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Duke Power Company  
ATTN: Mr. H. B. Tucker, Vice President  
Nuclear Production Department  
422 South Church Street  
Charlotte, NC 28242

Gentlemen:

SUBJECT: FEMA REPORT ON 1984 CATAWBA EXERCISE

Please find enclosed for your information a copy of the FEMA Exercise Report on the Catawba Nuclear Station Emergency Exercise of February 15-16, 1984.

Should you have any questions concerning this matter, we will be glad to discuss them with you.

Sincerely,

Hugh C. Dance, Chief  
Reactor Project Branch 2  
Division of Reactor Projects

Enclosure:  
FEMA Final Report

cc w/encl:  
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EXERCISE REPORT

MARCH 5, 1984

CATAWBA NUCLEAR STATION

EXERCISE

FEBRUARY 15-16, 1984



**FEDERAL EMERGENCY  
MANAGEMENT AGENCY**

Dupe of 8405210356



# Federal Emergency Management Agency

Region IV 1375 Peachtree Street, NE Atlanta, Georgia 30309

## CATAWBA NUCLEAR STATION

### EXERCISE

Conducted on February 15-16, 1984

Exercise Report March 5, 1984

Utility: Duke Power Company  
Plant Location: In York County, near Rockhill, South Carolina

#### Participating State and local governments:

State of South Carolina

State of North Carolina

Counties of: York, Lancaster, Chester, Union, Cherokee, S.C.

Counties of: Mecklenburg, Gaston, Union, Cabarrus, Cleveland, N.C.



ANT CATAWBA  
vicinity map  
SCALE: 1" = 13 mi.

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## EXERCISE SUMMARY

This full participation exercise was conducted on February 15-16, 1984, and was observed by 31 Federal evaluators representing six Federal agencies. The exercise was the first conducted at Plant Catawba and involved both the State of South Carolina and the State of North Carolina.

Although the plant itself lies within York County, South Carolina, the 10-mile Emergency Planning Zone (EPZ) extends into two counties of North Carolina - Mecklenburg and Gaston.

The two States worked together quite well and demonstrated an efficient and cooperative relationship throughout the planning and implementation of the exercise.

There were very few specific NUREG 0654 deficiencies observed during the exercise activities. These minor deficiencies, and other suggested improvements found in Section I of both the South Carolina (Part 1) and North Carolina (Part 2) portions of this report, can be easily corrected largely through additional training and the procurement of equipment at the local government level in the area of radiological monitoring and decontamination.

The following is a brief summary of the States' and counties' exercise activities.

### State Field Headquarters

The South Carolina field headquarters for this exercise, called the Forward Emergency Operations Center (FEOC), was located at the National Guard Armory in Clover, South Carolina. The North Carolina field headquarters, called the State Emergency Response Team (SERT), was located at Douglas Airport, Charlotte, North Carolina.

Both the FEOC and SERT operations demonstrated effective leadership and a very cooperative relationship during the exercise. The FEOC and SERT physical facilities were spacious and well-equipped. Communications were excellent.

The two States' radiological health activities include accident assessment, field monitoring teams and mobile radiological laboratories. Radiological health personnel are well-trained and professional in both States. Communications with field teams were good. Proper assessments of potential dose rates prior to the release were made, and after the release, data was evaluated correctly and efficiently.

Both State radiological health staffs have the health physics and reactor technology expertise and experience to properly evaluate nuclear accidents and recommend optimum protective actions.

## County Emergency Operations Centers

Three County EOC's were activated during the exercise (York, Mecklenburg and Gaston). These EOC's were adequate in size and internal design, well-equipped, and functioned effectively. Leadership was professional and staffs were trained in all emergency response functions.

### Outside Facilities

These local facilities consisted of shelters, decontamination stations and traffic control points. All counties had an excellent level of participation of local staff and volunteers. The use of students as "evacuees" in several locations facilitated realistic demonstrations of monitoring and registration procedures.

Several minor problems exist in the area of insufficient equipment and lack of adequate training in all three sub-categories - shelters, decontamination stations, and traffic control points.

## Part 1 - South Carolina

### I.

#### DETAILED DISCUSSION

##### Introduction

This exercise was the first conducted at the Catawba Nuclear Station. Participants included the State of South Carolina, the State of North Carolina and ten county governments. Three of the counties which participated are risk counties - York, Mecklenburg and Gaston. York County is the site location of the plant, in South Carolina, and Mecklenburg and Gaston Counties lie within North Carolina and within the 10-mile EPZ.

Criteria used to evaluate the exercise are contained in the "Modular Format for Uniformity of Radiological Emergency Preparedness Exercise Observations and Evaluations" issued by FEMA in June 1983.

The Federal evaluators list, exercise objectives, scenario, and State and county resources used in the exercise are contained in Appendices A through D in the last section of this report.

##### State of South Carolina

###### State Forward Emergency Operations Center (FEOC)

The FEOC was activated and staffed, through an in-place system, in a timely manner. A roster with phone numbers was available for shift changes. Twenty agencies participated, including a member of the Department of Health and Environmental Control (DHEC) who was dispatched to the utility for liaison purposes.

The FEOC was managed effectively with joint decision-making between the officer-in-charge, the staff agencies, and the representatives from North Carolina. Plans, procedures, and message logs were available for use by the staff. Simulated Federal assistance was requested by FEOC for support from Savannah River.

Internal message distribution was a problem. A system should be established so that messages can be circulated among the staff to inform them of actions taken. Briefings were appropriately timed and informative regarding general situation and radiological information.

We suggest that the briefings include short reports from agency representatives to advise of significant proposed actions that might affect other agencies.



The facility was adequately furnished to support operations for an extended period of time. Classification levels and operations maps were posted, as well as a clear and concise status board giving significant action items.

The communications system was excellent in quality and quantity. The conference phone line was clear and allowed quick and continual access to all key facilities. Each agency had a telephone. A communications van was available and furnished with phones and radios. A computer and telefax machine were available.

Sirens and EBS messages were well-coordinated. Activation took place following recommendations by the utility, the FEOC staff and the Governor's representative.

Dairy farms were contacted by the agricultural representative to put their livestock and dairy cows on stored food. Other agricultural problems were also solved by the agricultural representative.

Dosimetry equipment was available, adequate and included necessary instructions. Authorized personnel were on the staff to distribute KI and a supply was simulated. The FEOC simulated taking shelter, closed the ventilation system down and secured the building.

#### Radiological Health Activities

DHEC was mobilized at the FEOC in a timely manner. Dose projections prior to the release were made using several hypothetical cases. The projections were made on a portable computer using several models. Hand calculational methods were available as a backup to the computer methods. After the release began, new dose projections were made using the source terms as they became available. Field monitoring data was plotted and compared to projections. Several minor problems were encountered but all were quickly resolved which showed good resourcefulness. Protective action recommendations were based primarily on plant conditions and recommendations of the utility and not on actual dose rates.

The use of KI, while not called for by the scenario, was discussed and considered. Radiological information was made available to decision-makers in a timely manner.

We would recommend that additional personnel be trained to act as backup for lead personnel in the dose assessment area, and that utility source term information be obtained in a clear and usable form.

#### Field Monitoring Teams

The three South Carolina field teams mobilization was prompt and effective. They were ready for deployment well before any

release was imminent. The teams were generally well-equipped and demonstrated good capability in monitoring, contamination control, and general health physics procedures. Communications were good; however, a back-up radio system is needed.

KI was available and teams were trained in its use. Both low and mid-range dosimeters and TLD's were used and personnel were well-trained in exposure control procedures.

Suggestions for improvement include:

1. Development of Standard Operating Procedures (SOP's) for use of silver zeolite cartridges.
2. Use of sample pumps operating from car battery to increase air sampling capability.

#### Mobile Radiological Laboratory

The laboratory was appropriately equipped for emergency field monitoring. There was good depth of operating personnel. Communications were good and deployment of the field monitoring teams was logical. Although the plume centerline may not have been identified, teams generally were advised to turn back when encountering the edge of the plume.

