

July 20, 1983

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

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

APPLICANTS' INTERROGATORIES AND
REQUEST FOR PRODUCTION OF DOCUMENTS
TO INTERVENOR WELLS EDDLEMAN (FIFTH SET)
(EDDLEMAN CONTENTIONS 29/30 AND 37B)

Pursuant to C.F.R. §§ 2.740b and 2.741 and to the Atomic Safety and Licensing Board's "Memorandum and Order (Reflecting Decisions Made Following Second Prehearing Conference)" of March 10, 1983, 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 responses to interrogatories below.

These interrogatories are intended to be continuing in nature, and the answers should promptly be supplemented or amended as appropriate, pursuant to 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 documents is also continuing in nature and you must produce immediately any additional documents you, or any individual acting on your behalf, obtains 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 of the document (whether section(s), chapter(s), or page(s)) upon which you rely.

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

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

The "BEIR-III Report" is the 1980 report authored by the National Academy of Science's Committee on the Biological Effects of Ionizing Radiations entitled "The Effects on Populations of Exposure to Low Levels of Ionizing Radiation."

"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 Mr. Eddleman; a document shall be deemed to be within the "control" of Mr. Eddleman or any individual acting on his behalf if they have ownership, possession or custody of the document or copy thereof, or they have the right to secure the document or copy thereof, from any person or public or private entity having physical possession thereof.

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

General Interrogatories

1(a). State the name, present or last known address, and present or last employer of each person (not organization or group), other than affiant, who provided information upon which you relied 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). If, in responding to General Interrogatory 1, you rely on any of the protection afforded in the Licensing Board's Memorandum and Order of May 27, 1983, describe, as applicable, the "expertise" of the persons whose identities are being withheld, the facts underlying any "retained or specially employed" status, the need to withhold each person's identity, and the applicability of any other privilege.

2(a). Identify all documents in your possession, custody and 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.

3(a). Identify any other source of information, not previously identified in response to Interrogatory 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 29/30
(Appendix I Compliance)

29-18. Which NRC regulatory limits or guidelines do you contend Applicants have not met?

29-19(a). Specify the extent to which Applicants have underestimated radioiodine releases during normal operations, taking into account the information provided to you subsequent to your answer to Applicants' Interrogatory 29-2.

(b). Explain the basis for your answer to (a) above and fully cite any authority on which you rely.

29-20(a). Do you maintain that Applicants' radioiodine release estimate has not been calculated in accordance with NRC guidelines?

(b). If your answer to (a) above is in the affirmative, identify those guidelines with which you maintain Applicants' estimate has not complied.

(c). If your answer to (a) above is in the affirmative, explain the basis for your belief and fully cite any authority on which you rely.

(d). If your answer to (a) above is in the negative, do you continue to maintain that Applicants' estimate understates radioiodine releases?

(e). If your answer to (d) above is in the affirmative, to the extent that you maintain the guidelines are responsible for the understatement of the estimate, identify those guidelines.

(f). If your answer to (d) above is in the affirmative, to the extent that you maintain Applicants' data is responsible for the understatement of the estimate, specify which data.

(g). Explain the basis for your answers to (e) and (f) above and fully cite any authority on which you rely.

29-21(a). Identify the sources of the radioiodine, release of which you maintained, in your answer to Applicants' Interrogatory 29-3, Applicants cannot control.

(b). Explain the basis for your answer to (a) above and fully cite any authority on which you rely.

(c). To the extent that you cannot identify any uncontrolled sources, provide the basis for your belief that they exist and fully cite any authority on which you rely.

29-22. Explain why you believe radioiodine leakage is not accounted for in Applicants' radioiodine release estimate, as indicated in your answer to Applicants' Interrogatory 29-3 and fully cite any authority on which you rely.

29-23(a). Do you continue to maintain that Applicants' estimate of SHNPP's radioiodine filtering capability is overstated due to the inefficiencies and failures of these devices as indicated in your answer to Applicants' Interrogatory 29-3?

