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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

| | | |
|--------------------------------|---|-----------------------|
| In the Matter of |) | |
| |) | |
| CAROLINA POWER & LIGHT COMPANY |) | Docket Nos. 50-400 OL |
| AND NORTH CAROLINA EASTERN |) | 50-401 OL |
| MUNICIPAL POWER AGENCY |) | |
| |) | |
| (Shearon Harris Nuclear Power |) | |
| Plant, Units 1 and 2) |) | |

APPLICANTS' RESPONSES TO
WELLS EDDLEMAN'S GENERAL
INTERROGATORIES AND INTERROGATORIES
ON CONTENTION 8F(2) TO APPLICANTS
CAROLINA POWER & LIGHT COMPANY, et al.
(FIFTH SET)

Applicants Carolina Power & Light Company and North Carolina Eastern Municipal Power Agency, pursuant to 10 C.F.R. § 2.740b, hereby submit the following responses to "Wells Eddleman's General Interrogatories and Interrogatories on Contention 8F(2) to Applicants Carolina Power & Light Company, et al. (Fifth Set)." The provision of answers to these interrogatories is not to be deemed a representation that Applicants consider the information sought to be relevant to the issues to be heard in this proceeding.

RESPONSES TO GENERAL INTERROGATORIES

INTERROGATORY NO. G-1(a). Which contentions of Wells Eddleman do Applicants agree are now admitted in this proceeding, NRC Dockets 50-400/401 O.L.?

ANSWER: The contentions of Intervenor Eddleman which are admitted to this proceeding are set forth in Applicants' "Admitted Contentions," dated January 21, 1983 and the Board's Memorandum and Order (Ruling on Wells Eddleman's Contentions on the Staff Draft Environmental Statement), dated August 18, 1983.

INTERROGATORY NO. G-1(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.

ANSWER: The answers to General Interrogatories herein are restricted to Eddleman Contention 8F(2).

INTERROGATORY NO. G-1(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.

ANSWER: The following list identifies those persons who provided information upon which Applicants relied in answering the interrogatories on Eddleman Contention 8F(2) and indicates the particular interrogatory answer(s) for which each such person provided information.

PERSON

INTERROGATORY NO(S).

Dr. G. Hoyt Whipple

8(F)-3, 8F(2)-4(b),(d)

Dr. Whipple is an independent consultant to Carolina Power & Light Company, 3301 Rutland Loop, Tallahassee, Florida 32312.

PERSON

INTERROGATORY NO(S).

Billy H. Webster

8F(2)-1, 8F(2)-2, 8F(2)-3,
8F(2)-4, 8F(2)-5

Mr. Webster is employed by Carolina Power & Light Company, Shearon Harris Energy and Environmental Center, Route 1, Box 327, New Hill, North Carolina 27562.

INTERROGATORY NO. G-1(d). Please identify all facts concerning which each such person identified in response to G-1(c)(1) above has first-hand knowledge.

ANSWER: See answer to Interrogatory No. G-1(c).

INTERROGATORY NO. G-1(e). Please identify all facts and/or documents upon which each person identified in response to G-1(c)(2) above relied in providing information to respond to the interrogatory, including the parts of such documents relied upon.

ANSWER: All facts or documents relied upon by those individuals identified in the answer to Interrogatory No. G-1(c) are indicated within each response to the specific interrogatories on Contention 8F(2).

INTERROGATORY NO. G-1(f). Please identify any other document(s) used or relied upon by Applicants in responding to the interrogatory.

ANSWER: See answer to Interrogatory No. G-1(e).

INTERROGATORY NO. G-1(g). Please state which specific fact each document, identified in G-1(e) and G-1(f) above, supports, in the opinion or belief of Applicants, or which Applicants allege such document supports.

ANSWER: Applicants have indicated which specific facts are supported by the documents identified, within each response to the specific interrogatories on Contention 8F(2).

INTERROGATORY NO. G-1(h). Please state specifically what information each person identified in response to G-1(c)(1) or G-1(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 G-1.

ANSWER: See answer to Interrogatory No. G-1(c).

INTERROGATORY NO. G-2(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 Eddleman. This applies to Eddleman and Joint Contentions as admitted, or stipulated by Applicants.

