

DOCKETED  
October 29, 1984

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

\*84 NOV -1 A10 :25

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 [CHANGE] EMERGENCY PLANNING  
INTERROGATORIES AND REQUEST FOR PRODUCTION OF DOCUMENTS  
[ON CONTENTIONS EPJ-1, EPJ-2 AND EPJ-4]

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 [CHANGE] "Emergency Planning Interrogatories and Request for Production of Documents" [on Contentions EPJ-1, EPJ-2 and EPJ-4]. The provision of answers to these interrogatories is not to be deemed a representation that Applicants consider the information sought to be relevant to the issues to be heard in this proceeding.

GENERAL INTERROGATORIES

Responses to these general interrogatories shall be given for each contention, along with the responses to each specific interrogatory.

(1) State the name, present or last known address, and present or last known employer of each person known to Applicants to have first-hand knowledge on which the responses are based, for each of the contentions which are the subject of this set of interrogatories.

ANSWER: The following list identifies those persons who provided information upon which Applicants relied in answering the interrogatories on Contentions EPJ-1, EPJ-2, and EPJ-4, and indicates the particular interrogatory answers for which such person provided information:

8411020061 841029  
PDR ADOCK 05000400  
G PDR

DS03

Respondent

Response Number

Robert G. Black, Jr.  
Carolina Power & Light Company  
Post Office Box 1551  
Raleigh, North Carolina 27602

EPJ-4-1 through EPJ-4-5

Bryan D. McFeaters  
Carolina Power & Light Company  
Post Office Box 1551  
Raleigh, North Carolina 27602

EPJ-1-1(1) to (5); EPJ-1-2; EPJ-1-4

Robert D. Klimm  
HMM Associates  
336 Baker Avenue  
Concord, Mass. 01742

EPJ-1-1(6) to (8); EPJ-2-1

Lloyd Hancock  
Carolina Power & Light Company  
SHNPP  
Box 165  
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EPJ-1-3(a) and (b)

Carolyn Anderson  
Carolina Power & Light Company  
Harris E&E Center  
Box 327  
New Hill, North Carolina 27562

EPJ-2-2

M.C. Adams  
North Carolina Department of  
Transportation  
Highway Building  
Raleigh, North Carolina 27601

EPJ-1-3(c)

W.M. Murray  
Wake County Schools  
601 Devereaux Street  
Raleigh, North Carolina 27605

EPJ-4-6

P. Harrison  
Chatham County Schools  
Pittsboro, North Carolina

EPJ-4-6

(2) Identify those facts concerning which each such person has first-hand knowledge.

ANSWER: See Answer to Interrogatory (1).

(3) State the specific basis or facts which support each response. To the extent that Applicants rely solely upon documents for their response(s), please indicate the documents by their title, date, author, and location. Please identify also relevant page citations.

ANSWER: All facts or documents relied upon by those individuals identified above are as indicated within each response to the specific interrogatories on Contentions EPJ-1, EPJ-2 and EPJ-4.

(4) State the name, present or last known address, and present or last known employer of each person who provided information upon which Applicants relied in answering each interrogatory herein.

ANSWER: See Answer to Interrogatory (1).

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

ANSWER: See Answer to Interrogatory (1).

(6) State the name, address, title, employer, and educational and professional qualifications of each person Applicants intend to call as an expert witness or as a witness relating to any contention which is the subject of this set of interrogatories.

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

(7) Identify the contention(s) regarding which each person identified in interrogatory (6) is expected to testify, and the subject matter as to which each such witness is expected to testify.

ANSWER: See Answer to Interrogatory (6).

(8) Identify all documents in Applicants' possession, custody or control, including all relevant page citations, pertaining to the subject matter of, and upon which the Applicants relied in formulating responses to, each contention which is the subject of this set of interrogatories.

ANSWER: Such documents, if any, are contained within Applicants' responses to each contention.

(9) State the specific response to each contention or interrogatory which Applicants contend each document supports.

ANSWER: The response supported by each document is indicated within Applicants' responses to each contention.

(10) Identify all documents in Applicants' possession, custody, or control, including all relevant page citations, upon which Applicants relied in answering each interrogatory herein.