(b). If your answer to (a) above is in the affirmative, identify those devices whose efficiencies you believe Applicants overstate.

(c). If your answer to (a) above is in the affirmative, identify those devices whose failure rate you believe Applicants understate.

(d). If your answer to (a) above is in the affirmative, explain the basis for your answers to (b) and (c) and fully cite any authority on which you rely.

29-24. Explain the basis for the belief contained in your answer to Applicants' Interrogatory 29-3 that radioiodine releases which avoid filters because of leaks or filter inefficiencies will not be detected by Applicants' monitoring system.

29-25(a). Is NUREG/CR2877 the basis for the conclusion contained in your answer to Applicants' General Interrogatory 1(b), relating to Applicants' Interrogatories 29-1 through 29-17, that gaskets, seals and other closure materials will embrittle and fail, allowing the release of radioiodines at the Harris site?

(b). Identify and fully cite any authority other than NUREG/CR2877 which provides the basis for the conclusion contained in your answer to Applicants' General Interrogatory 1(b) that gaskets, seals, and other closure materials will embrittle and fail, allowing the release of radioiodines at the Harris site.

29-26(a). Is NUREG/CR2763 the basis for the conclusion contained in your answer to Applicants' General Interrogatory 1(b), relating to Applicants' Interrogatories 29-1 through 29-17, that gaskets, seals, and other closure materials will swell and distort allowing the release of radioiodines at the Harris site?

(b). Identify and fully cite any authority other than NUREG/CR2763 which provides the basis for the conclusion contained in your answer to Applicants' General Interrogatory 1(b) that gaskets, seals, and other closure materials will swell and distort allowing the release of radioiodines at the Harris site.

29-27(a). Is NUREG/CR2157 the basis for the conclusion contained in your answer to Applicants' General Interrogatory 1(b), relating to Applicants' Intereogatories 29-1 through 29-17, that gaskets, seals, and other closure materials will degrade, allowing the uncontrolled release of radioiodines at the Harris site?

(b). If the answer to (a) above is in the affirmative, explain the correlation you performed to compare the materials analyzed in NUREG/CR2157 with the closure materials Applicants will utilize at SHNPP.

(c). Specify the dose observed by the test material in NUREG/CR2157 and state why you believe similar doses will be observed by radioiodine handling and monitoring systems during normal operations at SHNPP.

(d). Identify and fully cite any authority other than NUREG/CR2157 which provides the basis for the conclusion contained in your answer to Applicants' General Interrogatory 1(b) that gaskets, seals, and other closure materials will degrade, allowing the uncontrolled release of radioiodines at the Harris site.

(e). State the basis for your belief that the periodic inspections required by Regulatory Guide 1.140 will not result in the detection of degrading material prior to leakage.

29-28(a). Do you continue to maintain that Applicants cannot detect radioiodine releases from numerous points as stated in your answer to Applicants' Interrogatory 29-3?

(b). If your answer to (a) above is in the affirmative, identify those points that will release radioiodine which you maintain Applicants cannot detect.

(c). If your answer to (a) above is in the affirmative, explain the basis for your answer to (b) and fully cite any authority on which you rely.

(d). If your answer to (a) above is in the affirmative, specify what additional monitors or other equipment Applicants must provide in order to detect the radioiodine releases referred to in your answer to Applicants' Interrogatory 29-3.

29-29(a). Do you continue to maintain that Applicants have overstated the extent of radioiodine filtering due to an insufficient number of filters as indicated in your answer to Applicants' Interrogatory 29-3?

(b). If your answer to (a) above is in the affirmative, identify the quantity and positions of the filters which must be added in order for Applicants to be able to comply with Appendix I.

(c). If your answer to (a) above is in the affirmative, explain the basis for your belief and fully cite any authority on which you rely.

29-30(a). Do you continue to maintain that Applicants have underestimated the level of radioiodine releases due to leaks and fitting failures, as indicated in your answer to Applicants' Interrogatory 29-3?