Suggestions for improvement include:

1. Written SOP's for preparation of samples and operation of the laboratory instrumentation, should be available.
2. The Mobile Laboratory is routinely used for environmental monitoring (i.e., long-lived fission products). There should be some provision also for handling the "very fresh fission products". Counting efficiencies for different distances and sample geometries should be available to permit the counting of high activity samples and the library of reference spectra should be checked to verify that it includes those spectra associated with the short-lived fresh fission products that may be expected to accompany an airborne release.
3. The storage and disposal of samples could be improved. Any contaminated sample data which is challenged would require that the samples be retrieved from a radiological waste disposal drum.
4. The scenario needs improvement in the radiological area. The short duration of the release did not provide adequate testing of the field team's and laboratorie's capabilities.

5. During the next exercise, it is recommended that a sufficient number of field team controllers be utilized.

#### Crisis Management Center

South Carolina and North Carolina dispatched a Radiological Health representative to the Duke Power Crisis Management Center to act in a liaison capacity.

This action enhanced the coordination of information between the States and Duke Power representatives.

#### Media Center

The State and local government PIO staffs in Charlotte were very professional, but were handicapped by the inadequacies of the office space they were using and their distance from the press briefing area. The rumor control function was not effectively established. The public information staffs were not adequately exercised during this drill. There was no media or public demand for information - a very unreal circumstance given the scenario of events which began with an aircraft crash into a nuclear plant.

Suggestions for improvements include:

1. We would recommend the State and local government Public Information staffs co-locate with Duke Power in one staff working area, adjacent to the briefing room for the media. This would facilitate the desired Joint Information Center concept of operations.
2. During subsequent exercises, realistic public and media demand for information should be placed on PIO staffs.

#### York County Emergency Operations Center (EOC)

The EOC was promptly activated, fully staffed, and personnel were knowledgeable of their roles and responsibilities. The acting Director of the EOC was an effective leader. Through periodic briefings and status boards frequently updated, the staff was kept fully informed of all major activities.

No list of mobility-impaired individuals was available, but one is currently being developed which will provide the pertinent information to assist in their protection if needed. (J.10.d.)

Telephones were the primary means of communication. Backup radio communications were either unavailable or were not adequately tested. In one instance, due to lack of appropriate radios, contact between the EOC and field personnel was simulated. (F.1.d.)

The installation of a hot-ring-down system between the EOC, the utility, State, and local EOCs within the 10-mile EPZ is planned to be installed in the near future. Radio equipment is also planned to be in place soon.

Suggestions for improvements include:

1. In addition to the installation of radio equipment to facilitate contact with Sheriff's deputies and transportation personnel, the installation of additional radio equipment for the emergency medical system should be considered.
2. Excessive simulation made it difficult to assess the effectiveness of equipment, procedures and depth of personnel training. We would suggest less simulation in future exercises.

#### Lancaster, Union, Chester and Cherokee Counties

##### Sheltering and Decontamination

Evacuee sheltering was played at Lancaster, Union, Chester and Cherokee Counties. All the counties had an excellent level of participation by county staff people and volunteers. The use of students as "evacuees" facilitated realistic demonstrations of monitoring and registration procedures. The school facilities used for shelters were well adapted for housing and feeding evacuees and providing health care, counseling and "quiet areas".

Suggestions for improvements include:

1. Communications - Telephones were relied on; the only radios present were police and fire car radios. Radio installations or RACES support would promote quick radio contact with local EOC's and the State Forward EOC.
2. Dosimetry - Radiological monitors generally had only high-range pocket dosimeters; low or mid-range and permanent record dosimeters should be provided.
3. Monitoring - Training is needed in some cases on fine points of monitoring:
  - Move the probe slowly over the evacuee;
  - check the bottoms of the shoes;
  - cover the probe with a plastic bag to keep it from getting contaminated;
  - keep monitored evacuees segregated from un-monitored evacuees.

4. Decontamination - Training is needed at some locations on fine points of decontamination:

- Contaminated and uncontaminated persons should use separate entrances to the shelter and be kept separated at all times;
- mild soap should be used for decontamination and any cuts or abrasions should be covered.

Traffic Control

Four traffic control points were observed in South Carolina. All officers had only a high range dosimeter 0-200 R. A permanent recording device such as a film badge or TLD should be issued to every emergency worker.

Most of the traffic control points had monitoring equipment although not all the officers were trained in its use.

The Marine and Wildlife Department provided access control and special alerting for boaters on Lake Wylie. The function was carried out efficiently and very professionally. Officers were stationed at every boat landing, three boats patrolled the lake, and a helicopter "swept" the lake's coves.

Fire Activity

The Bethel Fire Department responded promptly (response time nine minutes) to the simulated fire in a storage building outside the secured area of the plant. A large number (25) of enthusiastic volunteers aggressively attacked the fire utilizing two tankers and one pumper. The Union Fire Department was on standby if needed. The responding department is based approximately four miles from the Catawba Plant at Station #1. A new station, Station #2, is under construction only one mile from the plant.

Suggestions for improvements include:

1. Outside fire department training should include familiarization and training in the hazardous areas of the plant itself.
2. Radio communication should be established between the off-site department and the plant.
3. A procedure should be established to account for incoming fire department personnel.
4. A command post should be established for the responding fire department.

II.

SUMMARY LISTING OF DEFICIENCIES

The following is a summary listing of NUREG-0654 deficiencies observed during the Catawba Nuclear Station Exercise.

State of South Carolina

<u>NUREG 0654 Item</u>	<u>Corrective Action</u>	<u>Projected Date of Completion</u>
None		

York County

F.1.d. Emergency Communications

J.10.d. Protective Response

## Part 2 - North Carolina

### I.

#### DETAILED DISCUSSION

##### Introduction

February 15-16, 1984 was the date of the licensing exercise for Duke Power's Catawba Nuclear Power Plant. It was obvious that both North Carolina and South Carolina devoted a great deal of time and effort to exercise preparation.

The plant is located in York County, South Carolina, but affects Mecklenburg and Gaston Counties in North Carolina, within the 10-mile EPZ. Most of the exercise evaluator comments were of a positive nature, with the exception of a few easily correctable problems.

Evaluators for the 1984 Catawba Exercise consisted of FEMA personnel and RAC members. Lists of evaluators, exercise objectives, scenario, and actual event times are attached in Appendices A through D.

The criteria used as a guide for evaluation of the exercise are contained in the "Modular Format for Uniformity of Radiological Emergency Preparedness Exercise Observations and Evaluations" issued by FEMA in June, 1983.

##### State of North Carolina

##### State Emergency Response Team Headquarters

The State Emergency Response Team (SERT) was activated in a timely manner, and SERT Headquarters, located at Douglas Airport, Charlotte, was adequately staffed.

Emergency operations were managed in an effective manner.

The facility is sufficient in size and was well organized.

The communications equipment provided for excellent coordination between Duke Power Company, the Media Center, North Carolina EPZ counties, and South Carolina's Forward Emergency Operations Center located in Clover, South Carolina.

Participation was outstanding with approximately 174 individuals signing in at the SERT Headquarters on each day of the exercise.

There was good political support with North Carolina Legislators visiting the SERT Headquarters on both days of the exercise.

The accident assessment function was performed in a highly professional and efficient manner. Additional accident assessment programs to backup the existing computerized program would be desirable.

#### Mobile Radiological Laboratory

While the Mobile Radiological Laboratory staff appeared to be well trained and capable, there was no demonstration of laboratory analysis capabilities due to scenario difficulties initially, and equipment malfunctions during the second day. Reliable equipment should be provided.

#### Field Monitoring Teams

Generally, communications and monitoring equipment was adequate to good. The limited field demonstrations appeared adequate. Scenario limitations did not, as mentioned for the laboratory, provide adequate testing and training of the staff.

