

604
RELATED CORRESPONDENCE

December 20, 1985

DOCKETED
USNRC

'85 DEC 26 AM 1:42

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 No. 50-400 OL
MUNICIPAL POWER AGENCY)	
)	
(Shearon Harris Nuclear Power Plant))	

APPLICANTS' RESPONSE TO WELLS EDDLEMAN'S
GENERAL INTERROGATORIES TO APPLICANTS
CAROLINA POWER & LIGHT ET AL. (EPX SET)

Applicants Carolina Power & Light Company ("CP&L") 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 to Applicants Carolina Power & Light et al. (EPX Set)." The provision of answers to these interrogatories is not be deemed a representation that Applicants consider the information sought to be relevant to the issues to be heard in this proceeding.

GENERAL INTERROGATORIES

INTERROGATORY NO. G1(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 various memoranda and orders issued by the Atomic Safety and Licensing Board, all of which are available to Mr. Eddleman.

8512300385 851220
PDR ADOCK 05000400
G PDR

DS03

INTERROGATORY NO. G1(b). [F]or 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 Contentions EPX-2 and EPX-8.

INTERROGATORY NO. G1(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 Contentions EPX-2 and EPX-8 and indicates the particular interrogatory answers for which such person provided information:

<u>PERSON</u>	<u>INTERROGATORY NO.</u>
Al Joyner Lead Planner for Fixed Nuclear Facilities Division of Emergency Management 116 W. Jones Street Raleigh, N. C. 27601	EPX-2-1, EPX-2-2(a)(b)(c)(d)(k) EPX-2-3(a)(i)-(vii) EPX-8-1, EPX-8-2(a)(b)(c)(d)(f) (g)(h)(i)(j), EPX-8-3(a)-(f)
William Ethridge Captain, North Carolina Highway Patrol Research & Planning Section P. O. Box 27687 Raleigh, N. C. 27611	EPX-2-2(e), EPX-2-3(a)(i)-(vii)
Henry Johnson Emergency Management Coordinator Harnett County Emergency Management 110 East 8th Street Erwin, N. C. 28339	EPX-2-2(f), EPX-2-3(a)(i)-(vii)
Mark Scott Emergency Management Coordinator Chatham County Office of Emergency Services P. O. Box 428 Pittsboro, N. C. 27312	EPX-2-2(g), EPX-2-3(a)(i)-(vii)
Bob Bailey, Deputy Chief Office of Emergency Medical Services P. O. Box 12200 Raleigh, N. C. 27605	EPX-2-2(h), EPX-2-3(a)(i)-(vii)

Dayne H. Brown, Chief
Radiation Protection Section
P. O. Box 12200
Raleigh, N. C. 27605

EPX-2-2(i&j), EPX-2-3(a)(i)-(vii)

Russell Capps, Director
Wake County Emergency Management Agency
366 Fayetteville Street Mall
Raleigh, N. C. 27602

EPX-8-1, EPX-8-2(c)(d)(e)(f)(g)
EPX-8-3(a)-(f)

INTERROGATORY NO. G1(d). [P]lease identify all facts concerning which each such person identified in response to G1(c)(1) above has first-hand knowledge.

ANSWER: See answer to Interrogatory No. G1(c).

INTERROGATORY NO. G1(e). [P]lease 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.

ANSWER: All facts or documents relied upon by those individuals identified above are indicated within each response to the specific interrogatories on Contentions EPX-2 and EPX-8.

INTERROGATORY NO. G1(f). Please identify any other document(s) used or relied upon by Applicants in responding to the interrogatory.

ANSWER: See Answer G1(e).

INTERROGATORY NO. G1(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.

ANSWER: Applicants have indicated which specific facts are supported by the documents identified, within each response to the specific interrogatories on Contentions EPX-2 and EPX-8.

INTERROGATORY NO. G1(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.

ANSWER: See Answer G1(c).

INTERROGATORY NO. 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 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 regarding these Eddleman contentions.

INTERROGATORY NO. G2(b). Please identify each contention regarding which each such person is expected to testify.

ANSWER: See Answer G2(a).

INTERROGATORY NO. G2(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 G2(a).

INTERROGATORY NO. G2(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 G2(a).

INTERROGATORY NO. G2(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 G2(a).

INTERROGATORY NO. G3(a). [P]lease 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.

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

INTERROGATORY NO. G3(b). [P]lease 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.

ANSWER: See Answer G2(a).

INTERROGATORY NO. G4(a). [P]lease 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 at this time identified which documents, if any, they intend to use in cross-examination of Mr. Eddleman's witnesses.

INTERROGATORY NO. G4(b). [P]lease identify any undocumented information Applicants intend to use in cross-examination of each such witness for me.

ANSWER: See Answer G4(a).

INTERROGATORY NO. G5(a). [F]or 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.

ANSWER: Applicants have available to them experts and information on the subject matter of Contentions EPX-2 and EPX-8.

INTERROGATORY NO. G5(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. G6(a). [F]or 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 or State of N.C. or any emergency planner 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 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 contained in the 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 whom he is particularly interested in determining this information.

INTERROGATORY NO. G7(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.

ANSWER: Applicants have not yet identified those documents they intend to offer as exhibits relating to Contentions EPX-2 and EPX-8.

INTERROGATORY NO. G7(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 G7(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.

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

INTERROGATORY NO. G7(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 G7(b).

INTERROGATORY NO. G10(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 G10(a)(ii) is other than affirmative, please state all reasons for your answer. (iv) If your answer to G10(a)(i) above is other than affirmative, please state all reasons for your answer.

ANSWER: (i) Yes.

(ii) Yes.

(iii) Not applicable.

(iv) Not applicable.

INTERROGATORY NO. G10(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.

ANSWER: (i) Yes.

(ii) See Answers G1(e), (f) and (g) and G1O(a)(i) above.

(iii) See Attachments A-F attached hereto.

(iv) Not applicable.

(v) Not applicable.

(vi) Not applicable.

INTERROGATORY NO. G11. 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.

ANSWER: G11(a)-(c): Applicants have no such information.

INTERROGATORY NO. G-12(a): In your previous & present answers where you have not identified documents, (i) have all relevant documents been produced in lieu of stating identification of each such document? (ii) do you rely on the entire document, since you have not identified parts or page numbers? (iii) if there are any particular parts or pages of each document produced, which you believe are responsive to an interrogatory or portion [sic] thereof, please identify each set of parts or pages in each document, together with the interrogatory or portion [sic] thereof (or interrogatories and/or portion thereof) to which it is responsive. (iv) where no documents are identified and identification of documents has been requested, are you saying no such documents exist? Or that no such documents are in your possession? (b) In your present answers, are you actually identifying documents where identification of documents is requested? (c) If not, how are you going to provide identification of documents? Will that identification include statements of relevant pages or parts?

ANSWER: G12(a)-(c): All responsive documents have been either identified in or produced in response to the discovery requests. Page numbers have been specified in each case where Applicants rely on specific portions of a document and can identify those portions more readily than could someone who has no familiarity with the document. Where identification of documents has been requested, and none are identified, Applicants know of no responsive documents.

INTERROGATORY NO. G-13: Is there any merit or information or opinion supporting (a) all (b) any part(s) of Contentions referenced in these interrogatories? (c) If your answer(s) to (a) or (b) are in any way affirmative, please identify all such part(s), merit, information or opinion and identify all documents containing information or opinion which would support such contention(s) or part(s), and explain all such merit(s). (d) If your answers to (a) or (b) above are in any way negative, please give all reasons for those answers, and identify all documents containing information relied on in making those answers. (e) Please state, and identify all documents containing any information relied upon or used by you in answering, all reasons not previously identified for your answers to G-1 thru 12, and to all parts of G-13 above.