(b). If your answer to (a) above is in the affirmative, identify the specific materials Applicants will use which you maintain will leak or fail.

(c). Explain the basis for your answer in (b) above and fully cite any authority on which you rely.

29-31(a). Do you maintain that Applicants' source term does not account for "variations in plant radioiodine releases" or releases from points Applicants "do not or have not monitored," as indicated in your answer to Applicants' Interrogatory 29-5?

(b). If your answer to (a) above is in the affirmative, explain the basis for your belief and fully cite any authority on which you rely.

(c). Define the term "variations in plant radioiodine releases" used in your answer to Applicants' Interrogatory 29-5.

(d). If your answer to (a) above is in the affirmative, explain how Applicants' source term is affected by these variations in plant radioiodine releases or the fact that Applicants do not or have not monitored certain release points, and fully cite any authority on which you rely.

29-32(a). Explain the basis for the conclusion in your answer to Applicants' Interrogatory 29-5 that TMI accident release diffusion modeling is "no doubt similar to Applicants' modeling" used to demonstrate Appendix I compliance during normal operations at SHNPP.

(b). Fully cite any authority on which you rely in your answer to (a) above.

29-33. In response to Applicants' Interrogatory 29-5 on Eddleman Contention 29, you identified a study by Pisiello, et al. on Kr-85 releases from TMI-2.

(a). Do you contend that the atmospheric conditions at TMI apply to the SHNPP site?

(b). If your answer to (a) above is in the affirmative, identify each and every condition at TMI that you contend is similar to SHNPP.

(c). If your answer to (a) above is other than in the affirmative, explain in detail why the data compiled at TMI are relevant to SHNPP.

(d). Do you contend that the release points and physical conditions of released effluents (pressure, temperature, etc.) at TMI are similar to those at SHNPP?

(e). If your answer to (d) above is in the affirmative, identify those release points

and physical conditions that you contend are similar to SHNPP.

(f). If your answer to (d) above is other than in the affirmative, explain in detail why the data compiled at TMI are relevant to SHNPP.

29-34(a). Do you believe that the natural humidity level at the Harris Plant site will interfere with Applicants' ability to monitor radioiodines, as indicated in your answers to NRC Staff Interrogatories 16 and 19?

(b). If your answer to (a) above is in the affirmative, explain the basis for your conclusion and fully cite any authority on which you rely.

29-35(a). Do you contend that the inclusion in Applicants' radioiodine release estimate of radioiodine products resulting from the decay of radionuclides (daughter radioiodines) would cause those estimates to exceed Appendix I guidelines?

(b). If your answer to (a) above is in the affirmative, explain the basis for your belief and fully cite any authority on which you rely.

29-36(a). Do you accept the definition of background radiation contained in 10 C.F.R. Part 50, Appendix I, Section II.A. footnote 1?

(b). If your answer to (a) above is negative, explain the basis for your disagreement.

(c). If the answer to (a) above is negative, indicate the additions or deletions to that definition which you feel are necessary.

(d). Fully cite any authority on which you rely in your answers to (b) and (c) above.

29-37(a). Do you believe the Harris site background radioiodine level to have been incorrectly measured by Applicants?

(b). If your answer to (a) above is in the affirmative, provide the basis for your belief and fully cite any authority on which you rely.

29-38. Fully describe the relationship between vole or other animal thyroids and human thyroids in the context of Appendix I as referred to in your Interrogatory No. 29-1(k) to Applicants, and fully cite any authority on which you rely.

29-39(a). Do you endorse the lower limit of detection requirements which are specified in FSAR § 11.5 and Chapter 16, Table 4.12-1?

(b). If your answer (a) above is negative, explain the basis for your belief and fully cite any authority on which you rely.

29-40(a). Do you contend that Applicants' monitoring devices will not meet the lower limit of detection requirements as specified in Interrogatory 29-39(a) above?

(b). If your answer to (a) above is in the affirmative, explain the basis for your belief and fully cite any authority on which you rely.

29-41. Summarize by specific instance and extent the disagreements you continue to have with Applicants' meteorological modeling of the Harris site.