#### Crisis Management Center

See Part 1 - South Carolina "Detailed Discussion".

#### Media Center

See Part 1 - South Carolina "Detailed Discussion".

#### Mecklenburg County

##### Emergency Operations Center (EOC)

Mecklenburg County functioned effectively in most areas of response to the fixed nuclear facility emergency exercise.

The Emergency Operations Center (EOC) is an adequate facility even though it is not used as an EOC on a daily basis. The room can be converted easily from its normal use (Police Assembly Room) to its emergency use as EOC.

Staffing was prompt and numerous; over 16 agencies functions were represented.

Players were enthusiastic, but a few were unsure of their duties, and some were unfamiliar with the terminology. Additional training of backups is suggested.

The 24-hour communications/warning point is professionally managed, and more than adequate with its State of the Art equipment.

While the plan states that the County Manager is in charge, three different individuals appeared to function as decision-maker.



A blackboard was used as the status board, and all messages were listed. This situation becomes very cluttered and difficult to read. Development and utilization of a more permanent status board would help.

There were some communication problems with York County, but the backup system (radio) worked effectively.

Briefings were informative; however, EOC staff had little input. Staff members should be given an opportunity to make brief statements concerning their agencies responses.

The open-line speaker phone was not as effective as it may prove to be in the future. There was too much unnecessary conversation over the system.

PIO activities were excellent. The individual responsible for this function was very much on top of the situation; however, the EOC staff was never informed of what the public was being told.

There was good coordination in the areas of EBS activation and siren sounding.

#### Relocation Centers

University of North Carolina at Charlotte (UNCC) is listed in the plan as Mecklenburg County's primary shelter. Due to simulated problems at UNCC, other shelters were utilized.

The Park Center was fully activated, and did an effective job of processing approximately 67 evacuees.

Evacuees went through monitoring, registration, and were fed.

Staffing at the Park Center shelter was excellent; however, knowledge of responsibilities of Shelter Health Services personnel was not clearly demonstrated.

The plan to use a blue slip of paper to identify "clean" (non-contaminated) evacuees might be improved - i.e., hand stamp, etc.

The demonstration at Park Center reflected that Mecklenburg County does have the capability to properly protect, and shelter, those members of its population who would be evacuated during a real Catawba incident.

#### Traffic Control Points and Decontamination Centers

Traffic control points manned by North Carolina State Highway Patrolmen were extremely well managed. Individuals knew their jobs, and were properly equipped.

Charlotte Police Department personnel manning traffic control points had no radiation detection equipment. Charlotte Fire

Department personnel at decontamination centers had no low-range dosimeters. (K.3.a.)

Charlotte Policemen (traffic control) and Charlotte Firemen (decontamination) had no knowledge of appropriate levels of radiation exposure for emergency workers in fixed nuclear facility accidents. (K.4.)

Local police and local firemen were told to report to, and man, their stations. Apparently little training was conducted prior to the exercise. (O.5.)

The deficiencies noted in this section could be corrected fairly easily by:

1. Development of SOPs for traffic control points and decontamination centers.
2. Procurement of proper instrumentation, low-range dosimetry.
3. Development and delivery of some quality, detailed training on the SOPs and use of radiation detection instruments.

#### Gaston County

##### Emergency Operations Center

Emergency operations management was adequate. The Emergency Management Coordinator was effectively in charge.

Decision-making was done in Mecklenburg County and at the State Emergency Response Team Headquarters after SERT took control.

Frequent briefings were held, but they generally consisted of simply re-reading the incoming messages. The message content included technical jargon, and in some cases was confusing.

Some method for insuring that the Emergency Management Coordinator has seen all incoming messages should be implemented.

Messages from SERT and Duke Power Company ordering evacuation were conflicting.

The Gaston County EOC facility was exceptional, and the communications systems were more than adequate.

Sirens and EBS activation were well coordinated.

Good coordination and proper handling of public information was evident.

### Relocation Centers

The general attitude and enthusiasm of the individuals staffing shelters in Gaston County was superior. They did a commendable job considering their experience and training, but could improve in the following areas:

There appears to be an inadequate amount of training being conducted in the area of radiological monitoring. (O.5.)

There also appears to be an inadequate amount of training being conducted in the area of shelter management. (O.5.)

More staff, knowledgeable in radiation detection and decontamination procedures, and equipped with proper radiation detection equipment, is needed. (J.12.)

A supply of clean clothing is needed for contaminated evacuees to wear once they have been decontaminated.

SOPs should be established for decontamination and general shelter management.

Players appeared to have had advance knowledge of scenario events.

### Traffic Control Points and Decontamination Centers

General attitude of players was very good. Lack of activity for traffic control points and decontamination stations made evaluation of actual operations difficult.

Instrumentation is not adequate at traffic control points and decontamination stations. Low-range dosimetry is needed. (K.3.a.)

Training in the area of radiation detection is also inadequate. (O.5.)

The deficiencies noted in this section could be corrected, the same as in Mecklenburg County, by:

1. Development of SOPs for traffic control points and decontamination centers.
2. Procurement of proper instrumentation, low-range dosimetry.
3. Development and delivery of detailed training on the SOP's, and use of radiation detection instruments.

Cabarrus County

Relocation Center

Central Cabarrus High School was administratively opened. The facility and its operation appeared generally adequate.

Cleveland County

Relocation Center

Activation and staffing play was minimal for this exercise. Representatives of the relevant county and local organizations were there, and appeared to have a good grasp of their emergency duties. However, the facility was only administratively activated, and could not be fully evaluated.

Union County

Relocation Center

The Parkwood School Shelter in Union County has good facilities and resources to provide care for evacuees and is staffed by well trained individuals, familiar with procedures for monitoring, decontaminating, and registering evacuees.

II.

SUMMARY LISTING OF DEFICIENCIES

The following is a summary listing of NUREG-0654 deficiencies observed during the Catawba Nuclear Station Exercise.

State of North Carolina

There were no NUREG-0654 deficiencies observed.

Mecklenburg County

<u>NUREG 0654 Item</u>	<u>Corrective Action</u>	<u>Projected Date of Completion</u>
K.3.a.	<u>Radiological Exposure Control</u>	
K.4.	<u>Radiological Exposure Control</u>	
O.5.	<u>Radiological Emergency Response Training</u>	

Gaston County

J.12.	<u>Protective Response</u>	
K.3.a.	<u>Radiological Exposure Control</u>	
O.5.	<u>Radiological Emergency Response Training</u>	

Cabarrus County

There were no NUREG-0654 deficiencies observed.

Cleveland County

There were no NUREG-0654 deficiencies observed.

Union County

There were no NUREG-0654 deficiencies observed.

III.

APPENDICES

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  - Part 2 - North Carolina

APPENDIX A

FEDERAL EVALUATOR ASSIGNMENTS

CATAWBA EXERCISE  
February 15-16, 1984

CHIEF OF EVALUATORS AND RAC CHAIRMAN  
Glenn C. Woodard, Jr. (FEMA)

S.C. FORWARD EMERGENCY OPERATIONS CENTER (CLOVER, S.C.)

Thomas Hawkins (FEMA)  
Joseph Keller (FEMA)  
Dorothy Nevitt (USDA)

CRISIS MANAGEMENT CENTER (EOF) (CHARLOTTE, N.C.)  
Robert Trojanowski (NRC)

PUBLIC INFORMATION/MEDIA ACTIVITIES  
Jack Glover (FEMA)

RADIOLOGICAL HEALTH - FIELD ACTIVITIES, S.C.  
Rochelle Honkus (FEMA)  
Caroline Herzenberg (FEMA)  
K. C. Chun (FEMA)  
Bradley Solmonson (FEMA) (Radiological Laboratory)

YORK COUNTY, S.C.  
Shana Aucsmith (FEMA)  
Bill Knoerzer (FEMA)  
(Also, Ed Tanzman on Feb. 16th  
and Susan Barisas on Feb. 15th)

LANCASTER COUNTY, S.C.  
Ed Tanzman (FEMA)

CHESTER COUNTY, S.C.  
Ed Tanzman (FEMA)

UNION COUNTY, S.C.  
Ed Tanzman (FEMA)

CHEROKEE COUNTY, S.C.  
Ed Tanzman (FEMA)

RADIOLOGICAL HEALTH - MOBILE  
Brad Eichorst (FDA)

N.C. SERT (DOUGLAS AIRPORT, CHARLOTTE, N.C.)  
John Heard (FEMA)  
Al Hall (DOT)  
Dick Payne (EPA)

RADIOLOGICAL HEALTH - FIELD ACTIVITIES, N.C.  
Karen Guziel (FEMA)  
Tony Foltman (FEMA)  
Jim Opelka (FEMA)



MECKLENBURG COUNTY, N.C.

