

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

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OFFICE OF SECRETARY
GENERAL INVESTIGATIVE
DIVISION

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))

APPLICANTS' RESPONSE TO CONSERVATION COUNCIL'S
INTERROGATORIES AND REQUEST FOR PRODUCTION OF DOCUMENTS
TO APPLICANTS ON EMERGENCY PLANNING CONTENTIONS (FIRST 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 "Conservation Council's Interrogatories and Request for Production of Documents to Applicants on Emergency Planning Contentions (First Set)". The provision of answers to these interrogatories is not to be deemed a representation that Applicants consider the information sought to be relevant to the issues to be heard in this proceeding.

SPECIFIC INTERROGATORIES

INTERROGATORY NO. 3-1: For each of the responses below, state who made the response, their position, and business address.

ANSWER: The following list identifies individuals by name, title, address, and indicates the particular interrogatories for which each such person provided information.

Jesse T. Pugh, III
Director, Division of Emergency Management
N.C. Department of Crime Control and Public Safety
Raleigh, North Carolina 27611

3-4, 3-5, 3-6, 3-7, 3-8,
3-22, and 3-23

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PDR ADDCK 05000400
G PDR

Robert G. Black, Jr.
Director, Emergency Preparedness
Carolina Power & Light Company
P.O. Box 1551
Raleigh, North Carolina 27602

3-1, 3-2, 3-3, 3-9, 3-10,
3-11, 3-12, 3-13, 3-14,
3-15, 3-16, 3-24, 3-25

Wendell Murray, Jr.
Associate Superintendent for Administrative Services
Wake County Schools
601 Devereux Street
Raleigh, North Carolina 27602

3-17, 3-18, 3-19, 3-20,
3-21

Perry Harrison
Superintendent
Chatham County Schools
P.O. Box 128
Pittsboro, North Carolina 27312

3-17, 3-18, 3-19, 3-20,
3-21

INTERROGATORY NO. 3-2: For each of the responses below, supply all basis for the response, including all material they relied on in responding (cite each fully).

ANSWER: The basis for each response is included in the response as appropriate.

INTERROGATORY NO. 3-3: What witnesses do Applicants expect to present in the hearing on this contention? For each, include name, address, position, and summary of their testimony.

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

INTERROGATORY NO. 3-4: What is the total number of volunteer workers — including volunteer police, rescue, fire departments, and teachers — expected to be utilized during an alert?

ANSWER: An estimate of the total number of volunteer workers expected to be utilized during an emergency is not currently available.

INTERROGATORY NO. 3-5: For each of the workers enumerated in the response to Interrogatory 3-4 above, please answer the following:

- a) what is his/her current position? (ex. volunteer fireman, etc.)
- b) what role is he/she expected to play during an alert?
- c) how will he/she be alerted as to the emergency?
- d) how long will it take him/her to arrive at his/her position during the alert after he/she is notified?
- e) how long is he/she expected to be at that position?
- f) what duties will he/she be expected to fill during the alert?
- g) in what manner will he/she be permitted to communicate with his/her family while at his/her position?
- h) is he/she expected to relieve any other workers (paid or volunteer)?
- i) how will he/she be allowed any time off for food or necessities while on duty?

ANSWER: a-b) The workers belonging to volunteer agencies function in current positions and roles assigned to them by that agency. Roles for the agencies involved in the emergency response are detailed in the ERP. Roles during an emergency at SHNPP would be assigned in accordance with established plans and would be adjusted to the timing, scope, and extent of the emergency as it develops. Identifying roles by individual worker or by individual position other than key positions is not practical.

c-d) Workers will be alerted to an emergency and their need to respond in accordance with plans developed for each agency. In the case of fire departments, rescue squads, and sheriff's departments, the agency's normal procedures for worker notification are based upon the agency's existing emergency response function and have been proven effective in achieving a timely response by individual workers. The response time for individual workers will vary according to their location at the time of notification and their assigned duty station. Information on the time needed for an individual worker to arrive at his or her position is not available.

e) Provisions will be made to provide relief for emergency workers on a schedule which is consistent with the development of the emergency, weather conditions, and associated protective actions. Many of the duties of emergency workers will be completed within a few hours of the initiation of the response, such as public notification and assisting the evacuation of people without vehicles. In all cases, the length of time individual workers remain in their positions will vary, and it is not possible to identify this duration with accuracy except under actual emergency conditions.

f) See response to a-b.

g) Workers will be able to communicate with their families at times and in a manner in which is consistent with the effective conduct of their assigned duties. Workers will participate in periodic training programs, drills, and exercises which will give them a thorough familiarity with their assignments and locations during an actual emergency. These training programs, drills, and exercises will afford each worker the opportunity and motivation to discuss with his or her family individual arrangements for

communication well in advance of any actual emergency. This will both minimize the need for such communication and will also greatly facilitate effective communication between workers and their families.

h) Workers may be requested to relieve other workers.

i) The agency involved will establish its staffing patterns and work schedules based upon the situation to allow for meals and other necessary breaks. In many cases, the duties of emergency workers will be finished within a few hours, and breaks for meals are not likely to be needed.

