

RELATED CORRESPONDENCE

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November 2, 1984  
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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) )

AFFIDAVIT OF JESSE T. PUGH, III  
ON EDDLEMAN 57-C-3

County of Wake )  
 ) ss.  
State of North Carolina )

JESSE T. PUGH, III, being duly sworn, deposes and says:

1. I am the Director of the Division of Emergency Management of the North Carolina Department of Crime Control and Public Safety. In my position, I am responsible for the State's planning for and response to all emergencies, including accidents at any of the four nuclear plants that affect North Carolina. In that professional capacity, I have been involved in the development of the offsite emergency capability for the Shearon Harris plant as well as the Catawba, McGuire and Brunswick nuclear plants. Through the Division of Emergency Management, I have directed the State's response to more than 650 cases in the last year

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alone, including the tornadoes in March and Hurricane Diana in September. A current statement of my professional qualifications and experience is attached hereto. My business address is 116 West Jones Street, Raleigh, North Carolina 27611. I have personal knowledge of the matters stated herein and believe them to be true and correct. I make this affidavit in response to Eddleman Contention 57-C-3.

2. The fixed siren system -- with 62 sirens located throughout the Harris plume EPZ -- will serve as the primary public alerting system in the event of an emergency at the Harris plant. Upon activation, this siren system is designed to warn immediately all areas within the EPZ. However, in all four counties within the EPZ, vehicles with flashing lights, sirens and/or public address systems will be immediately dispatched upon the activation of the fixed sirens, to provide additional public warning by driving predesignated routes within the EPZ.

3. Zones within the EPZ have been subdivided into subzones within which the road mileage has been measured. The roads have been assigned to county agencies, and the routes planned out. Estimates have been made of the time needed for notification, and all routes are being driven to confirm these estimates. The estimates include the time needed for emergency personnel to reach their duty posts to begin the notification process, based upon actual

experience. In addition, it has been determined that there are sufficient vehicles and personnel to perform the mobile alerting in a timely manner. This conclusion applies to both daytime and nighttime (1 a.m. to 6 a.m.) conditions.

4. Wake County is divided into seven "warning zones," denominated Zones A through G. No members of the public reside in Zone A, which includes only the Harris Plant exclusion area and Harris Lake. (CP&L and the Wake County Sheriff's Department would drive the 3 miles of road to provide notification in this zone.) Zone B consists of the New Hill community, and is divided into three subzones. The 14 miles of road within Subzone B-1 will be warned by one pre-designated unit of the Apex Rescue Squad. Subzone B-2 consists of 13 miles of road, which will be warned by one pre-identified unit of the Apex Fire Department. And Subzone B-3 includes 16 miles of road, which will be warned by one other specified unit of the Apex Fire Department. I am confident that sufficient numbers of trained personnel and equipment will be available in an emergency to accomplish this function. The mobile alerting within Zone B can be accomplished in approximately 45 minutes, from the time the fixed siren system is activated.

5. Zone C consists of the Holleman's Crossroads area, which includes 11 miles of road. One pre-identified unit of the Holly Springs Fire Department will warn this area. I am confident that sufficient numbers of trained personnel and

equipment will be available in an emergency to accomplish this function. The mobile alerting in Zone C can be completed in approximately 30 minutes from the time the fixed siren system is activated.

6. Zone D consists of the Burt community. One pre-designated unit of the Fuquay-Varina Rescue Squad will warn the 12 miles of road in this community. I am confident that sufficient numbers of trained personnel and equipment will be available in an emergency to accomplish this function. The mobile alerting in Zone D can be accomplished in approximately 35 minutes, from the time the fixed siren system is activated.

7. Zone E is divided into seven subzones. The 8 miles of road in Subzone E-1 (the Friendship community) will be warned by one assigned unit of the YRAC Fire Department. One other pre-identified unit of the YRAC Fire Department will warn 15 miles of road in the Apex area, Subzone E-2. One unit of the Apex Fire Department and one unit from another fire department outside the EPZ will warn the Mount Olive community (Subzone E-3), which includes 21 miles of road. Subzone E-4, which is part of the Green Level community, includes 16 miles of road, and will be warned by one designated unit of the Morrisville Fire Department. Subzone E-5 includes the remainder of the Green Level community. The 9 miles of road in this area will be warned by one other unit of the Morrisville Fire Department. Three identified



units of the Apex Police will warn the 8 miles of road in the Town of Apex, which is designated Subzone E-6.<sup>1</sup>/ One pre-assigned unit of the Fairview Fire Department will warn the remaining 16 miles of the Apex area, designated Subzone E-7. I am confident that sufficient numbers of trained personnel and equipment will be available in an emergency to accomplish this function. The times for mobile alerting in the subzones of Zone E range from approximately 25 minutes to 45 minutes, from the time the fixed siren system is activated.

