

RELATED CORRESPONDENCE

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD



In the Matter of)

CAROLINA POWER & LIGHT COMPANY)
ANL NORTH CAROLINA EASTERN MUNICIPAL)
POWER AGENCY)

(Shearon Harris Nuclear Power Plant,)
Units 1 & 2)

) Docket Nos. 50-400 OL
) 50-401 OL
)

APPLICANTS' INTERROGATORIES AND REQUEST FOR PRODUCTION OF
DOCUMENTS TO INTERVENOR WELLS EDDLEMAN (FOURTH SET)

Pursuant to 10 C.F.R. §§ 2.740b and 2.741 and to the Atomic Safety and Licensing Board's "Memorandum and Order (Reflecting Decisions Made Following Prehearing Conference)" of September 22, 1982, Carolina Power & Light Company and North Carolina Eastern Municipal Power Agency hereby request that Intervenor Wells Eddleman answer separately and fully in writing, and under oath or affirmation, each of the following interrogatories, and produce and permit inspection and copying of the original or best copy of all documents identified in the response to interrogatories below.

Under the Commission's Rules of Practice, answers or objections to these interrogatories must be served within 14 days after service of the interrogatories; responses or objections to the request for production of documents must be served within 30 days after service of the request.

These interrogatories are intended to be continuing in nature, and the answers should promptly be supplemented or amended as appropriate, pursuant to 10 C.F.R. § 2.740(e), should you or any individual acting on your behalf obtain any new or differing information responsive to these interrogatories. The request for production of

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documents is also continuing in nature and you must produce immediately any additional documents you or any individual acting on your behalf, obtain which are responsive to the request, in accordance with the provisions of 10 C.F.R. § 2.740(e).

Where identification of a document is requested, briefly describe the document (e.g., book, letter, memorandum, transcript, report, handwritten notes, test data) and provide the following information as applicable: Document name, title, number, author, date of publication and publisher, addressee, date written or approved, and the name and address of the person or persons having possession of the document. Also state the portion or portions of the document (whether section(s), chapter(s), or page(s)) upon which you rely.

Definitions. As used hereinafter, the following definitions shall apply:

The "ER" is the Environmental Report - Operating License Stage for the Shearon Harris Nuclear Power Plant, as amended.

The "FSAR" is the Final Safety Analysis Report for the Shearon Harris Nuclear Power Plant, as amended.

"Applicants" is intended to encompass Carolina Power & Light Company, North Carolina Eastern Municipal Power Agency and their contractors for the Harris Plant.

"Document(s)" means all writings and records of every type in the possession, control or custody of Wells Eddleman or any individual acting on his behalf, including, but not limited to, memoranda, correspondence, reports, surveys, tabulations, charts, books, pamphlets, photographs, maps, bulletins, minutes, notes, speeches, articles, transcripts, voice recordings and all other writings or recordings of any kind; "document(s)" shall also mean copies of documents even though the originals thereof are not in the possession, custody, or control of Wells Eddleman; a document shall be deemed to be within the "control" of Wells Eddleman or any individual acting on his behalf if he has ownership, possession or custody of the document or copy thereof, or has the right to secure the

document or copy thereof, from any person or public or private entity having physical possession thereof.

General Interrogatories

4-1(a). State the name, present or last known address, and present or last employer of each person, other than affiant, who provided information to you upon which you relied in answering each interrogatory herein, or who otherwise assisted you in answering each interrogatory herein.

(b). Identify all such information which was provided by each such person and the specific interrogatory response in which such information is contained.

(c). For each such person who provided you with information upon which you relied in answering any interrogatory herein or who assisted you in answering any interrogatory herein and who is an expert (i) provide that person's expertise and facts supporting his expertise, (ii) if that person has been "retained or specially employed," state in detail the facts underlying any "retained or specially employed status," (iii) if that person's identity is being withheld, (A) explain the need to withhold such person's identity, (B) state the protection or privilege upon which you rely in withholding the person's identity (see Licensing Board's Memorandum and Order of May 27, 1983).

(d). For each such person who provided you with information upon which you relied in answering any interrogatory herein or who assisted you in answering any interrogatory herein and who is not an expert, identify that person in accordance with the Licensing Board's Memorandum and Order of May 27, 1983.

4-2(a). Identify all documents in your possession, custody or control, including all relevant page citations, upon which you relied in answering each interrogatory herein.

(b). Identify the specific interrogatory response(s) to which each such document relates.

4-3(a). Identify any other source of information, not previously identified in response to Interrogatories 1 or 2, which was used in answering the interrogatories set forth herein.

(b). Identify the specific interrogatory response(s) to which each such source of information relates.

Interrogatories on Contention 75

75(4th)-1. Please describe in detail how a blocking of the SHNPP condensers by corbicula or other marine growth will prevent plant access to its ultimate heat sink.