ANSWER: Applicants have not yet identified the expert or other witnesses they expect to call in this proceeding. When and if such witnesses are identified, Applicants will supplement this response in a timely manner.

INTERROGATORY NO. G-2(b). Please identify each contention regarding which each such person is expected to testify.

ANSWER: See answer to Interrogatory No. G-2(a).

INTERROGATORY NO. G-2(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.

ANSWER: See answer to Interrogatory No. G-2(a).

INTERROGATORY NO. G-2(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.

ANSWER: See answer to Interrogatory No. G-2(a).

INTERROGATORY NO. G-2(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.

ANSWER: See answer to Interrogatory No. G-2(a).

INTERROGATORY NO. G-3(a). Please identify any other source(s) of information which Applicants have used to respond to any interrogatory identified under G-1 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.

ANSWER: Applicants have identified all such other sources of information, if any, within the answers to the specific interrogatories set forth herein.

INTERROGATORY NO. G-3(b). Please identify any other source(s) of information not previously identified upon which any witness identified under G-2 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.

ANSWER: See answer to Interrogatory No. G-2(a).

INTERROGATORY NO. G-4(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 to use such document in cross-examination.

ANSWER: Applicants have not yet identified which documents, if any, they intend to use in cross-examination of Mr. Eddleman's witnesses.

INTERROGATORY NO. G-4(b). Please identify any undocumented information Applicants intend to use in cross-examination of each such witness for me.

ANSWER: See answer to Interrogatory No. G-4(a).

INTERROGATORY NO. G-5(a). For each contention Applicants state or admit is an admitted Eddleman contention under G-1(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.

ANSWER: Applicants have available to them experts and information on the subject matter of Contention 8F(2).

INTERROGATORY NO. G-5(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.

ANSWER: Not applicable.

INTERROGATORY NO. 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, of the document, if any, upon which Applicants rely
- (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 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.

ANSWER: All such information available to the Applicants with regard to each document identified in response to an interrogatory herein is available with that particular document which is being made available to Mr. Eddleman. It would be particularly burdensome for Applicants to research all historical employment records to determine whether the authors of each document identified herein have ever been employed by

Applicants. However, Applicants will supplement this response in a timely manner if and when Mr. Eddleman identifies any such author regarding which he is particularly interested in determining this information.

INTERROGATORY NO. 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 G-1(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.

ANSWER: Applicants have not yet identified those documents they intend to offer as exhibits relating to Eddleman Contention 8F(2).

INTERROGATORY NO. G-7(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 G-1(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.

ANSWER: Applicants have not yet identified those documents they intend to use for cross examination of any witnesses.

INTERROGATORY NO. G-7(c). Please identify which of the documents identified in response to (b) above (i) 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.

ANSWER: See answer to Interrogatory No. G-7(b).

INTERROGATORY NO. G-8(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.

INTERROGATORY NO. 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) 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 contention for which that person supplied information.

INTERROGATORY NO. 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.)

OBJECTION: Applicants have previously objected to General Interrogatories Nos. G-8 and G-9 as being overly broad, irrelevant, burdensome and seeking protected and privileged information. See, e.g., "Applicants' Response to Wells Eddleman's

General Interrogatories and Interrogatories on Contentions 64(f) and 67 to Applicants Carolina Power & Light Company, et al. (Second Set)," dated May 27, 1983, at 8-11; "Applicants' Answer to Intervenor Wells Eddleman's Motions to Compel Discovery Re Applicants' Responses to Interrogatories on Contentions 64(f), 67 and 80 and General Interrogatories 6-8 and 6-9," dated August 31, 1983, at 5-7. Applicants renew their objections here.

INTERROGATORY NO. G-10(a). Where the above general interrogatories, and/or specific interrogatories below, 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 of the document contains such fact.

ANSWER:

- (a)(i) Yes.
- (ii) Yes.
- (iii) Not applicable.
- (iv) Not applicable.
- ((b)(i) Yes.
- (ii) See Answers to G-1(e), (b) and (g).
- (iii) See Attachments A and B hereto.
- (iv) Not applicable.
- (v) Not applicable.
- (vi) Not applicable.

INTERROGATORY NO. 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 contain 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.

ANSWER: Applicants have no such information.

ANSWERS TO INTERROGATORIES ON EDDLEMAN 8F(2)

INTERROGATORY NO. 8F(2)-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?