ANSWER: Except to the extent that Contentions EPX-2 and E 8 reflect information contained in the Federal Emergency Management Agency and State of North Carolina evaluation reports on the Harris emergency planning exercise (copies of which have previously been provided to Mr. Eddleman), Applicants are not aware of information that supports the contentions. These reports are listed as Document Nos. 8 and 9 in Answer EPX-2-1 below.

INTERROGATORY G-EPX: Please answer all of Applicants' and Staff's interrogatories to me on EPX-2 and EPX-8, including general interrogatories, as if the same questions had been asked to you as if fully set out here. Please answer as if the term "your contention" means "Contention EPX-2 and/or Contention EPX-8" in each such question or interrogatory, and that "your contentions" also means "Contention EPX-2 or EPX-8 or both".

ANSWER: Applicants' interrogatories to Mr. Eddleman are designed to elicit the information that he possesses, as well as his state of knowledge and understanding of the facts and his interpretation of the facts, about Contentions EPX-2 and EPX-8. Applicants do not know what information Mr. Eddleman possesses or his understanding or interpretation of the facts. Accordingly, Applicants cannot answer the interrogatories "as if" they were asked of Applicants. The NRC Staff has not propounded interrogatories to Mr. Eddleman on Contentions EPX-2 and EPX-8.

SPECIFIC INTERROGATORIES ON CONTENTION EPX-2

INTERROGATORY EPX-2-1: Please identify all documents related to each and every communications deficiency referred to or described in any way in Contention EPX-2. This includes evaluators' and others' handwritten notes, typewritten notes, tape recorded notes, all documents concerning the admission of contention EPX-2, all documents concerning actions recommended to be taken to deal with the deficiencies mentioned or referred to in EPX-2, actions that might be taken with respect to any matters referred to in EPX-2, responses to contention EPX-2, and records or information relating to any matter mentioned in Contention EPX-2.

ANSWER: Applicants are aware of the following documents that contain information related to the communications issues referred to in Contention EPX-2:

1. Transcript of Public Meeting of the 1985 Shearon Harris Nuclear Power Plant Exercise, May 19, 1985.
2. Chart entitled "Communications to Support the Shearon Harris Exercise," taken from SERT Support Staff Shift Organization and Standard Operating Procedures.
3. Chart entitled "Radio Backup Communications to support the Shearon Harris Exercise," taken from SERT Support Staff Shift Organization and Standard Operating Procedures.
4. Operations Journal, Division of Emergency Management, May 17-18, 1985.
5. SERT Message Form No. 65, May 17, 1985.
6. SERT Message Form No. 168, May 18, 1985.
7. North Carolina Exercise Instructions for the Shearon Harris Nuclear Power Plant, May 17-18, 1985.
8. Evaluation Report, Shearon Harris Nuclear Power Plant Exercise, May 17-18, 1985, Phillip C. Riley, Chief State Evaluator.
9. FEMA Interim Findings, Shearon Harris Nuclear Power Station, June 28, 1985.
10. SERT Message Form No. 207, May 18, 1985.
11. Page No. 4, Summary of Reports, Feedback From Shearon Harris, Russell Capps, Wake County Director, Emergency Management.

12. Schedule of Corrective Actions, Division of Emergency Management,
November 26, 1985.

INTERROGATORY EPX-2-2(a): Please describe, and identify all documents relating to, all "lack(s) of effective communications" during the emergency planning exercise. (This refers, here and below, to the exercises held May 17-18, 1985, re the Shearon Harris Nuclear Power Plant).

(b) Please describe, and identify all documents relating to, all "lack of radiation monitoring results" during the emergency planning exercise.

(c) Please describe, and identify all documents relating to, "lack of contact with field and ground units" during the emergency planning exercise.

(d) Please describe, and identify all documents relating to, the overloading of the emergency inter-system mutual aid frequency during the emergency planning exercise, including (i) the bandwidth of such frequency, (ii) the frequency or frequencies in Hertz (cycles/second) (iii) the capacity of such frequency or frequencies in number of simultaneous voice channels (iv) the number of unit(s) having access to such frequency (v) the number of units not involved in the emergency planning exercise having access to use of such frequency or frequencies (vi) the maximum number of units or callers trying to use such frequency at the same time (vii) the nature and extent of any misuse of such frequency or frequencies during the exercise or at other times. Please identify all documents relating to any of the above matters.

(e) Please describe, and identify all documents relating to, the communication inadequacies of the NC Highway Patrol, particularly those related to insufficient equipment, ability to adequately handle the number of units responding to an emergency of the (nuclear plant) type, during the exercise or otherwise; the number of units of the Highway Patrol that did respond to the Harris emergency planning exercise, and the number of frequencies available to those units and their base stations, relay stations, etc., and the capacity of each frequency for handling communications, in the form of 2-way conversations in voice, or other capability for communication. Please identify all documents giving information asked for above, or relating to any such information.

(f) Please describe, and identify all documents relating to, the number of telephones available to the Harnett County emergency personnel during the exercise, what a "sufficient" number of telephones for them would be, or is; and any insufficiencies of the telephones available to Harnett County emergency response personnel during the exercise. Please identify all documents giving such information or relating to any of the above matters.

(g) Please describe, and identify all documents relating to, the amount of radio traffic in Chatham County during the exercise, the number of radio operators on duty in Chatham County at all times during the exercise, the capacity of such operators/dispatchers to handle radio traffic, the amount of radio traffic that was "extra" during the exercise in Chatham County, and the overloading of personnel on duty in Chatham County due to extra radio traffic, the degree of such overloading, what personnel were overloaded, when, and for how long. Please identify all documents containing any of the information inquired about above, or relating to any part(s) of such information, no matter how small a part or part(s).

(h) Please describe, and identify all documents relating to, delays in Emergency Medical Services Office receiving messages from SERT (State Emergency Response Team). Please identify and provide a copy of all messages that were delayed, and give the amount of time each was delayed and the content of each such message. Please identify all documents containing any of the above-requested information, or relating to it.

(i) Please describe, and identify all documents relating to, communications paths from the mobile radiation lab to base station(s) that involved any relay or relay(s). Please identify each such communication, its date, time, and contents and all documents relating to it; please also identify the specific relay(s) that were used, by unit, location, relay method, frequencies employed, communications method employed, time involved in relaying, and content of message as relayed as well as content of message sent to be relayed. Please identify all documents or recordings of such messages, and all documents containing any of the information inquired about above, or relating to it.

(j) Please describe the "possibility of delayed and/or incorrect information" in relaying reports from the mobile radiation lab to base and all documents related to this matter and the state Radiation Protection Section evaluator's information about it, opinions about it, and statements about it, including any communications to or from the evaluator concerning this opinion, or the evaluator's evaluation or statements concerning the possibility of delayed or incorrect information (or both) resulting from relays of information. Please also identify all documents relating to any of the above matters.

(k) Please identify all documents sent to or from (i) evaluators (ii) other emergency planning personnel (iii) FEMA staff (iv) NRC Staff (v) Applicants or persons working for or with them (vi) other government officials, concerning the matters mentioned or referred to in the above interrogatories and parts and subparts, or concerning any matters related to contention EPX-2 or matters mentioned or referred to in it. Please note especially here that this interrogatory is a continuing one.

ANSWER: EPX-2-2(a): Documents of which Applicants are aware related to the communications issues raised by EPX-2 are identified above in Answer EPX-2-1.

EPX-2-2(b): There was no lack of radiation monitoring results during the Harris exercise. The Applicants are not aware of any documents pertaining to this issue.

