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UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

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BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

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

In the Matter of

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

Docket 50-400 OL

Wells Eddleman's General Interrogatories  
to Applicants Carolina Power & Light et al.

GTH (Set)

6-14-84

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

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

State of NC, State or County emergency response planners or personnel

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

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

DEFINITIONS herein:

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

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

"FSAR" means the Harris Final Safety Analysis Report.

"ER" means the Harris Environmental Report.

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

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

Each definition given above applies within all other definitions above.

### GENERAL INTERROGATORIES

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

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

(c) Please state the name, present or last known address, and present or last known employer of each person whom Applicants believe or know

(1) has first-hand knowledge of the facts alleged in each such answer; or (2) upon whom Applicants relied (other than their attorneys) in making such answer.

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

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

(f) Please identify any other document(s) used <sup>or relied upon</sup> by Applicants in responding to the interrogatory.

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

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

G2.(a) Please state the name, present or last known address, title (if any), and present or last known employer, and economic interest (shareholder, bondholder, contractor, employee, etc.) if any (beyond expert <sup>or other</sup> witness fees) such person holds in Applicants or any of them, for each person you intend <sup>or expect</sup> 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.

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

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

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

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



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

(b) Please identify any other source(s) of information not previously identified upon which any witness identified under G2 above, or other witness, has used in preparing testimony<sup>or exhibits</sup>, 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<sup>(or both)</sup> to which such source relates.

G4(a) please identify all documents, <sup>and which</sup> 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 <sup>form intent</sup> or ~~intend~~ to use such document in cross-examination.

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

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

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

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

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

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

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

(c) Please identify which of the documents identified in response (i) to (b) above 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.

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

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

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

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

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



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

SPECIFIC INTERROGATORIES. "You" means (to Staff/FEMA) NRC Staff or FEMA or any person answering these interrogatories for FEMA or NRC Staff. "You" means, to Applicants, Applicants or the State of NC or the NC Dept of Crime Control and Public Safety, or appropriate county or state emergency response planners or personnel, e.g. those supplying answers to these interrogatories or having knowledge of the matters inquired about.

57-C-3-1(a) Do you know of any provisions for nighttime notification of residents or transients (i) within the EPZ (ii) who are asleep (iii) who are in boats or houseboats or other craft on either (iii-a) Jordan Lake, or (iii-b) the Harris plant lake? (b) What are these provisions? Please identify all documents containing such provisions and state which such documents are part of the emergency response plan (offsite) for Shearon Harris. If any such document is part of another emergency response plan, e.g. Harris on-site plan or other state or county emergency response plan or contingency plan, please identify that plan also, for each such document. (c) What provisions, if any, are in the brochure to be sent to EPZ residents, concerning action to take if a nuclear accident occurs at night? (d) what provisions among these concern sheltering, turning off air conditioners or air-to-air heat exchangers, or closing windows? Please identify each such provision and which of the above items it relates to. (e) Do you know of any plans for telephone notification of (i) residents of the EPZ (ii) transients in motels, hotels or other lodging in the EPZ, for accidents at the Harris nuclear plant? If so, please identify each such plan and all documents concerning it. (f) Have you ever considered telephone notification of persons within the EPZ in the event of a nuclear accident? If so, please identify all documents concerning your consideration of this matter.

57-C-3-2(a) Are automatic telephone dialing systems available to (i) CP&L (ii) the State of NC (iii) Wake County (iv) Chatham County (v) Harnett County (vi) Lee County (vii) other authorities who would be involved in ordering sheltering in the event of an nuclear accident at Harris? (b) What are the capabilities of the automatic telephone dialing systems available to each such organization? Please include in your answer (i) number of numbers dialed per hour (ii) ability to dial a preprogrammed set of numbers (iii) ability to have input a set of numbers to dial (iv) ability to automatically dial back if the phone is hung up before a message is completed (v) length of message the system can deliver (vi) audio quality of message the system can deliver (vii) capacity OF Telephone lines (e.g. number of lines) the system requires, (viii) other technical requirements of the system, e.g. for power supply, actuation, reset if errors in dialing occur (ix) whether the system can function with a backup power supply if electrical power to it is lost, and whether such backup power supply is in fact provided for it. (c) Please detail the capabilities of any automatic telephone dialing system which you have (i) considered for use (ii) plan to buy (iii) know is available for purchase.