INTERROGATORY NO. 8F(2)-1(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.

ANSWER: (a/b) Yes. Shearon Harris DES, Appendix C. Applicants possess a copy.

INTERROGATORY NO. 8F(2)-2(a): Is CP&L in possession of any documents that discuss the health effects of effluents from the 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?

ANSWER: See Answer to 8F(2)-1(b) and 8F(2)-5(d).

INTERROGATORY NO. 8F(2)-2(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.

ANSWER: Not applicable.

INTERROGATORY NO. 8F(2)-3(a): Do Applicants have any opinion as to what the health effects of the radiological effluents given in Table S-3 are?

ANSWER: Yes. The effect is insignificant compared to naturally occurring effects.

INTERROGATORY NO. 8F2-3(b): If so, please state that opinion and give the identification of any documents or work papers containing it.

ANSWER: Applicants have not set forth this opinion in other documents or work papers.

INTERROGATORY NO. 8F(2)-3(c): Please fully cite all basis, expert opinions, or authorities on which you rely in holding the opinion inquired about in (a) above.

ANSWER: Shearon Harris DES, Appendix C and references cited therein.

INTERROGATORY NO. 8F(2)-3(d): If you had an opinion (in response to (a)), do you know if NRC Staff shares that opinion or not?

ANSWER: Yes.

INTERROGATORY NO. 8F(2)-3(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?

ANSWER: The NRC Staff position is as set forth in the Shearon Harris DES and is the same as Applicants' opinion.

INTERROGATORY NO. 8F(2)-3(f): Do Applicants agree that the health effects of the effluents (radiological) as given in Table S-3 should be considered in the cost-benefit balance for Harris licensing under NEPA (operating license state)?

ANSWER: Applicants agree that the health effects of the radiological effluents specified in Table S-3 have been considered by the NRC Staff in the Shearon Harris DES, and that Wells Eddleman's objection to this analysis has been admitted as a contention in this proceeding.

INTERROGATORY NO. 8F(2)-3(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.

ANSWER: Shearon Harris DES, Appendix C; Memorandum and Order of the Atomic Safety and Licensing Board in this proceeding, dated August 18, 1983.

INTERROGATORY NO. 8F(2)-4(a): Applicants agreed that 8F(2) (as admitted in your rewording) was an admissible contention, didn't you?

ANSWER: Yes.

INTERROGATORY NO. 8F(2)-4(b): Do you agree with any part of the contention 8F(2)?

ANSWER: No.

INTERROGATORY NO. 8F(2)-4(c): If answer to (b) is affirmative, please state which part(s) and for each part, explain why.

ANSWER: Not applicable.

INTERROGATORY NO. 8F(2)-4(d): If answer to (b) is other than affirmative, please state in detail all your disagreements with each part of 8F(2), 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.

ANSWER: The DES assessment of health effects in Appendix C encompasses health effects for a 100-1000 year period. This is not inadequate. The effect in that time period is insignificant in comparison with naturally occurring effects. For longer periods of time the projection of continuing effect is

too speculative to be scientifically reliable since the projection postulates no advancement in medicine or in disease control, assumptions at odds with history. In any event, given the fact of radionuclide decay over time, the health effect over any time period however long will be no greater in proportion to the naturally occurring incidence of such effects than in the first 100-1000 years. In short, the effect presently is insignificant in comparison with naturally occurring effects and can be expected to remain so. As to the remaining three elements of Contention 8F(2), we understand these to be based on the Heidelberg Report, NRC Translation 520. See Joint Intervenor's Answer to Interrogatory 11-21. We disagree with this Report. The Report has been reviewed and thoroughly discredited. See the following:

E.F. Branagan, F.J. Congel, et al. Staff Review of "Radioecological Assessment of the Wyhl Nuclear Power Plant." NUREG-0668, June 1980

Letter from Ekkehard K.F. Bautz, Dean, Faculty of Biology, University of Heidelberg, October 11, 1981, to Denwood F. Ross, Jr., Director, Division of Systems Integration, Office of Nuclear Reactor Regulation, U.S. Nuclear Regulatory Commission.

Society for Reactor Safety (German, GRS), Comment on "The Radioecological Opinion on the Nuclear Power Plant Wyhl" Conducted by The Tutorium Environmental Protection at the University of Heidelberg. March 1979.