29-42(a). Do you continue to maintain that there is an insufficient time period of data for the Harris site to adequately determine meteorological variations which can be expected during normal plant operations, as indicated in your answer to Applicants' Interrogatory 29-6?

(b). If your answer to (a) above is in the affirmative, explain the basis for your belief and fully cite any authority on which you rely.

(c). If your answer to (a) above is affirmative, specify what you consider to be a sufficient period of time for determining all the meteorological variations that could be expected during the term of the Harris license.

29-43. The SHNPP diffusion models assume that all potential releases occur at ground level (i.e., elevation equal to zero), as indicated at FSAR § 2.3.4.2, and that no thermal buoyancy or exit velocity "jet" exists to elevate the plume. Given those assumptions:

(a). Do you contend that the radioactive plume could be brought to ground level in a more cohesive form than anticipated by the models?

(b). If your answer to (a) above is affirmative, explain in detail the basis for your belief

and fully cite any authority on which you rely.

- (c). If your answer to (a) above is other than affirmative, explain in detail how your answer is consistent with your contention that the diffusion models are inadequate.

29-44(a). Given the assumption of ground level releases, please explain in detail your belief that a plume would be more cohesive in the lee of a nuclear power plant structure.

(b). Fully cite any authority on which you rely in your response to (a) above.

29-45(a). Specify the effects of "washout," in both numerical and descriptive terms, on Applicants' radioiodine release estimate.

(b). Explain the basis for your answer to (a) above and fully cite any authority on which you rely.

29-46(a). Explain why you believe that Applicants' radioiodine release estimates fail to adequately account for "washout" effects, as indicated in your answers to Applicants' Interrogatories 29-5 and 29-6.

(b). Fully cite any authority on which you rely.

29-47(a). Specify the "variations that could be expected" in meteorological conditions at the SHNPP site which you maintained are not included in the Applicants' accumulated meteorological data, as stated in your answer to Applicants' Interrogatory 29-6.

(b). Explain the basis for your answer to (a) above and fully cite any authority on which you rely.

29-48. The wet deposition or "washout" process depletes a radioactive cloud of air borne material. Given this fact, and assuming ground level releases, explain in detail how "washout" could cause greater concentrations of radioiodine to be brought to earth at or beyond the SHNPP exclusion boundary.

29-49. In your response to Applicants' Interrogatory 29-6(a), you expresses concern that the site data does not appropriately consider variations of weather in the immediate vicinity of the SHNPP site.

- (a). Do you contend that variable conditions will increase, rather than decrease, off-site concentrations?
- (b). If your answer to (a) above is affirmative, explain in detail your reasons for believing that variable conditions allow accumulation of concentrations and fully cite any authority on which you rely.
- (c). If your answer to (a) above is other than affirmative, explain in detail how your answer is consistent with your contention that the SHNPP modeling does not adequately account for such conditions.

29-50. Specify the document in which Applicants have indicated "that the hilly terrain around Harris would be expected

to introduce considerable variation in wind and weather" as stated in your answer to Applicants' Interrogatory 29-6.

29-51(a). Do you contend that the "hilly terrain" around Harris, coupled with considerable variation in wind and weather would produce considerably higher concentrations than Applicants have estimated?

(b). If the answer to (a) above is affirmative, explain in detail what you consider to be a "considerably higher concentration," including a statement of what percentage above Applicants' estimate is considered to be "considerably higher."

(c). If the answer to (a) above is affirmative, explain in detail the basis for your belief that "considerably higher" concentrations will occur.

(d). Fully cite any authority on which you rely in responding to (a), (b) and (c) above.

(e). If the answer to (a) above is other than affirmative, explain in detail how this answer is consistent with your contention that Applicants' modeling techniques are inadequate.

29-52. Summarize by specific instance and extent the disagreements you continue to have with Applicants' use of SHNPP site meteorological data.