213-1(a) What is the specific responsibility of (i) CP&L (ii) the State of NC (iii) Wake County (iv) any other authority or agency you know of, for notifying boaters, swimmers or others on or in the Harris plant lake in the event of a nuclear accident at Harris? (b) Please list every means by which you will carry out such notification, and state which document(s) detail these means, your authority or ability to use them, and what personnel are required to operate these means (number of persons, where they work, who will notify them, how long they will take to begin operating the means of notification. (c) Please state how long each means of notification will take to notify all persons on or in the Harris lake, and for each means, what backup means of notification will be used if there is a failure of the first means. Please also describe the provisions for sheltering or evacuation which will be announced to persons on or in the Harris lake. (d) What means, if any, are provided for verifying that persons on the Harris lake have been notified of an accident at Harris? Who operates each such means? Who is responsible for each such means being used? Who will receive the reports of such verification? How will each such person receive each such report?

213-2(a) In what respects do provisions for notification of persons (i) on (ii) in (iii) on the shores of, the Harris plant lake, differ from provisions for notification of persons in or on corresponding parts or areas near Jordan lake? (This means for notification of an accident at the Harris plant.) (b) For each such difference in provisions, do you have any reason for the difference? If so, please state in what documents your reason, or reasoning, for having this difference in notification provisions for the Harris and Jordan lake areas, is. (c) Please explain any modifications to be made in notification provisions for the people in, on or around the Harris lake by (i) Wake County (ii) CP&L (iii) other emergency planners, including the State of NC.

57-C-10-1(a) What study, if any, have you made of sheltering effectiveness for shelters typical of those available within the Harris EPZ? (b) Please identify all documents in which you make such study, or any analysis of sheltering effectiveness for such shelters. (c) What study, if any, do you plan to make of sheltering effectiveness for shelters typical of those to be available near Harris? When will each such study be completed? Who is doing each such study? What are their qualifications to do it? Who will receive the results of each such study?

(d) Does any study referred to in your responses to (b) or (c) above establish sheltering effectiveness for (i) houses without basements (ii) brick houses without basements (iii) cinder block basements (iv) brick-walled basements (v) basements above ground level (vi) basements sunk partly below ground level (vii) motels or individual motel rooms (viii) restaurants (ix) public buildings (x) farm buildings (xi) storm cellars (xii) wooden houses (xiii) solar or passive solar houses (xiv) any structures, in terms of typical numbers of air changes per hour (xv) any structures, in terms of measured numbers of air changes per hour (xvi) any structures, by relying on typical characteristics of such structures? (e) Please identify all documents containing data on the sheltering effectiveness, or measurements of air changes, or characteristics of shelters, which you have used or will use in addressing the effectiveness of sheltering for typical structures around the Harris plant. (f) Please explain your method for assessing sheltering effectiveness for homes, etc., in the Harris EPZ.

57-C-10-2(a) Have you made any determination of sheltering effectiveness for any (i) school (ii) day care center (iii) church or other house of worship (iv) other structures ~~are~~ open to the public or used by more than 10 persons (other than homes or apartments)? (b) Was your determination of sheltering effectiveness made (i) for a typical such structure (ii) for a specific structure (please identify) (iii) by any other method? (c) Please explain, identifying all documents used for data or assumptions, and identifying all calculations and methods used, how you determined the sheltering effectiveness for each type of structure inquired about in part (a) above.

57-C-10-3(a) Please identify all documents, methodologies, data, equations, calculations or other information you have used, or plan to use, in calculating or determining sheltering effectiveness for structures within the Harris EPZ. (b) Please identify all documents containing such information. (c) Please identify all documents you possess which describe methods of figuring, calculating, or assessing sheltering effectiveness. (d) Please state why you have adopted or used any methods, data or calculations of sheltering effectiveness which you have used with respect to structures near Harris or in its EPZ. (e) Please state and describe in as much detail as you know, what kinds of structures you consider "typical" of those ~~available~~ available for sheltering in the Harris EPZ. Please identify all documents or information and all opinions you rely on in considering each type or structure typical. How many types of structures have you assessed sheltering effectiveness for within the Harris EPZ?