Brad Loar (FEMA)  
Virginia Baker (FEMA)  
Doug Hoell (FEMA)  
Gary Kaszynski (FEMA)  
Jim Levenson (FEMA)  
John Rajan (FEMA)

GASTON COUNTY, N.C.

Gordon Veerman (FEMA)  
Bob Neisius (FEMA)  
Phyllis Becherman (FEMA)

UNION COUNTY, N.C.

Susan Barisas (FEMA)

CABARRUS COUNTY, N.C.

Ken Lerner (FEMA)

CLEVELAND COUNTY, N.C.

Ken Lerner (FEMA)

FIRE ACTIVITY

Gordon Veerman (FEMA)

OBSERVERS

Peggy Coleman (DOT)  
Mark Collins (FDA)  
Marshall Sanders (FEMA)

APPENDIX B

PART 1

The State of South Carolina  
Military Department



OFFICE OF THE ADJUTANT GENERAL

MEMORANDUM

T ESTON MARCHANT  
MAJOR GENERAL  
THE ADJUTANT GENERAL

TO: Controllers and Players  
FROM: Joshua P. Moore, Director *JPM*  
DATE: January 16, 1984  
SUBJECT: CATAWBA NUCLEAR STATION EXERCISE  
February 15-16, 1984

This letter is a confirmation of the Catawba Nuclear Station exercise scheduled for February 15-16, 1984. The purpose of the exercise is to test the response of state and local governments to a major nuclear accident at the Catawba Nuclear Station near Rock Hill, S. C.

A state exercise (Table Top) for exercise participants (Players) will be held on February 2, 1984 at 10:00 A.M. in the Conference Room in the basement of the Rutledge Building, 1429 Senate Street in Columbia.

An Exercise Briefing will be held at 1:00 P.M. on February 2 at the same location for all controllers and evaluators.

Plans to be tested include; the South Carolina Operational Radiological Emergency Response Plan (SCORERP), the South Carolina Technical Radiological Emergency Response Plan (SCTRERP), the Catawba Site Specific Plan, and the local emergency response plans of York County.

Your agency's participation is essential to ensure that state and local government can respond to a nuclear accident in the most effective and timely manner. We appreciate your participation and I know I can count on your cooperation to help us reach this objective. Any questions you may have in the meantime should be directed to Mr. J. R. Jones of the State Emergency Preparedness Division at 758-2826.

Please be familiar with the enclosed exercise instructions prior to the exercise.

Enclosure A/S  
JPM:JTD:ncs

Emergency Preparedness Division  
Rutledge Building 1429 Senate Street  
Columbia, South Carolina 29201 (803) 758-2826

CATAWBA NUCLEAR STATION  
EMERGENCY MANAGEMENT RESPONSE EXERCISE PLAN  
FEBRUARY 15-16, 1984

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I. INTRODUCTION

The State of South Carolina was heavily impacted by the Radiological Emergency Response (RER) requirements formulated by FEMA and the NRC subsequent to the Three Mile Island incident. The State was primarily affected by the new planning criteria, due to its high concentration of commercial and government nuclear power facilities.

State and local governments are prepared to test the RER plans developed in support of the Catawba Fixed Nuclear Facility (FNF) operated by Duke Power Company. The Catawba FNF is located near Rock Hill, South Carolina, and the 10-mile Emergency Planning Zone (EPZ) includes parts of York County.

Throughout the planning process, the states of South Carolina and North Carolina and affected counties, and Duke have closely cooperated to insure that the RER plans were not developed in a vacuum. Each party has a clear understanding of its emergency role as well as the responsibilities of the other parties.

## II. PURPOSE AND SCOPE

On February 15-16, 1984, an emergency preparedness exercise will be conducted at Catawba Nuclear Station to test the integrated capabilities of the various parties and the basic elements of the emergency preparedness plans. The simulated test will require the mobilization and the deployment of state and local response forces to verify their abilities to respond to an actual emergency at the Catawba FNF. The nuclear station will activate its RER teams and those of Duke's Crisis Management Team.

The exercise will determine the utility's ability to work efficiently with state and local governments under emergency conditions. Qualified evaluators will determine the strengths and weaknesses of the emergency response forces, and the deficiencies will form the basis for corrective actions.

The specific elements of the Catawba Nuclear Station Emergency Plan that will be tested during the February exercise are as follows:

1. Accident Assessment and Classification.
2. Alert and Notification.
3. Managerial Direction and Control.
4. Technical Support Center Operations
5. Operations Support Center Operations.
6. Site Evacuation, Personnel Accountability, and Access Control.
7. Near Site Emergency Operations Facility Operations.
8. Radiological Emergency Medical Care.
9. Radiological Monitoring and Assessment.
10. News Media Procedures.
11. Demonstrate proficiency in determining appropriate procedures to be used in recovery from an emergency.
12. Demonstrate effective and proper procedures for alerting, notifying and activating station, corporate, state and local emergency response organizations.

13. Demonstrate the ability to make protective action recommendations, including dose calculations, comparisons with Protective Action Guides and the use of evacuation time estimates.
14. Demonstrate proper procedure for emergency security to include control of access and egress.

The State of South Carolina as well as York County will test the following elements of their plans and organizations:

1. Communications and Warning.
2. Accident Assessment.
3. Field Monitoring.
4. Implementation of Protective Action Guidelines.
5. Public Information.
6. Evacuation Methodology.
7. Re-entry/Recovery.
8. Direction and Control.
9. Activation of Emergency Operation Center.
10. Decontamination Capabilities.
11. Accident Alert and Notification.
12. Radiological Emergency Medical Care.

THE CONDITIONS DESCRIBED IN THIS SCENARIO HAVE BEEN POSTULATED TO TEST THE ESSENTIAL ELEMENTS OF EMERGENCY PLANNING. THE BASIS FOR MANY OF THE PLANT CONDITIONS ARE CONJECTURAL AT BEST, BUT THEY HAVE BEEN INCLUDED TO INITIATE CERTAIN ACTIONS EXTERNAL TO THE CATAWBA NUCLEAR STATION. WHILE SOME OF THE CONDITIONS COULD OCCUR, THEY WOULD NOT ACUTALLY PRESENT A HAZARD TO THE PUBLIC AND THE CONSEQUENCES OF SUCH CONDITIONS HAVE BEEN SIGNIFICANTLY EXAGGERATED FOR THE PURPOSES OF THE EMERGENCY DRILL. IN PARTICULAR, THE MAGNITUDE OF THE OFF-SITE RELEASE OF RADIOACTIVITY HAS BFEN EXAGGERATED IN ORDER TO PRODUCE THE REQUIRED OFF-SITE RESPONSE ACTIONS FROM DUKE'S CORPORATE STAFF AS WELL AS STATE AND COUNTY ORGANIZATIONS.



### III. SPECIFIC EXERCISE OBJECTIVES

#### Catawba Nuclear Station Emergency Plan/ Duke Power Company Crisis Management Plan

1. The adequacy of the Catawba Radiological Emergency Response Plan and its implementing procedures.
2. The familiarity of Duke's emergency organization personnel with the plant plan and procedures.
3. Adequacy and effectiveness of the plant emergency facilities.
4. The effectiveness and proper procedure of notifying federal, state and local government personnel.
5. The capability to produce public information releases.
6. First aid procedures.
7. Timely and effective assessment of radiological releases.
8. Preparation of reports, messages and records.