75(4th)-2(a). Do you contend that marine (salt or brackish) water organisms are capable of biofouling the SHNPP condensers?

(b). If the answer to (a) is affirmative, state in detail all facts which support your allegation that marine (salt or brackish) water organisms are capable of biofouling the SHNPP condensers? Your answer should include, but not be limited to, the identity of each such organism and whether it is endemic to North Carolina, whether it is endemic to the SHNPP area, and the method of biofouling of each.

(c). Under what environmental conditions would each organism not be able to survive?

75(4th)-3(a). Do you contend that freshwater organisms other than Corbicula are capable of biofouling the SHNPP condensers?

(b). If the answer to (a) is affirmative, state in detail all facts which support your allegation that freshwater organisms other than Corbicula are capable of biofouling the SHNPP condensers. Your answer should include, but not be limited to, the specific identity of each such organism, whether it is endemic to North Carolina, whether it is endemic to the SHNPP area, and the method of, and time required for, biofouling of each.

(c). Under what environmental conditions would each organism not be able to survive?

75(4th)-4(a). For each organism identified to response to Applicants Interrogatory 75(4th)-2(b) and 75(4th)-3(b), identify which is capable of attachment to SHNPP pipes, walls, etc.

(b). For each so identified in (a), state in detail all facts which support your allegation that the organism is capable of attachment to SHNPP pipes, walls, etc.

75(4th)-5(a). For each organism identified in response to Applicants Interrogatories 75(4th)-2(b) and 75(4th)-3(b), identify which can survive periodic applications of chlorine.

(b). For each so identified in (a), state in detail all facts which support your allegation that the organism can survive periodic applications of chlorine.

Interrogatories on Contention 83/84(4th)

83/84(4th)-1(a). Do you contend that the substances NH_2Cl , NHCl_2 , and NCl_3 are carcinogenic?

(b). If the answer to (a) is affirmative, please state in detail all the

facts which support your allegation that NH_2Cl , NHCl_2 , and NCl_3 are carcinogenic. Please specify in your answer the aqueous concentrations at which each substance elicits a carcinogenic response in humans.

83/84(4th)-2(a). Do you contend trichloramine (NCl_3) will be present in SHNPP reservoirs?

(b). If the answer to (a) is affirmative, please state in detail all the facts which support your allegation that trichloramine (NCl_3) will be present in SHNPP reservoirs.

(c). If your answer to (a) is other than affirmative, please explain in detail how your response is consistent with (i) Contention 83/84 (ii) your Response to Applicants' Interrogatory 83/84-1.

83/84(4th)-3(a). Assuming 0.20 mg/l free available chlorine in the SHNPP cooling tower blowdown, what is the minimum concentration of dissolved organic carbon which you believe necessary for the production of halogenated organics in concentrations necessary to cause carcinogenicity in humans.

(b). State in detail all the facts which support your answer to 83/84(4th)-3(a).

83/84(4th)-4(a). Assuming Applicants discharges of chlorine residuals at SHNPP are in accordance with state and federal regulations, do you contend that effluent concentrations of the discharge chlorine residuals are such as to cause carcinogenicity in humans?

(b). If the answer to (a) is affirmative, please state in detail all the facts which support your allegation that, assuming Applicants discharges of chlorine residuals at SHNPP are in accordance with state and federal regulations, effluent concentrations of the discharged chlorine residuals are such as to cause carcinogenicity in humans.

83/84(4th)-5(a). Assuming Applicants discharges of effluents at SHNPP are in accordance with state and federal regulations, do you contend that effluent concentrations are such as to cause carcinogenicity in humans?

(b). If the answer to (a) is affirmative, state in detail all the facts which support your allegation that effluent concentrations are such as to cause carcinogenicity in humans.

(c). If not contained in your answer to (b) please provide the concentration of each effluent and the time of exposure which you contend will cause carcinogenicity in humans. Please identify the types of cancer which you contend will be caused by each effluent.

(d). Please provide the information requested in (c) for all fish, mollusks, waterfowl, or other species in which you contend said effluents will cause carcinogenicity.

83/84(4th)-6(a). Do you contend that free and/or combined chlorine residuals will as a result of operation of SHNPP persist in (i) SHNPP reservoirs and (ii) the Cape Fear River?

(b). If the answer to 83/84-6(a)(i) is affirmative, please state in detail all the facts which support your allegation that free and/or combined chlorine residuals will as a result of operation of SHNPP persist in SHNPP reservoirs. Supporting facts and data should include, but not be limited to (i) chlorine decay rates, (ii) evaporative losses, (iii) light catalyzed decomposition of free chlorine, and (iv) chlorine demand.