57-C-10-4(a) Do you possess any information on the (i) number (ii) types (iii) number of persons in (iv) times of day persons are in, structures in the Harris EPZ? (b) Did you consider



medical or dental offices, stores, schools, farm buildings, theaters, public buildings, motels, day care centers, or other buildings in collecting data on types of shelter available in the Harris EPZ? (c) If so, what data do you have on each type of building inquired about in (b) above. ~~if you did not consider any of the~~

(d) For each type of building listed in (b) above that you have no data on or did not ~~xxx~~ consider, please tell why you (i) have no data on, or (ii) did not consider, that type of building.

(e) among the types of structures inquired about in this interrogatory 57-C-10-4, what structural characteristics, air-change characteristics or other characteristics do you think are appropriate to consider to determine sheltering effectiveness for each such type?

(f) Please identify all documents in which data, determinations or information concerning the matters inquired about in (a) thru (e) and all subparts, inclusive, above, are contained.

57-C-13-1(a) Have you made any determination of the best Protection Factor (PF) available in any (i) hospital (ii) nursing home within the Harris EPZ? (b) If so, how did you make that determination Was an on-site survey conducted? How did you get your data about characteristics of the structure? Did you consider any data about air infiltration into the structure? Please identify all documents concerning each determination of PF you have made for any school or hospital within the Harris EPZ and how that PF was determined.

(c) Have the data used in your PF determination been checked by anyone? If so, by who and when? Please identify all documents concerning checking of such data. (d) How many people can fit into the area with the best PF in each (i) hospital (ii) nursing home, in the Harris EPZ? (e) What provisions for patient characteristics (e.g. ambulatory, non-ambulatory, need for special medical supplies, need for nursing access, sensitivity to heat, to cold, or to reduced oxygen and/or stuffy conditions in a closed area) were included in your determination or estimate of how many people will ~~fit~~ fit into the area of best PF in each specific (i) hospital (ii) nursing home, in the Harris EPZ?

(f) What is the maximum capacity of each (i) hospital (ii) nursing home within the Harris EPZ? (g) What food supplies would be available in the area of highest protection factor in each (i) hospital (ii) nursing home, within the Harris EPZ, in the event of a long-term sheltering being required? What water supplies would be available in the highest PF area within each such hospital or nursing home? (g) If all the people in the hospital or nursing home can't fit into the highest PF area, what is the PF of the next-highest PF area within such hospital or nursing home? How many people can this next-highest PF area hold? What regard of medical conditions or needs of persons to be sheltered in this area was taken in your determination or estimate of how many people would fit into this area?

57-c-13-2(a) Are there any means of increasing PF for hospital or nursing home areas within the Harris EPZ that you have (i) considered (ii) recommended to the operators or owners of those hospitals or nursing homes? (b) are there any care facilities within the Harris EPZ which care for adults but which you define as being neither a hospital nor a nursing home? Please identify each such facility and state why you believe it is not included within the term "hospital or nursing home."



30-1(a) Has any determination of the quantity of potassium iodide (KI) to be kept at any location (e.g. county health department) for use as a radioprotective drug in an emergency at the Harris plant been made? (b) How, if at all, does each such determination take into account the "shelf life" of the KI? (c) Who made each such determination? (d) How was each such determination made? (e) Please identify each document concerning each such determination, and also all documents containing information used in making each such determination. (f) Please state what information, from what specific source (page reference please) was used in making each such determination. (g) How many persons are to be provided with KI from each location during an emergency? Please state the numbers of emergency workers, the number of persons not mobile (e.g. in nursing homes), and numbers of other persons for whom KI is to be provided from each location where KI is stored & for use in a radiological emergency at Shearon Harris nuclear plant. (h) Are there any reserve supplies of KI available within the Harris EPZ for use in an emergency? If so, who determines where these reserve supplies are and how much is in each location? (i) what dose(s) are provided per person in the KI stored for use in a radiological emergency at Harris? If no KI is now stored for this purpose, what dose(s) are planned to be provided per person?