#### The State of South Carolina:

1. To test and assess the initiation and implementation of the state's plans and organizations with respect to a radiological emergency at the Catawba Nuclear Station.
2. To test the ability of State Government to assess the impact of a radiological emergency on the public and to carry out the required alert and notification plans of response forces and the public.
3. To test the Emergency Operations Center with respect to:
  - a. Adequacy of facilities to support operations under emergency conditions.
  - b. Interface of the organization components.
  - c. Adequacy of resource materials to assist in decision making and in implementation decisions.
  - d. Adequacy of communications systems to maintain contact with other components of the emergency response system.

4. To test the ability of the off-site radiological monitoring program to accurately determine the public danger and institute appropriate protective actions. The following items will also be tested:
  - a. Manpower and resource activation and development.
  - b. Adequacy of radiological monitoring equipment.
  - c. Adequacy of the communications system.
  - d. Decontamination procedures.
5. To test the ability of the state to establish and direct a News Media Center for the dissemination of public information.
6. To test the ability of the state to direct and compel evacuation.
7. To test the ability of the state to institute recovery/re-entry procedures, including the protective actions needed for the Ingestion Pathway EPZ.
8. To test the state law enforcement capabilities to secure evacuated areas, direct traffic, and reduce/mitigate crime under extreme circumstances.
9. Effect rumor control.
10. To test decision-making related to emergency action levels.

York County:

To test and evaluate the operations of the York County Emergency Operations Center. The specific components tested will include:

1. Adequacy of facilities to support operations under emergency conditions.
2. Interface of the various organizational components.
3. Adequacy of resource materials to assist in decision making and carrying out protective action recommendations.
4. Adequacy of communications systems to maintain contact with county responders and other Emergency Operations Center.
5. Ability of the county to Alert and Notify the public.

6. County radiological monitoring capabilities in support of DHEC.
7. Emergency Welfare Service capabilities available to assist evacuees.
8. Radiological emergency medical care available to evacuees and to utility personnel as negotiated in Letters of Agreement.
9. County law enforcement capabilities to secure evacuated areas, direct traffic, and reduce/mitigate crime under extreme circumstances.
10. Effect rumor control.
11. Test county fire and medical support on-site and off-site.
12. Test sheltering capabilities of affected and host counties in North Carolina.
13. Test sheltering capabilities of host counties in South Carolina.

Due to the availability of volunteer forces such as volunteer fire support, an actual test of the county's volunteer fire department and rescue personnel will be conducted February 14, 1984. This will also include the transport of a simulated contaminated-injured victim to a hospital so that the hospital's capabilities can be adequately tested to care for such a victim.

#### IV. EXERCISE ORGANIZATION

The Exercise Organizations is split into three major groups as defined below:

##### A. Controllers/Evaluators

Controllers and evaluators are assigned to specific locations and/or groups as described in Part VII of this Exercise Plan.

Controllers are responsible for:

1. Maintaining action according to the scenario.
2. Providing input messages.
3. Assist players in the questions that may arise on data, situations, etc.

Evaluators are responsible for:

1. Observing players as they work in their specialized functions.
2. Compiling observations and judgements onto the evaluation form in Part VI.

In many instances one person may serve in a dual capacity as both controller and evaluator. Part VII of this plan describes those assignments.

Simulated plant parameters and emergency messages will be provided to the control room operators, monitoring team members, and other players as appropriate by the controllers on a periodic basis. Players are responsible for initiating actions in response to the messages and/or data according to the emergency plan.

South Carolina controller/evaluators will be identified by wearing green and white staff support badges and arm bands.

Selection of controller/evaluators is based on their expertise in, or their qualification to evaluate the area assigned. All controllers and evaluators will compile their observations prior to the critique and provide the completed evaluation form (see Section VI) to the Exercise Director. The Exercise Director will cover these items in the critique (see Section V for conduct of the critique).

B. Observers

Observers from various Duke organizations, other utilities, local, and state officials, may be authorized on a limited basis, to participate in the exercise for the purpose of personal education.

Request to participate as observers at the SEOC, FEOC, or County EOC are to be submitted to: J. R. Jones, S.C. Emergency Preparedness Division, Rutledge Building, 1429 Senate Street, Columbia, S. C. 29201.

C. Players

Players include all plant and other Duke personnel assigned to perform functions of the station and corporate emergency response plans including control room personnel assigned to participate in the exercise, Technical Support Center personnel and other assigned station personnel, Crisis Management Center Personnel, including other Duke personnel who may be assigned as players. In addition there are non-Duke players of offsite agencies. These persons perform actions at the state's EOC and FEOC, at the county EOC, at local hospitals, or other emergency locations.

The success of the exercise is largely dependent on player reaction, knowledge of the Emergency Plans and procedures and their understanding of the Exercise Plan and objectives. Simulated plant conditions will be provided control room operators using pre-prepared plant parameters. Players are responsible for initiating actions/or messages during the exercise according to the procedures, responsibilities, and tasks outlined for their particular function in the Emergency Plans and Implementing Procedures.

South Carolina FEOC participants and those players at the County EOC are guided by SCORERP (South Carolina Operational Radiological Emergency Response Plan) and County Emergency Plans, respectively.

V. CRITIQUE

Following the exercise, separate closed critiques will be held between Duke and NRC as well as between the State/County agencies and FEMA. The State Critique will be held at 1730 hours on February 16 at the Clover Armory.

At the critique, the following persons will be asked to comment on the event as to the areas needing improvement. Controllers/ evaluators will turn in their evaluation sheets to the Exercise Director prior to the critique. This will allow the Director time to coordinate the group responses.

Critique Comments:

State/County/FEMA Critique

1. State EPD Directors (including controllers/evaluators comments)
2. State Agency Representative
3. Duke Representative
4. FEMA
5. York County EPD Director

A public meeting will be held in Clover, S.C. on February 17, 1984 at 1900 hours. The location of the meeting will be at Clover Jr. High School.

The State of South Carolina Emergency Preparedness Division will develop an after action report, which addresses significant issues, problem areas, and positive areas. Any issues requiring corrective actions will be assigned to a responsible individual with a date for resolution of the item.

The sample evaluation forms in Part VI will be used by the controller/evaluators for their reviews of group performance.

APPENDIX B

PART 2

**NORTH CAROLINA EXERCISE INSTRUCTIONS  
FOR THE  
CATAWBA, S.C. NUCLEAR STATION EXERCISE**

February 15-16, 1984

**I. General**

- A. A full participation emergency preparedness exercise will be conducted at the Catawba Nuclear Station near Rock Hill, South Carolina on February 15-16, 1984.
- B. The exercise will consist of a simulated accident at Catawba which will escalate to a general emergency and involve planned response and recovery actions by North and South Carolina. During the simulated emergency, an off-site radiological release will occur and require responses by off-site personnel.

**II. Objectives:** In accordance with NUREG 0654, the objectives of this exercise for North and South Carolina are as follows:

- A. To test and assess the initiation and implementation of South Carolina's and North Carolina's plans and organizations with respect to a radiological emergency at the Catawba Nuclear Station.
- B. To test the ability of South Carolina and North Carolina to assess the impact of a radiological emergency on the public and to carry out the required alert and notification plans of response forces and the public.
- C. To test the State Emergency Operations Center and Emergency Response Team with respect to:
  - 1. Adequacy of facilities to support operations under emergency conditions.
  - 2. Interface of the organization components.
  - 3. Adequacy of resource materials to assist in decision-making and in implementation decisions.
  - 4. Adequacy of communications systems to maintain contact with other components of the emergency response system.
- D. To test the operations of the Mecklenburg and Gaston Counties Emergency Operations Centers. The specific components tested will include:

Feb. 1, 1984



1. Adequacy of facilities to support operations under emergency conditions.
  2. Interface of the various organizational components.
  3. Adequacy of resource materials to assist in decision-making and carrying out protective action recommendations.
  4. Adequacy of communications systems to maintain contact with county responders and other Emergency Operations Centers.
- E. Cabarrus, Cleveland and Union Counties will administratively open shelters in support of the exercise.