29-53. Explain the basis of your conclusion, contained in your answer to Applicants' Interrogatory 29-10(a), that none of the models contained in NRC Regulatory Guide 1.113 are appropriate for the estimation of radioiodine concentrations in the Harris Reservoir.

29-54(a). Do you maintain that the models contained in NRC Regulatory Guide 1.113 ignore, exclude or fail to account for I-131?

(b). Explain the basis for your belief and fully cite any authority on which you rely.

29-55(a). Do you maintain that the assumptions contained in the models of Regulatory Guide 1.113 preclude an accurate estimate of radioiodine releases or concentrations?

(b). If your answer to (a) above is in the affirmative, explain the basis for your belief and fully cite any authority on which you rely.

29-56(a). Do you maintain that the chemical interaction of iodine with other materials is so significant as to invalidate the estimates derived on the basis of the NRC Regulatory Guide 1.113 models?

(b). If your answer to (a) above is in the affirmative, explain the basis for your belief and fully cite any authority on which you rely.

29-57. Explain the basis for the conclusion contained in your answer to Applicants' Interrogatory 29-10 that stratification, even if it will occur in the Harris Reservoir, will alter Applicants' Appendix I compliance estimates, notwithstanding the current selection of a subsurface liquid effluent discharge point as specified in FSAR section 5.2.1.2.1.

29-58. Explain the basis for all of the challenges you continue to maintain with regard to the models contained in

Regulatory Guide 1.109 and fully cite any authority on which you rely.

29-59(a). Do you maintain that the models in NRC Regulatory Guide 1.109 are derived from the test criticized in the Washington Post article you cited in your response to Applicants' Interrogatory 29-12(a)?

(b). If your answer to (a) above is in the affirmative, explain the basis for your belief and fully cite any authority on which you rely.

29-60. Explain what you believe NRC Translation 520 establishes which is relevant to Contention 29/30.

29-61(a). Do you agree that RM 50-2 is an acceptable method of showing compliance with Appendix I for the Harris facility?

(b). If the answer to (a) above is negative, explain the basis for your belief and fully cite any authority on which you rely.

29-62(a). Do you contend that Table 5.2.5-2 of the ER does not comply with RM 50-2?

(b). If your answer to (a) above is in the affirmative, explain the basis for your belief and fully cite any authority on which you rely.

29-63(a). Explain the basis for the belief contained in your answer to Applicants' Interrogatory 29-14(a) that Table 5.2.5-2 of the ER underestimates radioiodine releases.

(b). Explain the modifications to Table 5.2.5-2 which you feel are necessary and fully cite any authority on which you rely.

29-64(a). Do you maintain that Table 5.2.5-2 of the ER exceeds the dose guidelines contained in Appendix I?

(b). If your answer to (a) above is in the affirmative, explain the basis for your belief and fully cite any authority on which you rely.

29-65. Summarize by specific nature and extent the disagreements you continue to have with either the assumptions or the analysis used by the Applicants in section 5.2.2 of the ER which relate to Contention 29/30, taking into consideration all information you have received subsequent to your answer to Applicants' Interrogatory 29-11.

29-66(a). Do you contend that the use of "the largest transfer and deposition factors known" constitutes an appropriate and accurate method of estimating radioiodine releases for the purpose of establishing compliance with Appendix I?

(b). If your answer to (a) above is in the affirmative, provide the analytical basis for your belief and fully cite any authority on which you rely.

29-67. Define the term "evaportranspiration" and explain its use in your response to Applicants' Interrogatory 29-17.

29-68(a). Explain the basis for your belief that it is necessary, in showing compliance with Appendix I, to account

for the effects of (1) washout, (2) changes in current land use, (3) growth in surrounding municipalities, (4) soil permeability, (5) internal radiation, (6) "evapotranspiration", and (7) "all possible release and uptake pathways", as used in your response to Applicants' Interrogatory 29-17?

(b). Fully cite any authority on which you rely in your answer to (a) above.