EPX-2-2(c) and (d): Documents Nos. 5, 6, and 8 listed in Answer EPX-2-1 pertain to the issue. It is recognized in North Carolina that the frequency described in EPX-2 as being the "emergency inter-system mutual aid frequency" is a highly utilized frequency. This is also noted in Document No. 11, page 4 of Answer EPX-2-1. However, communications with ground units occurred on this frequency throughout the exercise. The frequency of 155.280 is a simplex channel with 15 kHz spacing between adjacent channels. A number of factors exist that contribute to the potential capacity of any

given frequency, and any combination of these decide that capacity for simultaneous transmission. Some of these are: frequency band of operation, sub-audible tone encoding, elevation of transmitting antenna (base, mobile, or handheld), type of antenna (gain) and transmitter power (base, mobile, handheld). A vital factor to consider is that VHF transmissions are limited to "line-of-sight," so the more elevation that is gained over the surrounding area, the greater the range for transmission and reception. For this reason, the evaluators flying above the EPZ (Document No. 8, page 14) received not only the local transmissions directly below them, but most likely stations many miles beyond the local area around Harris. These distant transmissions would not have been received on the ground and therefore would not have interfered with emergency communications. The evaluators in the helicopter also were not monitoring any specific units or communications on this frequency (155.280 MHz), but were monitoring every unit being received due to the fact that the receiver was not tone encoded. Emergency personnel were using tone encoded equipment that prevented interference from extraneous signals. Beyond the above, the Applicants have no information regarding the actual number of units utilizing this frequency during the exercise or the number with access to it.

EPX-2-2(e): From its Raleigh communications center, the N. C. Highway Patrol uses four frequencies for its normal radio traffic. For purposes of the exercise, two frequencies were added on a temporary basis. Normally, two telecommunicators are on duty. During the exercise, they handled the traffic over the two exercise frequencies, in addition to that occurring on the other four frequencies. The Highway Patrol's radio traffic was heavy during the exercise. Because the Highway Patrol's normal radio traffic was given preference to exercise traffic, exercise messages were sometimes briefly delayed.

As noted in Answer EPX-2-2(f) below, the Harnett County EOC was a temporary facility in the County courthouse. Because the temporary EOC did not have radio equipment with the Highway Patrol's frequency, the Highway Patrol staff in the EOC utilized a hand-held radio for their communications. At times, it was necessary to use the radio in the Highway Patrol vehicle outside of the building to effectively communicate with other Highway Patrol personnel.

Under normal conditions, the Raleigh Radio Station, Highway Patrol Troop C would handle radio traffic from 350 to 400 vehicles. These would include not only troopers, but other state and federal law enforcement agencies. During the exercise, approximately 100 additional Highway Patrol vehicles were added.

The Applicants are not aware of any documentation which addresses this issue.

EPX-2-2(f): Telephone communications at the temporary Harnett County Emergency Operating Center were described as difficult because the incoming/outgoing lines were not all located at a central location (see Document No. 8, page 5, of Answer EPX-2-1). The hallway where the operations took place had three telephone lines. Also available to the EOC staff were five other telephone lines located in offices off the hallway. This temporary location was chosen due to the proximity of the Harnett County Sheriff's Department Communications Center. The Division of Emergency Management is currently surveying the telephone needs of Harnett County. See Answer EPX-2-3(i)-(vii) below.

EPX-2-2(g): The amount of radio traffic experienced in Chatham County during the exercise reflected the addition of exercise-related radio transmissions to the normal, daily radio traffic loads typically experienced. The initial dispatcher on duty, when alerted to the simulated emergency in the exercise, called in additional personnel. It took approximately 10 minutes for those personnel to arrive. These additions provided Chatham County with two radio dispatchers and two dispatchers working the telephones

that were able to adequately handle all of the traffic during the exercise. Document No. 8 (at p. 4) addresses the evaluation of this issue.

EPX-2-2(h): The Office of Emergency Medical Services (OEMS) acknowledges one potentially significant delay in the receipt of a SERT message in the Harris exercise. While OEMS personnel were located in the State Emergency Operations Center, they did not attend the briefing when the release from the plant was announced (Document No. 10 listed in Answer EPX-2-1) because they were not made aware of it. According to the State Evaluator's report, delays in receipt of routine messages did not affect OEMS's response.

EPX-2-2(i) and (j): The position of the field survey teams necessitated some relaying of messages to the mobile lab through the RPS transmitter at the EOF. The field units were always able to hear messages from the mobile lab, but could not always reach it from their positions. (Document No. 9, pp. 14-15 in answer EPX-2-1). As described in Document No. 8 in Answer EPX-2-1, page 12, the evaluator discusses the potential for delays in relaying this information. It is RPS's standard operating procedure for the relaying station to repeat back the message to the originator. In this way, if the intended listener does not receive the message directly from the originator, he will only experience a delay of a few seconds before receiving it from the relaying station. In relaying the message, it is always checked back to the originator and the potential for introducing error is very small. The relaying procedure was used for approximately fifteen messages. The Applicants are not aware of any documents pertaining to this issue.

EPX-2-2(k): Other than the evaluation conducted by Phillip C. Riley for the State of North Carolina (Document No. 8 in Answer EPX-2-1), the FEMA Interim findings (Document No. 9 in Answer EPX-2-1), and the supporting documents listed in Answer EPX-2-1, the only document of which the Applicants have knowledge is the corrective

action schedule from the Division of Emergency Management (Document No. 12 in Answer EPX-2-1).

INTERROGATORY EPX-2-3(A): With respect to every matter inquired about in any part of Interrogatory EPX-2-2 above, please provide the following information and identify all documents relating thereto:

(i) [W]hat action(s) have been suggested, thought of, written down, recommended, considered or discussed concerning actions which might or should be taken to remedy any communications deficiency identified or alleged with regard to this matter. (Please provide an answer to this part separately for each matter identified in response to any part(s) of Interrogatory EPX-2-2(a) through (k) above, and for any matter inquired about in any of those parts.)

(ii) [W]hat actions have been taken to remedy any of the communication deficiencies alleged in Contention EPX-2? Please identify for each the action, who takes it, the schedule for its completion, any tests of the adequacy of the remedy or action, the results and any evaluations of such tests, any other evaluations positive, negative or otherwise of the adequacy of the remedy or action, what equipment changes are involved in the action, the specific equipment (item, make, model, function) involved, the degree to which the action or remedy does in fact solve the communications problem, and please identify all documents relating to the above, particularly recommendations for action, authorizations for action, evaluation or remedies, statements concerning completion of action, etc.

(iii) What actions were recommended or discussed or thought of, but not taken, to remedy each deficiency alleged in EPX-2 or inquired about in any part(s) of interrogatory EPX-2-2 above? Please describe every such action, and all reasons why each was not taken, and identify all documents relating to such action and/or to the decision not to take it, reasons why it was not taken, and other matters relevant to the decision.

(iv) What actions are still under consideration for remedying any communications deficiencies alleged in EPX-2 or inquired about in EPX-2-2 above or any part of EPX-2-2? Please identify each such action, all documents relating to it, all reasons why it is still under consideration and when or if it is to be implemented.

(v) What actions are yet to be completed to remedy any communications deficiencies alleged in Contention EPX-2 or inquired about in any part(s) of interrogatory EPX-2-2 above? Please identify each such action and all documents relating to it, to why it is to be done, why it was recommended and by whom, why it has not been completed yet, when it is scheduled to be completed, who is in charge of completing it, what their authority and powers to complete it are, and when any portion(s) of it are to be completed. Please identify all documents containing any information inquired about above, or information or opinions relating to any such matters.