30-2(a) If quantities of KI for use during a radiological emergency at Harris have not been determined yet, when is such determination to be made? Please explain how each of the matters asked about in 30-1(b) through (i) above will be addressed in such determination. (b) Please state who is making the determination of KI quantities which is going to be made. (c) Please state who will make each such determination and whether each such determination will be included in the Harris emergency response plan. (d) Please identify all points in the Harris emergency response plans where specific quantities of KI or other radioprotective drugs are mentioned.

224-1(a) What analysis of the frequency of weather events, including fog, ice, snow, rain, heavy rain, hail or other adverse weather, have you made for the Harris EPZ? (b) What information do you have on the frequency (both (i) typical, and (ii) maximum in any recorded data) of (aa) fog (bb) ice (cc) ~~xxx~~ snow (dd) rain (ee) "heavy rain" (ff) hail (gg) rain above 1 inch per hour (hh) rain above 3 inches per hour, in or around the Harris EPZ or in areas believed to be similar in meteorology to the Harris EPZ? Please identify all documents containing such information. (c) Do you have any other information concerning frequency of adverse weather in the Harris EPZ or in areas of similar meteorology? If so, please identify all such other information and all documents containing it.

224-2(a) Please state what sensitivity analysis for frequency of adverse weather was included in the Harris evacuation time estimates. (b) If you reviewed the Harris evacuation time estimates, what analysis, if any, did you make of the sensitivity of such time estimates to the frequency of adverse weather? Please identify all documents concerning (i) your analysis of the Harris evacuation time estimates (ii) sensitivity of such estimates to adverse weather conditions (iii) sensitivity of evacuation time estimates to the frequency of adverse weather conditions. (c) Please state what further analysis of adverse weather frequency and its effect on Harris evacuation time estimates you plan to make, and when it will be done.

215-1(a) How do recreational populations at (i) Jordan Lake (ii) the Harris plant lake (iii) other recreation sites within the Harris EPZ, vary with (aa) time of day (bb) day of week (cc) season of year? Please provide what data you have on variation of recreational populations in each recreational area in the EPZ, including numbers of overnight users of each. ~~that is~~ (b) What data provided in response to (a) is based on actual observation? (c) What basis do you have ~~x~~ for estimates of recreational populations near Harris at various times of the day, week and year, other than observation? How realistic is such basis in your view? Do you know methods to check the realism of such estimates? What are such methods? Are you doing any checking of the realism of such estimates? If so, how? Do you plan to check the realism of estimates of recreational populations in the Harris EPZ before the plant operates? Before the evacuation plan is tested?

(c) What data do you have on vehicle occupancy rates in the Harris EPZ (i) at any time or times (ii) in the early morning, e.g. 6-9 am (iii) in the early evening, e.g. 5-7 pm (iv) between ~~x~~ 11am and 1 pm or in that range (v) after 7pm but before midnight? ~~Re~~ (d) Do any of your data on vehicle occupancy rates in the Harris EPZ vary by day of week or season or date in the year? If so, how does each vary? (e) Please identify all documents concerning actual occupancy rates of vehicles in the Harris EPZ which you (i) possess (ii) know of. (f) Please identify all documents concerning recreational populations in the Harris EPZ or how these ~~x~~ populations vary at varying times. (g) Please identify all documents concerning estimation of (i) vehicle occupancy rates (ii) recreational populations, in the Harris EPZ, or ~~x~~ basis for such estimates, or data used in such estimates.

215-2(a) Please state if you know what numbers or percentage of the Harris ~~E~~ EPZ population is at home (i) with transportation at home (ii) without transportation at home, at varying hours of the day or year or at any time(s) (please specify times for which you have such information. (b) Please state what investigation or analysis or data collection you (i) have made (ii) will make (iii) are making concerning numbers of persons in the Harris EPZ who are at home at any time or times of the day or year.