INTERROGATORY NO. 3-6: What training will each of the workers enumerated in the response to Interrogatory 3-4 above receive in the following areas:

- a) the duties he/she is expected to perform during an alert?
- b) the hazards of radiation?
- c) the proper use of monitoring devices?
- d) the proper use of protective gear?
- e) how to communicate to others under his/her supervision what is happening during the alert?

ANSWER: a-e) Workers in each agency receive training for the duties they are expected to perform from several sources. In many cases, the duties of workers during an emergency at SHNPP are identical to those undertaken during the normal operations of the specific agency. Training for these duties is included in the standard programs provided by the agencies. This training encompasses needed techniques and procedures, and the operation of specialized apparatus, vehicles, protective gear, and communications equipment. In the event of an emergency at SHNPP, additional techniques, concepts, and plans will be utilized by the workers involved in the response that supplement the skills used by the workers during normal agency operations. Training for these additional skills is obtained through training programs at the state, county, and local level including the conduct of drills and exercises of the ERP.

The North Carolina Division of Emergency Management offers a "Basic Radiation Emergency Preparedness Course." A copy of the course outline is attached. The course is a 33-hour program, divided into 3 modules, and its lessons include discussion of the hazards of radiation and the use of radiological monitoring equipment as well as other relevant topics.

INTERROGATORY NO. 3-7: For any training described in the response to Interrogatory 3-6 above, please answer the following:

- a) who will conduct the training?
- b) how often will the training be conducted?
- c) will any of this training be certified?
- d) how will the persons doing the training ascertain whether all of the volunteer workers needing training have been both trained and trained properly?

ANSWER: a-d) Training is conducted by state, county, and local agency staff. Training in normal agency operations is conducted by agency personnel or outside trainers and varies in frequency and certification procedures from agency to agency. Evaluation by agency management of the agency's operations and the effectiveness of individual workers measures the need for training and that the training programs have been appropriate.

With regard to the "Basic Radiation Emergency Preparedness Course" (BREP) offered by the state, NCDEM normally offers this program to individuals designated as instructors who in turn provide training to individuals within county and local agencies. In Wake County, 42 instructors have been trained to date and certified for successfully completing the program. In Chatham, Lee, and Harnett Counties, a total of more than 200 workers have taken Module 1 and/or Module 2 of the program.

DEM continues to offer this course on a periodic basis and recommends that trainees take refresher courses annually. Trained instructors, operating at the county and local agency level, follow the attached outline as a guide in presenting their courses to emergency workers.

The emergency response drills and exercises that will be held in accord with the ERP are an important mechanism for training emergency workers in specific operations needed in event of an emergency at SHNPP.

The knowledge and skills taught during the BREP program, testing and certification of instructors, the use of the BREP as a guide for training of emergency workers, and the testing of workers through drills and exercises assure that proper training has occurred.

INTERROGATORY NO. 3-8: Please provide a brief summary of the training described in the response to Interrogatory 3-6 above.

ANSWER: The attached course outline summarizes the BREP discussed above.

INTERROGATORY NO. 3-9: Have the Applicants contacted all organizations and agencies which are expected to supply volunteers during an alert?

ANSWER: The Applicants have not contacted all such organizations and agencies.

INTERROGATORY NO. 3-10: Which agencies and organizations have been contacted?

ANSWER: To date, the Applicants have had direct contact with two agencies:

1. Wake County EMS
2. Harnett County Volunteer Fire Department

In addition, the Applicants have been in contact with state and county emergency preparedness officials who are in frequent communication with individual agencies.

INTERROGATORY NO. 3-11: For each agency listed above in the response to Interrogatory 3-10, please answer the following:

- a) who made the contact?
- b) which personnel of the agency or organization was contacted?
- c) when were these contacts made?
- d) what was discussed during each contact?
- e) have memoranda of understanding (MOUs) or any other such documents been signed with any of the contacted agencies?

ANSWER: a) Contact was made by staff of CP&L and its contractor, Ebasco Services.

b) The head of each agency was contacted.

c) Wake County EMS—10/16/84; Harnett County Volunteer Fire Department—
09/28/84

d) Topics relevant to their roles in emergency plan operation.

e) No MOU's or other documents have been signed or executed between these agencies and the Applicants. Such agreements are not normally expected between these agencies and an applicant.

INTERROGATORY NO. 3-12: Have Applicants or any person under their direction studied the potential role conflicts in volunteer workers which might occur around the Shearon Harris site during an emergency?

ANSWER: Applicants know of no such studies of "role conflict." However, the potential for role stress has been generally considered in emergency planning for SHNPP. See response to 3-5g.

INTERROGATORY NO. 3-13: Are Applicants aware of any studies made of role conflict around any other nuclear plant during an emergency?

ANSWER: The Applicants are aware of none.

INTERROGATORY NO. 3-14: Are Applicants aware of any studies made of role conflict during any other emergencies, i.e. not related to nuclear plant evacuation?

ANSWER: Applicants are not aware of any such formal studies of "role conflict." However, according to emergency management officials in NCDEM and the counties of Wake, Lee, Harnett, and Chatham, the availability of emergency workers has never impeded the response to other natural and man-made disasters.