(vi) What barriers, financial, organizational, bureaucratic, or otherwise, exist to the completion in a 100% successful manner of any remedy or remedies (or actions to remedy) any communications deficiency or deficiencies alleged in Contention EPX-2 or inquired about in any part(s) of Interrogatory EPX-2-2 above? Please identify and describe in detail each such barrier and what will be required to overcome it, telling

whether it will be overcome, and if so, when, and with what resources and actions, and on what schedule any or all of those actions are being taken, and when and how any or all of those resources will be available. For each barrier or impediment to any remedy for the communications deficiencies inquired about above, please give a specific description of the problem(s) the barrier or impediment causes, and the specific personnel, material resources, financial resources [sic], and other resources to be used to overcome each impediment or barrier. Please give a schedule for the overcoming of each such barrier or impediment and identify all barriers or impediments that have not yet been overcome. Please identify all documents relating to any impediment or barrier to implementing 100% effective remedies for every communications deficiency mentioned or referred to in Contention EPX-2 or inquired about in any part(s) of Interrogatory EPX-2-2 above. Please identify all documents containing any other information inquired about above, most particularly including the nature of the barriers or impediments, the resources to be used to overcome them, the schedule(s) for overcoming them, and which impediments or barriers have not been overcome.

(vii) Please identify any other problem or circumstance that (vii-a) could, or (vii-b) would, interfere with achieving 100% remedying of all communications deficiencies mentioned or alleged in Contention EPX-2 or inquired about in Interrogatory EPX-2-2 above. Please identify all documents relating to each such problem or circumstance and any schedule for or means for dealing with or overcoming such problem or circumstance. Please identify any documents containing information about problems or circumstances which (vii-c) may, or (vii-d) will, not be overcome, and which can or do interfere with achieving 100% effective remedies for every communications deficiency mentioned or alleged in Contention EPX-2 or inquired about in Interrogatory EPX-2-2 above.

(b) Please provide the identification of all documents containing any other information available to you that relates to remedying communications deficiencies, particularly those alleged or mentioned in Contention EPX-2 or inquired about in any part(s) or [sic] Interrogatory EPX-2-2 above.

ANSWER: EPX-2-3(a)(i)-(vii): The Applicants are aware that corrective actions have been taken, or will be taken, to improve communications. Other than the actions discussed below, Applicants are not aware of actions that may have been considered by the government agencies involved. Applicants are not aware of any "barriers" that will prevent the resolution of the communications issues raised in EPX-2.

The frequency of 155.280 was not specified in the exercise instructions (Document No. 7 in Answer EPX-2-1) as a coordinating/mutual-aid channel for this exercise, or in any other documents known to the Applicants. It was used by some evaluators since it was available in the radios they utilized and is known to be widely available.

If this frequency was needed for essential communications relevant to the Harris Plant, it could have been cleared. This could be done by a station (transmitter) coming on frequency and making announcements and directing the traffic to other channels. This would eliminate much of the traffic discussed in Answer EPX-2-2(d).

The agencies that would be involved in any communications pertaining to the Harris Plant such as the rescue squads, do have the capability to utilize other frequencies such as the individual county fire networks, coordinating channels and the designated hospital frequency. This intra-system capability is utilized on a normal daily basis and was also used during the exercise.

The Applicants have been informed that Chatham County now has two full-time dispatchers on duty during peak hours to handle all traffic.

It is thought that OEMS was not aware of the briefing due to the process in the State EOC of relaying information among SERT agencies. Both a PA system and "message runners" are used. Improved procedures on the part of the runners would have eliminated the problem experienced by OEMS personnel because they would have attended the briefing if they had been aware of it. These improvements in runner procedures are being implemented by the State.

As is discussed in Document No. 8, page 12, listed in Answer EXP-2-1, the repositioning of the field units will decrease the necessity for relaying messages. Relaying messages, however, is done on a normal day-to-day basis in radio usage and is not specific to the Harris exercise. Radio operating personnel very frequently incorporate this method into their normal communications, and, other than the planned repositioning of the field units, no corrective action is needed.

The delays that were encountered in the transmission of Highway Patrol messages (See Answer EPX-2-2(e) above) were due to the addition of traffic over the two frequencies used temporarily for the exercise onto the normal Highway Patrol radio

traffic occurring on those days. The telecommunicators on duty gave preference to the normal radio traffic, for it dealt with real emergencies and concerns. Had the exercise been a real emergency, related radio communications would have received an appropriate priority. Further, if required by the volume of traffic, additional telecommunicators would have been made available. The Applicants are not aware of any documentation addressing this issue.

Representatives of the Highway Patrol are participating in the ongoing planning to establish a permanent EOC for Harnett County. Provisions for adequate radio capabilities in the permanent EOC for the Highway Patrol will be made, and this action is expected to resolve the problems encountered here during the exercise. According to Document No. 12 in Answer EPX-2-1, evaluation of Harnett County's communications needs is scheduled to be completed by February 15, 1986.

Surveys are currently being completed by the Division of Emergency Management on the telephone requirements of the Harnett County Emergency Operations Center. The projected completion date of this issue is February 15, 1986 (see Document No. 12 in Answer EXP-2-1). The Applicants are not aware of any financial barriers to the completion of this issue.

EPX-2-3(b): The Applicants are aware of only Document No. 12 in Answer EPX-2-1 as being a schedule of corrective actions regarding this issue.

SPECIFIC INTERROGATORIES ON CONTENTION EPX-8

INTERROGATORY EPX-8-1: Please identify all documents related to each and every inadequacy, incomplete use, problems with activation, inadequate coverage, or ineffective management of the Emergency Broadcast System (EBS), including incomplete messages and/or incomplete instructions to the public, inadequate procedures for activation and use of the EBS before the State assumes control, inadequate coverage of the emergency area and/or the emergency response area, incomplete messages and incomplete instructions to the public, and other problems with EBS activation (e.g. those mentioned on pages 17-18 of FEMA's draft reports on the emergency planning exercise at Shearon Harris.) This includes sound tapes, video tapes, actual content of messages used during the exercise, transcripts of messages used (I don't want the authentication codes,

just the messages themselves), reviewers' handwritten or other notes, note of persons observing the exercise or participating in it, logs of EBS stations as to what messages were sent and when, drafts of the FEMA report(s) on the exercise, and any other document(s) or records relating to these matters, whatsoever.

ANSWER: Applicants are aware of the following documents which are related to the Emergency Broadcast System issues referred to in contention EPX-8:

1. FEMA Interim Findings, Shearon Harris Nuclear Power Plant, June 28, 1985.
2. Annex D, Draft Messages for Public Information and Instructions, North Carolina Emergency Response Plan, April 1985.
3. Blank EBS Exercise Messages.
4. EBS Exercise Script.
5. Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants, U.S. Nuclear Regulatory Commission, Federal Emergency Management Agency, NUREG-0654, FEMA-REP-1, January 1980 (Rev. 1).
6. Guide for the Evaluation of Alert and Notification Systems for Nuclear Power Plants, FEMA-REP-10, November 1985 (replacing guidance previously contained in FEMA-43).
7. S.O.P. For Activating CP&L Sirens and EBS System, Wake County, May 15, 1985.
8. Pages 2 and 3, Summary of Reports, Feedback from Shearon Harris, Russell Capps, Wake County Director of Emergency Management.
9. SERT Message Form No. 154, May 18, 1985.
10. Schedule of Corrective Actions, Division of Emergency Management.

INTERROGATORY EPX-8-2(a). Please describe, and identify all documents relating to, ineffective management of the EBS during the exercise.

(b) Please describe, and identify all documents relating to, EBS activation inadequacies during the exercise.

(c) Please describe in what ways and by what omissions messages to the public were incomplete during the exercise. Please identify all documents relating to such incompletenesses, for each message.