INTERROGATORY NO. 8F(2)-4(e): If you have not formed an opinion with respect to any part of 8F(2), please so state.

ANSWER: Not applicable.

INTERROGATORY NO. 8F(2)-5(a): What study and analysis have Applicants made or had made, or commissioned or ordered of NRC Translation 520 as it concerns (i) food chain concentration analyses (ii) radionuclide concentration values (iii) doses from external emitters (iv) doses from internal emitters?

INTERROGATORY NO. 8F(2)-5(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, 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.

ANSWER: (a/b) Applicants believe Translation 520 has been discredited. See Answer to 8F(2)-4(d). To date, Applicants have not conducted a review of Translation 520 on the points referenced in the Interrogatory. To the extent Applicants' consultants, witnesses or counsel may prepare such a critique as a part of trial preparation, such efforts clearly fall within the trial preparation and/or work product exception to the general rules of discovery. See 10 C.F.R. § 2.740(b)(2); Rule 26(b)(3).

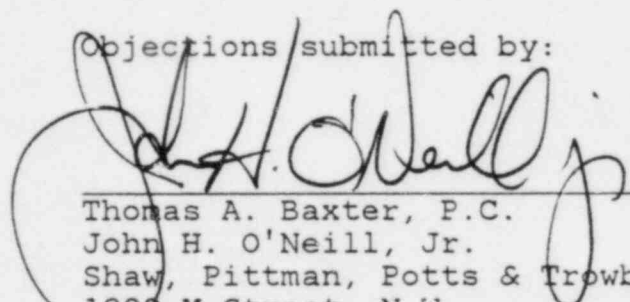
INTERROGATORY NO. 8F(2)-5(c): Are Applicants aware of any analysis or study by anyone else of NRC Translation 520, concerning any of the matters asked about in (a)(i) through (a)(iv) above?

INTERROGATORY NO. 8F(2)-5(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.

ANSWER: (c/d) See Answer to Interrogatory 8F(2)-4(d).

Applicants possess copies of the referenced critiques of NRC Translation 520.

Objections submitted by:



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Dated: September 22, 1983

BIOGRAPHICAL DATA

September 1983

NAME; G. Hoyt Whipple

BORN: May 4, 1917. San Francisco, California

EDUCATION:

Public Schools, Rochester, New York

Wesleyan University, 1935-1939, B.S. in chemistry

Massachusetts Institute of Technology Graduate School, 1939-1942, no degree

University of Rochester Graduate School, 1950-1953, Ph.D. in biophysics

EXPERIENCE;

M.I.T. Division of Industrial Cooperation, 1942-1947, Loran, Radar, food dehydration and aerial bomb fuses.

General Electric Company, Hanford Works, Richland, Washington, 1947-1950, research and development on health physics problems and instruments

University of Rochester Atomic Energy Project, 1950-1957, teaching in health physics and research in biophysics

University of Michigan School of Public Health, 1957-1982, Associate Professor of Radiological Health, 1957-1960, Professor of Radiological Health, 1960-1982, Professor Emeritus of Environmental and Industrial Health, May 1982

PROFESSIONAL SOCIETIES;

American Association for the Advancement of Science

American Industrial Hygiene Association

Health Physics Society

Society for Risk Analysis

CERTIFICATION;

American Board of Health Physics

American Board of Industrial Hygiene, in Radiological Aspects of Industrial Hygiene

ACTIVE CONSULTANTSHIPS:

| | |
|--------------------------------|------------|
| Rochester Gas & Electric Corp. | Since 1954 |
| Utilities Air Regulatory Group | 1980 |
| Kerr-McGee Corp. | 1981 |
| Carolina Power & Light Co. | 1983 |

PREVIOUS CONSULTING:

U.S. Air Force

U.S. State Department

International Atomic Energy Agency

World Health Organization

U.S. Atomic Energy Agency

Eastman Kodak Co.