### III. Scope

- A. All major elements of the North Carolina Emergency Response Plan in Support of the Catawba Nuclear Station (hereinafter referred to as the Plan) from initial notification through protective actions will be exercised. This exercise will involve the State and affected local governments and their supporting agencies.
- B. State and local staffing and the level of play will be determined by the simulated nuclear accident scenario except as identified below.
- C. Evacuees will be played.
- D. Local emphasis for Gaston and Mecklenburg Counties will be:
  1. Alert and notification of the public.
  2. Ability to assist in evacuation.
  3. Capability to provide Traffic Control Points, secure evacuated areas and to perform other roles and responsibilities as identified in the local plans.
  4. Test fire and medical support.
- E. The level of play for Cabarrus, Cleveland and Union Counties will be:
  1. Minimum activation of the EOC
  2. Administratively opening and staffing shelters
- F. State emphasis will include the following:
  1. Coordination of Emergency Response between North Carolina and South Carolina.

APPENDIX C

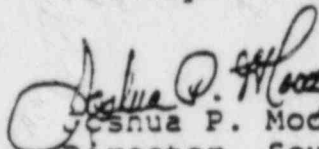
CATAWBA NUCLEAR STATION  
 CHRONOLOGICAL LISTING OF EXERCISE EVENTS

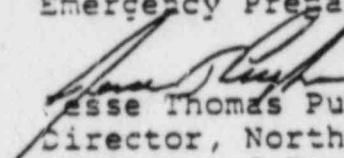
<u>DATE</u>	<u>TIME</u>	<u>EVENTS</u>
2-15-84	0535	Aircraft crash into cooling tower at Catawba FNF.
	0615	ALERT DECLARED.  Initial notification to offsite authorities. S.C. establish SFOC and deploys FEOC. N.C. establishes State EOC, alert, notify and deploy SERT. N.C. and S.C. County EOC's activated.
	0800	Wind velocity increases. High Winds hurled debris into plant causing slight damage.
	1130	FEOC assumes operational control.
	1200	A LOCA on unit 1 occurs. Reactor and turbine trip. CMC being minimally staffed. TSC fully staffed. SERT enroute. Media Center established. Counties dispatch PIO to media center.  SITE AREA EMERGENCY DECLARED.  Notification of offsite authorities. SERT is established and assumes operational control of state agencies. N.C. Counties in operational control. Recommendation to offsite authorities to sound sirens with no protective action recommendations.
	1230	Recirculation begins.
	1230-1500	Updates on Plant status and meteorological reports. Public information on Plant status.
	1500	N.C. SERT assumes direction and control.

<u>DATE</u>	<u>TIME</u>	<u>EVENTS</u>
	1645	Ice depleted. Containment Pressure and temperature begins to rise.  Notification to off-site authorities.
	1700	Exercise will be suspended with respect to time and scenario.
2-16-84	0715	SITE AREA EMERGENCY continued.
	0720	Lightening strikes switchyard. Loss of offsite power. "B" train loss. "A" pump knocked out by mechanical problems. Total recirculation loss. Core press begins to rise.
	0805	GENERAL EMERGENCY DECLARED.  Recommendations to offsite authorities for a two mile precautionary evacuation and evacuate downwind for 5 miles. Shelters opened and staffed. Protective actions recommended to offsite authorities - siren system activated. EBS message to public - counties conduct evacuation and sheltering as ordered by Governor. Offsite monitoring.
	0900	SG's are depressurized to maximized heat transfer. Notification of offsite authorities.
	1030	Clodding and fuel damage occurs - 40% melt. Notification to offsite authorities.
	1130	Loss of fan accident causes slight leak. Release in progress.  Notification to offsite authorities. Offsite monitoring continues. Direct protective actions to general public as deemed appropriate. Monitor plume.

<u>DATE</u>	<u>TIME</u>	<u>EVENTS</u>
	1200	Release terminated. "B" train recirculation established. Purge valves closed. Recovery begins. Initiate reentry actions.
	1300	Exercise Terminated.
	1330	Table Top Exercise (Recovery and Reentry) SERT only.
	1730	Critique

Jointly submitted:

  
 Joshua P. Moore  
 Director, South Carolina  
 Emergency Preparedness Division

  
 Jesse Thomas Pugh  
 Director, North Carolina  
 Division of Emergency Management

CATAWBA NUCLEAR STATION  
EXERCISE NARRATIVE

2-15-84

0755 The exercise starts upon notification of the Shift Supervisor that a light aircraft has struck a cooling tower for Unit 1. Upon investigation, no damage is found. An alert condition is declared.

0900 To maintain the alert condition, winds about the plant pick up from 0630 on. At 0800 a sudden large wind gust pitches lumber through the Unit 1 turbine building wall causing only slight damage. The alert condition is maintained throughout the morning due to continued high wind conditions.

1200 A LOCA on the cold leg of Unit 1 occurs. The Reactor and Turbine trip, the pressurizer empties, and both ECCS trains activate and operate properly. Containment is isolated on high pressure in containment (3 pounds). Site area emergency declared.

1230 Recirculation begins

1300-1600 Cooldown continues

1620-1645 Problems develop with NV6NI pumps and motors causing them to be taken off-line. Cooldown continues

1700 Exercise placed "on-hold" until 0715 2-16-84

2-16-84

0715 Exercise restarted

0730 Loss of offsite power due to severe lightning strike. Flow through core continues via "A" train components. "B" diesel inoperable due to stuck fuel pump.

0735 Trash in "A" sump suction causes loss of NDENS. Core melt sequence entered into General Emergency conditions presented in control room.

0800-1030 The core heats up due to lack of flow and cooling

1030-1130 During this period clad oxidation and 40% core melt occurs.

1130 "B" diesel fixed and "B" train flow reestablished. Cooldown initiated. Air return fan inside containment shatters and

fan blade damages a penetration to the annulus. Release of radioactivity initiated.

1200

Radioactive release terminates with decrease in pressure inside containment. Recovery planning begins.

1300

Exercise Terminated

APPENDIX D

PART 1



S.C.

ATTACHMENT 2 - ASSIGNMENT OF RESPONSIBILITY

A.43

<u>POSITION</u>	<u>PRESENT TITLE/POSITION</u>
Warning	County Sheriff
Communication	County Communications Officer
Public and Emergency Information	PIO Officer
Chief, Law Enforcement	County Sheriff
Chief, Emergency Welfare Service	Director of Social Services
Coordinator, Transportation	County School Bus Supervisor
Chief, Fire Service	County Fire Marshall
Chief, Rescue	County Sheriff
Chief, Supply and Procurement	Purchasing Supervisor
Chief, Emergency Medical Service	Hospital Administrator Medical Service
Chief, Engineering and Public Works	County Public Works Director
Radiological Defense Officer	Radiological Defense Officer
Shelter Officer	Shelter Officer
Chief, Damage Assessment	Tax Assessor
Emergency Operations Center Coordinator	Emergency Preparedness Coordinator

TABLE 3, RER RESPONSIBILITIES SUMMARY TABLE TO SCORERP.