(d) Please describe, and identify all documents relating to, incomplete instructions to the public during the exercise, identifying each incomplete instruction in each message, and telling what information would be required or is required to complete the instruction in each case. Please identify all documents relating to any such incompleteness or incompletenesses, for one message or all messages or any combination of messages during the exercise.

(e) Please describe, and identify all documents relating to, any problems with EBS activation during the exercise. Please identify each such problem and separately identify all documents relating to it.

(f) Please describe, and identify all documents relating to, inadequate coverage of the emergency area during the exercise. Please state what is adequate coverage of the emergency area according to (i) applicable rules or standards (ii) your opinion, if different. Please identify all documents relating to your opinion or adequate rules or standards for adequate coverage of the emergency area.

(g) Please describe, and identify all documents relating to, inadequate coverage of the emergency response area during the exercise. Please also state what is adequate coverage of the emergency response area by the EBS (i) according to applicable rules or standards (ii) in your opinion. Please identify all documents relating to your opinion or to adequate rules or standards for adequate coverage of the emergency response area.

(h) Please identify all other respects in which the use of the emergency broadcast system (EBS) was incomplete during the exercise. Please identify all documents relating to each such respect in which use of the EBS was incomplete.

(i) Please identify all other aspects of EBS use which were incomplete or ineffectively managed or had problems during the exercise. Please identify all documents relating to each such problem.

(j) Please describe and identify all documents relating to standards which the EBS must meet.

ANSWER: EPX-8-2(a) and (b): The answers to Interrogatories EPX-8-2(c) through (j), provided below, describe specific issues regarding EBS management and activation that have been raised by Contention EPX-8-2. Each answer, where appropriate, also references the specific documents listed in Answer EPX-8-1 which are relevant to the issue under discussion.

EPX-8-2(c) and (d): On page 12 of Document No. 1, the EBS messages are described as incomplete because "initial instructions to evacuate certain zones and to take shelter in others were incomplete." In addition, it is noted that "instructions to the public were prepared for only two of the three siren activations, and one of these messages was incomplete."

Annex D of the State Emergency Response Plan, Document No. 2 given above, provides pre-written, draft EBS messages for use by emergency management officials. Officials are to use the pre-written messages to develop the appropriate message from a range of potential options and to fill in the blanks providing critical, detailed information. The draft EBS messages given in Annex D have been further reorganized by pre-selecting the optional paragraphs available into a complete set draft message requiring only detailed instructions to be filled in. These draft messages are provided in Document No. 3. They contain exactly the same language as those draft messages given in Annex D, but only in a different format. During the exercise, the State Public Information Officer utilized two of the draft messages given in Document No. 3 listed in Answer EPX-8-1 to simulate EBS message preparation by the SERT. This simulation is shown by the blanks which are filled in on the sixth and seventh draft messages in Document No. 3. The pre-written EBS messages used in the simulation did not (a) identify pick-up points for evacuees needing transportation assistance; (b) ask that evacuees tie white cloths to their doorways to indicate that they had evacuated; or (c) advise evacuees that pets would not be permitted in reception centers or shelters. It should be noted that the simulated messages were not actually broadcast during the exercise. The message that was actually broadcast to the public during the exercise is given in Document 4.

In the Wake County EOC, personnel did not prepare a simulated message for the EBS activation undertaken on Friday, May 17. The message utilized for the activation on Friday is that labeled as Document 4, and it was actually broadcast as the EBS message following Wake County's activation of the EBS system.

Guidance pertaining to EBS activation for nuclear power plant emergencies is contained in Appendix 3 of NUREG 0654 (Document No. 5) and in Chapter 1 of FEMA-REP-10 (Document No. 6).

EPX-8-2(e): Document No. 1 describes issues concerned with activation of the EBS in the following manner: "Initial activation and verification of the emergency broadcasting system need improvement, which was made during the course of the exercise." Termination of a conference call for EBS activation is noted on page 17, and other comments on activation are given on page 18.

The first EBS activation was conducted from the Wake County EOC on Friday, May 17, 1985. Some difficulties arose during that process. The principal emergency management organizations participating in the exercise were coordinating their activities through use of a conference telephone call (the "speaker phone" system). Delays were encountered in establishing the conference network due to receipt of "busy signals" and bringing people to the telephone. The difficulties in establishing the conference network contributed to a delay in activating the EBS. In addition, at the point when parties directly involved in EBS activation were to be added to the conference call, the Director of the EOC incorrectly assumed that the conference call had to be terminated in order to add two additional parties (the Wake County dispatcher who activates the sirens, and the lead EBS radio station). The Director did terminate the ongoing call, and shortly thereafter learned that this action would not have been necessary to add the two additional parties. In addition, certain telephone numbers given in the procedure were incorrect and the correct numbers had to be redialed. This is indicated by handwritten changes made to the procedure as shown on Document No. 7. (Note that, to protect the security of the EBS activation process, all telephone numbers have been blanked out in the documents provided here.) The need to redial the telephone numbers contributed to a delay in the activation process. Delays in the activation process are noted on page 3 of Document No. 8, listed in Answer EPX-8-1.

It was also found that the procedures used for activation were unnecessarily cumbersome, and this contributed to delays in activation of the EBS. It was thought that

the activation procedures could be streamlined to eliminate unnecessarily slow or repetitive steps.

EPX-8-2(f) and (g): On page 12, of Document No. 1, it is stated that "subsequent use of the system to provide adequate coverage of the area was never realized." The basis of this statement is that emergency management officials did not simulate preparation and/or broadcast of followup EBS messages after initial EBS activation.

Other than the guidance available in NUREG-0654 and FEMA-REP-10, the Applicants know of no standards pertaining to this issue.

EPX-8-2-(h) and (i): The responses to the above interrogatories encompass the issues of the management, coverage, and completeness of the EBS broadcast process experienced during the exercise.

EPX-8-2(j): Other than the guidance regarding public information given in NUREG-0654 and FEMA-REP-10, the Applicants are not aware of other standards which the EBS must meet.

INTERROGATORY EPX-8-3(a) Please identify every step or measure being taken to remedy each of the problems, inadequacies, deficiencies or other defects of EBS use at Shearon Harris described, mentioned or identified in Contention EPX-8 or asked about in any part(s) of interrogatory EPX-8-2 above.

(b) Please identify all barriers, impediments or problems with each step or measure being taken to remedy each problem, inadequacy, deficiency or other defect in (Harris) EBS use that (i) could (ii) would prevent such step or measure from being 100% effective.

(c) Please state which measures or steps to remedy any problem, inadequacy, deficiency or other defect in Harris EBS use have been (i) thought of (ii) written down (iii) proposed (iv) accepted (v) rejected (vi) considered (vii) completed (viii) scheduled to be completed, please tell when each is to be completed (ix) kept under consideration at present. Please note that this is a continuing interrogatory, as are all of these.

(d) Please give all reasons why each step or measure asked about in (c) above was (i) accepted (ii) rejected (iii) kept under consideration (iv) not considered.

(e) Please identify all documents relating to any of the information or matters inquired about above, especially those proposing measures or steps to remedy deficiencies, defects, problems or inadequacies with the EBS, evaluating such measures or steps, deciding which to implement, scheduling implementation, evaluating the completed measures or steps for effectiveness, or rejecting or declining to consider any measures or steps.

