.

(d) If answer to (b) is other than affirmative, please state in detail all your disagreements with each part of 8F2, giving for each part the basis of your disagreements, a list of your disagreements, and citing fully any authorities, experts or documents on which you rely.

(e) If you have not formed an opinion with respect to any part of 8F2, please so state.

8F2-5(a) What ^{analysis or} analysis have Applicants made, or had made, or commissioned or ordered, it concerns (i) food chain concentration analyses (ii) radionuclide concentration values (iii) doses from external emitters (iv) doses from internal emitters?

(b) Please state who made each analysis for each part of (a) above for which your answer is affirmative, state their qualifications to make the analysis, state whether they did it for Applicants, state whether it was done as an employee, ~~xxx~~ as a consultant, under some other instruction or commission from Applicants, or otherwise, and identify all documents containing such analysis, for each such analysis ^{or study}.

(c) Are Applicants aware of any analysis ^{or study} by anyone else of NRC translation 520, concerning any of the matters asked about in (a)(i) through (a)(iv) above?

(d) If answer to (c) is affirmative, please identify each such analysis or study, who made it, when, and identify all documents containing each such, stating whether you possess a copy.

PRODUCTION OF DOCUMENTS

Wells Eddleman hereby requests Applicants to produce the original or best copy of all documents identified above in response to the above interrogatories for inspection and copying at a time and place mutually agreeable. Documents re Eddleman 15AA are not included in this request and may be produced when documents requested in the rest of the first round questions on 15AA would be due.

8-31-83 Wells Eddleman

INTERROGATORIES ON 8F1 continued

*8F1-3(a) Has CP&L supplied any estimates of health effects of emissions from coal-fired power plants to NRC in the past?

(b) Did CP&L ever do any comparison of the health effects of emissions from a coal-fired power plant and the Harris plant (i) for its own studies of what kind of plant to build when it was considering ~~building~~ building the new power plant that eventually became Harris (ii) for its own use at any other time or in any connection (iii) for submission to the NRC or AEC in connection with the Harris construction permit (iv) for the use or for distribution to any other entity besides CP&L and the AEC/NRC?

(c) Please identify all documents in which any estimates or comparisons inquired about in (a) or (b) above were made, identifying each fully and stating which part of (b) (or, if appropriate, was it (a)) that it was asked about in.

(d) Is CP&L aware of ⁽ⁱ⁾any EPRI studies on health effects of coal pollution? (ii) of any National Academy of Sciences studies on health effects of coal pollution (that term means emissions from coal-fired power plants, throughout this set of interrogatories) (iii) of any National Research Council studies on health effects of coal pollution (iv) of any EPA studies on health effects of coal pollution (v) of any studies by scientists on health effects of coal pollution (vi) of any studies by medical personnel or epidemiologists or statisticians on health effects of coal pollution?

(e) For each part of (d) above for which your answer is affirmative, please identify each study in detail, and state whether CP&L possesses a copy. If you do not possess a copy do you have the right to obtain a copy?

(f) Is CP&L aware of any analysis of health effects of coal pollution by NRC Staff?

(g) If answer to (f) is affirmative, please identify each document containing such analysis which you are aware of and state whether you possess a copy.

INTERROGATORIES ON 8F2

**8F2-1(a) Does CP&L know of any NRC Staff ^{description, information or} analysis, in a DES or other place, of health effects of radiological effluents of the nuclear fuel cycle (excepting power reactor operation), (i) as given in Table S-3 (ii) otherwise?

(b) If answer to (a) above is affirmative, please identify each analysis or description, analysis or information and all documents containing it. Please state if you possess a copy or not for each such document.

8F2-2(a) Is CP&L in possession of any documents that discuss the health effects of effluents from the ~~nuclear fuel~~ nuclear fuel cycle, (i) as given in Table S-3 (ii) for parts of the cycle other than power reactor operations (iii) that document or compute any such health effects for radiological effluents from the nuclear fuel cycle?

(b) If answer to any part of (a) above is affirmative, for each such part please identify each such document and tell what it discusses, documents or computes.