<u>FUNCTION</u>	<u>AGENCY</u>	<u>RESPONSIBILITY</u>	
		<u>Primary</u>	<u>Support</u>
Command & Control	Office of the Governor	X	
	Emergency Preparedness Div.		X
	Office of the Adjutant General		X
	Dept. of Health & Environmental Control		X
Warning (Radiological Emergency Response)	Dept. of Health & Environmental Control (BRH)	X	
	Emergency Preparedness Div.		X
	Utilities		X
	Radio & TV Stations		X
	S.C. Educational Network		X
	State Law Enforcement Div. (SLED)		X
	County Governments & Municipalities		X
Warning (War and Natural Disasters)	State Law Enforcement Div. (SLED)	X	
	Emergency Preparedness Div.		X
	S.C. Forestry Commission		X
	Office of the Adjutant General		X
	Dept. of Highways & Public Transportation		X
	Wildlife & Marine Resources Department		X
	Educational Television		X
	Local Government		X
	Private Sector TV & Radio		X
	Notification Communications (Nuclear Accident)	Bureau of Radiological Health (DHEC)	X
Emergency Preparedness Div.			X
Utilities			X
SLED (includes those in Warning paragraph)			X
Telephone Companies			X
Local Government and Municipalities			X
Public Information	Office of the Governor	X	
	Office of the Adjutant General		X
	Parks, Recreation & Tourism		X
	Educational Television/Radio		X
	Department of Corrections		X

<u>FUNCTION</u>	<u>AGENCY</u>	<u>RESPONSIBILITY</u>	
		<u>Primary</u>	<u>Support</u>
Public Information (Continued)	Department of Mental Health		X
	Dept. of Highways & Public Transportation		X
	State Law Enforcement Div. (SLED)		X
	Dept. of Health & Environmental Control		X
	Wildlife & Marine Resources Department		X
	Department of Human Affairs		X
	Commission on Aging		X
	Dept. of Social Services		X
	Private Sector Media		X
	Utilities		X
	Local Government		X
Accident Assessment	Dept. of Health & Environmental Control	X	
	RAP & IRAP (upon request)		X
	SMRAP (upon request)		X
	EPD (upon request)		X
	NRC (upon request)		X
	Clemson University Agricultural Extension Service		X
Social Services	Dept. of Social Services	X	
	Department of Education		X
	County Departments of Social Services (Emergency Welfare Service)		X
	Red Cross		X
	Salvation Army		X
	Mennonites		X
	Baptist Convention		X
Fire & Rescue (Forest Fire)	Forestry Commission	X	
	Department of Corrections		X
	Dept. of Highways & Public Transportation		X
	Dept. of Parks, Recreation & Tourism		X
	U.S. Dept. of Forestry (upon request)		X
	(Urban & Rural Fire Service)	Office of the Fire Marshall	X
Forestry Commission			X
Local Government Fire Services			X
(Rescue)	Wildlife & Marine Resources Emergency Preparedness Div.	X	X

5.C

<u>FUNCTION</u>	<u>AGENCY</u>	<u>RESPONSIBILITY</u>		
		<u>Primary</u>	<u>Support</u>	
(Rescue) (Continued)	Forestry Commission		X	
	Aeronautics Commission		X	
	S.C. Civil Air Patrol		X	
	Dept. of Highways & Public Transportation		X	
	Adjutant General		X	
	U.S. AF Rescue Coordination Center (upon request)		X	
	Local Government Fire & Rescue Units in EPZ		X	
	Local Government Fire & Rescue Services (Mutual Agreement)		X	
	Traffic Control & Security	State Law Enforcement Div. Highway Patrol	X	
		Local Sheriff's Departments		X
Local Police Departments			X	
Wildlife & Marine Resources Department			X	
Adjutant General			X	
Emergency Medical Services	Dept. of Health & Environmental Control	X		
	Local Rescue Services		X	
	Local Ambulance Services		X	
	Hospitals (Serving EPZ)		X	
	Adjutant General		X	
Law Enforcement	(Same as Traffic Control & Security)			
Transportation	Public Service Commission (Division of Transportation)	X		
	Aeronautics Commission		X	
	Department of Education		X	
	Adjutant General		X	
	Local School Departments		X	
	Local Private Transportation		X	
Protective Response	Dept. of Health & Environmental Control	X		
	Emergency Preparedness Div.		X	
	Dept. of Social Services		X	
	Department of Education		X	
	State Law Enforcement Div. (SLED)		X	
	Highway Patrol		X	
	NRC (upon request)		X	
DOE (upon request)		X		

S.C.

<u>FUNCTION</u>	<u>AGENCY</u>	<u>RESPONSIBILITY</u>	
		<u>Primary</u>	<u>Support</u>
Protective Response (Continued)	EPD (upon request)		X
	Emergency Services in local governments		X
	Local Governments		X
	Public Information Organizations		X
	Facilities		X
Radiological Exposure Control	Dept. of Health & Environmental Control (DHEC)	X	
	Emergency Preparedness Div.		X
	Local Governments & Municipalities		X
	Facilities		X
	Pre-arranged commitments with SMRAP, IRAP, Facilities		X

APPENDIX D

PART 2

N.C.

PRIMARY AND SUPPORT RESPONSIBILITY SUMMARY

FUNCTION	ORGANIZATION	RESPONSIBILITY	
		PRIMARY	SUPPORT
Command and Control	Dept. of Crime Control and Public Safety	X	
Warning	Dept. of Crime Control and Public Safety	X	
	National Weather Service		X
	Police Information Network		X
	Radio and television stations serving the EPZ		X
	County and municipal governments in the EPZ.		X
Notification Communications	Dept. of Crime Control and Public Safety	X	
	Police Information Network		X
	Southern Bell Telephone Co.		X
	Duke Power Company		X
Emergency Public Information	Dept. of Crime Control and Public Safety	X	
	Dept. of Human Resources		X
	Duke Power Company		X
	Dept. of Natural Resources and Community Development		X
	County and municipal governments in the EPZ		X
	Radio and television stations serving in EPZ		X
	Local newspapers		X
Accident Assessment	Duke Power Company	X	
	Dept. of Human Resources		X
	Dept. of Crime Control and Public Safety		X
	U.S. Dept. of Energy (RAP) (IRAP)		X
	Southern Emergency Response Council (SMRAP)		X
	U.S. Environmental Protection Agency		X
	U.S. Nuclear Regulatory Commission		X

<u>FUNCTION</u>	<u>ORGANIZATION</u>	<u>RESPONSIBILITY</u>	
		<u>PRIMARY</u>	<u>SUPPORT</u>
Public Health and Sanitation	Dept. of Human Resources	X	
	County health departments in the EPZ		X
Social Services	U.S. Dept. Health and Human Services		X
	Dept. of Human Resources County social services organizations in the EPZ Red Cross	X	X X
Fire and Rescue	Dept. of Crime Control and Public Safety	X	
	Dept. of Transportation		X
	Dept. of Natural Resources and Community Development		X
	Local government fire and rescue units serving the EPZ		X
	Volunteer fire and rescue organizations serving the EPZ		X
Traffic Control	Dept. of Crime Control and Public Safety	X	
	County sheriff's depts. in the EPZ		X
	Municipal police depts. in the EPZ		X
Emergency Medical Service	Dept. of Human Resources	X	
	Rescue organizations in the EPZ		X
	Ambulance providers serving in the EPZ		X
Law Enforcement	Hospitals in the EPZ		X
	Dept. of Crime Control and Public Safety	X	
Transportation	County sheriff's depts. in the EPZ		X
	Municipal police depts. in the EPZ		X
Transportation	Dept. of Crime Control and Public Safety	X	
	Dept. of Correction	X	
	Dept. of Transportation		X
	Public school transportation systems in the EPZ		X



10.5

<u>FUNCTION</u>	<u>ORGANIZATION</u>	<u>RESPONSIBILITY</u>		
		<u>PRIMARY</u>	<u>SUPPORT</u>	
Protective Response	Dept. of Crime Control and Public Safety	X		
	Dept. of Human Resources		X	
	Dept. of Agriculture		X	
	Dept. of Natural Resources and Community Development		X	
	Dept. of Transportation		X	
	U.S. Nuclear Regulatory Commission		X	
	U.S. Dept. of Agriculture		X	
	U.S. Dept. of Energy		X	
	U.S. Environmental Protection Agency		X	
	County and municipal emergency service providers in the EPZ		X	
	Radio and television stations serving the EPZ		X	
	Radiological Exposure Control	Dept. of Human Resources	X	
		Dept. of Crime Control and Public Safety		X
		Dept. of Agriculture		X

Figure 4 (Cont'd.)