8. Zone F is divided into four subzones. Subzone F-1 consists of 12 miles in the Holly Springs area, which will be warned by one designated unit of the Holly Springs Fire Department. Subzone F-2 includes 13 miles of road in Holly Springs, which will be warned by one unit of the Apex Rescue Squad. And Subzone F-3, which is the Town of Holly Springs, includes 4 miles of road, to be warned by one identified unit of the Holly Springs Police Department. Subzone F-4 is the Sunset Lake community, which includes 9 miles of road, to be notified by one predesignated unit of the Fairview Fire Department. I am confident that sufficient numbers of trained personnel and equipment will be available in an emergency to accomplish these functions. The times for mobile alerting in the subzones of Zone F range from

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<sup>1</sup>/ Apex and Fuquay-Varina are the only square mile or larger areas of the EPZ with population densities exceeding 2,000 persons per square mile.

approximately 25 minutes to approximately 35 minutes, from the time the fixed siren system is sounded.

9. Zone G is subdivided into three subzones. Subzone G-1 consists of the Wilbon community, which includes 19 miles of road, to be warned by one predesignated unit of the Fuquay-Varina Fire Department. Subzone G-2 is the Fuquay area, which includes 17 miles of road, to be warned by two other units of the Fuquay-Varina Fire Department. The times for mobile alerting in Subzones G-1 and G-2 are approximately 45 minutes, from the time the fixed siren system is sounded. Two pre-identified units of the Fuquay-Varina Police Department will warn the 7 miles of road in the Town of Fuquay-Varina, which is Subzone G-3. This will take approximately 20 minutes, from the time the fixed siren system is sounded. I am confident that sufficient numbers of trained personnel and equipment will be available in an emergency to accomplish this function.

10. Zone H, the part of the plume EPZ within Harnett County, is divided into four warning subzones. Subzone H-1 consists of 11.8 miles of road in Oak Ridge and Duncan. Subzone H-2 consists of 16.5 miles of road in Baptist Grove. The Cokesbury area is Subzone H-3, which includes 15.3 miles of road. And Christian Light Road, Subzone H-4, includes 19.2 miles of road. Four predesignated units of the Harnett County Sheriff's Department are assigned to warn these four areas, with the times for warning the subzones ranging from

approximately 35 minutes to 45 minutes, from the time the fixed siren system is activated. I am confident that sufficient numbers of trained personnel and equipment will be available in an emergency to accomplish this function.

11. Warning Zones I and J are in Lee County. Zone I is divided into two subzones. Subzone I-1 includes 13.2 miles of road in the Cape Fear Volunteer Fire District, which would be warned by one unit from the Cape Fear Volunteer Fire Department and one unit from the Sanford Fire Department. Subzone I-2 includes 13 miles of road, which would be notified by one unit from the Sanford Police Department and two units from the Lee County Sheriff's Department. I am confident that sufficient numbers of trained personnel and equipment will be available in an emergency to accomplish this function. The mobile alerting within Zone I can be accomplished in approximately 40 minutes, from the time the fixed siren system is activated.

12. Zone J is also divided into two subzones. Subzone J-1 includes 14 miles of the Deep River Volunteer Fire District, which would be warned by one unit from the Deep River Volunteer Fire Department and one unit from the Sanford Fire Department. Subzone J-2 consists of 13 miles of the Deep River Volunteer Fire District, which would be warned by one unit from the Sanford Police Department and two units from the Lee County Sheriff's Department. I am confident that sufficient numbers of trained personnel and equipment will

be available in an emergency to accomplish this function. The mobile alerting in Zone J can be completed in approximately 45 minutes, from the time the fixed siren system is activated.

13. Zones K, L, M and N are Chatham County. Zone K is divided into two subzones. Subzone K-1 consists of 18 miles of road in the Christian Church-Brickhaven area, which would be warned by two units from the Moncure Volunteer Fire Department. Subzone K-2 consists of the Buckhorn area, which includes 11 miles of road and would be warned by another two units of the Moncure Volunteer Fire Department. I am confident that sufficient numbers of trained personnel and equipment will be available in an emergency to accomplish this function. The mobile alerting in Zone K can be completed in approximately 35 minutes, from the time the fixed siren system is sounded.

14. Zone L is divided into three subzones. Subzone L-1, the New Elam Church - Merry Oaks area includes 9 miles of road, which would be warned by two units of the Moncure Fire Department. Subzone L-2 includes the Wilsonville area and the area around Jordan Lake, with 10 miles of road to be warned by two units from the North Chatham Fire Department #2. Subzone L-3 includes 5 miles of road, from SR 1008 from the Wake County line to the bridge at Ebernezer Point and SR 1976 off of SR 1008. This area would be warned by one designated unit of the Apex Rescue Squad. I am confident that



sufficient numbers of trained personnel and equipment will be available in an emergency to accomplish this function. The mobile alerting in Zone L can be completed in approximately 25 to 35 minutes, from the time the fixed siren system is activated.

15. Zone M is divided into three subzones. Subzone M-1 consists of the Griffins Crossroads - Pleasant Hill Church area and the northern portion of Pea Ridge Road, which includes four miles of road, and would be warned by two units from the North Chatham Fire Department #2. Subzone M-2 consists of the Gum Spring - Moncure area, with 13 miles of road to be warned by three units from the Moncure Fire Department. Subzone M-3 includes 6 miles of road in the Hanks Chapel Road area, which would be warned by one unit from the Pittsboro Fire Department. I am confident that sufficient numbers of trained personnel and equipment will be available in an emergency to accomplish this function. The mobile alerting in Zone M can be accomplished in between approximately 25 and 35 minutes, from the time of activation of the fixed siren system.