(f) Can the remedial measures and steps so far completed assure with 100% confidence that all defects, deficiencies, inadequacies and/or problems alleged in Contention EPX-8, mentioned in Contention EPX-8, or inquired about in any part(s) Of Interrogatory EPX-8-2 above, will not occur if the EBS must be activated in a real nuclear emergency at Shearon Harris? Please provide all reasons for your answer and identify all documents you use or rely on in making your answer, all opinions you use or rely on in your answer (and whose they are), and all other information or things you used or relied on in making your answer. Please identify all documents containing any of this information or opinion, and please also identify any documents containing information or opinions contrary to those you used or relied on, or information or opinions that would undermine or contradict your answer in whole or in part.

(g) Please provide all other information relating to EPX-8.

ANSWER: EPX-8-3(a)-(f): Initial activation of the EBS on Friday, May 17, by the Wake County EOC was delayed due to difficulties in setting up the conference call network, to misunderstandings concerning operation of the conference call telephone system (i.e., the "speaker phone system") and the incorrect telephone numbers in the county's SOP. Cumbersome activation procedures, many of them related to the telephone conference call procedure, also contributed to the delay.

Steps have been and are being taken to correct difficulties encountered in activation of the EBS system. Other than the actions discussed below, Applicants are not aware of other actions that may have been considered by the government agencies involved. Applicants are not aware of any "barriers" that will prevent the resolution of the EBS issues raised in EPX-8.

A review of the current procedures for activation of the EBS system is presently underway. It is now planned to modify those procedures in order to streamline EBS activation. Equipment necessary to implement streamlined procedures will be obtained and installed prior to fuel load.

Streamlining the procedures would also have meant that the incorrect actions taken by the Wake County EOC Director would not have occurred. Nevertheless, it is noted that Director's incorrect understanding of the operation of the telephone conferencing system used for the exercise and the incorrect telephone numbers contained in the

County's SOP of EBS activation were corrected during the exercise itself. The second attempt at activation was successful. Document No. 7, listed in Answer EPX-8-1, shows correction of the telephone numbers. Documentation concerning the correction of the Wake County EOC Director's understanding of the conference call telephone system's operation does not exist.

Additional training on EBS activation also will be provided. As noted in Document No. 10, ongoing table top exercises will integrate EBS procedures whenever possible, and at least one table top EBS exercise will be conducted prior to each scheduled fixed nuclear facility exercise if EBS procedures have not been previously integrated during the past 24 months.

The Wake County EOC did not simulate preparation of an EBS message due to a misunderstanding regarding which staff member was responsible for this simulation. In addition, EOC officials assumed that the use of the EBS message given as Document No. 4 would be sufficient for purposes of the exercise. Wake County officials are now taking steps to clarify the EOC staff procedures for EBS management to assure that responsibility for message preparation in an actual emergency is clearly defined. The procedures will also be clarified to assure that followup messages would be prepared in an actual emergency. These new procedures will streamline the activation process and eliminate steps which caused unneeded delays. There will be no difficulties clarifying the county procedures. The schedule for the new procedures is given above.

The messages now in Annex E of the State's plan will be reviewed and modified to include all needed instructions in accordance with answer EPX-8-2(c)(d). This process will be completed prior to fuel load.

ANSWER: EPX-8-3(g): All information relating to EPX-8 has been addressed in the preceding interrogatory responses.

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)

) Docket No. 50-400 OL
)
)
)

(Shearon Harris Nuclear Power Plant))

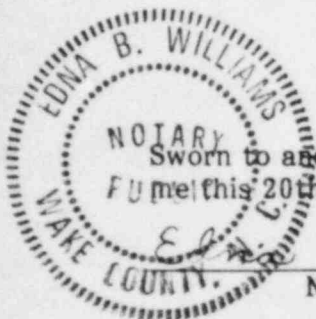
AFFIDAVIT OF ROBERT G. BLACK, JR.

County of Wake)

)
State of North Carolina)

Robert G. Black, Jr., being duly sworn according to law, deposes and says that he is Manager of Emergency Preparedness of Carolina Power & Light Company; that the answers to interrogatories on Eddleman Contentions EPX-2 and EPX-8 contained in "Applicants' Response to Wells Eddleman's General Interrogatories to Applicants Carolina Power & Light Company et al. (EPX Set)" 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, and employees and agents of the State of North Carolina, Wake County, Harnett County and Chatham County.

This 20th day of December, 1985.



Sworn to and subscribed before
me this 20th day December, 1985.

Edna B. Williams
Notary Public

My commission expires: June 7, 1988

Robert G. Black, Jr.
ROBERT G. BLACK, JR.

STATEMENT OF PROFESSIONAL QUALIFICATIONS
ALVIN H. JOYNER
DIVISION OF EMERGENCY MANAGEMENT
NC DEPARTMENT OF CRIME CONTROL & PUBLIC SAFETY

PROFESSIONAL EXPERIENCE

Emergency Management Planner I, North Carolina Department of Crime Control and Public Safety. October 1983 - Present.

Principle planner for emergency response to nuclear accidents within the State of North Carolina. Specific responsibilities involve developing State policy and plans concerning emergency response to nuclear power plant emergencies, providing guidance to state and local government officials and other public and private agencies in the preparation of emergency response plans to ensure accuracy and compatibility with State and Federal plans, provide consultation and guidance to nuclear utility management to ensure full availability of resources and cohesiveness of emergency response plans. Support the State Emergency Response Team (SERT) when a disaster or threat of a disaster is present.

Plans, Operations, and Military Support Officer, The Adjutant General's Office, State of North Carolina. January 1983 - October 1983.

Principle staff officer for emergency planning within the North Carolina National Guard. Specific responsibilities involved developing, evaluating, and putting into operation a variety of contingency plans for such emergencies as natural disasters, civil disturbances, land special security missions, nuclear attack, or alert and mobilization of National Guard units for State or Federal emergencies. Functioned as the State Director of Security, responsible for the direction and implementation of physical, communications, information, and automatic data processing security programs.

Administrative Officer, North Carolina National Guard. September 1978 - January 1983.

Fulltime executive assistant to the Commander of a General Officer Command of one Artillery Brigade, one Support Group of four separate battalions with a troop population of 3,677. Coordinated the day-to-day administration, fiscal and budget matters, logistics, maintenance, military law, military and technician personnel, pay, public and community relations, recruiting plans and programs, training and managerial functions. Supervised 130 employees, including supervisors in civil service (GS) grades 4 through 11 engaged in personnel, training, supply, maintenance, and administration. Coordinated the preparation of domestic emergency and military support for contingency and operational plans for the command.

Administrative Officer, North Carolina Army National Guard. December 1972 - September 1978.

Fulltime executive assistant to the Commander of a North Carolina Army National Guard separate Support Group of four attached battalions and one separate company representing a troop population of 2,685. Coordinated the day-to-day administration, fiscal, and budget matters, logistics, maintenance, military law,

military and technician personnel, pay, public and community relations, recruiting plans and programs, training, and managerial functions. Coordinated the preparation of domestic emergency and military support for contingency and operational plans for the command.

Administrative Officer, North Carolina Army National Guard. March 1961 - December 1972.

Fulltime executive assistant to the Commander of a Divisional Medical Battalion. Coordinated the day-to-day administration, training, supply, and maintenance activities within the command. Recruiting plans and programs for the professional complement. Exercised supervision over one (1) operations and training specialist GS-09, one (1) staff supply assistant GS-07, one (1) administrative specialist GS-07, four (4) administrative and supply technicians GS-07, one (1) organizational maintenance shop chief WG-12 and three (3) general mechanics.

Power Plant Operator, E.I. DuPont De Nemours Company. January 1953 - March 1961.

Power Plant auxiliary operator within an industrial plant utilizing fossil fuel. Specific responsibilities included operation of turbine condensers for plant electric generators, primary refrigeration machines for the entire plant, operation of power plant production of compressed air and analysis and treatment of all conditioned water for both human and industrial purposes.