## PRIMARY AND SUPPORT RESPONSIBILITY SUMMARY

<u>FUNCTION</u>	<u>ORGANIZATION</u>	<u>RESPONSIBILITY</u>	
		<u>PRIMARY</u>	<u>SUPPORT</u>
Command and Control	Gaston Co Dept. of Emergency Management	x	
Warning	Gaston Co. Communications Center	x	
	National Weather Service		x
	Police Information Network		x
	Radio and television stations		x
	Volunteer fire departments		x
	Rescue Squads		x
	Sheriff's Department		x
Notification Communications	Gaston Co. Communications Center	x	
	Police Information Network		x
	Southern Bell		x
	Duke Power Company		x
Public Information	Gaston Co. Dept. of Emergency Management	x	
	Duke Power Company		x
	Radio and television stations		x
	Local newspapers		x
Law Enforcement	Gaston Co. Police Dept.		x
	Sheriff's Department		x
	Rescue Squads		x
Transportation	Gaston Co. Bd. of Education	x	
	Gaston Co. Administration Department		x
Accident Assessment	Duke Power Company	x	
	Gaston Co. Dept. of Emergency Management		x
	Gaston Co. Agriculture Extension Service		x
Public Health and Sanitation	Gaston Co. Health Dept.	x	
	Gaston Co. Maintenance Department		x

Figure 2

<u>FUNCTION</u>	<u>ORGANIZATION</u>	<u>RESPONSIBILITY</u>	
		<u>PRIMARY</u>	<u>SUPPORT</u>
Social Services, Shelter, Mass Feeding, and Clothing	Gaston Co. Red Cross	x	
	Gaston Co. Dept. of Social Services		x
	Gaston Co. Bd. of Education		x
	Gaston Co. Mental Health Dept.		x
	Gaston Co. Agriculture Extension Services		x
	Gaston Co. Emergency Management Department		x
	Ambulance-Emergency Medical Services		x
	Gaston Co. Rescue Squads		x
	Gaston Co. Landfill		x
	Fire	Gaston Co. VFDs	x
Cramerton VFD			x
New Hope VFD			x
South Gastonia VFD			x
South Point VFD			x
Union Road VFD			x
Ranlo Fire and Rescue			x
Rescue	Ranlo Fire & Rescue	x	
	South Point Rescue Squad	x	
Traffic Control	Gaston Co. Police Dept.	x	
	Gaston Co. Sheriff's Dept.	x	
	Gastonia Police Dept.		x
	Belmont Police Dept.		x
Emergency Medical Services	Rescue Squads	x	
	Gaston County Medical Transport Service		x
Protective Response	Gaston Co. Emergency Management Department	x	
	Gaston Co. Board of Education		x
	Gaston Co. Department of Social Services		x
	Gaston Co. Police Dept.		x
	Gaston Co. VFDs		x
	Gaston Co. Agriculture Extension Services		x

Figure 2 (Cont'd.)

<u>FUNCTION</u>	<u>ORGANIZATION</u>	<u>RESPONSIBILITY</u>	
		<u>PRIMARY</u>	<u>SUPPORT</u>
Protective Response	Radio & television stations		x
	Gaston Co. Health dept.		x
	Gaston Co. Landfill		x
	Gaston Co. Maintenance		x
	South Point Rescue Squad		x
	Ranlo Fire & Rescue		x
Radiological Exposure Control	Gaston Co. Emergency Management Department	x	
	Gaston Co. Agriculture Extension Services		x
	Gaston Co. Police Dept.		x
	Gaston Co. VFDs		x
	So. Point Rescue Squad		x
	Ranlo Fire & Rescue Squad		x
	Gaston Co. Landfill		x
	Gaston Co. Health Dept.		x
	Gaston Co. Maintenance		x
	Gaston Co. Landfill Dept.		x
	Gaston Co. Health Dept.		x
	Gaston Co. Maintenance Dept.		x
	Sheriff's Department		x

Figure 2 (Cont'd.)

## PRIMARY AND SUPPORT RESPONSIBILITY SUMMARY

FUNCTION	ORGANIZATION	RESPONSIBILITY	
		PRIMARY	SUPPORT
Command and Control	Mecklenburg Co. Manager	x	
	Mecklenburg Co. Emergency Management Office		x
Warning	Mecklenburg Co. Police Dept.	x	
	National Weather Service		x
	Police Information Network		x
	Radio and television stations		x
	Volunteer Fire Departments		x
	Rescue Squads		x
Notification Communications	Mecklenburg Co. Police Dept.	x	
	Police Information Network		x
	Southern Bell		x
	Duke Power Company		x
Public Information	Mecklenburg Co. PSI	x	
	Charlotte PSI		x
	Mecklenburg Co. Emergency Management Office		x
	Duke Power Company		x
	Radio and television stations		x
	Local newspapers		x
Law Enforcement	Mecklenburg Co. Police Dept.	x	
	Charlotte Police Dept.		x
	Pineville Police Dept.		x
Transportation	Charlotte Dept. of Transp.	x	
	Mecklenburg Co. Bd. of Education		x
Accident Assessment	Duke Power Company	x	
	Mecklenburg Co. Emergency Management Office		x
	Mecklenburg Co. Environmental Health Dept.		x
Public Health	Mecklenburg Co. Public Health Dept.	x	
	Mecklenburg Co. Environmental Health Dept.		x
	Charlotte-Mecklenburg Utility Dept.		x

- Figure 2

## PRIMARY AND SUPPORT RESPONSIBILITY SUMMARY

FUNCTION	ORGANIZATION	RESPONSIBILITY	
		PRIMARY	SUPPORT
Shelter and Mass Feeding	Mecklenburg Co. Red Cross	x	
	Mecklenburg Co. Dept. of Social Services		x
	Mecklenburg Co. Emergency Management Office		x
Fire	Mecklenburg Co. Volunteer Fire Depts.	x	
	Charlotte Fire Dept.		x
Rescue	Mecklenburg Co. Rescue Squads	x	
	Charlotte-Mecklenburg Fire Depts.		x
Traffic Control	Mecklenburg Co. Police Dept.	x	
	Charlotte Police Dept.		x
	State Highway Patrol		x
Emergency Medical Service	Mecklenburg Co. Emergency Medical Service	x	
	Mecklenburg Co. Rescue Squads		x
Protective Response	Mecklenburg Co. Emergency Management Office	x	
	Mecklenburg Co. Bd. of Education		x
	Mecklenburg Co. Dept. of Social Services		x
	Mecklenburg Co. Police Dept.		x
	Mecklenburg Co. Volunteer Fire Depts.		x
	Mecklenburg Co. Rescue Squads		x
	Mecklenburg Co. Agricultural Service		x
	Radio and television stations		x
	Mecklenburg Co. Environ- mental Health Dept.		x
	Mecklenburg Co. Emergency Medical Service		x
	Duke Power Company		x

Figure 2 (Cont'd.)

## PRIMARY AND SUPPORT RESPONSIBILITY SUMMARY

<u>FUNCTION</u>	<u>ORGANIZATION</u>	<u>RESPONSIBILITY</u>		
		<u>PRIMARY</u>	<u>SUPPORT</u>	
Radiological Exposure Control and Sanitation	Mecklenburg Co. Environ- mental Health Dept.	x		
	Mecklenburg Co. Emergency Management Office		x	
	Mecklenburg Co. Agricultural Extension Service		x	
	Mecklenburg Co. Police Dept.		x	
	Mecklenburg Co. Volunteer Fire Depts.		x	
	Mecklenburg Co. Emergency Medical Service		x	
	Charlotte-Mecklenburg Utility Dept.		x	
	Duke Power Company		x	