(c). If the answer to 83/84-6(a)(ii) is affirmative, please state in detail all the facts which support your allegation that free and/or combined chlorine residuals will as a result of operation of SHNPP persist in the Cape Fear River. Supporting facts and data

should include, but not be limited to (i) chlorine decay rates, (ii) evaporative losses, (iii) light catalyzed decomposition of free chlorine, and (iv) chlorine demand.

83/84(4th)-7(a). Please provide a detailed comparison of the health risks and responses of humans and other organisms exposed to SHNPP chlorine discharges to (i) those exposed to municipal chlorinated drinking water, and (ii) those exposed to chlorinated swimming pools. Your answer should include, but not be limited to, (A) chlorination dosage, (B) all chloro-organic byproducts and concentrations and (C) exposure responses per organism.

83/84(4th)-8(a). In your opinion and/or your expert's opinion, what chemicals which are or will be discharged from SHNPP do you contend are known or suspected carcinogens?

(b). State in detail all facts which support your response to (a).

(c). For each chemical listed in response to (a), what concentration do you contend is or will be discharged from SHNPP?

(d). State in detail all facts which support your response to (c).

(e). In your opinion and/or your expert's, at what concentration would each chemical listed in response to (a) above be considered non-hazardous?

(f). State in detail all facts which support your response to (e).

(g). If not included in your answers above, what analysis and/or studies have you and/or your experts reviewed, performed and/or know of which support your responses to (a), (c) and (e)?

83/84(4th)-9(a). What operating PWR's have a history of discharging or presently discharge carcinogens into lakes and/or rivers?

(b). State in detail all facts which support your response to (a).

(c). What carcinogens are discharged by the PWR's listed in response (a) above, and what is the concentration discharged?

(d). State in detail all facts which support your response to (c).

83/84(4th)-10(a). List each chemical being discharged upstream of SHNPP which you contend makes its way into the Cape Fear River, that are known or suspected carcinogens?

(b). State in detail all facts which support your response to (a).

(c). For each chemical listed in response to (a) above, what concentration is being discharged and from where?

(d). State in detail all facts which support your response to (c).

(e). In your opinion and/or your expert's, at what concentration would each chemical listed in response to (a) above be considered non-hazardous?

(f). State in detail all facts which support your response to (e).

(g). If not included in your answers above, what analysis or studies have you and/or your experts reviewed, performed or know of which support your responses to (a), (c) and (e)?

83/84(4th)-11(a). For each organic chemical listed in your response (and any updates thereto) to Applicants' Interrogatory 83/84-4, provide the specific concentration required for each to react with chlorine, ammonia, and hydrazine.

(b). State in detail all facts which support your answer to (a).

(c). For each organic chemical listed in your response to Applicants' Interrogatory 83/84-4, provide the specific concentration of (i) chlorine, (ii) ammonia, and (iii) hydrazine required to react with that organic chemical.

(d). State in detail all facts which support your answer to (c).

(e). If not included in your answers above, please list and give all details of any analysis and/or studies on which your responses to (a) through (d) are based.

83/84(4th)-12(a). What concentrations of the chemicals to be discharged from SHNPP (which are of concern to you) do you recommend? Your answer should include a list of each chemical with recommended concentration.

(b). For your response to (a), provide the basis for each concentration you recommend.

83/84(4th)-13(a). Assuming that Federal and State discharge limits on the specific chemicals being released by SHNPP are not exceeded, do you contend that the plant nevertheless poses a risk to public/private waters?

(b). If your response to (a) is affirmative, please provide all facts including studies, reports and/or analyses which support your opinion.

83/84(4th)-14(a). Please list all studies of which you are aware of chemicals and/or metals and their salts found in the waters of (i) the Haw River, (ii) the Jordan Lake, (iii) the Cape Fear River above the Harris plant intake, or any other tributary thereof other than the Haw, (iv) Buckhorn Creek, (v) White Oak Creek?

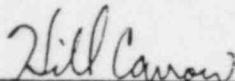
(b). Please state for each such study identified in response to (a) all details such as author, chemicals identified, concentrations, methods used, assumptions, etc.

REQUEST FOR PRODUCTION OF DOCUMENTS

Applicants request that Wells Eddleman respond in writing to this request for production of documents and produce the original or best copy of each of the documents

identified or described in the answers to each of the above interrogatories at a place mutually convenient to the parties.

Respectfully submitted,



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Date: June 30, 1983

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NUCLEAR REGULATORY COMMISSION

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CAROLINA POWER & LIGHT COMPANY)
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POWER AGENCY)

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) Docket Nos. 50-400 OL
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CERTIFICATE OF SERVICE

I hereby certify that copies of "Applicants' Interrogatories And Request For Production Of Documents To Intervenor Wells Eddleman (Fourth Set)" were served this 30th day of June, 1983, by deposit in the U. S. mail, first class, postage prepaid, to the parties on the attached Service List.

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