TRAINING

<u>YR</u>	<u>COMPL</u>	<u>COURSE</u>	<u>SCHOOL</u>
1961		Medical Service Corps Officer Orientation	Medical Field Service School
1967		Army Medical Department Officer Advance	Medical Field Service School
1971		Command & General Staff Officer (Honor Grad)	Command & General Staff College
1973		Introduction to Supervision	US Civil Service Commission
1974		Engineer Officer Orientation	Engineer School
1974		National Guard Personnel Management	US Civil Service Commission
1976		Logistics Management Orientation	US Army Logistics Management Center
1977		Ordance Officer Advance	US Army Ordance School
1978		National Security Management	National Defense University
1978		Role of the Manager in EEO	US Civil Service Commission
1978		Management Awareness	Officer NC State Personnel
1979		Installation Management	US Army Logistics Management Center
1979		Middle Management	US Office of Personnel Management
1980		Netotiating Labor Agreements	US Office of Personnel Management
1980		Administrative Officer	NG Profession Education Cen.
1982		Labor Relations Supervision for Managers	US Office of Personnel Management

1982	Industrial Facilities Protection	US Defense Indust. Security Inst.
1982	Basic Disaster Operations Course	Emergency Management Inst. (FEMA)
1982	Assoc. Logistics Executive Development	US Army Logistics Management Center
1983	Classification Management for Managers	National Guard Bureau
1983	Search and Rescue Management Seminar	US Air Force Rescue Coordination Center
1984	Managing the Search Function & Instructor Workshop	National Assoc. for Search and Rescue
1984	Basic Nuclear Power Concept Course	Tennessee Valley Authority
1985	Federal Radiological Emergency Response Plan Workshop	Emergency Management Institute (FEMA)

SUMMARY

My professional career has been almost entirely in the military. I retired from fulltime duty with the North Carolina National Guard as a Lieutenant Colonel (GS-12) in October 1983. During that career my responsibilities have been almost entirely devoted to planning and training to support the National Guard in its military role both to the Nation and the State. I am an honor graduate of the Army's coveted Command and Staff College and completed numerous other military courses directly related to plans and operations.

MARK SCOTT
Chatham County Office of Emergency Services
Post Office Box 428
401 West Street
Pittsboro, N. C. 27312

PROFESSIONAL EXPERIENCE

Emergency Management Coordinator, Emergency Services Director and Fire Marshal of Chatham County

As Emergency Management Coordinator, my duties include acting as liaison between Chatham County emergency service organizations (fire, rescue and law enforcement organizations) and the State of North Carolina. I am on call 24 hours a day for emergencies in Chatham County, either in a response or advisory capacity.

As Emergency Services Director, I am responsible for developing standard operating procedures for emergency services and am directly responsible for ambulance services. I advise the County Manager and Board of Commissioners on procedures and activities of rescue squads and ambulance services.

As Fire Marshal, I investigate suspicious fires, enforce fire codes and inspect domiciliary care agencies. I also advise the County Manager and Board of Commissioners on procedures and activities of fire agencies.

Member Bonlee Fire and Rescue Department, 1970 - Present; Captain, 1971-73; Chief, 1973-1983; Assistant Chief, May 1983 - Present.

TRAINING

North Carolina Fire College sponsored by North Carolina Firemen's Association, North Carolina Association of Fire Chiefs and North Carolina Department of Insurance, 1973-74.

Hazardous Materials, Leak and Spill Controls School sponsored by Safety Systems, Inc., 1983-84.

North Carolina Basic Law Enforcement Course, Central Carolina Technical College, Sanford, N. C., 1983.

Emergency Medical Technician Course sponsored by North Carolina Office of Emergency Services, 1973-74.

Fire Pump Operator Instruction sponsored by North Carolina Department of Insurance, 1974.

Propane Leak and Fire Control Instruction sponsored by North Carolina Fire Instructor's Association, 1975.

Basic Radiation Emergency Preparedness Course sponsored by North Carolina Division of Emergency Management, 1984.

Continuing Education Courses in Emergency Medicine sponsored by North Carolina Office of Emergency Medical Services, 1976-84.

Police Informaton Network (PIN) Operator Training sponsored by North Carolina Justice Academy, 1983.

Rural Water Supply Instruction sponsored by Cumberland County Firemen's Association, 1976.

Received certification from the Professional Association of Diving Instructors as a certified diver, 1982.

BOB W. BAILEY

3940 Haithcock Road Telephone
 Raleigh, North Carolina 27604 Home: (919) 872-2112
 Business: (919) 733-2285

Married 6'2" 185 pounds 38 years old

Education Appalachian State University Boone, North Carolina
 MA Economics and Business May 1974

Appalachian State University Boone, North Carolina
 BS Economics and Business May 1969

Experience 8/79 to Present Deputy Chief, Office of Emergency Medical Services, North Carolina Department of Human Resources, Raleigh, North Carolina. Responsible for overseeing the day to day operation of the agency which involves managing and coordinating work among the various program components, preparing and monitoring the agency's budget, administering grants and contracts, maintaining performance appraisal system for employees, serving as head of agency emergency response activities during natural and manmade disasters, and serving as a focal point for contact with other state agencies and EMS organizations and individuals throughout the state including providers, councils, county commissioners, legislators, etc. Work also involves assisting in the preparation of federal grant applications and revision of the state EMS plan. In this capacity, revised agency filing system and determined need for and successfully justified and obtained word processing computer for the agency.

10/78 to 8/79 Assistant Chief in charge of Education, Office of Emergency Medical Services, North Carolina Department of Human Resources, Raleigh, North Carolina. Responsibilities included: administering the Ambulance Attendant, Emergency Medical Technician (EMT), Emergency Medical Technician-Intermediate, Emergency Medical Technician-Paramedic, Mobile Intensive Care Nurse (MICN), EMS Communications, Emergency Nurse Education, and Emergency Vehicle Operators programs; overall responsibility for certification/recertification program for Ambulance Attendants, EMTs, EMT-Is, EMT-Ps and MICNs. Developed

and managed budget for state and federally funded programs; managed education staff of two professional and one clerical employee; served as staff liaison to the North Carolina Board of Medical Examiners and State EMS Advisory Council; implemented and revised policies and procedures for the efficient administration of EMS training programs. Work involved frequent contact with a broad spectrum of people such as representatives of various state and federal agencies, county officials, hospital administrators, physicians, legislators, and providers of ambulance service both volunteer and paid.

7/75
to
10/78

Assistant Chief in charge of Field Operations, Office of Emergency Medical Services, North Carolina Department of Human Resources, Raleigh, North Carolina. Responsibilities included management of a field staff of twenty professionals; development and maintenance of regional EMS councils and for the programs and activities associated with these councils; overall responsibility for licensure and certification of all vehicles that provide emergency medical services; serving as primary resource on field services for EMS; establishing, maintaining, and evaluating work priorities, goals, and objectives of programs as they relate to field operations; coordinating the implementation of field programs through staff specialists in education, facilities, engineering, transportation, and information; reviewing grant applications for submission to DHEW and developing guidelines for state grants to regions. Work involved frequent contact with a broad spectrum of people such as representatives of state and federal agencies, county officials, hospital administrators, physicians, legislators, and providers of ambulance service both volunteer and paid.

11/74
to
7/75

Education Programs Consultant, Office of Emergency Medical Services, North Carolina Department of Human Resources, Raleigh, North Carolina. Primary responsibility included implementation, revision, and evaluation of statewide EMT program. Other responsibilities included development or assisting in development of EMT-I.V. program, Mobile Lab program, Emergency Vehicle Operations Course (EVOC), Refresher EMT training, and Mobile Intensive Care Technician (MICT) program. Work required frequent contacts with educational institution representatives and volunteer and paid pre-hospital care providers.