INTERROGATORY NO. 3-15: Have Applicants or any person under their direction studied the locations of the families of volunteer workers enumerated [sic] to the response to Interrogatory 3-4 above?

ANSWER: No.

INTERROGATORY NO. 3-16: If the response to Interrogatories 3-12 through 3-15 above is affirmative, please provide a copy of that study or studies.

ANSWER: Not applicable.

INTERROGATORY NO. 3-17: Do the contracts of teachers who are expected to respond to an alert contain explicit provisions relating to such alerts?

ANSWER: Neither Wake County nor Chatham County school systems include special provisions in teacher contracts regarding teachers' duties at the time of a radiological emergency at SHNPP. Both school systems do, however, require the teachers to care for the students' health, welfare, and reasonable safety while students are in their care.

INTERROGATORY NO. 3-18: If the response to Interrogatory 3-17 above is affirmative, what provisions are in the teacher contracts?

ANSWER: See response to Interrogatory 3-17.

INTERROGATORY NO. 3-19: How many students will each teacher be expected to supervise?

ANSWER: The emergency response planning for the Wake County and Chatham County school systems is under development at this time, and specific information on this topic is not available.

INTERROGATORY NO. 3-20: How many teachers and students will be on each bus?

ANSWER: The numbers of students and teachers on each bus has not been determined as of this date (see response to 3-19). However, it is expected that during an evacuation, each available bus seat will be filled.

INTERROGATORY NO. 3-21: How many teachers and students will be in each shelter?

ANSWER: To date, it has not been determined how many students and teachers will be at each shelter. The role of teachers would be generally reduced as students are joined with other members of their families.

INTERROGATORY NO. 3-22: How many of the volunteer workers expected to respond to an alert will in fact respond? Please explain the response.

ANSWER: It is expected that the designated number of volunteer workers required to fulfill each agency's role in a protective action will respond. This answer is based upon extensive past experience with volunteer worker response to other natural and man-made emergencies.

INTERROGATORY NO. 3-23: What steps have been taken to identify those volunteer workers which might not respond to an alert?

ANSWER: Because past experience in North Carolina demonstrates that volunteer workers consistently respond in sufficient numbers, no such steps have been taken.

INTERROGATORY NO. 3-24: For which organizations (volunteer and non-volunteer), have the Applicants paid attention to the composition which would avoid conflict between organizational and family responsibilities?

ANSWER: The Applicants have not directly evaluated this topic. However, the planning, training, and practice drill programs will provide opportunities for agencies and workers to resolve any such conflicts prior to operation of SHNPP.

INTERROGATORY NO. 3-25: For each organization identified in the response to Interrogatory 3-24, what was done?

ANSWER: Not applicable.

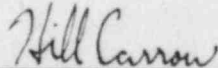
Response to Request for Production of Documents

For each document referred to above, will Applicants make it available to counsel for the Conservation Council at a mutually agreed upon location?

ANSWER:

The only such document is attached hereto.

This the 31st day of October, 1984.



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BASIC RADIATION EMERGENCY PREPAREDNESS COURSE1st Module--8 hours

Class	Time	Lesson Title	Unit
1	:30 1:30	Administrative Detail "Radiological Inst."	Radiological Instruments Radiological Instruments
2	1:00 :30 1:00	"Radiological Inst." Exposure Records Exercise--"Instrument Familiarization"	Radiological Instruments Radiological Instruments Radiological Instruments
3	1:00 :30 1:00	"Protective Measures" Time-Distance-Shielding Exercise--"Radiation Protection"	Protective Measures Protective Measures Protective Measures
4	1:00 :30	"Protective Measures" Clothing, Decontamination "NC Department of Crime Control & Public Safety and NC Department of Human Resources" Responsibilities	Protective Measures Protective Measures Protective Measures

2nd Module--8 hours

1	:30 1:30	Administrative Details "Labels, Placards, Shipping Documents, & Packaging Requirements"	Transportation Accidents
2	2:00	"Types of Radiation Accidents & Procedures"	Transportation Accidents
3	1:00 :30 :30	Proper Response & Notification Procedures County Plan or "Prototype SOP" Film: "Radiation Accident Patients" Discuss Film: "Firefighting in the Nuclear Age" Discuss	Transportation Accidents Emergency Response Plan for Fixed Nuclear Facilities
4	1:30 1:00	"Techniques of Personnel & Vehicular Monitoring" Exercise - "Vehicular Monitoring"	Transportation Accidents Transportation Accidents

3rd Module--17 hours

1	:30 2:30	Administrative Details "Molecular Structure"	Basic Nuclear Science
2	2:30 2:00	"Biological Effects" "State Emergency Response Plans in Support of Fixed Nuclear Facilities"	Basic Nuclear Science Emergency Response Plans for Fixed Nuclear Facilities
3	3:00	"Mock Transportation Accident"	Mock Transportation Accident
4	3:00	"Effects of Nuclear Weapons" "Exposure & Exposure Rate Calculations"	Nuclear War Nuclear War
5	1:00 3:00	Course Review Exam: Written & Practical	