215-3(a) Do you know how many vehicles are available to each household within the Harris EPZ (i) as owned or rented vehicles (ii) at any time of the day, e.g. during work or school hours (iii) located at or near the home of each household, at any time or times of the day or year? (b) Please detail all data you have on the numbers of vehicles available to each household in the Harris EPZ at any specific times. (c) Please detail all data, information or documents as to the number of vehicles each household (or a typical household) in the Harris EPZ will use to evacuate in the event of a nuclear accident at Harris.

215-4(a) Have you made any study of how many persons would evacuate from a location other than their home(s) within the EPZ in the event of an accident at the Harris nuclear plant? (b) Have you studied where people would actually evacuate from under daytime or evening conditions from the Harris EPZ at any date or season of the year? (c) Please identify all documents concerning such study or studies.



215-5(a) Have you determined the distance from each (or any of the) non-car-owning household(s) in the Harris EPZ to each's nearest neighbor? (b) Have you determined how many non-car-owning households have telephones over which they might ask neighbors for rides in the event of an accident at Harris? (c) Do you know how many persons would evacuate from car-owning households near the non-car-owning households? (d) Do you know how many of such car-owning neighbors of non-car-owning households would have extra space to carry members of the households without transportation? (e) Why have the evacuation time estimates assumed that one car will be added per family of non-vehicle-owning evacuees in an accident at the Harris plant? (f) Have you made any analysis of the Harris evacuation time estimates' treatment of the number of vehicles evacuating as it is affected by the numbers of vehicles assumed or estimated to be evacuating persons without transportation? (g) Please identify all documents concerning any such analysis. (h) Please state whether persons without transportation includes those who do not have their own transportation readily available, or only those who do not own cars.

215-6(a) Please identify any information underlying the Harris evacuation time estimates, or any other information available to you, which concerns the number of vehicles per evacuating person or per family which would be required to evacuate the Harris EPZ under realistic conditions. (b) Please identify the realistic conditions and the documents containing all such information. (c) Have you compared the number of vehicles used in the evacuation time estimates to the number of vehicles ~~xxx~~ considered to be actually evacuating under realistic conditions for any evacuation condition or scenario? If so, state for which condition or scenario, and please identify the results of your comparison and all documents containing such results or information on which such results were based.

215-7(a) Have you performed, or do you know of, any reanalysis of the computer runs made for the Harris evacuation time estimates, incorporating any less conservative assumptions (or more realistic assumptions) concerning numbers of vehicles to be evacuated, population of recreation-area users to be evacuated, or other matters contained in Contention 215 as initially admitted or as revised? Please identify all documents containing such reanalysis, and state the evacuation times given by each such reanalysis.

215-8(a) Do you know of any data showing the actual traffic loadings on each road segment during evacuation from a Harris accident (i) as computed in any evacuation time ~~x~~ estimate computer run (ii) as determined in any other computer run (iii) as determined in any other manner? (b) For each ~~x~~ part of (a) above for which your answer is affirmative please identify all documents containing such data, and state what assumptions or data about population and vehicles evacuating, road conditions, or other variables were used in deriving such data or making such computer run.

215-9(a) Do you have any information as to the amount of time required for evacuating the Harris EPZ under conditions less conservative than those specified in the Harris evacuation time estimates? If so, what information do you possess or know of?

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215-9 continued

(b) Please identify all assumptions that were made in deriving the time required (or effect on time required) to evacuate the Harris EPZ, for any information identified in response to (a) above. (c) Please identify all documents containing information about less conservative evacuation time estimates for the Harris EPZ you are aware of. (d) Who made estimates of Harris EPZ evacuation time, other than CP&L's contractor?

#### PRODUCTION OF DOCUMENTS

Wells Eddleman hereby requests the persons these interrogatories are addressed to, whether FEMA/NRC Staff, or CP&L and NC State and County government emergency response personnel or planners, to make available for inspection and copying the original or best copy of each document identified in response to any of the above interrogatories.

29 June 1984

*Wells Eddleman*  
Wells Eddleman