PUBLICATIONS BY G. HOYT WHIPPLE

1. Results of Some Statistical Tests of Particle Counters (with W.R. Portch). Hanford Works Report AECD-4022, 1948.
2. Extrapolation Chamber Measurements of the Beta-Ray Surface Dose from Uranium (with H.E. Leap, Jr.). Hanford Works Report HW-11379, October 1948.
3. Fast Neutron Sensitivity of the CP Meter (with E.E. Baker and F.R. Gydesan). Hanford Works Report HW-13658, 1948.
4. Fast Neutron Counter for Health Physics Measurements (with J.S. Reddie). Hanford Works Report HW-17561, 1950.
5. Fast Neutron Survey of the Small Rochester Cyclotron. University of Rochester A.E.P. Report UR-142, pp. 96-125, 1950.
6. Biological Effects of Ionizing Radiations (with M. Ingram, W.B. Mason and J.W. Howland). University of Rochester A.E.P. Report UR-196, 1952
7. Luminous Bacteria as a Radiological Test Organism, with Special Reference to the Radiations from a 130-Inch Frequency Modulated Cyclotron (thesis). University of Rochester A.E.P. Report UR-249, 1953.
8. Luminous Bacteria as a Radiobiological Test Organism. J. Cell and Comp. Physiol. 43:415-424, 1954
9. Personnel Protection in the Radioactive Inhalation Program (with J.N. Stannard, G.J. Miller M.L. Ingram and T.T. Mercer). University of Rochester A.E.P. Report UR-310, 1955.
10. The Management of Power Reactor Wastes. AIHA Quarterly, 17:421-425, 1956.
11. Radiation Hazard Control for a Power Reactor. Mechanical Engineering, pp. 253-258, March, 1957, and Problems in Nuclear Engineering, Vol. I, pp. 61-67, New York, Pergamon, 1957.
12. Radiation Safety in the Nuclear Industry (with Walter D. Claus). Whaley-Eaton Service, Atoms for Peace, April 11 12 and 19, 1957.
13. Health Physics Instrumentation for a Power Reactor. Electrical Engineering, July, 1957, p. 606-611, and in Adv. in Nuc. Eng. Vol. II, Pergamon, New York, 1957.
14. Polonium Urinalysis (with Carolyn A. Krebs). University of Rochester A.E.P. Report UR-501, 1957.

15. Pre-Operational Environmental Survey for a Power Reactor, AIHA Quarterly, 18:4, 315-318, 1957.
16. Health Physics Responsibilities to Management. Health Physics, 1:71-75, 1958.
17. Health Physics Training. Symposium on Health Physics in Biology and Medicine Held at the University of Puerto Rico School of Medicine, San Juan, May 26-28, 1958. U.S.A.E.C. Report: TID-7572, pp. 14-24.
18. A Generalized Atomic Energy Program (with W. Kerr). Proc. Second U.N. International Conf. on Peaceful Uses of Atomic Energy. Vol. I, pp. 165-171, 1958.
19. Izobrazba Zdravstvenog Fizicara (Training for Professional Health Physicists). Arhiv za Higijenu Rada i Toksikologiju, Vo. 10, No. 4, pp. 345-351, Zagreb, 1959.
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BIOGRAPHICAL DATA

Billy H. Webster

Manager - Radiological & Chemical Support
Carolina Power & Light Company

Education and Training

B.S. Degree in Math/Physics from Georgetown College (1958)

Experience

August 1983 to present employed as Manager - Radiological & Chemical Support in the Radiological & Chemical Support Section of the Operations Training and Technical Services Department. Located at the Harris Energy & Environmental Center in New Hill, North Carolina.

February 1982 employed as Manager - Radiological & Chemical Support in the Radiological & Chemical Support Section of the Technical Services Department. Located at the Harris Energy & Environmental Center in New Hill, North Carolina.

March 1981 employed as Manager - Environmental & Radiation Control in the Environmental & Radiation Control Section of the Technical Services Department. Located at the Harris Energy & Environmental Center in New Hill, North Carolina.

November 1979 employed as Manager - Environmental & Radiation Control in the Environmental & Radiation Control Section of the Nuclear Operations Department. Located at the Harris Energy & Environmental Center in New Hill, North Carolina.

May 1979 employed as a Generation Services Manager in the Generation Services - HE&EC Section of the Generation Department. Located in the General Office, Raleigh, North Carolina.

January 1977 employed as a Director - Environmental & Radiation Control in the Generation Services Section of the Generation Department. Located in the General Office, Raleigh, North Carolina.