ANSWER: Such documents, if any, are contained within the responses to specific interrogatories.

(11) Identify all other sources of information, not identified in responses to General Interrogatories 5, 8, and 11 herein, which were used in answering each interrogatory herein.

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

(12) Identify all documents which Applicants intend to offer as exhibits during this proceeding to refute contentions which are the subject of this set of interrogatories.

ANSWER: Applicants have not at this time identified exhibits, if any, which they intend to offer to refute contentions which are the subject of this set of interrogatories.

#### SPECIFIC INTERROGATORIES

INTERROGATORY NO. EPJ-1-1: Identify all studies or examinations of snow and ice conditions in the area around the Shearon Harris plant Applicants have conducted or considered in assessing the effect of inclement weather on the plant, evacuation times, traffic around the plant, shutdown analyses, or shift changes.

ANSWER EPJ-1-1: The following documents were utilized for analysis in FSAR Section 2.3.1 and include information regarding snow and ice conditions:

- (1) Bennett, I., "Glaze - Its Meteorology and Climatology, Geographical Distribution, and Economic Effect," Headquarters Quartermaster Research and Engineering Command, U.S. Army, Natick, Mass. Tech. Rep. EP-105, 1959.
- (2) "Climatology of the United States No. 60, Climate of North Carolina," U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Climatic Center, Asheville, North Carolina, Reprinted July 1978.



- (3) Charlotte, North Carolina, 1978, "Local Climatological Data, Annual Summary with Comparative Data," National Oceanic and Atmospheric Administration, National Climatic Center, Asheville, North Carolina.
- (4) Greensboro, North Carolina, 1978, "Local Climatological Data, Annual Summary with Comparative Data," National Oceanic and Atmospheric Administration, National Climatic Center, Asheville, North Carolina.
- (5) Raleigh-Durham, North Carolina, 1978, "Local Climatological Data, Annual Summary with Comparative Data," National Climatic Center, Asheville, North Carolina.

Development of the evacuation time estimate utilized the following studies, in addition, to examine the effect of adverse weather on evacuation times:

- (6) The Environmental Influence of Rain on Freeway Capacity, E. Roy Jones and Merrell E. Goolsby, Highway Research Record No. 321, Highway Research Board, 1970.
- (7) Headway Approach to Intersection Capacity, Donald S. Berry and P. K. Gandhi, Highway Research Record No. 453, Highway Research Board, 1973.
- (8) Interim Materials on Highway Capacity, Transportation Research Circular No. 212, Transportation Research Board, January 1980.

INTERROGATORY NO. EPJ-1-2: Identify any data compilations Applicants have considered in assessing or predicting the effect of inclement weather on any of the activities/subjects described in EPJ-1-1.

ANSWER EPJ-1-2: References 1-5 listed in response to EPJ-1-1 are applicable to this question, as well as the following:

- (1) "Climatography of the United States No. 82-31 Decennial Census of United States Climate - Summary of Hourly Observations, Raleigh, North Carolina 1951-1960" 1963, U.S. Department of Commerce, Washington, D.C.
- (2) "Local Climatological Data - Annual Summary With Comparative Data, Raleigh, North Carolina," 1983, National Oceanic and Atmospheric Administration, Asheville, North Carolina.

INTERROGATORY NO. EPJ-1-3: Identify all snow, ice, or other removal equipment (a) at the plant site, (b) within one mile of the plant, (c) upon which Applicants rely to keep roads to the plant open under non-accident conditions.

ANSWER EPJ-1-3(a): At the SHNPP site, CP&L presently has the following construction equipment which can be utilized for snow removal:

Motor grader—Gallion T500M  
Front-end loader—rubber tire—International 520B  
Front-end loader—rubber tire—International 530  
2 Crawler loaders—big bucket, Crawler  
Caterpillar crawler—T14  
Caterpillar crawler—T39  
Dump trucks

(b) The only major development within this area is the SHNPP itself; therefore, the equipment noted in (a) above is stored within one mile of the plant.

(c) The North Carolina Department of Transportation maintains twenty-five pieces of equipment which consist of tandem trucks, motor graders, and dump trucks. All dump trucks have plows, while the tandem trucks have both plows and salt spreaders.