6/74 to 11/74	<u>Regional Coordinator, Office of Emergency Medical Services, North Carolina Department of Human Resources, Raleigh, North Carolina.</u> Originally hired as Regional Coordinator but functioned in dual role as Regional Coordinator and Education Programs Consultant. Primary responsibility as Regional Coordinator was responsibility for all emergency medical services activities within state planning region C.
8/69 to 6/74	<u>Rutherford County Public School System, Rutherfordton, North Carolina.</u> Employed as classroom teacher. Teaching duties varied throughout employment. Taught in grades six through twelve. Acted in unofficial capacity as assistant principal in elementary school (1971-73). Duties included development of physical education program, disciplinary action as required, and maintaining bussing schedule.
Other work Experience 1/74 to 6/74	<u>Rutherford County Emergency Medical Services, Rutherfordton, North Carolina.</u> Attendant, driver and Training Officer of County owned system while on leave of absence from school system to complete masters degree.
6/73 to 1/74	<u>Appalachian State University, Boone, North Carolina.</u> Taught Basic Business courses while working on masters degree.
8/71 to 6/73	<u>Isothermal Community College, Spindale, North Carolina.</u> Taught Business courses at night in Adult Education program.
Honors, Awards Organizations	Board of Directors, National Association of State EMS Training Coordinators Board of Directors, New Hope-Wilders Grove Exchange Club (service organization) Teaching Stipend to Appalachian State University Kappa Delta Phi (Honorary Education Society) President Pi Omega Pi (Honorary Business Education Society) Member Trinity Presbyterian Church Choir Member, Trinity Presbyterian Choir Past President, Trinity Club (Men of the Church) Trinity Presbyterian Church Chairman, Education Committee International Rescue and First Aid Association

Graduated cum laude A.S.U. 1969
North Carolina EMT trained
American Heart Association CPR certified
Volunteer Fireman nine years, Bostic Volunteer Fire
Department, Officer, served on Board of Directors five
years.
Volunteer Rescue Squadman, Rutherford County Rescue
Squad, served on Board of Directors two years,
financial officer.
Amateur Radio Operator (hold Advanced Class License KF4IZ)
Member Raleigh Amateur Radio Society
Member American Management Association

Published North Carolina EMT Course Coordinators Guidelines
Raleigh Amateur Radio Repeater Guide

Personal Born and raised in Bostic, North Carolina. Interested in
data many sports, amateur radio, and microcomputers. Daughter,
Barbie, presently 9 years old. Wife, Sheila, holds a class
A North Carolina teaching certificate in secondary and
elementary education.

References References will be furnished upon request.

CURRICULUM VITAE
for
Dayne H. Brown

Born August 18, 1940 in Shelby, North Carolina

Graduated from Needham B. Broughton High School, Raleigh, North Carolina
June 1958

Graduated with honors from North Carolina State University with Bachelor
of Science degree in Physics, June 1962

Awarded US Public Health Service Radiological Health and Safety Fellowship
to attend North Carolina State University. Graduated from North Carolina
State University, January 1964, Master of Science degree in Physics

Employed as a health physicist by the National Aeronautics and Space
Administration, Lewis Research Center, Cleveland, Ohio from January 1964
to February 1966

Employed as an instructor in the Radiological Health Training Program of
US Public Health Services, Cincinnati, Ohio from February 1966 to June 1967

June 1967 to present: Employed as Chief of the Radiation Protection Section,
Division of Facility Services, North Carolina Department of Human Resources

1976 to present: Ex officio member of the North Carolina Radiation Protection
Commission

Member of:

NC Chapter of the Health Physics Society
National Health Physics Society
American Public Health Association
Conference of Radiation Control Program Directors

1985

James Russell Capps, 4116 Jane Lane, Raleigh, N.C. 27604
Age 54 (2/26/31)

Married, (Wife, Shirley), Two children (Son, 21, Rusty, Student at State)
(Daughter, Candy, just graduated Enloe
High School June 1985)

Education:

Raleigh Public Schools (Hugh Morson High, 1949)
Wake Forest College , B.S. Degree, 1955
Radio/Television Institute, Chicago, Certificate, 1950.
Southeastern Baptist Seminary, 1955-57
Institute of Government, Chapel Hill, 1968-69 (City/County
Government Administration, Certificate)
N.C. Department of Local Affairs Community Planning Program (1969)
N.C. Department of Local Affairs, Grantsmanship Instruction Course
(1970).
Valdosta State College (Civil Preparedness Career Development
Courses Phase III, (1977)).
Institute of Government, Chapel Hill, N.C. Fire Prevention Schools
Basics, Advance, Advance III, 1979-1981.

Work Experience:

Employed by Capitol Broadcasting Company (WRAL Radio and TV)
upon completion of Radio/TV Institute study in 1950. Stayed
with the company 17 years fulltime, earliest years while
also a fulltime student in college and seminary. Served as
an announcer, disk jockey, program host, newsman, news reporter,
news photographer, newscaster, co-anchor on 6 o'clock news,
and also did weather and sports at times.

Employed by Wake County November 1967 as Administrative officer in
Department of Welfare (as it was known then).

Promoted by Wake County to Assistant to the County Manager in
charge of Planning, 1970. Served as the first Wake County
Planning Director, handling the zoning of the County and
the preparation of the sub-division regulations.

Transferred by the County to Civil Defense office as Asst.
Director, 1972, promoted to Director 1973 serving as
Civil Preparedness Director and handling fire marshal duties
including liaison with all volunteer fire departments and the
establishment of additional fire departments.

Program title updated to Emergency Management in 1974.
Duties extended to include overseer of private ambulance
service provider in Wake County in 1974.

Assigned the additional job of establishing County ambu-
lance service in 1976. Placed in charge of task which I
named Wake County EMS (Emergency Medical Service). Had three
months to spec out equipment, purchase same, hire employees,
get them trained and ready for service, locate and modify
facilities for housing the ambulance stations. All tasks
were accomplished and the Wake County EMS began on Sunday,
July 15, 1976 with 30 employees. I continued as Director
of that service along with my other duties as Emergency
Management Director and Fire Marshal until 1980. (Fire
Marshal title and fire prevention code came in 1978).

Currently serving as Emergency Management Director and County
Fire Marshal.

Related Information:

Served as a volunteer fireman from 1961 to 1982.
Served as Fire Chief of Wake New Hope Fire Department
(Vol.) two terms.
Served as Vice President and as President of the Wake
County Firemen's Association 1966-67.

Professional Memberships:

N.C. Emergency Management Association 1973 to present.
National Coordinating Council on Emergency Management
1974 til present.
Wake County Firemen's Association, 1962 til present.
Wake County Emergency Medical Services Council 1978 to
present.
Administrator, Wake County Mobile Intensive Care
Technician, Advanced Training Program 1978-1980.
(Added duty).
N.C. Association of County Fire Marshals
N.C. Fire Marshals Association

Other:

Volunteer minister in baptist church for 13 years.
Active member, Tabernacle Baptist Church, Raleigh, for
years; served as Deacon, Teacher, Church Training Director,
Stewardship Chairman, and many other positions.
Member on Board of Trustees, Southern Baptist Radio/TV
Commission, 1984 to present.

Attachment F

William Ethridge: Captain, North Carolina Highway Patrol, Director of Research and Planning Section. Responsible for emergency response planning for fixed nuclear facilities and hazardous materials transportation accidents. Has more than 25 years experience in the field.

Henry G. Johnson: Coordinator, Harnett County Emergency Management. Has over 20 years experience in law enforcement, fire and rescue services.