July 1972 employed as a Principal Engineer - Radiation Control in the Nuclear Generation Section of the Bulk Power Supply Department. Located in the General Office, Raleigh, North Carolina.

December 1971 employed as a Principal Engineer - Health Physics in the Environmental & Technical Services Section of the Special Services Department. Located in the General Office, Raleigh, North Carolina.

February 1971 employed as a Principal Radiation Control Engineer in the Environmental & Technical Services Section of the Generation & System Operations Department. Located in the General Office, Raleigh, North Carolina.

June 1968 employed as a Senior Engineer in the Production & System Operations Section of the Operating & Engineering Department. Located in the General Office, Raleigh, North Carolina.

December 1966 - Health Physics, Piqua Nuclear Power Facility, Piqua, Ohio.

October 1962 - Shift Health & Safety Engineer, Plum Brook Reactor, Controls for Radiation, Inc.

December 1959 - Health Physicist at General Atomic Company.

August 1958 - Associate Health Physicist at gaseous diffusion plant for Union Carbide Nuclear Company.

Professional Societies

Health Physics Society (National)
NC Health Physics Society (Chairman - Nominating Committee)
American Nuclear Society
Eastern Carolinas Section - American Nuclear Society
Power Reactor Health Physics Group
International Radiation Protection Association
EEI - Health Physics Committee

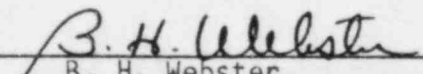
UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION
BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

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|--------------------------------|---|-----------------------|
| In the Matter of |) | |
| |) | |
| CAROLINA POWER & LIGHT COMPANY |) | Docket Nos. 50-400 OL |
| AND NORTH CAROLINA EASTERN |) | 50-401 OL |
| MUNICIPAL POWER AGENCY |) | |
| |) | |
| (Shearon Harris Nuclear Power |) | |
| Plant, Units 1 and 2) |) | |

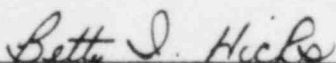
AFFIDAVIT OF B. H. WEBSTER

County of Wake)
)
State of North Carolina)

B. H. Webster, being duly sworn, according to law, deposes and says that he is Manager - Radiological & Chemical Support Section of Carolina Power & Light Company; that the answers to Interrogatories 8F2-1, 2, 3 (A) - (E), and 5 (A), (B) contained in "Applicants Responses to Wells Eddleman's General Interrogatories and Interrogatories on Contentions 8F1 and 8F2 to Applicants Carolina Power & Light Company, et al. (fifth set)," dated August 31, 1983, are true and correct to the best of his information, knowledge and belief; and that the sources of his information are officers, employees, agents, and contractors of Carolina Power & Light Company.


B. H. Webster

Sworn to and subscribed before
me this 19th day of September, 1983.


Notary Public

My commission expires September 28, 1985



UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

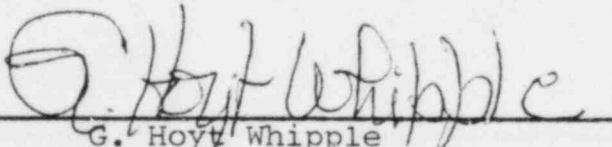
BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

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| In the Matter of |) | |
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| CAROLINA POWER & LIGHT COMPANY |) | Docket Nos. 50-400 OL |
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| Plant, Units 1 and 2) |) | |

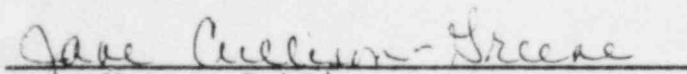
AFFIDAVIT OF G. HOYT WHIPPLE

County of Leon
State of Florida

G. Hoyt Whipple, being duly sworn according to law, deposes and says that he is a consultant to Carolina Power and Light Company in the area of health physics; and that the answers to Interrogatories 8F2-3(a) and (c), and 8F2-4(b) and (d) contained in "Applicants' Responses to Wells Eddleman's Interrogatories on Contention 8F to Applicants Carolina Power and Light Company, et al." are true and correct to the best of his information, knowledge and belief.


G. Hoyt Whipple

Sworn to and subscribed before me,
the 16th day of June, 1983.


Notary Public

My Commission Expires _____