INTERROGATORY NO. EPJ-1-4: How do Applicants understand "severe snow and ice conditions" as stated in the contention?

ANSWER EPJ-1-4: Applicants understand "severe snow and ice conditions" as stated in the contention to mean "anything more than 1/2 inch of snow in a 24-hour period" as indicated by Intervenors in their response to Interrogatory EPJ-1-1(a).

INTERROGATORY NO. EPJ-2-1: Identify all studies or other reports, publications, or data known to Applicants which provide information or guidance on problems of identifying, notifying, and providing transportation for people without cars in accident or disaster situations.

ANSWER EPJ-2-1:

- (1) "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," NUREG-0654, FEMA-REP-1, Rev. 1, November 1980.
- (2) Envirosphere Company, "Detailed Report on the Evacuation of December 11, 1982," November 1983.
- (3) Perry, R., M. Lindell, and M. Green, "Evacuation Planning in Emergency Management," 1981, Lexington Books.
- (4) Hans, J., and T. Sells, "Evacuation Risks - An Evaluation." EPA-520/6-74-002, June 1974.

INTERROGATORY NO. EPJ-2-2: Identify all studies or examinations of the number and location of people without cars Applicants have undertaken or are aware of with respect to evacuation from the area around the Harris plant in an emergency.

ANSWER EPJ-2-2: The Applicants' most recent study relating to the number of households/people without vehicles used (1) data from the U.S. Department of the Interior, Bureau of the Census, Census of Population and Housing, 1980 and (2) data published in CP&L's "Demographic Data for the Shearon Harris Nuclear Power Plant (SHNPP) Evacuation Time Estimate Report," Rev. 1. The study statistically estimates the distribution and number of households/people without vehicles under the following situations:

- (1) Everyone at home.
- (2) Normal workday with day shift at work and school children at school.
- (3) Normal workday with day shift at work and school children at home.

INTERROGATORY NO. EPJ-4-1: Have Applicants undertaken to identify school bus drivers 18 years of age or younger? If the answer is other than "no", please produce results of any such efforts. (For this and all other questions relevant to EPJ-4, the questions refer to the 10-mile EPZ area unless otherwise specified).

ANSWER EPJ-4-1: Two counties, Wake and Chatham, have school facilities within the 10-mile EPZ, and the Applicants have contacted school officials in these counties. Bus drivers in Wake County provide their date of birth to school officials. In Chatham County, bus drivers indicate if they are currently high school students. Applicants have no information concerning the identities of individual drivers.

INTERROGATORY NO. EPJ-4-2: Identify all studies or other evaluations Applicants have made concerning the necessity for school buses to make more than one trip during normal and emergency conditions.

ANSWER EPJ-4-2: The principal study performed by the Applicants is the Evacuation Time Estimate (ETE). Section 6.2.5 of the ETE describes the assumption concerning the numbers of school buses needed. Applicants' subsequent informal discussions with school officials and with emergency planning authorities continue to confirm this assumption that it will not be necessary for school buses to make more than one trip in an evacuation.



INTERROGATORY NO. EPJ-4-3: Identify all provisions Applicants have made, or are aware have been made, for the availability of extra buses to transport school children in an emergency situation, (a) including accidents at the Harris plant and (b) including other disasters, emergencies, acts of war, or of God.

ANSWER EPJ-4-3:

- (1) The Applicants are aware that emergency preparedness officials in Wake and Chatham Counties have identified a sufficient number of extra buses available for use in the event of an emergency at SHNPP. Detailed plans for provision of the extra buses are now under development.
- (2) The Applicants have not investigated the availability of buses for other disasters, emergencies, acts of war, or of God.

INTERROGATORY NO. EPJ-4-4: Identify all provisions, other than those in the Emergency Preparedness Brochure, Applicants have made, or are aware of, to notify parents of school age children that they should not pick up their children at schools in the event of an evacuation. Identify all provisions made, by Applicants or others, to ensure that parents of school age children will not pick up their children at school in the event of an evacuation.