16. Zone N consists of the Bell's School community, which includes 19 miles of road, which would be warned by three units from the North Chatham Fire Department #2. I am confident that sufficient numbers of trained personnel and equipment will be available in an emergency to accomplish this function. The mobile alerting in Zone N can be

completed in approximately 30 minutes, from the time of activation of the fixed siren system.

17. In addition to the predesignated personnel assigned to perform mobile alerting, each of the four counties has identified additional personnel (with equipment) who would be available to augment the designated mobile alerting personnel, if necessary. The designated units in Wake County could be augmented by resources from other county fire departments and rescue squads outside the EPZ. In Harnett County, the designated units would be augmented by municipal police departments, the Sheriff's Department, and volunteer fire and rescue people from outside the EPZ if needed. The designated units in Lee County would be augmented by additional resources from the Sanford Police Department and the Lee County Sheriff's Department outside the EPZ. In Chatham County, the designated units would be augmented by resources from volunteer fire and rescue services outside the EPZ.

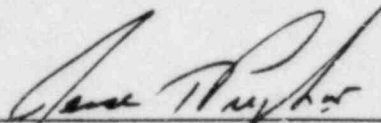
18. If public officials determine that only a portion of the EPZ needs to be alerted by the fixed siren system and mobile alerting, the warning times stated above could be reduced by concentrating the identified mobile alerting resources in smaller operational areas.

19. The flashing lights, sirens and/or PA systems of mobile alerting vehicles passing by the homes of EPZ residents -- particularly when combined with the activity of other residents who have already received notification

(turning on the lights in their homes, perhaps preparing to evacuate, etc.) -- would alert most members of the public who might not have heard the fixed sirens. Following the initial fixed siren and backup (mobile alerting) warnings, law enforcement and other official vehicles would be in the area to ensure complete evacuation or other protective action, and to provide security. They will be instructed to check premises where no protective action activity is evident.

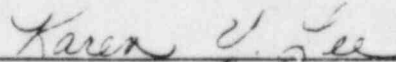
20. In summary, the fixed siren system serves as the primary public alerting system within the Harris EPZ, and is designed to immediately warn all areas within the EPZ. Nevertheless, each of the four counties within the EPZ has in place a comprehensive plan for mobile alerting to provide additional (backup) notification to the general public. In each county, fire, police, sheriff's department, and/or rescue personnel have been designated and have agreed to drive

predetermined routes, using vehicles with flashing lights, sirens and/or public address systems to alert the EPZ residents. This mobile alerting system -- combined with the public activity in response to it -- would provide adequate notification to the general public within the EPZ.



Jesse T. Pugh, III

Sworn to and subscribed before me this 15<sup>th</sup> day of November, 1984.



Notary Public

My Commission expires:

12-27-84



## JESSE THOMAS PUGH, III

### Professional Qualifications

#### EDUCATION

Graduated Asheboro High School, Asheboro, North Carolina, 1965

North Carolina State University, Raleigh, North Carolina, 1969,  
B.S., Textile Technology

Computer Application Certificate Program, NCSU, Spring 1982

Enrolled in Master of Public Administration Program, NCSU

Graduate, Government Executives Institute, University of North  
Carolina, Chapel Hill, 1980

#### EMPLOYMENT

**Area Coordinator**, Division of Civil Preparedness, Asheboro, North Carolina, July 1978 - May 1979. Responsible for 15-county area, working with local coordinators and governmental officials in preparing plans to prevent and/or respond to disasters, both natural and man-made. Also responsible for arranging specialized training for local volunteers and governmental employees.

**Assistant Director**, Division of Emergency Management, May 1979 - May 1980, promoted to **Deputy Director** May 1980. Responsible for daily operations of the Division. Supervise 53 employees, administer budget of approximately \$2 million, managed grant program to local governments, represent the State in business transactions and in meetings with local and federal government.

**Division Director**, Division of Emergency Management, May 1982 to present. Responsible for the State of North Carolina emergency response and planning. This includes the coordination of all emergency response activities of the 17 State agencies. Serve as State Coordinating Officer and Governor's Authorized Representative in all disaster related matters. In emergencies serve as leader of the State Emergency Response Team.

#### MILITARY

United States Marine Corps, June 1969 - April 1982, highest rank:  
First Lieutenant

## **TRAINING**

Radiological Monitoring Instructor Course, August 1978

Basic Seminar for Civil Preparedness Personnel, September 1978

Civil Preparedness Career Development, Phase I, September 1978

Basic Radiological Defense Officer Course, September 1979

United State Coast Guard National Search and Rescue School,  
Governor's Island, New York, March 1984.

## **PROFESSIONAL ORGANIZATIONS**

North Carolina Emergency Management Association

National Coordinating Council on Emergency Management

National Association for Search and Rescue

National Emergency Management Association