29-69(a). What formulae, equations or models do you believe are appropriate, for the estimation of dose to man from radioiodine, which account for (1) washout, (2) changes in current land use, (3) growth in surrounding municipalities, (4) soil permeability, (5) internal radiation, (6) "evapotranspiration", and (7) "all possible release and uptake pathways", as used in your response to Applicants' Interrogatory 29-17?

(b). Explain the basis for your answer to (a) above and fully cite any authority on which you rely.

29-70(a). Explain in detail the methodology that you believe is appropriate to assume all possible variations of meteorological conditions at SHNPP.

(b). Explain the basis of your answer to (a) above and fully cite any authority on which you rely.

(c). Explain in detail why you believe that Applicants' modeling techniques are less accurate or less capable of accounting for atmospheric dispersion than the method you describe in your response to (a) above.

29-71. Do you maintain that, in order for radioiodine estimates to show compliance with Appendix I, they must contain the most extreme possible events which might occur during normal operations regardless of the probability of occurrence?

29-72(a). Explain your belief that an Appendix I compliance estimate based upon the factors contained in your answer to Applicants' Interrogatory 29-17 would constitute an accurate estimate of radioiodine releases.

(b). Fully cite any authority on which you rely in your answer to (a) above.

29-73(a). Do you accept the conditions of plant operations contained in NUREG 0017 as the basis for Appendix I compliance?

(b). If your answer to (a) above is negative, explain the basis for your disagreement and fully cite any authority on which you rely.

(c). If your answer to (a) above is negative, what events should be added or deleted from the conditions in NUREG 0017?

(d). Explain the basis for your answer to (c) above and fully cite any authority on which you rely.

29-74(a). Do you believe that Applicants' determination of current land use is inaccurate?

(b). If your answer to (a) is in the affirmative, explain the basis for your belief and fully cite any authority on which you rely.

29-75. Provide the complete citation for the documents authored by Gillen, Clough, and Lowell H. Jones, referred to in Para. (7) of your response to Applicants' General Interrogatory G-1(a) relating to Applicants' Interrogatories 29-1 through 29-17.

29-76. Provide the complete citation for the documents authored by Gillen, Clough, Ganouna-Cohen, Chenion, and Delmas, referred to in Para. (8) of your response to Applicants' General Interrogatory G-1(a) relating to Applicants' Interrogatories 29-1 through 29-17.

29-77. Provide the complete citation for the Pisiello document referred to in your answer to Applicants' Interrogatory 29-5.

29-78. Provide the complete citation, including edition, section, page and column, of the Washington Post article referred to in your answer to Applicants' Interrogatory 29-12(a).

Interrogatories on Contention 37B
(Health Effects)

37B-7. In your April 22, 1983 response to Applicants' Interrogatory 37(B)-1, you refer to the fact that ICRP Publication 18 (1972), at pages 28-29 and 32-33, states that there is a constant and maximum RBE for radiation for causing mutation at low dose rates. Explain what this statement suggests to you with respect to the issues raised in Contention 37(B).

37B-8(a). Explain the weight, if any, you give to the conclusions reached by (i) the BEIR-III Committee, (ii) the International Commission on Radiological Protection ("ICRP") and (iii) the United Nations Science Commission on the Effects of Radiation ("UNSCEAR").

(b). If the answer to Interrogatory 37-B(a)(i)-(iii) is other than "None," please identify those portions of BEIR-III and the reports of the ICRP and UNSCEAR which you do not challenge.

37B-9. To what extent would the possible health effects that you identify in your April 22, 1983 response to Interrogatory 37(B)-4(b) change the magnitude of risk you attribute to radiation from operation of the Shearon Harris facility?

37B-10(a). Do you consider it appropriate to consider the health risks attributable to radiation from the Shearon Harris facility in the context of other health risks to which man is subject?

(b). If your answer to Interrogatory 37-10(a) is negative, explain why.

37B-11(a). Is there any incremental level of risk which you believe is reasonable for man to assume in order to obtain the benefit of the electricity to be generated by the Shearon Harris facility?

(b). Please explain the basis for your answer to Interrogatory 37-11(a).