ANSWER EPJ-4-4: The Applicants are aware that, in addition to the instructions to parents contained within the Emergency Preparedness Brochure, the EBS announcements will also advise parents that school children are being evacuated to identified shelters and that they should not attempt to pick up their children at school. To further assure that parents are appropriately informed, the Applicants have approached public and private schools within the EPZ offering to provide programs to parent/teacher organizations on emergency planning topics, such as protective action plans for school children.

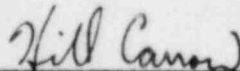
INTERROGATORY NO. EPJ-4-5: Identify all studies Applicants have made, used, or are aware of which deal with the general problem of parents picking up school children in an evacuation situation or other similar emergency situation.

ANSWER EPJ-4-5: Other than the information discussed in response to EPJ-4-4, the Applicants are not aware of any studies dealing with general problems, if any, of parents picking up school children in an evacuation situation or other similar emergencies.

INTERROGATORY NO. EPJ-4-6: Identify any parental authorization currently required for bus drivers under age 18 to operate school buses in the event of an emergency.

ANSWER EPJ-4-6: The written authorization of the parents of the student drivers is neither required by State law nor requested by Wake and Chatham County school officials.

This the 29 day of October, 1984.



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UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION '84 NOV -1 AIO :25

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

SECRETARY  
DOCKETING & SERVICE  
BRANCH

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)	)	

AFFIDAVIT OF B. J. FURR

County of Wake	)
	)
State of North Carolina	)

B. J. Furr, being duly sworn according to law, deposes and says that he is Vice President - Operations Training and Technical Services of Carolina Power & Light Company; that the answers to CHANGE Interrogatories on Contentions EPJ-1, EPJ-2 and EPJ-4 contained in "Applicants' Response to [CHANGE] Emergency Planning Interrogatories and Request for Production of Documents [on Contentions EPJ-1, EPJ-2 and EPJ-4]" 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.

This 29<sup>th</sup> day of October, 1984.

Bj Furr  
B.J. FURR



Sworn to and subscribed before me this 29<sup>th</sup> day October 1984.

Edna B Williams  
Notary Public

My commission expires: 6-7-88

RELATED CORRESPONDENCE

DOCKETED  
USNRC

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION '84 NOV -1 A10 :25

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

SECRETARY  
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In the Matter of	)	
	)	
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MUNICIPAL POWER AGENCY	)	
	)	
(Shearon Harris Nuclear Power Plant)	)	

AFFIDAVIT OF B. J. FURR

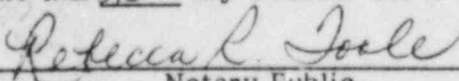
County of Wake	)
	)
State of North Carolina	)

B. J. Furr, being duly sworn according to law, deposes and says that he is Vice President - Operations Training and Technical Services of Carolina Power & Light Company; that the answers to Interrogatories on EPJ-5, Wilson 11, Wilson 12b2, Wilson 12b3 contained in "Applicants' Response to Richard Wilson Interrogatories on EPJ-5, Wilson 11, Wilson 12b2, Wilson 12b3" 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.

This 26<sup>th</sup> day of October, 1984.

  
\_\_\_\_\_  
B. J. Furr

Sworn to and subscribed before  
me this 26<sup>th</sup> day October 1984.

  
\_\_\_\_\_  
Notary Public

My commission expires: My Commission Expires 6-8-86

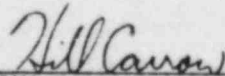
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USNRC

UNITED STATES OF AMERICA '84 NOV -1 A10 :25  
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD SERVICE  
BRANCH

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MUNICIPAL POWER AGENCY	)	
	)	
(Shearon Harris Nuclear Power Plant)	)	
	)	

I hereby certify that copies of "Applicants' Response to [CHANGE] Emergency Planning Interrogatories and Request for Production of Documents [on Contentions EPJ-1, EPJ-2 and EPJ-4]" and the Affidavit of B. J. Furr, unavailable at the time of filing "Applicants' Response to Richard Wilson Interrogatories on EPJ-5, Wilson 11, Wilson 12b2, Wilson 12b3" were served this 29nd day of October, 1984 by deposit in the United States mail, first class, postage prepaid, to the parties on the attached Service List.

  
 \_\_\_\_\_  
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Dated: October 29, 1984



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