37B-12. In your April 22, 1983 response to Interrogatory 37(B)-6, you state that where two or more estimates of human health effects are available, the highest estimate should be used. Explain why you believe that this approach most accurately estimates the health effects of radiation.

37B-13. Identify those portions of the separate statements by Radford, Rossi and Webster contained in BEIR-III on which you rely to support Contention 37B.

37B-14(a). Would you oppose having Contention 37B consolidated with Joint Contention II?

(b). If the answer to Interrogatory 37B-14(a) is affirmative, please explain why.

37B-15. Please provide the complete citation, including document title, author(s), date, name of publication and publisher, of each of the documents included in the following list, which is taken from your April 22, 1983 interrogatory responses.

	<u>Interrogatory Response</u>	<u>Document</u>
(a)	G1-a	Papers by Bross, Bertell and Others
(b)	37(B)-1	Cellular Basis and Actiology of Late Somatic Effects of Ionizing Radiation
(c)	37(B)-4(b)	Bross & Driscoll, and Mancuso-Stewart-Kneale studies cited "by them and by Bertell"

(d)

37(B)-6

Bertell op cit.

Respectfully submitted,

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Dated: July 20, 1983

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of

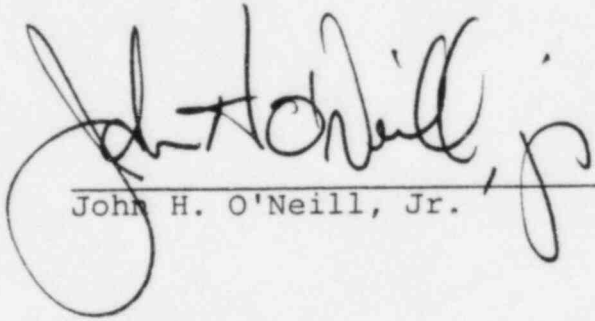
CAROLINA POWER & LIGHT COMPANY
AND NORTH CAROLINA EASTERN
MUNICIPAL POWER AGENCY

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

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) Docket Nos. 50-400 OL
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CERTIFICATE OF SERVICE

I hereby certify that copies of "Response to Eddleman
Contention 15-AA" and "Applicants' Interrogatories and Request
for Production of Documents to Intervenor Wells Eddleman (Fifth
Set) (Eddleman Contentions 29/30 and 37B)" were served this
20th day of July, 1983, by deposit in the U.S. mail, first class,
postage prepaid, to the parties on the attached Service List.



John H. O'Neill, Jr.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of

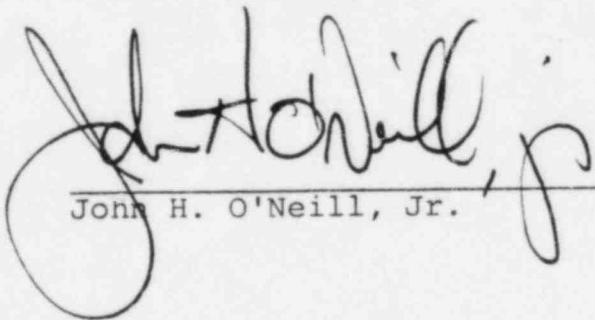
CAROLINA POWER & LIGHT COMPANY
AND NORTH CAROLINA EASTERN
MUNICIPAL POWER AGENCY

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

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

CERTIFICATE OF SERVICE

I hereby certify that copies of "Response to Eddleman
Contention 15-AA" and "Applicants' Interrogatories and Request
for Production of Documents to Intervenor Wells Eddleman (Fifth
Set) (Eddleman Contentions 29/30 and 37B)" were served this
20th day of July, 1983, by deposit in the U.S. mail, first class,
postage prepaid, to the parties on the attached Service List.



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In the Matter of

CAROLINA POWER & LIGHT COMPANY
and NORTH CAROLINA EASTERN
MUNICIPAL POWER AGENCY

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

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Docket Nos. 50-400 OL
50-401 OL

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